

## **CRITICAL THINKING SKILLS IN PAKISTAN STUDIES TEXTBOOK: QUALITATIVE CONTENT ANALYSIS**

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### **ABSTRACT**

*The current study aimed to evaluate critical thinking skills included in the text-based exercise questions of the Pakistan Studies book at the secondary level. For this purpose, The Pakistan Studies textbook developed by the Punjab Text Book Board was analyzed. Qualitative content analysis was used for the analysis of the textbook based on revised Bloom's taxonomy levels as well as nine pre-determined categories of Socratic questions. Categories from both types depict questions about critical thinking skills developed among the learners. It was found that text-based questions of Pakistan Studies were not conducive to the development of critical thinking skills among students. Just one question fell under critical thinking skills among all. Moreover, based on analytical categories, there was little inclination toward questions of clarification. On the other hand, there was no representation of any other category. Therefore, it is recommended that the textbook writers need focus on critical-thinking questions on text-based by the textbook writers to produce critical thinker citizens at the secondary level.*

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

### **INTRODUCTION**

The education system plays a significant role in transforming any state, focusing on the production of citizens who will make their country prosperous and succeed (Muhammad, & Brett, 2020). Critical thinking (CT) has been focused on being the 4Cs of the twenty-first century (critical thinking, communication, collaboration, and creativity), of which innovation, confidence, and enthusiasm are hallmarks (Mehmood, Iqbal, & Saeed, 2009). Different types of higher-order thinking skills can be developed in educational institutions, like critical thinking skills, creativity, decision-making, and problem-solving skills, through the curriculum to build logical and rational learners. CT can be enhanced through different practices and reasoning questions (Fisher, 2005).

The educational policy documents focus on developing critical thinking skills among students. The Pakistani educational system aimed to produce "critical thinkers." In the curriculum reforms section of the 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 teamwork" (MoE, 2009, p. 45). The education policy documents also emphasize the development of critical thinking skills among students at the secondary level (Jamil, Muhammad, & Qureshi, 2021).

The curriculum is about the "intended learning outcomes" of the students, while instructions provide strategies and methods for their achievement. It is important to align national educational policy with curriculum goals. There is an implementation gap in the context of Pakistan due to different

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problems like the low professional quality of teachers, lack of resources, and lack of awareness (Mahmood, 2017). According to previous research, the curriculum for schools defines the goals for the development of critical thinking skills, but teachers are unable to achieve the desired learning outcomes since there are no critical thinking skills among students (Dean, 2005), and it is found challenging by educators (Cassum, McGrath, Gul, Dilshad, & Syeda, 2013). Since textbooks are the most important component of the curriculum, they must promote students' critical thinking abilities (Irafahmi, Nuris, Zahroh, & Nagari, 2018).

Textbooks offer a set of guidelines for teachers with little or no experience since high-quality curricula result in high-quality training, high-quality textbooks, high-quality instructors, and, ultimately, high-quality students who have a constructive approach. Since Hawkes (1996) proposed that evaluation can result in documentation, goal improvement, program refinement, and effect identification, evaluation is an essential textbook component for continuous improvement.

In the educational context of Pakistan, there are limited studies regarding the implementation gap between policy and practice. As a result, critical thinking as a learning outcome and curriculum objective must be emphasized in the textbook through content. In the view of Mahmood (2017), "If students lack critical thinking skills, the simplest way to implant such skills is to infuse them in the course content and drill" (p. 5).

In a developing country like Pakistan, the goal of education in the twenty-first century is to incorporate critical-thinking skills into the curriculum (Azmat, Jamil, & Muhammad, 2021). Therefore, there is a need for teachers to learn about the critical thinking process. Schools must also offer such a creative framework, among other things. Such material will be reflected in textbooks to foster the development of critical thinking abilities. Furthermore, past research confirms that there are few studies about students' critical thinking development in Pakistan. Most research focuses on teaching methods and how well teachers use these abilities in the classroom. Several studies focus on textbooks, but none of them specifically mention how the Punjab textbook board's textbooks represent critical thinking abilities.

Through text-based questions, the current study analyses the Pakistan Studies textbook to gauge how reflective the students' critical thinking abilities are. Since a textbook must be examined to determine whether it incorporates critical thinking skills for students, this phenomenon has not yet been studied in the Pakistani context. The current study has been designed to research this occurrence and close the existing gap in the literature.

### **Critical thinking skills in curriculum/textbooks in the Pakistani context**

There are different recent studies in the literature about critical thinking and its correlation with the curriculum, pedagogy, and learners. In a developing country like Pakistan, it is a good sign to conduct studies about developing critical thinking skills among students in which logical reasoning and decision-making are focused. However, few in-depth studies are found about critical thinking skills in the Pakistani context. As discussed earlier, several ideas and concepts are given through textbooks, pedagogical practices, and the content of textbooks to develop different skills among students. There are a few qualitative studies in previous literature about textbook analysis, which are discussed below.

