
EVALUATING THE TEXTBOOKS OF KPK BOARD USING BLOOM'S TAXONOMY OF LEARNING OUTCOMES: A COMPARATIVE STUDY OF ENGLISH FOR GRADE X AND XI

Sadia Malik

Lecturer,
Department of English, Bahauddin Zakariya University, Multan,
Punjab, Pakistan
Email: sdiamalik@bzu.edu.pk

Hadeeqah Hassan

M.Phil. Scholar,
Department of English, Bahauddin Zakariya University, Multan,
Punjab, Pakistan
Email: hadiqahasan5@gmail.com

Dua'a Ahmed Butt

M.Phil. Scholar,
Department of English, Bahauddin Zakariya University, Multan,
Punjab, Pakistan
Email: duaahmed52@gmail.com

ABSTRACT

Learning outcomes are written statements that clarify what a successful learner ought to achieve by the end of the program, module, course, unit, etc. This paper aims at examining the categories of student learning outcomes (SLOs) presented in textbooks of English for grades X and XI prepared by the KPK Education Board, Pakistan, using the modified version of Bloom's taxonomy. Codifying the learning objectives involved formulating a scheme based on Anderson and Krathwohl's framework. The learning outcomes given at the beginning of each chapter in both textbooks were codified and their frequencies of occurrence and percentages were calculated and presented in tabulated form. Learning outcomes were also split into two categories of higher-order thinking skills (HOTS) and lower-order thinking skills (LOTS). Results of this research revealed that the percentage of HOTS came out to be 22.4 % and 23.1% for grade X and XI textbooks, respectively. Conclusively, lower-level cognitive skills were more commonly used in both books than higher-order ones implying the change in the areas of language teaching and syllabus designing. Since the success of a course/module is reflected in the SLOs, they need to be designed to include a higher percentage of HOTS

to prepare the learners to think critically.

KEYWORDS

Bloom's taxonomy, learning outcomes, higher-order thinking skills, textbook evaluation

INTRODUCTION

Learning is presumed to have occurred when the learners can do something that they could not do earlier (Rao, 2020). According to Mahajan and Singh (2017), the successful development of a course/ program depends on an explicit understanding of what can be accomplished at the end of that course. They further state that the specification and written communication of learning outcomes is necessary for the successful launching of a program (Mahajan & Singh, 2017). Adam (2004) describes learning outcomes as written proclamations of what goals the learners are expected to achieve as a result of successful learning. These outcomes also act as guideposts for the students as they give them an insight into what they are going to learn (Mahajan & Singh, 2017). Gosling and Moon (2001) believe that the outcome-based approach to teaching is getting popular at a global level. The due emphasis on how the students will be able to demonstrate what they have learnt makes this approach advantageous for curriculum planners, teachers, and even learners. Designing the learning outcomes for a course requires careful planning based on precise guidelines. Many course planners and teachers take help from Bloom's Cognitive Taxonomy in this regard. Bloom's Taxonomy entered the field of teaching in the 1950s through Benjamin Bloom and was revised by Krathwohl et al. in 2001. It is a multi-level model that classifies thinking into six levels of cognitive complexity, including three lower levels of knowledge, comprehension, and application and three higher levels of analysis, synthesis, and evaluation (Forehand, 2005). Anderson and Krathwohl (2001) in their rendition of Bloom's Taxonomy, changed the noun forms to verb forms. The first level was changed from "knowledge" to "Remember" and the last 2 levels to "Evaluate" and "Create".

According to Bastos and Amos (2017), the primary objective of education should be to steer the students towards a path of self-reliant, self-directed thinking and learning. Thus, the development of higher-level thinking is necessary for evaluating ideas and information actively and intelligently. Therefore, learning outcomes should be designed keeping this point in mind. The term Higher-order thinking skills (HOTS henceforth) is used to differentiate between critical cognitive skills and low-level thinking skills (LOTS henceforth) which are usually based on rote memorization (Watson, 2020). Aviles (2000) propounds that Bloom's taxonomy of academic objectives can be employed in a broader educational context to assist both fresh and experienced educators to get a better understanding of what it means to teach and test

for critical thinking.

