



*Sociology & Cultural Research Review (SCRR)*  
 Available Online: <https://scrrjournal.com>  
 Print ISSN: [3007-3103](https://doi.org/10.5281/zenodo.20579104) Online ISSN: [3007-3111](https://doi.org/10.5281/zenodo.20579104)  
 Platform & Workflow by: [Open Journal Systems](https://doi.org/10.5281/zenodo.20579104)  
<https://doi.org/10.5281/zenodo.20579104>



## **A Content Analysis of the Assessed Curriculum of General Science: A Case Study of BISE Lahore (2018–2024)**

**Iqra Aslam**

PhD Scholar, Department of Education, University of Gujrat, Punjab, Pakistan

**Dr. Saira**

Lecturer, Department of Education, University of Gujrat, Punjab, Pakistan

**Robina Kousar**

PhD Scholar, Department of Education, University of Gujrat, Punjab, Pakistan

### **Abstract**

*The aims of the study evaluate the Assessed curriculum of General Science in Lahore board at the secondary level. The study was intended to evaluate the alignment of assessed curriculum in terms of Bloom's Taxonomy of Educational Objectives. The research was evaluative, and a content conceptual analysis design was applied to collect the data. The research study was also a desk study i.e., Document Analysis. The population of this study was Past Papers conducted by Lahore Boards of Intermediate and Secondary Education in Punjab, Pakistan. The study sample was comprised of past papers from 2018 to 2024. The collected data was analyzed using Bloom's Taxonomy of Educational Objectives. The data was analyzed using the frequency table and percentage. The data was presented through tables after the statistical analysis. Studies on the alignment of Assessed Curriculum are foremost for investigating the worthwhile application of the Written Curriculum and helping the collaborators i.e., Examiners, Board of Intermediate and Secondary Education (BISE), Course developers, Textbook writers, and teachers to improve the situation.*

**Keywords:** Assessed Curriculum, General Science, Lahore Board

### **Introduction**

Education plays an important role in every aspects of life. The aspects might be social, economic, religious and psychological etc. Education helps every individual to develop critical skills i.e., cognitive ability, decision making, logical thinking and problem solving. All the educational aims might be proceeding in the reference of Educational policy. An educational policy is a statement or a document concerned from time to time officially for the development of education system of the country. The education system of every individual country depends on their Educational Policy. Educational policy consist of different principles and policies recommendations that modify the field of education as well as the assemblage of laws and rules that govern the operation of Education system. The system of Education is a process of using Curriculum. Education is a procedure of learning that involves the curriculum in the Education system. Curriculum is a standard-based document of planned experiences where the learner achieves proficiency in content and applied learning skills. Curriculum is the core component for all educators i.e., what's essential for learning and teaching. In simple, curriculum is a vehicle to clarify and emit the National goals and social

expectations to the upcoming generation (Ministry of Federal Education & Professional Training, 2006). Curriculum is important for every individual i.e., curriculum specialist, teacher in the classroom or an educator at traditional and non-traditional institutions. Different types of Curriculum are stratified together. Suppose, written curriculum formally related to writing and documented for teaching. Whereas, supported curriculum involves the additional resources & learning experiences and assessed curriculum also known as tested curriculum. Every subject have individual curriculum according to the requirements of subject. The general science curriculum deliberated to involve students in scientific inquiry, problem solving process and in decision making. This strand builds knowledge, skills, and attitude. The subject of General Science have integrated contents of Life Science, Physical Science, Earth & Space Science, Skills for scientific inquiry, Attitudes to support the application of scientific and Science, Technology, Society & Environment (STSE). These are called the integrating strands of General Science (Subject). The quality of science education is linked with science textbooks. Different initiatives were promised for the improvement of science education and reviewing the science textbooks of different grades (National Educational Policy, 2009).

In current scenario, examination system focused on rote learning and ignored the higher order thinking of cognitive domain. As well as, the content of science was overloaded for both instructor and learner. Even, less time required for science subjects teaching and instructor encouraged learners' memorization instead of understanding (Faize, 2011). Learners only depend on rote memorization. They were no any idea to solve the problem scientifically. They are not good observers because they do not think critically. Likewise, teachers do not know how to implement and apply scientific inquiry. They only focused on achieving good marks in Board of Intermediate and Secondary Education (BISE). Hence, the Assessment System not showed their active presence actually. This problematic situation was caused the research on this research topic "A Content Analysis of the Assessed Curriculum of General Science: A Case Study of BISE Lahore (2018–2024)".