In a study conducted by Jamil, Muhammad, and Qureshi (2021), secondary school teachers' practices were analyzed for the development of critical thinking skills through observations with the help of qualitative content analysis. Seventy-two observations were conducted through 12 secondary school teachers of Physics, Chemistry, and Biology. It was found that there was no real focus on the development of critical thinking skills by the teachers. Critical thinking was analyzed through the Education Policy and Secondary School Science curriculum (Jamil, Muhammad, Masood, & Habib, 2020). The National Education Policy (2009) and the National Curriculum for Biology, Chemistry, and Physics, Grades IX-X (2006) were selected for analysis regarding critical thinking skills development among secondary-level science students. Similarly, a qualitative study conducted by Jamil and Muhammad (2019) regarding teachers' perspectives on the development of secondary school students found It was found that teachers used different pedagogical practices in their classrooms, but their focus was not on developing critical thinking skills but rather on getting good marks. A study conducted by Hina, Ajmal, Rahman, and Jumani (2011) regarding the textbook analysis of Social Studies at the secondary level. The focus of this study was on citizenship education rather than on developing critical thinking skills. In the same way, Awan, Perveen, and Abiodullah (2018) focused on the extent to which the curriculum reflected the questions of critical thinking about citizenship education. The textbook

analysis was used to achieve the study’s goal. Another study was conducted with a focus on Pakistani national identity focused on the Pakistan Studies textbook (Muhammad & Brett, 2015; Muhammad, Masood, & Anis, 2019). Furthermore, Jabeen, Chaudhary, and Omar (2014) analyzed gender disparity and comparative discourse analysis in the Pakistani context. On the other hand, 7<sup>th</sup> and 8<sup>th</sup>-grade English textbooks were analyzed by Tehreem (2017) to study the development of language skills. Gulzar and Mahmood (2018) focused on higher-order thinking skills among students in their study through the analysis of mathematics textbooks that aligned with SLOs of the National Curriculum with the finding that “Virtually, no practice of mental processing is offered to students in these textbooks” (p.14), with respect to a specific school and single subject.

The above few discussed conducted studies focus mostly on gender discrimination, citizenship education, national identity, and lack of focus on CT skills development in the textbooks. Therefore, it seems to be a clear gap in critical thinking development among secondary-level students. In the Pakistani context, there is a need for reflection on higher-order thinking skills in the Pakistan studies textbook. It will be a significant study since Pakistan studies aim to develop reflective and critical thinkers.

**Conceptual framework of the study**

The revised Bloom’s taxonomy and the analytical categories derived from the Socratic taxonomy questions were used as the study’s conceptual framework. Ilyas (2015) used the current framework to investigate the critical thinking skills reflection that is contained in the text-based questions linking with six levels of Bloom’s taxonomy as well as Socratic questioning. This framework uses important points for the content analysis of the textbooks.

Moreover, in the view of researchers, a theoretical lens has been used in the current study. The first three stages of Bloom’s taxonomy, remembering, comprehending, and applying, are considered lower-order cognitive skills. On the other hand, the latter three levels—analyzing, assessing, and creating—are regarded as higher-order cognitive abilities. As a result, this method offers direction for locating critical thinking abilities. Critical thinking, which is a higher-order thinking skill, gives one the capacity to reason critically while performing analysis, assessment, and creativity. Knowledge, memory, comprehension, and memorization are the focus of lower-order cognitive skills.

The lower-order components consist of knowledge, understanding, remembering, and memorization. But the focus of education is to develop higher-order thinking skills among students at the secondary level. Therefore, this study comprised of the conceptual framework has two parts. The first is derived from the cognitive domain, consisting of six levels of revised Bloom’s taxonomy, while the second part concerns the interconnection of the cognitive domain with nine analytical categories taken from Socratic questioning. The following is the diagram for the current conceptual framework.

**Taxonomy of Socratic Questions**

Questions of clarification

1.	Questions of assumptions
2.	Questions that probe reasons and evidence
3.	Questions about viewpoints or perspectives
4.	Questions that probe implications, consequences, and alternatives
5.	Questions about the question
6.	Questions about predictions
7.	Questions about agreement and disagreement
8.	Questions about Summary and Conclusion

**Six Levels of Revised Bloom’s Taxonomy**

1.	Create
2.	Evaluate
3.	Analyze
4.	Apply
5.	Understand
6.	Remember

Fig: 1 Conceptual framework of the study

The above diagram is a pictorial form of the conceptual framework. It is the relationship between the main concepts and ideas presented in the current study. The textbook analysis involves six levels of revised Bloom's taxonomy and its relationship with the above framework, which focuses on critical thinking (Ilyas, 2015) for the understanding of the type and quantity of questions for the development of critical thinking skills among students.

## **METHODS AND MATERIALS**

The main aim of the current study was to explore the extent to which critical thinking-based questions are incorporated in the Pakistan Studies textbook for Grade X. Content analysis was used to answer the research question of the study. Different authors have described two approaches to content analysis, that is, qualitative and quantitative. Qualitative content analysis interprets textual data in a systematic way after repeatedly going through the text, identifying different properties, and making patterns (Hsieh & Shannon, 2005). Moreover, in qualitative research, a systematic process with guided techniques for the analysis of textual data is followed, and further meanings are derived after interpretation to make sense. The logical representation of themes and categories is sought, along with their interpretation and connection to the research purpose (Graneheim, Lindgren, & Lundman, 2017).