Pasaribu et al. (2020) maintain that textbooks are beneficial learning resources for achieving learning goals. Therefore, explicating learning objectives for textbooks is important. In the domain of language teaching, teachers rely heavily on textbooks. English textbooks, as they consist of reading passages and activities, feature content that may reflect HOTS and LOTS (Qasrawi & BeniAbdelrahman, 2020). Resultantly, the instructors need to deal with different cognitive skills, particularly the HOTS, because the learners do not just need to recall information but also be capable of applying, analyzing, synthesizing, and evaluating the material (Case, 2013). Thus, reviewing and analyzing the content of textbooks and syllabi used to teach the English language may prove to be an important measure that instructors and researchers should take. Many studies conclude that acquiring critical thinking skills among language learners is necessary. Mahyuddin et al. (2004) believe that language learners who can think critically employ creative means to achieve the curriculum objectives. Numerous other pieces of research substantiate the part played by critical thinking in enhancing ESL (English as a Second Language) writing skills (Rafi, n.d.); language proficiency (Liaw, 2007); and command over oral communication (Kusaka & Robertson, n.d.). Thereafter, learning outcomes based on higher-level cognitive skills should be the focus of textbook planners, specifically for the books that are used to teach languages. In the Pakistani research context, however, little attention has been given to student learning outcomes (SLOs) designed for textbooks that are taught across the country.

The current study intends to bridge this gap by performing an analysis of English Textbooks prepared by the KPK board for grades X and XI. Through the analysis of the learning outcomes designed for the chosen books, the researcher explored the cognition levels which are the focus of these books. These books have been selected keeping in view the crucial part they can play in the development of higher-level thinking skills among language learners. In addition to that, in Pakistan, the Higher Secondary School level is of vital importance as the students enter university after completing this level. Therefore, the textbooks at this level must be designed strategically to impart practical knowledge involving critical/ higher-order thinking skills. As stated in the foreword of the Textbook of English for Grade XI, the book aims to deliver academic and practical skills that can be used by learners to achieve their academic goals or build their careers (Khan, 2021). The comparative analysis also revealed whether the learning objectives in the XI grade textbook had been designed keeping this specific goal in mind.

Bloom's Taxonomy

Benjamin Bloom, an American educational psychologist, along with his collaborators, published *the Taxonomy of Educational Objectives* (1956). The framework presented

in this book is called Bloom's Taxonomy and is, essentially, a way of organizing educational objectives/ goals. As Qasrawi and BeniAbdelrahman (2020) state, soon after its development, this taxonomy took on the status of a backbone for the field of teaching, as it helps to prepare learning objectives, lesson plans, and assessment systems. It has been utilized to prepare/ asses materials for different age groups and education levels, from kindergarten to college level and then at the university level (Farber & Klein, 1999; Scott, 2003; Lord & Baviskar, 2007; Healy, Taran & Betts, 2011). It helps to ensure that the teachers and students both are clear about the learning goals. The actual Bloom's taxonomy boasted six categories or levels namely, knowledge, comprehension, application, analysis, synthesis, and evaluation.

In 2001, a group of researchers decided to make Bloom's Taxonomy more inclusive by shifting some of the focus from educational objectives. Consequently, a modified version of Bloom's Taxonomy, which came to be known as A Taxonomy for Teaching, Learning, and Assessment, was developed. This modified version aimed to give the learners a clearer understanding of what was expected of them at different learning stages. Static objectives and nouns were substituted with verbs and gerunds so that each level was associated with the cognitive processes that the learners would require to use. The revised taxonomy is illustrated in the form of a table as follows:

Table 1: Revised Version of Bloom's Taxonomy (Bloom, 1956; Kratwohl & Anderson, 2001).

Cognitive Level	Definition	Examples
Remember	The learning process is engaging the lowest level of thinking.	recognise, recall
Understand	Characterised by actions like interpretation, classification, amplification, making inferences, comparisons, etc.	elaborate, associate
Apply	Related to the implementation and execution of actions.	implement, execute
Analyse	Analysis of materials by applying processes like differentiation, organization, or attributing facts to the subject matter.	contrast, examine
Evaluate	Requires the learners to 'critique' or 'make judgements about materials.	asses, appraise
Create	A learner uses his/her mental faculties to create something original or new.	produce, generate

According to Veilleux (1999), Bloom's taxonomy can prove to be beneficial for the field of academics by acting as a guiding model for subdividing multiple standards and syllabus requirements into blocks. This maintains uniformity in educational materials and assessment procedures (Veilleux, 1999).