### **Literature Review**

Curriculum is a path for teachers to guide their student by using different teaching methodologies. Whereas, textbook development activity done with the help of Curriculum Document. Even in the classroom teacher teach their student with the help of assigned textbook. At last Assessment based on Textbook (National Education Policy, 2009).

The document of written curriculum must be included different aspects i.e., teachers' planning documents, curriculum guides, standard and scope of charts. Whereas assessed curriculum appears in test and the measures performances i.e., standardized test, district level test, instructor-made tests etc. Similarly, supported curriculum includes those sources that support the curriculum actually i.e., textbooks, portfolios, software, A.V aids and many other sources (Galtthorn & Allan, 2000).

National Curriculum framework provides guidelines to the learners for achieving National vision, mission, goals and objectives of relevant subject or content. The National Curriculum Framework (2009) aims to build effective strategies and policies to develop, implement, and evaluate the curriculum.

In the regard of this study, different types of curriculum are aligned i.e., written curriculum, supported curriculum and assessed curriculum. Written curriculum is the outcome of creative educators and long lasting learning effect on the learners (wolk, 2010). Written curriculum is

a core component of authentic literacy. It is much more comprehensive and specific curriculum rather than others. Whereas, supported curriculum shaped the resources and plays a central role in curriculum cycle. Assessed curriculum is also tested curriculum. In assessed curriculum teacher assesses learners' work with range of assessment tools.

The National Curriculum for General Science Grade 9th expected six (06) Learning strands for General Science subject i.e., Life Science, Physical Science, Earth & Space Science, Skills, Attitudes, Science, Technology, Society and the Environment. The major focus of strand one (01) is on to understand about the Nature of life like aspects of healthy life style, ecosystem, agriculture, global environmental issues, environmental issues and basis of inheritance etc. Strand two (02) based on the matter, energy and its transformation. Similarly, strand three (03) based on providing proper foundation to the learners about solar system and the universe. Strand four (04) develops the learner's skills for solving problems, scientific inquiry, knowledge and its application. Strand five (05) based on developing student attitude towards study of science and its implications in society. Strand six (06) based on developing the nature of science and technology according to the context of environment (National Curriculum for general Science grades IX & X, 2009).

Textbooks are the backbone of classroom instructions (Mahmood, 2010). Textbook is an important medium for teaching and learning (Fayyaz, Haseeb ul Hassan & parveen, 2021). In the present era, there is a demand to contribute scientific knowledge through upcoming technologies but in Pakistan scenario, science textbooks are only used in schools for the furnishing of scientific knowledge. The Science subject textbook is different rather than others because it is site on facts and figures (Akhtar & Nawaz, 2017). In the Textbook of Punjab Textbook Board, Lahore of General Science Grade 9th and 10th; there are total 11 chapters. The first six chapters comprise the Grade 9 curriculum, while the remaining five chapters are designated for Grade 10. Grade 9th chapters consist of Introduction & role of Science, Our Life and Chemistry, Biochemistry & Biotechnology, Human Health, Disease, Cause & Prevention and last one is Environment & Natural Resources. All the chapters have different Student Learning Outcomes (SLOs) according to the chapter requirements.

Examination system are based on textbooks and they try to test the knowledge of the candidates whether, the candidate is successful or failure (Khattak, 2012). Effective evaluation and assessing system are depending on the reliability and appropriateness of the question papers (Tariq, Prof. Dr. M. Iqbal, Abdullah & M. Farooq, 2016). Exams basically emerge learners' confidence which increase the personality of learners in a hardworking manner. Exams are playing major role in learning programs. Without exams learning of learners' not influences the Educational objectives.

The examination system of secondary level held on the supervision of Board of Intermediate and Secondary Education (BISE). In this study, eight (08) boards of Punjab i.e., Gujranwala, Bahawalpur, Sargodha, Lahore, D.G. Khan, Multan, Faisalabad, Sahiwal and Rawalpindi might be include. According to the chairman of BISE Bahawalpur, the quality of assessment and evaluation must be design according to the real test of students' mental ability, originality and critical thinking (Anwar). According to the chairman of BISE Faisalabad, the success of any Educational system handed to the examination and evaluation system. Similarly, establishment of board depends on uprightness, fairness and opportunity to all.