On the other hand, qualitative content analysis can be used for the transcription of interviews and studies of textual content, according to Mayring (2014). Qualitative content analysis is not typically used as a research design for earlier textual information, such as textbooks, documents, newspapers, etc. On the other hand, studies with a lot of textual materials—such as government documentation, newspapers, textbooks, web pages, etc.—use document analysis as a research methodology.

Additionally, qualitative content analysis classifies the information into groups based on related meanings (Moretti et al., 2011). Additionally, this approach is criticized since it divides and simplifies data into many categories, suggesting that the data be broken down into quantifiable pieces (Cho & Lee, 2014). However, since Schreier (2012) claims that this method is methodical and describes qualitative data, the body of research supports qualitative content analysis.

### **Data collection methods**

The Punjab Curriculum and Textbook Board (PCTB), which develops textbooks based on the National Curriculum, developed the tenth-grade Pakistani Studies textbook for Punjab.

The Pakistan Studies textbook for the tenth grade was developed by the Punjab Curriculum and Textbook Board (PCTB), which develops textbooks based on the National Curriculum. At the secondary level, the study's primary objective was to assess textbooks rather than persons. In Pakistan, the matriculation system consists of two grades, that is, ninth and tenth. English, Urdu, Islamic Studies, Pakistan Studies, and Mathematics are compulsory subjects, while students have to opt for different elective subjects according to their groups, like science, arts, etc. Each subject has one textbook, which is published by PCTB. In the current study, the textbook of Pakistan Studies (Grade 10) was chosen to be analyzed since the current study aimed to find out the inclusion of text-based questions about critical thinking development in students at the secondary level.

### **Data analysis methods**

For the current study, qualitative content analysis was used as a research design since the aim was to focus on deep reading, text-based questions involving characteristics of critical thinking skills development and making meaningful patterns through them (Naseer, Muhammad, & Masood, 2020).

For this approach, the framework designed by Ilyas (2015) was employed, which focused on textbook task evaluation related to the development of critical thinking based on ideas of Bloom and Freeman taxonomies. In order to code the textual material, content analysis and analytical categories were used to study it. The Grade X Pakistan Studies textbook quizzes were divided into the six levels of the previously stated revised Bloom's taxonomy. Lower-order thinking skills were used for the first three levels, while higher-order thinking skills were used for the last three levels. The inclusion of these questions in various levels—assumptions, clarification, viewpoints, justifications, perspectives, evidence, alternatives, implications, results, agreement, summaries, and conclusions—formed the basis for further study (Ilyas, 2015).

All the questions from the exercises in the textbook were read and reread by the researchers. Then, these were analyzed on the basis of six levels of revised Bloom's taxonomy, containing lower and higher-order thinking skills. Remembering is just the memorization of facts and data. On the other hand, understanding is to comprehend the reported data or material. Furthermore, the application deals

with applying known information in any situation. These three levels are considered among lower-order thinking skills. The analysis is among higher-order thinking levels, which are described as “Analyzing is the ability to break material into constituent parts, determining how the parts relate to one another and an overall structure or purpose through differentiating, organizing, and attributing” (Putri, 2018, p. 149). The last two levels, that is, evaluation and creation, focus on the ability of evaluation or decision-making and to create new things. The coding for the above-mentioned levels of cognition was for remembering, CR for understanding, CU for applying, CAP for analyzing, CAN for evaluating, and for creating CC.

## FINDINGS

The current study used qualitative content analysis for one textbook (Tenth Grade, Pakistan Studies) to explore how the questions the textbook provides at the end of each chapter promote reflection about critical thinking abilities. The researchers examined the Punjab Textbook Board’s 2017 publication of the Pakistan Studies textbook for the 10th grade. Revisions to Bloom’s taxonomy levels and analytical categories derived from Socratic taxonomy questions were employed for data analysis.

### Analysis of the tenth-grade Pakistan Studies textbook

While analyzing the Pakistan Studies textbook for Class 10, the researchers enlisted the types of questions at the end of each chapter stated as text-based questions or activities followed by chapter. Mainly, text-based questions could be categorized into three types, that is, Multiple-Choice Questions, short answer questions, and detailed answers questions. However, these types could fall under two categories of questions closed questions and open-ended questions. The researchers used the nine analytic categories framework derived from the taxonomy of Socratic questioning.

The multiple-choice questions used a knowledge-based methodology that exclusively focused on content memorization. As chapter 1 of the Pakistan Studies textbook dealt with the history of Pakistan, most of the multiple-choice questions focused on the important dates and years, thus representing the knowledge level concerned with making students remember the events, times, and quantitative data. For example, Pakistan did atomic blasts in (a) 1993 (b) 1995 (c) 1998 (d) 2001.

A few short answer questions fell under the category of questions of clarification. For example, What is meant by the Lahore Declaration? and Why was Washington Declaration made? On the other hand, there were also a few questions with the inquiry of reasons like, “Why the 1973 Constitution is called the federal constitution? However, all tend to focus on the knowledge stage of Taxonomy levels.