Lower and higher level thinking skills (LOTS and HOTS)

The cognitive levels as presented by Bloom, are classified as follows: lower-order thinking skills (LOTS) containing knowledge, comprehension, and application, and higher-order thinking skills (HOTS) that comprise the remaining three levels of analysis, synthesis, and evaluation (Daniati & Fitrawati, 2018). The current research makes use of the revised version of Bloom's Taxonomy given by Anderson and Krathwohl (2001) in which the cognitive process levels were changed to "remember, understand, apply, analyze, evaluate, and create". Similar to Daniati and Fitrawati's research study (2018), the lower-level thinking skills in the current investigation, include "remember, understand, and apply" and the higher-order thinking skills are "analyse, evaluate, and create". Anderson & Krathwohl (2001), defined and described each category of HOTS level. First is, "analyze" which helps evaluate the skill of students to segregate material or abstract ideas into elementary parts. This is done to get a clearer understanding of the organizational structure of the material/concept. The fifth level of the hierarchy is "evaluate" related to the proficiency of learners to judge the significance of concepts or materials based on the given norms and standards. "Create" occupies the top position in the taxonomy. This level pertains to the learners' ability to assemble a structure or pattern from various components. It involves creating something new by utilizing a blend of ideas from different sources to create a new whole. Certain keywords are associated with each category of LOTS and HOTS which guide the instructors on how to design the most suitable course that improves the quality of learning.

Educational reforms, in the 21st century, revolve around keeping abreast of the skills required by learners to keep pace with the demands of modern life (Qasrawi & BeniAbdelrahman, 2020). These needs include innovative and technological skills as well as life and career skills. The modern world demands that learners should be able to think critically and communicate properly. Accordingly, Rentawati et al. (2018) maintain that 21st-century skills can be split into two main types; abstract skills and concrete skills. LOTS are abstract skills, whereas communication and collaboration make up the concrete skills part. Furthermore, creative and critical thinking skills are bound together with the improvement in HOTS (Rentawati et al., 2018). HOTS become even more important with the rise of information technology, where to deal with the substantial amount of information, learners require various kinds of competencies, such as analysis, synthesis, evaluation, etc. (Yen & Halili, 2015). Some research scholars also surmise that HOTS play a crucial role in the development of

lifelong learning that helps learners to deal with the demands of the 21st century (Rentawati et al, 2018).

LITERATURE REVIEW

Textbook evaluation as a research subject has been explored extensively over the years. According to Qasrawi and BeniAbdelrahman (2020), content examination of textbooks and curricula is necessary to provide the rationale for policy determination and implementation. Different aspects of textbooks have been assessed to refine the content presented in textbooks. All of this has had the impact of improving the quality of education positively. Various ways in which textbooks have been evaluated are exemplified by some studies mentioned below. Dharma (2018) aimed at assessing the relevance of the curriculum materials of 2013 with the materials presented in the target textbooks taught in an SMK, in Sintang, Indonesia. Susiati and Mufidati (2020) examined the national textbook of English taught in Indonesia, using Cunningsworth's good English textbook criterion. Similarly, Khodadaday and Shayesteh (2016) evaluated various published textbooks of English as a supplementary resource in language education. They explored to what extent the paradigm of English as an International Language (EIL) had been devised within those textbooks of English.

Textbook evaluation based on the tasks included in the lessons is also a topic of interest among research scholars. Ayu and Indrawati (2018) evaluated the textbooks of English that were used in senior high school to examine the tasks as well as the distribution of those tasks from the simple to complex levels. Gracin (2018) proceeded to embed a new dimension of "mathematical activities" in Mathematic textbooks that would clarify what a student ought to do in a certain task like computing, interpreting, or using argumentation. Apart from the aforementioned studies, many other significant types of research have been carried out based on textbook task analysis (Kim, 2014; Rusdin, 2016; Nida, 2021).

Bloom's Taxonomy has also been frequently employed to assess learning outcomes, exam papers, and the distribution of LOTS and HOTS in textbooks. Kidwell et al. (2013) employed this framework to formulate learning objectives for six areas of accounting ethics including ethical conduct codes, decision models, the accounting domain, moral development, corporate governance, and classical ethical theories. In the same way, Karanja and Malone (2020) evaluated the nature of SLOs in the PM course syllabi and aligned them with Bloom's framework. Another topic explored extensively in this regard is exam paper analysis. Researchers investigated the prevalence of different cognitive levels in exam paper questions (Sivaraman & Krishna, 2015; Bayaydah & Altweissi, 2020; Yildiz, 2015). HOTS have acquired the status of a hot commodity in this modern world. Thus, the teaching process should focus on incorporating ways of equipping the learners with these advanced thinking

skills. In this regard, Reza (2020) examined the extent of the distribution of HOTS in Indonesian High School English exams. He concluded that the said exam paper was largely based on Lower-Order Thinking Skills (LOTS) for the reading question items. Rahayu, Mariani, and Jumiriaty (2020) explored the prevalence of HOTS and LOTS in questions, tasks, and exercises presented in the Bahasa Inggris textbook for grade 10. Similar research was performed by Daniati and Fitrawati (2020) who investigated the HOTS questions in reading activities of Bright, an Indonesian English course textbook for grade IX. In addition to that, many other researchers have built their studies on the role of Bloom's Taxonomy in the development of critical thinking skills among learners (Athanasios, McNett & Harvey, 2003; Nentl & Zietlow, 2008; Rahman & Manaf, 2017; Whiteley, 2006).