Pakistani education system is unreliable in different aspects. In classroom scenario, student only focus to qualify the grade only and not worry to understand the relevant concept (Khattak, 2012). Arshad, Shah & Rubab, 2019 suggested that BISE (Board of Intermediate and Secondary Education) paper setter must be included some critical thinking based questions for the open mind of students. Moreover, book writers must be included such activities based on critical thinking in classroom environment.

### **Statement of the problem**

In today's scenario, Science revolutionized the whole world. It contributed in every field of life i.e., Education. Written curriculum document provides the overall classroom instructions. It facilitate about the teaching methodology, resources needed for the implementation of curriculum, support material, assessment system and co-curricular activities. So, classroom instructions, teaching methodology, textbooks, and assessment and learning materials must be congruous with written curriculum. The research's complication analyzed the Curriculum of General Science at secondary level. The main focus of the study was aligned the assessed curriculum of General Science in terms of Bloom's taxonomy of Educational objectives at BISE Lahore.

### **Research Objective**

Evaluate the alignment of Assessed curriculum of General Science in terms of Bloom's Taxonomy of Educational Objectives.

### **Research Question**

- a) What extent is the assessed curriculum of General Science congruent with Bloom's Taxonomy of Educational Objectives?
- b) What is the distribution of assessment items (MCQS) across the six levels of Bloom's Taxonomy in Lahore Board?
- c) What is the distribution of assessment items (Short Qs) across the six levels of Bloom's Taxonomy in Lahore Board?
- d) What is the distribution of assessment items (Long Qs) across the six levels of Bloom's Taxonomy in Lahore Board?

### **Methodology**

#### **Research Design**

The nature of this study was Descriptive. The research content analysis was used for this study. The research study was also desk study i.e., Document Analysis.

#### **Population**

Participants of this study were National Curriculum of General Science (2009), Textbook of General Science IX and X (2018) and Past Papers carried out by Boards of Intermediate and Secondary Education in Lahore Board, Punjab, Pakistan (2018-2024).

#### **Sampling**

Study sample were made up of Past papers of the years 2018 to 2024, Grade IX and X Textbook of General Science by Punjab Textbook Board (2018) and National Curriculum of General Science of Grades IX-X (2009).

#### **Instrumentation**

The primary instrument used was the Past Papers Alignment Protocol (PPAP) developed by the researcher. This protocol served as a systematic tool to evaluate the extent to which the

General Science question papers administered by the Lahore Board aligned with the prescribed curriculum and learning outcomes for secondary-level students in Lahore Board.

### **Data Collection**

Data was collected through various sources: National Curriculum of General Science (2009), Grade IX & X General Science Textbook (2018), Lahore Board for the last seven years (2018-2024), an expert opinion Google Form, and one framework (for Curriculum SLOs).

### **Scoring Procedure**

The scoring process of the study utilized a multi-step procedure, integrating a number of core elements. First, the Curriculum Alignment Protocols were applied to assess the alignment of the curriculum with intended learning outcomes. Google Form for Aligning Learning Strands offered useful expert feedback on learning strand alignment for a full understanding of their efficacy. Further, previous question papers of Lahore board (2018-2024) were examined to critically analyze their match with the curriculum and textbook. Lastly, the standard benchmarks of Bloom's levels were used to determine the cognitive sophistication of the questions in the past papers to measure the depth of knowledge needed at each stage of learning. These processes combined allowed for a detailed evaluation of curriculum alignment at several levels.

### **Data Analysis**

In the descriptive study, the SPSS software was used to conduct in-depth analysis of the data, especially in the generation of descriptive statistics like frequency, percentage, mean, and standard deviation. SPSS is commonly known for its ability to work with large data sets and generate precise summaries of data, which in this case was required to explore trends, patterns, and distributions in the study.

The data gathered was analyzed on the basis of Bloom's Taxonomy of Educational Objectives. The data was analyzed using two primary software programs: SPSS and Microsoft Excel. The data were examined using Frequency table, Percentage and proportion. The data was presented in the form of tables and its interpretation following the statistical analysis.