The detailed answer questions used the words narrate, explain, state, and describe, which represent the action verbs used to measure the initial levels of cognitive ability in Bloom’s Taxonomy, that is, knowledge and comprehension (Nevid & McClelland, 2013). For example, “State the important events of the Prime Minister Benazir Bhutto Government” (p.29). Thus, none of the questions probes opinions, questions, alternatives, assumptions, nor any question to summarize, predict or conclude the concept or topics studied. Therefore, the analysis of chapter 1 predicts a lack of concern for developing critical thinking skills among students.

The text-based exercise questions must be aligned with the stated students’ learning outcomes to be achieved. Three main types of text-based questions were: Multiple Choice Questions, Short Answer Questions, and Detailed Answer Questions

### Analysis of multiple-choice questions

In this part, the researchers focused on all the multiple-choice questions included in the Pakistan Studies textbook of 10<sup>th</sup> grade and analyzed them based on the idea of cognitive domains reflecting levels of revised Bloom’s taxonomy provided by Anderson and Krathwohl (2001). The multiple-choice questions were then analyzed based on these levels. The number of multiple-choice questions in the textbook was 41; almost all of the items fell under the remembering level.

**Table 1: Chapter-wise MCQs falling under the Levels of Bloom’s Taxonomy**

Multiple-choice questions	Number of items	CR	CU	CAP	CAN	CE	CC
Ch.1	9	9	-	-	-	-	-
Ch.2	10	10	-	-	-	-	-
Ch.3	10	8	2	-	-	-	-
Ch.4	7	7	-	-	-	-	-

Ch.5	5	5	-	-	-	-	-
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The above table depicted that out of 41 items, 39 dealt with the CR level, that is, only the memorization of the content. Thus, 95% of the multiple-choice questions mentioned in the 10<sup>th</sup>-grade textbook fell under the category of remembering level. The items mentioned in the textbook were basically about the numeric information, important dates, events, locations, or personalities mainly concerned with the facts and figures, whereas the two items falling under the understanding level were concerned with the meaning of the terms, which needed clarity of the concept as they were not explicit in the chapter’s text. The examples included for CR and CU-level MCQs are mentioned in the table below.

**Table 2: Examples from Text-based MCQs Falling under the First two Levels of Revised Bloom’s Taxonomy**

CR (Remembering level)	CU (Understanding level)
“The diplomatic relations established between Pakistan and Afghanistan.” (a). In 1947 (b). in 1948 (c). in 1949 (d). in 1950 (p.51)	Pakistan’s economy is: (a) developed (b) underdeveloped (c) extremely developed (d) extremely poor (p.90)
“The diplomatic relations established between Pakistan and Afghanistan.” (a). In 1947 (b). in 1948 (c). in 1949 (d). in 1950 (p.51)	“Economic development means.” (a). increase in national income (b). increase in agricultural income (c). increase in employment (d). increase in the production and services sector p.90)

Although there is a similarity in asking for the meaning and defining any term, the current analysis found that the text did not inform students about explicit information regarding the term.

**Analysis of short answer questions**

This section included an analysis of all the short answer questions of the 10<sup>th</sup> grade Pakistan Studies textbook, which were a total of 41 in number. The questions were first sorted based on cognitive domains within the revised Bloom’s Taxonomy, and then researchers analyzed the questions under nine pre-determined analytic categories.

**Table 3: Short-answer Questions Categorized under Levels of Bloom’s Taxonomy**

“Short Answer questions”	Number of questions	CR	CU	CAP	CAN	CE	CC
Ch.1	10	7	3	-	-	-	-
Ch.2	10	10	-	-	-	-	-
Ch.3	10	8	2	-	-	-	-
Ch.4	8	6	2	-	-	-	-
Ch.5	4	3	1	-	-	-	-

The researchers went through the text-based exercise short answer questions to evaluate them based on levels of Bloom’s taxonomy by analyzing the action verbs used in the questions as each level of Bloom’s taxonomy suggests its different action verbs. For instance, when it comes to knowledge level, define, recall, identify, memorize, and enlist could be the verbs used, and questions may inquire regarding what and when materials, whereas the understanding level may focus on the verbs like express, review, illustrate, concerned with the meaning of any concept (Krathwohl, 2002). In the current findings, it was concluded that the inclination of short answer questions toward understanding level was more than the MCQ statements, but again they fell under the cognitive domain of either CR or CU, focusing on lower-order thinking skills. For example, a question like ‘Narrate the uses of gypsum or ‘Write the names of three major folk tales in the Punjabi language’ depicts that there is required memorization of the content, which is about lower-order thinking involving the first level CR of revised Bloom’s taxonomy. On the other hand, the questions like ‘What is meant by the term ‘Violence’ just focus on understanding the concept. Therefore, such questions were considered as questions falling under the CU domain.

Within short answer questions, the researchers found 11 questions of clarification which mainly dealt with the students' clarity of different terms, whereas 1 question required suggestions to eradicate certain problems.