In the Pakistani context too, the framework provided by Bloom (1956) has been utilized in the field of research. Azmat (2018) evaluated the exam paper of the Entrance Test for Medical Colleges/Universities in KPK, Pakistan, using Bloom's Taxonomy. In 2020, a study performed by Mahmood, Mahmood, and Butt examined the extent to which the cognitive levels of Bloom's Taxonomy of Educational Objectives had been followed, in the exercises included in the book I (English) of the Federal Textbook Board and KPK Textbook Board at SSC Level. The research used a mixed-method approach as it dealt with textual analysis numerically. Husain and Faize conducted research in 2022 to assess the quality of education in Pakistan. The results indicated that the educational objectives as presented in Bloom's taxonomy had not been satisfactorily fulfilled in Pakistani education. The researchers also made suggestions to improve the quality of education in Pakistan.

RESEARCH OBJECTIVES

1. Evaluate and compare the learning outcomes of the grade X and XI KPK textbooks in terms of HOTS and LOTS
2. Explain the implications of HOTS and LOTS in syllabus designing and their impact on the learners

RESEARCH QUESTIONS

1. Which levels of Bloom's taxonomy are more common in English textbooks of grades X and XI designed by the KPK textbook board?
2. How can these textbooks be assessed with regard to lower-order and higher-order cognitive skills?
3. What does the comparison of both books reveal about the prevalence of HOTS and LOTS?

RESEARCH METHODOLOGY

The materials analyzed in this research included:

-
- A Textbook of English for Grade X Test Edition (Aamad & Khan, 2021)
 - A Textbook of English for Grade XI Test Edition (Khan, 2021)

In each book, a list of learning objectives has been given at the beginning of each chapter. These lists remained the focus of the study. The modified version of Bloom's cognitive framework (Anderson and Krathwohl, 2001) was used as a framework for analysis. To evaluate the learning outcomes of the targeted textbooks from the viewpoint of cognitive levels a checklist (Shabatura, 2014) derived from Bloom's Taxonomy (1956) and the Revised Taxonomy by Krathwohl (2001) has been employed. The content of the checklist includes many of the probable verbs that may fall into various categories of cognitive skills (see Appendix).

The content analysis of the aforementioned textbooks was carried out keenly. Using a coding scheme, derived from modified Bloom's framework (Anderson & Krathwohl, 2001) the learning outcomes for each chapter were coded. The coding categories as given in the revised taxonomy were labeled as (a) remember (b) understand (c) apply (d) analyze (e) evaluate (f) create. Keywords that exemplified intellectual activity on each level were included in each coding category. Definitions of different cognitive levels given by Bloom were studied meticulously and the keyword examples were identified from the list of learning outcomes given in the selected textbooks. Verbs used in each taxonomy level functioned as the classifiers of the learning outcomes and each outcome was included in the relevant Bloom's Taxonomy level. The frequency of objectives was computed and the percentage was calculated for outcomes of each cognition level in Bloom's Taxonomy. These calculations were presented in a tabulated form for the convenience of the readers. In the cases where it was difficult to tell which category the outcome might be a part of, the context was considered. The learning outcomes were then evaluated using the modified six levels of Bloom's learning objectives.

The sample population for this study included all 203 outcomes for 15 chapters of English for grade X and 286 outcomes for the coursebook for grade XI. Following the work of Yamanka and Wu (2014), each verb/ verb phrase was regarded as distinct if a learning outcome consisted of sub-parts. Exceptions exist in case the sub-parts did not consist of action verbs. On this pattern, a total of 223 learning outcomes were identified in the textbook for grade X and 286 in the coursebook for grade XI. Two verbs or verb phrases existing within the same statement that could be differentiated from each other were treated differently. The number of main outcomes (not including the sub-parts) and total outcomes (the total number of primary and sub-objectives) was then recorded.

Further, as Torres et al. (2021) did in their study, instances in which verbs used in a learning outcome occurred in both the LOTS and HOTS categories (e.g., "explains"

appeared at three levels; understand, evaluate, and create) context was regarded. Following the same study, learning outcomes were categorized into Higher-Order Thinking Skills and Lower-Order Thinking Skills. Frequencies and percentages for LOTS and HOTS were calculated separately. Finally, a comparison of results was carried out to see the prevalence of low or high levels of cognition in each textbook.