### **Results and Discussions**

Analysis of the assessed curriculum for General Science BISE Lahore at the secondary level in Pakistan involves evaluating how the curriculum is structured, and how it is assessed both formatively and summative. General Science, as a subject at the secondary school level, typically encompasses areas such as Physics, Chemistry, Biology, and General Science (a combination of foundational concepts in these areas).

What extent is the assessed curriculum of General Science congruent with Bloom's Taxonomy of Educational Objectives?

This table presents the distribution of cognitive skills based on Bloom's Taxonomy across different units in the whole paper. It breaks down how much emphasis is placed on Remembering, Understanding, Applying, Analyzing, Synthesis, and Evaluation for each unit and the total across all units.

The largest focus across most units is on remembering facts and basic concepts, with significant emphasis in units like "Energy" (5.57%) and "Current Electricity" (6.74%). This suggests that recalling facts is a key aspect of the overall paper. Understanding: The next largest cognitive skill is understanding, with the highest focus on "Current Electricity" (3.71%)

and "Science and Technology" (4.29%). Understanding seems to be a major emphasis, though not as much as remembering.

Applying knowledge in practical situations has minimal representation in the paper, with very small percentages across units (e.g., "Our Life and Chemistry" with 0.08% and "Biochemistry and Biotechnology" with 0.03%). This indicates that the paper is not heavily focused on real-world applications. Analyzing concepts or breaking them down into parts has a very minimal focus, represented by small values across all units, such as "Biochemistry and Biotechnology" (0.31%) and "Diseases, Cause and Prevention" (0.11%).

With 53.97% of the paper dedicated to remembering, this shows that the paper's primary focus is on helping students recall facts and basic knowledge. 43.42% of the paper focuses on helping students understand the material. Applying, Analyzing, Synthesis, and Evaluation: These categories receive very little focus. Applying (0.15%) and Analyzing (2.22%) are almost negligible, while Synthesis and Evaluation contribute even less (0.04% and 0.2%, respectively).

#### Assessed curriculum of General Science congruent with Bloom's

Whole Paper								
Sr.No.	UNIT NAME	Remembering	Understanding	Applying	Analyzing	Synthesis	Evaluation	Total
1	Introduction and Role of Science	4.04	1.88	0.00	0.46	0.00	0.00	6.38
2	Our Life and Chemistry	4.02	4.02	0.08	1.18	0.00	0.02	9.32
3	Biochemistry and Biotechnology	4.10	1.89	0.03	0.31	0.00	0.01	6.34
4	Human Health	4.98	4.25	0.00	0.00	0.00	0.01	9.27
5	Diseases, Cause and Prevention	5.94	4.56	0.00	0.11	0.02	0.00	10.64
6	Environment and Natural Resources	4.59	4.44	0.00	0.06	0.02	0.01	9.12
7	Energy	5.57	5.42	0.00	0.04	0.00	0.14	11.17
8	Current Electricity	6.74	3.71	0.02	0.04	0.00	0.01	10.5
9	Basic Electronics	4.80	4.58	0.02	0.00	0.00	0.00	9.4
10	Science and Technology	5.14	4.29	0.00	0.01	0.00	0.00	9.44
11	Space and Nuclear Programme of Pakistan	4.05	4.38	0.00	0.01	0.00	0.00	8.44
	Total	53.97	43.42	0.15	2.22	0.04	0.2	100.00
	Standard criteria for Bloom's Level	20%-30%	25%-30%	20%-25%	10%-20%	5%-15%	5%-10%	

#### What is the distribution of assessment items (MCQS) across the six levels of Bloom's Taxonomy in Gujranwala Board?

This table outlines the distribution of cognitive skills across 11 units in the form of Multiple Choice Questions (MCQs) based on Bloom's Taxonomy. The units are scientific topics, and the

percentages represent how much focus is placed on each cognitive skill: Remembering, Understanding, Applying, Analyzing, Synthesis, and Evaluation.