**Table 4: 'Short-answer questions Categorized under Nine Pre-determined Analytic Categories'**

<b>"Nine pre-determined analytic categories"</b>	<b>"No. of short answer questions"</b>
"Questions of clarification"	11
"Questions that probe assumptions."	-
"Questions that probe reasons and evidence"	-
"Questions about viewpoints or perspectives"	-
"Questions that probe implication, consequences, and alternatives"	1
"Questions about questions"	-
"Questions about predictions"	-
"Question about agreement and disagreement"	-
"Questions about summary and conclusion"	-

Questions of clarification represent those questions that are concerned with the clarity of any concept among students, mainly dealing with the meaning of different terms needed to grasp the complete concept of any phenomenon or asking students to give examples for more clarification (H. P. Ilyas, 2015). According to the analyzed text, there are a few examples of short answer questions that fall under questions of clarification, like "What is meant by the Lahore Declaration?" This type of question requires an understanding of the term. Moreover, a concept is easy to grasp and understand when taught through examples (Yanuarto, 2016); thus, clarification questions include questions asking students to mention examples for any phenomenon. Similarly, one short answer question, "Give few examples of violence against women in the society" demanded examples from students to examine their understanding level.

Furthermore, some 'Why' questions are not for probing reasons or evidence but rather just for the clarity of something, which tends to enhance students understanding level. Examples from the textbook might be, "Why was Washington Declaration made?" and "Why did President Ghulam Ishaq Khan dismiss the Benazir Bhutto government?" (p.29) analyzed based on the questions list provided by R. Paul (1990) as he enlisted some sample questions falling under questions of clarification, that is, "What do you mean by \_\_\_\_\_?". The question that probe implication, consequences, and alternatives deal with the questions suggesting solutions, explaining issues, and providing other possibilities. Out of 41 short answer questions, only one fell under this category of probing implications and alternatives, that is, "Make 3 suggestions to solve agricultural problems in Pakistan".

#### **Analysis of detailed answer questions**

Unlike the multiple-choice and short answer questions, analysis of detailed answer questions mentioned in chapter exercises of the Pakistan Studies textbook for 10<sup>th</sup> grade showed some inclination towards higher-order thinking levels (analysis, evaluation, creation). According to the analyzed text about detailed answer questions, with repeatedly used verbs among 41 detailed answer questions, which are illustrated in the following tabular form:

**Table 5: Action Verbs used in Detailed Answer Questions**

<b>Action Verbs</b>	<b>Number of questions</b>
Narrate	4
Explain	15
Describe	6
State	2
Analyze	2
Comprehend	1
Discuss	3
Elaborate	3
Study	3

The table represents the action verbs used in the questions according to the different levels of Bloom's taxonomy (1956). It can be observed that remembering (knowledge level) includes verbs like state, enlist, recall, etc. On the other hand, discuss, describe, explain, and elaborate were the used verbs

under the category of the understanding level. In the same way, apply, demonstrate, and illustrate fell into the application level, while the analysis level was represented by action verbs like analyze, examine, categorize, deduce, and contrast, etc. Furthermore, at the synthesis level, the asked questions were from predict, produce, compose, and modify. The last level of the evaluation consisted of action verbs like create, measure, conclude, measure, and create, etc.

Keeping this in view, the researchers concluded that out of 41 detailed answer questions, 10 questions followed the remembering level (CR) involving questions such as, “Narrate the formation of a District Government and its duties” or “State the important events of the Prime Minister Benazir Bhutto government” and “Study the economic development of Pakistan after 1980” which represented the requirement from students to just memorize and recall the events that happened, the steps involved or the services provided as in the question, “What services are provided in Violence Against Women Centres (VAWCs)” Thus, no thinking process is involved.

Furthermore, results revealed that 29 questions out of 41 represented the understanding level (CU) focusing on explanation, discussion, and description of different events, phenomena, historical moments, relationships with other countries, aspects of the constitution, the role of the state’s institutions or functions of different committees. Examples from textbook questions included, “Explain the reserves, economic value, and distribution of metallic and non-metallic minerals” or “Elaborate on the major social problems of Pakistan.” Such questions must need clarity of the concept and understanding of the material taught to explain or describe it properly. Moreover, questions like “Discuss Pakistan’s contribution towards peacekeeping in the world” and “Describe Pakistan’s relations with Saudi Arabia” represents an inclination towards the understanding of the concept, which would be needed to discuss or describe something in detail. Whereas two similar questions required more than discussion or description of any concept, for instance, “Analyze the relations between Pakistan and India” and “Analyze the relations between Pakistan and Afghanistan,” which represented the fourth level of Bloom’s taxonomy, that is, Analysis (CAN) level. Giving a detailed answer to such a question involves the use of higher-order thinking skills, as analysis of any material or concept requires a critical thinking approach. Analysis of the textbook based on Bloom’s taxonomy levels could be easily comprehended through tabular representation as:

**Table 6: Detailed-answer Questions Categorized under Levels of Bloom’s Taxonomy**

Detailed Answer questions	Number of questions	CR	CU	CAP	CAN	CE	CC
Ch.1	8	3	5	-	-	-	-
Ch.2	12	1	9	-	2	-	-
Ch.3	10	4	6	-	-	-	-
Ch.4	8	1	7	-	-	-	-
Ch.5	3	1	2	-	-	-	-

The researchers analyzed all 41 detailed answer questions based on the chapters’ text within the framework of nine pre-determined analytic categories, and the findings revealed that though questions demanded narration, explanation, description, or analysis of any topic mentioned in the chapters, the text neither dealt with the assumption, conclusions, questions, predictions, pros, and cons, except for one question focusing understanding and clarification of the topic to be answered, that is, “Why is Urdu called the national language of communication in Pakistan?”. Furthermore, there were found two questions about analysis requiring relations of Pakistan with India and Afghanistan. The question of analysis maybe falls under demanding reasons, consequences, and solutions since analysis deals with the identification of the problem, its diagnosis, and presenting its solutions and recommendations (Okes, 2019). Thus, analyzing something requires higher-order thinking skills, and such questions are asked to challenge the development of critical thinking skills. Therefore, results may suggest that detailed answer questions of tenth grade Pakistan Studies textbook represented only two questions probing reason, consequences, or perspective due to their requirement of analysis, that is, “Analyze the relations between Pakistan and India” but not explicitly demanding any of the nine categories derived from taxonomy of Socratic questioning.

Because the questions in the text-based exercises of the Pakistan Studies textbook for the tenth grade did not encourage students to think critically or creatively, it can be concluded from the results

above that they were not favorable or beneficial for the development of critical thinking skills among students. Instead, their primary emphasis was on learning and internalizing the material.

## **DISCUSSIONS**

The first three levels of the revised Bloom's taxonomy are significant because they are hierarchical, but the last three levels are regarded as higher-order thinking levels. The first three levels include knowledge, comprehension, and application of the material, all of which contribute to the development of skills at the level of analysis (Bissell & Lemons, 2006). Keeping in view that the question regarding critical thinking is not included in the textbook, there should be a homogenous distribution of questions while developing exercise questions.

Additionally, the current research was based on textbook questions that were provided at the conclusion of each chapter, so the questions' assertions were not required to match those in the chapter exactly. The ability to think may be involved in this way. Designing proper questions is necessary to obtain pertinent answers. By way of illustration, the question "Analyze the ties between Pakistan and India" could be rephrased as "Kashmir, being the key reason for volatility over the Pakistan-India relationship, share your perspective." You can alter a portion of "offer your perspective" by asking, "Can you give us a rationale and an explanation?" From the questions about views and viewpoints, a suggested query with the offer of rationale and evidence or 'Can/did anyone see this another way' (Paul & Binker, 1990).

Furthermore, there is a need for the incorporation of critical thinking skills-based questions in the textbook. It is clear that study about a country is concerned with its citizenship, patriotism, and unity among the students, and higher-order thinking is regarded as a necessary skill for success in society and the community in which they live. Therefore, the critical thinking skills related to topics and questions may lead to developing citizenship among students of secondary level. As discussed above in the literature review section, in the Pakistani context, the previous studies related to citizenship, national identity, and discrimination are seen in Pakistan Studies and Social Studies books. This study not only focuses on critical thinking reflection in the textbook but also provides an understanding of the homogeneous division of questions about Bloom's taxonomy from grade six. Moreover, after analysis of the questions, nine aspects were provided as guidance for text-based design questions for the development of critical thinking.

There are limitations and constraints in each study. In the current study, only one textbook was selected to be analyzed regarding text-based questions ignoring practical work which was not based on the textbook. However, those are not part of the examination mentioned in the textbook, which might be evaluated on the basis of solo taxonomy to align among teaching sessions, assessment, and learning outcomes as recommendations of this study. In short, it may be concluded that there is a dire need to design Pakistan Studies textbooks promoting critical thinking.

## **CONCLUSION**

In the educational field, critical thinking is an essential and significant skill to make learners problem-solvers and decision-makers (Nanik, 2018). The current study found a disposition for lower-order thinking skills. Also, this should be kept in mind that for critical thinking, there should be the ability to memorize, comprehend, and apply. Therefore, textbook writers should use the blended and balanced approach with both lower and higher-order thinking skills (Utami, Liahmad, & Rusnindita, 2020). Moreover, textbooks are a source for achieving desired learning outcomes about any subject (Khutorskoi, 2006); therefore, if there is a focus on inculcating critical thinking among students as desired learning outcomes, there must be observed a reflection of the desired skills described in the curriculum objectives as narrated by Ali, Akhter, and Nawaz (2017) "Textbooks are written to facilitate learners to access the curriculum" (p. 114).

The text-based questions of the exercises in the current study's analysis of one textbook using qualitative content analysis revealed that they did not adhere to the definition and standards of critical thinking skills as outlined in the literature. This might be the result of the overwhelming number of multiple-choice, fill-in-the-blank, and matching-column questions, which inhibit the critical thinking process (Vanderhook, 2020) and encourage rote memorizing of the material.

### Recommendations for policy and practice

The current analysis of Pakistan Studies tenth grade revealed that there is a need to focus on the development of critical thinking among students by the textbook and curriculum writers. There is a need to focus on the questions addressed in the exercises of the textbook. There should be an alignment of textbooks with the National Curriculum to inculcate critical thinking among the students. There is a need to be emphasized on inculcation of content related to critical thinking to produce problem-solvers, decision-makers, and critical thinkers. The questions related to critical and creative thinking and activities in the textbook would motivate the students to think from different perspectives. The analysis of the current study suggests that there is a misalignment of the textbook with the National Curriculum regarding the development of critical thinking; therefore, there is a need for the alignment of textbooks with National education policies and curricula by the government for educational institutions to produce critical thinkers and decision-maker citizens. 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). Although the learning outcomes are described at the start of each chapter in the Pakistan Studies textbook, there is the provision of lower-order thinking levels. Furthermore, these levels of revised Bloom’s Taxonomy provide clear instructions for designing questions according to the different levels of thinking. There are also described nine analytical categories which represent the questions in certain categories falling under different categories that challenge the critical thinking of the students. Therefore, there is a need for revision of the textbooks according to the National Education policies and curriculum to inculcate 21st-century skills among the students at the secondary level.

### Suggestions for future research

Based on the findings of the current study, following suggestions can be made for future researchers. There is a need for more research using different subject textbooks from humanities and science groups to get a complete reflection of critical thinking in textbooks. Furthermore, teachers’ perceptions and textbook analysis may be compared for developing critical thinking skills among students. There is a need to evaluate the textbooks on the basis of higher-order thinking skills to keep the strengths and remove weaknesses among them. Finally, more focus is necessary on critical thinking skills development in the Pakistani context to understand the understanding of different stakeholders of critical thinking skills from different perspectives.

### REFERENCES

- Ali, I., Akhter, N., & Nawaz, M. (2017). Critical Analysis of General Science Textbooks for Inclusion of the Nature of Science used at Elementary Level in Khyber Pakhtunkhwa. *Journal of Educational Research*, 20(1), 113-131.
- Anderson, L. W., & Krathwohl, D. R. (2001). *A taxonomy for learning, teaching, and assessing* (Abridged ed.). Boston: Allyn and Bacon.
- Awan, A. S., Perveen, M., & Abiodullah, M. (2018). An analysis of the critical thinking for citizenship education in the curriculum at secondary level. *Bulletin of Education and Research*, 40(1), 141-153.
- Azmat, U., Jamil, M., & Muhammad, Y. (2021). *Private tuition academies and the development of students’ creative and critical skills: Perspectives of academy managers*. *International Review of Social Sciences*, 9(4), 277-288.
- Bissell, A. N., & Lemons, P. P. (2006). A new method for assessing critical thinking in the classroom. *BioScience*, 56(1), 66-72.
- Bryman, A. (2016). *Social research methods*. London: Oxford University Press.
- Cassum, S. H., McGrath, J. P., Gul, R. B., Dilshad, A., & Syeda, K. (2013). Multidimensionality of critical thinking: A holistic perspective from multidisciplinary educators in Karachi, Pakistan. *Journal of Nursing Education and Practice*, 3(7), 9-23.
- Cho, J. Y., & Lee, E.-H. (2014). Reducing confusion about grounded theory and qualitative content analysis: Similarities and differences. *Qualitative Report*, 19(32), 1-20.
- Dean, B. L. (2005). Citizenship education in Pakistani schools: Problems and possibilities. *International Journal of Citizenship and Teacher Education*, 1(2), 35-55.
- MoE. (2009). *National Education Policy*. Islamabad: Minsitry of Education
- Fisher, R. (2005). *Teaching children to think* (2nd ed.). United Kingdom: Nelson Thornes Ltd.