Each unit is analyzed based on the cognitive skill categories. The largest emphasis in the MCQs is placed on remembering, with units like "Current Electricity" (9.91%) and "Science and Technology" (7.34%) receiving the most focus. This suggests that the MCQs primarily test students' ability to recall factual information. This is by far the most prominent skill tested, indicating that the MCQs are mostly designed to assess knowledge recall. Understanding is the second most emphasized skill. Units like "Diseases, Cause and Prevention" (3.77%) and "Current Electricity" (1.97%) have a significant focus here. These MCQs likely test students' comprehension of key concepts, theories, and processes. Total for Understanding: 20.26%. This is much lower than remembering, but still a notable focus, suggesting that the MCQs require students to not only recall facts but also demonstrate a basic level of comprehension. The MCQs are heavily weighted towards testing remembering knowledge, requiring students to recall factual information. There is a small but noticeable focus on understanding, ensuring that students grasp concepts, although there's minimal emphasis on applying, analyzing, synthesizing, or evaluating knowledge. The MCQs are mostly factual and conceptual, with little to no focus on higher-order cognitive skills like application, analysis, synthesis, or evaluation.

#### Assessed curriculum (MCQS) of General Science congruent with Bloom's Taxonomy of Educational Objectives

UNIT NO 1-11 (MCQS)								
Sr.No.	UNIT NAME	Remembering	Understanding	Applying	Analyzing	Synthesis	Evaluation	Total
1	Introduction and Role of Science	5.84	0.30	0.00	0.13	0.00	0.00	6
2	Our Life and Chemistry	7.51	0.50	0.00	0.13	0.00	0.00	8.14
3	Biochemistry and Biotechnology	7.40	1.50	0.03	0.00	0.00	0.00	8.93
4	Human Health	6.67	1.30	0.00	0.00	0.00	0.00	7.97
5	Diseases, Cause and Prevention	6.17	3.77	0.00	0.00	0.00	0.00	9.94
6	Environment and Natural Resources	5.90	2.13	0.00	0.00	0.00	0.00	8.03
7	Energy	8.37	2.60	0.00	0.00	0.00	0.00	10.97
8	Current Electricity	9.91	1.97	0.00	0.00	0.00	0.00	11.88
9	Basic Electronics	7.57	1.90	0.00	0.00	0.00	0.00	9.47
10	Science and Technology	7.34	1.97	0.00	0.00	0.00	0.00	9.31
11	Space and Nuclear Programme of Pakistan	6.77	2.32	0.00	0.00	0.00	0.00	9.09
	Total	79.45	20.26	0.03	0.26	0.00	0.00	100.00
	<b>Standard criteria for Bloom's Level</b>	20%-30%	25%-30%	20%-25%	10%-20%	5%-15%	5%-10%	

### **What is the distribution of assessment items (Short Qs) across the six levels of Bloom's Taxonomy in Gujranwala Board?**

This table represents the distribution of cognitive skills across the 11 units in the form of Short Questions (SQs), based on Bloom's Taxonomy. It shows how much each unit emphasizes Remembering, Understanding, Applying, Analyzing, Synthesis, and Evaluation in its short answer questions. Each unit is examined for its focus on the six cognitive skill categories, with the percentage showing how much emphasis is placed on each skill for that particular unit.

Remembering is a significant focus in many units, with high percentages in units like "Basic Electronics" (4.94%) and "Energy" (3.69%). This suggests that short questions in these units primarily test the recall of factual information. Total for Remembering: 50.07%. This is still a large portion of the short questions, though lower than the MCQs, meaning the short questions are a bit more diverse in cognitive skill levels but still have a heavy reliance on recall. Understanding is the next most emphasized skill, with units like "Our Life and Chemistry" (3.31%) and "Science and Technology" (5.72%) having notable percentages. These units likely ask students to demonstrate their comprehension of concepts. Applying knowledge in real-life or hypothetical contexts is minimal across all units, with only a small percentage in "Our Life and Chemistry" (0.11%) and "Biochemistry and Biotechnology" (1.04%).

Analyzing the material, such as breaking it down or comparing concepts, is more noticeable than applying but still modest, with units like "Biochemistry and Biotechnology" (0.56%) and "Introduction and Role of Science" (0.79%) including this skill. This is a small but significant portion, showing that some questions ask students to analyze or interpret the content.

Synthesis (creating new ideas or concepts from existing knowledge) is almost non-existent in the short questions, with no units focusing on this skill (0.00% in most units). This is extremely minimal, indicating that the short questions do not encourage students to combine information in new ways. Evaluation (making judgments based on criteria) is also very limited, with a small percentage in "Energy" (0.21%) and a couple of other units (e.g., "Biochemistry and Biotechnology" at 0.02%). This is very low, suggesting that the short questions don't require students to evaluate or make decisions based on the content.

### Assessed curriculum (Short Questions) of General Science congruent with Bloom's Taxonomy of Educational Objectives

UNIT NO 1-11 (Short Qs)								
Sr.No.	UNIT NAME	Remembering	Understanding	Applying	Analyzing	Synthesis	Evaluation	Total
2	Our Life and Chemistry	4.52	3.31	0.11	0.21	0.00	0.00	8.15
3	Biochemistry and Biotechnology	4.58	3.08	1.04	0.56	0.00	0.02	9.28
4	Human Health	3.53	4.12	0.00	0.02	0.00	0.02	7.69
5	Diseases, Cause and Prevention	3.94	4.91	0.00	0.13	0.02	0.00	9
6	Environment and Natural Resources	4.44	3.98	0.00	0.06	0.02	0.02	8.52
7	Energy	3.69	4.71	0.00	0.04	0.00	0.21	8.65
8	Current Electricity	5.98	4.10	0.02	0.02	0.00	0.02	10.14
9	Basic Electronics	4.94	3.73	0.02	0.00	0.00	0.00	8.69
10	Science and Technology	5.59	5.72	0.00	0.02	0.00	0.00	11.33
11	Space and Nuclear Programme of Pakistan	4.12	4.73	0.00	1.02	0.00	0.00	9.87
	Total	50.07	45.54	1.19	2.87	0.06	0.27	100.00
	<b>Standard criteria for Bloom's Level</b>	20%- 30%	25%- 30%	20%- 25%	10%- 20%	5%- 15%	5%- 10%	

#### What is the distribution of assessment items (Long Qs) across the six levels of Bloom's Taxonomy in Gujranwala Board?

This table provides the distribution of cognitive skills across Long Questions (LQs) for each of the 11 units in the curriculum, based on Bloom's Taxonomy. The percentages represent the emphasis on different cognitive levels, including Remembering, Understanding, Applying, Analyzing, Synthesis, and Evaluation.

24% of the long questions focus on remembering, which involves recalling factual information. While it's lower than the MCQs and short questions, it still represents a substantial portion of the assessment. The largest focus is on understanding, with 73% of the questions dedicated to this skill. This indicates that the long questions aim to assess how well students grasp the concepts and ideas. A majority of the long questions test comprehension students need to demonstrate that they understand the material rather than just recalling facts.

Only 0.75% of the questions focus on analyzing – which refers to the application of certain skills- decomposition and pattern recognition. Units such as Biochemistry and Biotechnology (7.5%), Diseases, Cause and Prevention (8.85%), and Human Health (6.09%) have the highest percentage of long questions focused on understanding. These units require students to demonstrate a deep comprehension of the material.

Analyzing, Synthesis, and Evaluation are given very little weight in the long questions, with only a combined total of 0.9% across all units. This suggests that the long questions are not designed to encourage students to critically analyze, synthesize, or evaluate the material.

### Assessed curriculum (Long Questions) of General Science congruent with Bloom's Taxonomy of Educational Objectives

UNIT NO 1-11 (Long Qs)								
Sr.No.	UNIT NAME	Remembering	Understanding	Applying	Analyzing	Synthesis	Evaluation	Total
1	Introduction and Role of Science	3.41	4.56	0.00	0.05	0.00	0.00	8.02
2	Our Life and Chemistry	1.10	7.85	0.10	0.00	0.00	0.10	9.35
3	Biochemistry and Biotechnology	0.81	7.5	1.00	0.10	0.00	0.00	8.03
4	Human Health	2.07	6.09	1.00	0.10	0.00	0.00	9.26
5	Diseases, Cause and Prevention	0.20	8.85	0.00	0.2	0.00	0.00	9.1
6	Environment and Natural Resources	1.46	7.21	0.00	0.15	0.05	0.00	8.87
7	Energy	3.46	5.41	0.00	0.10	0.00	0.00	9.12
8	Current Electricity	3.97	4.31	0.00	0.05	0.00	0.00	8.33
9	Basic Electronics	2.72	6.72	0.00	0.00	0.00	0.00	9.44
10	Science and Technology	2.75	7.63	0.00	0.00	0.00	0.00	10.38
11	Space and Nuclear Programme of Pakistan	2.5	7.32	0.00	0.00	0.00	0.00	10.1
	Total	24	73	2.1	0.75	0.05	0.1	100.00
	<b>Standard criteria for Bloom's Level</b>	20%-30%	25% - 30%	20% - 25%	10% - 20%	5%- 15%	5%- 10%	