- Graneheim, U. H., Lindgren, B.-M., & Lundman, B. (2017). Methodological challenges in qualitative content analysis: A discussion paper. *Nurse education today*, 56(1), 29-34.
- Gulzar, K., & Mahmood, N. (2018). Appraising Adequacy of Standard Based Curriculum 2006 and Allied Secondary School Mathematics Textbooks for Higher Order Thinking Skills (HOTS) in the Punjab, Pakistan. *Pakistan Journal of Education*, 35(3), 1-18.
- Hawkes, M. L. (1996). Evaluating school-based distance education programs: Some thoughts about methods. *NASSP Bulletin*, 80(582), 26-33.
- Hina, K. B., Ajmal, M., Rahman, F., & Jumani, N. B. (2011). State of citizenship education: A case study from Pakistan. *International Journal of Humanities and Social Science*, 1(2), 37-43.
- Hsieh, H.-F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research*, 15(9), 1277-1288.
- Ilyas, H. (2015). *Critical thinking: Its representation in Indonesian ELT textbooks and education*. (Unpublished doctoral dissertation). University of York, York.
- Irafahmi, D. T., Nuris, D. M., Zahroh, F., & Nagari, P. M. (2018). Critical thinking in accounting textbooks. *Journal of Education and Learning*, 12(1), 21-29.
- Jabeen, S., Chaudhary, A. Q., & Omar, S. (2014). Gender Discrimination in Curriculum: A Reflection from Punjab Textbook Board. *Bulletin of Education and Research*, 36(1), 55-77.
- Jamil, M., Muhammad, Y., Masood, S., & Habib, Z. (2020). Critical Thinking: A qualitative content analysis of education policy and secondary school science curriculum documents. *Journal of Research and Reflections in Education*, 14(2), 249-258.
- Jamil, M, Muhammad, Y. & Qureshi, N. (2021). Critical thinking skills development: Secondary school science teachers' perceptions and practices. *Sir Syed Journal of Education & Social Research*, 4(2), 21- 30.
- Jamil, M, Muhammad, Y. & Qureshi, N. (2021). Secondary school science teachers' practices for the development of critical thinking skills: An observational study. *Journal of Development and Social Sciences*, 2(4), 259-258.
- Jamil, M., & Muhammad, Y. (2019). Critical thinking: A qualitative content analysis of education policy and secondary school science curriculum documents. *Journal of Research and Reflections in Education*, 13(2), 256-272.
- Khutorskoi, A. (2006). The place of the textbook in the didactic system. *Russian Education & Society*, 48(3), 78-93.
- Krathwohl, R. D. (2002). A revision of Bloom's Taxonomy. *Theory into practice*, 41(4), 212-218.
- Mahmood, S. (2017). *Testing the effectiveness of a critical thinking skills intervention for initial teacher education students in Pakistan*. (PhD dissertation), University of Southampton.
- Mayring, P. (2014). *Qualitative content analysis: theoretical foundation, basic procedures and software solution*. Austria: Klagenfurt.
- Mehmood, K., Iqbal, M. Z., & Saeed, M. (2009). Textbook evaluation through quality indicators: The case of Pakistan. *Bulletin of Education and Research*, 31(2), 1-27.
- Moretti, F., van Vliet, L., Bensing, J., Deledda, G., Mazzi, M., Rimondini, M., . . . Fletcher, I. (2011). A standardized approach to qualitative content analysis of focus group discussions from different countries. *Patient education and counseling*, 82(3), 420-428.
- Muhammad, Y., & Brett, P. (2015). Beyond binary discourses? Pakistan Studies textbooks and representations of cultural, national, and global identity. *IARTEM e-Journal*, 7(3), 74-101.
- Muhammad, Y., & Brett, P. (2020). Infusing cultural diversity into Pakistan Studies textbooks: An analysis of textbooks and teachers' perspectives. In M. S. Pervez (Ed.), *Radicalization in Pakistan: A Critical Perspective* (pp. 61-76). London: Routledge.
- Muhammad, Y., Masood, S., & Anis, F. (2019). *Global identity, curricular reform and Pakistan studies textbooks: Understanding teachers' perceptions and beliefs*. *Journal of Educational Sciences & Research*, 6(1), 65-78.
- Nanik, S., Maya, M., & Habibah, M. S. (2018). *Improving critical thinking of students through the development of teaching materials*. Paper presented at the 1st International Conference on Social Sciences.
- Naseer, H., Muhammad, Y., & Masood, s. (2020). *Critical thinking skills in a secondary school Pakistan studies textbook: A qualitative content analysis*. *Sir Syed Journal of Education & Social Research*, 3(4), 84-95.

- Okes, D. (2019). *Root cause analysis: The cause of problem solving and corrective action (2nd ed.)*. Wisconsin: ASA Quality Press.
- Paul, R. (1990). *Critical thinking: What every person needs to survive in a rapidly changing world*. Rohnert Park, CA: Sonoma State University.
- Paul, R. W., & Binker, A. (1990). *Critical thinking: What every person needs to survive in a rapidly changing world*. Retrieved from <https://eric.ed.gov/?id=ED338557>.
- Putri, M. A. (2018). A Content Analysis of Activities in English Textbook “When English Rings A Bell”. *Research in English and Education Journal*, 3(2), 147-153.
- Schreier, M. (2012). *Qualitative content analysis in practice*. London: Sage Publications.
- Tehreem, M. (2017). *Evaluation of English textbooks in Pakistani context: 7th and 8th grade*. (Unpublished doctoral dissertation). COMSATS University, Islamabad.
- Ten Dam, G., & Volman, M. (2004). Critical thinking as a citizenship competence: teaching strategies. *Learning and instruction*, 14(4), 359-379.
- Utami, Y. P., Liahmad, L., & Rusnindita, K. (2020). *Investigating the Attainability of Critical Thinking of English Textbook in Indonesia*. Paper presented at the International Joint Conference on Science and Technology.
- Vanderhook, C. A. (2020). *The Type of Questions Being Promoted in a 10th Grade Social Studies Textbook*. (Unpublished doctoral dissertation). Seton Hall University, New Jersey.
- Yanuarto, W. N. (2016). Teacher awareness of students’ anxiety in Math classroom: Teachers’ treatment vs students’ anxiety. *Journal of Education and Learning*, 10(3), 235-243.