### Conclusion

Examination system focused on rote learning and ignored the higher order thinking of cognitive domain. As well as, the content of science was overloaded for both instructor and learner. Even, less time required for science subjects teaching and instructor encouraged learners' memorization instead of understanding. Learners only depend on rote memorization. They were no any idea to solve the problem scientifically. They are not a good observer because they don't think about that. Similarly, the teachers are also unaware about the implementation and application of scientific inquiry. They only focused on achieving good marks in Board of Intermediate and Secondary Education (BISE). Hence, the Assessment System not showed their active presence actually.

## References

- Aamer, R., & Shaheen, F. A. (2022). Contemporary Trends in Secondary Education in Pakistan; A Study on Learning Perspective. *Hamdard Educus*, 1(1).
- 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.
- Arsahad, A., Shah, S. K., & Rubab, Z. (2019). Medición de dimensiones Del pensamiento crítico en las preguntas Del examen BISE y A-Level mediante el uso del esquema Perry. *Dilemas contemporáneos: Educación, Política y Valores*.
- BHATTI, A. J. (2015). *Curriculum Audit: An Analysis of Curriculum Alignment at Secondary Level in Punjab* (Doctoral dissertation, International Islamic University Islamabad).
- Fayyaz, A., ul Hasaan, H., & Parveen, K. (2021). Evaluation of Learning Outcomes: A Case Study of Secondary Level Compulsory English Textbooks of the Punjab Board, Pakistan. *Journal of Communication and Cultural Trends*, 3(1), 66-85.
- Glatthorn, A., & Jailall, J. M. (2000). Aligning the curriculum. *The Principal as Curriculum Leader: Shaping What Is Taught and Tested*, 83-91.
- GOVERNMENT OF PAKISTAN MINISTRY OF EDUCATION ISLAMABAD: [http://dcar.gos.pk/BoC\\_Other\\_Pages/National\\_Curriculum/General\\_Science%20IX-X.pdf](http://dcar.gos.pk/BoC_Other_Pages/National_Curriculum/General_Science%20IX-X.pdf)
- Hassan, S. (2023). Analysis Based on Bloom's Taxonomy: Pakistan's Federal English Curriculum and Examination Content for Matric. *Journal of Positive School Psychology*, 1324-1338.
- Hume, A., & Coll, R. (2010). Authentic student inquiry: The mismatch between the intended curriculum and the student-experienced curriculum. *Research in Science & Technological Education*, 28(1), 43-62.
- Khattak, S. G. (2012). Assessment in schools in Pakistan. *SA-eDUC*, 9(2).
- Mahmood, K. (2010). Textbook evaluation in Pakistan: Issue of conformity to the national curriculum guidelines. *Bulletin of Education and Research*, 32(1).
- National Curriculum for GENERAL SCIENCE GRADES IX-X . (2009 ). Retrieved from Nguyen, A. (2023). Mind the gap between English textbooks and test papers: a corpus-based discourse from Vietnam.
- Prof. Nazir Ahmed Chughtai, Prof. Dr. Javed Iqbal, Prof. Dr. Ejaaz Rasool, Dr. Mahmood-Ul-Hassan. (2003). *General Science IX-X*. Lahore: Punjab Curriculum and Textbook Board, Lahore.
- Zaheer, Z. (2022). Global Citizenship in a National Curriculum: The Case of Pakistan's Single National Curriculum. In *Educational Response, Inclusion and Empowerment for SDGs in Emerging Economies: How do education systems contribute to raising global citizens?* (pp. 103-128). Cham: Springer International Publishing.