Checklist Validity

Many studies have validated the use of Bloom's Taxonomy for various purposes such as the assessment of educational objectives, activities, exam papers, etc. Interpretation of textbooks in terms of levels and the categories suggested by Bloom (1965) has been carried out by many research scholars (Assaly & Smadi, 2015). The checklist used in this study has been provided by the University of Arkansas and it specifies all Bloom's Taxonomy categories based on words and specific verbs for each category (Shabatura, 2014). Thus, the learning outcomes of the target textbooks have been analyzed using an authentic, ready-made checklist.

FINDINGS & DISCUSSION

Separate analyses of the learning outcomes of both books are given below:

Textbook of English for Grade X

The textbook of English designed for grade X includes a total of 223 learning outcomes set up for 15 chapters. These outcomes act as guideposts for the instructors and learners to show the change in the knowledge level of learners that takes place after the lesson has been taught. The frequency along with the percentage of each thinking level for the given book is illustrated in table 2.

Table 2: Frequencies and Percentages of Cognitive Learning Outcomes in a Text Book of English for Grade X

Cognitive Level	Frequency	Percentage
Remember	79	35.4
Understand	17	7.6
Apply	77	35
Analyse	33	14.8
Evaluate	10	4.5
Create	7	3.1
Total LOTS	173	77.6
Total HOTS	50	22.4

Table 2 shows that all the cognition levels have been included in the learning objectives. Their distribution, however, is not equal. The first three levels of LOTS

have been followed more frequently while the categories of HOTS have been incorporated rather sparsely. Among the learning outcomes, verbs like “*locate*”, “*recognize*”, “*identify*”, etc., that belong to the most basic cognition level in Bloom’s Taxonomy, were located most frequently, implying that the first level “remember” carries maximum weightage at 35.4%, followed closely by another LOTS level “apply”. The percentage falls dramatically for the last three stages. HOTS, indicated by verbs like “analyze”, “support”, and “create” makeup 22.4% of the total learning outcomes.

Textbook of English for Grade XI

The number of chapters included in the textbook for grade XI is more than that of the grade X book. This is consistent with the proficiency level that the learners are required to achieve at this stage. The total number of learning outcomes has also increased to 286. The prevalence of LOTS and HOTS in this book is illustrated in tabulated form in table 3.

Table 3: Frequencies and Percentages of Cognitive Learning Outcomes in a Text Book of English for Grade XI

Cognitive Level	Frequency	Percentage
Remember	91	31.8
Understand	43	15.0
Apply	86	30.1
Analyse	47	16.4
Evaluate	12	4.2
Create	7	2.4
Total LOTS	220	76.9
Total HOTS	66	23.1

Table 3 shows that the targeted textbook has been designed keeping in mind all the six levels of cognition as given by Bloom. There is, however, no logical pattern that governs the prevalence of these levels. Here again, the lower-order thinking skills make up a major chunk of the overall learning outcomes. Outcomes that concentrated on “*reorganization*”, “*demonstration*”, and “*illustration*” were more prevalent. The higher-level thinking skills namely ‘*Analysis*’, ‘*Evaluation*,’ and ‘*Creation*’ comprise only 23.1% of the overall learning objectives. These levels were mostly indicated by verbs like “evaluate” and “create”.

Comparison

Looking at the learning objectives from the viewpoint of the cognitive levels, lower-order elements were found to be dominant in both textbooks, with a percentage of 77.6

in grade X and 76.9 in grade XI. As a whole, “remember” has the highest frequency. “Apply”, “analyze”, and “understand” follow the course, in both books. The lowest frequency on this continuum is occupied by “create” which is the highest level of cognition in the pyramid-like scheme of Bloom’s taxonomy. This clearly shows that in both textbooks more attention has been given to the cognitive skills at the lower level than those at the higher level. The comparative analysis of the X and XI grade books, however, indicated a slight growth in the overall percentage of the higher-order thinking skills, from 22.4% in the grade X textbook to 23.1% in grade XI.

DISCUSSION

The in-depth analysis of the learning outcomes designed for the lessons included in the target textbooks revealed that the cognitive skill at the level of “*remember*” is the most prevalent. This level occupies the lowest position in the taxonomy. The percentage associated with this level came out to be 35.4 % in the English course book for grade X and 32% in the textbook for grade XI. Additionally, the prevalence pattern inferred from the tables indicated that lower-order skills had been the focus of both books. A higher-order thinking skill, according to Pratiwi (2014), is the capability to think in a complicated process which is helpful in knowledge dissemination in real life, critical thinking, and problem-solving. The acquisition of HOTS during the learning process can equip the learner with more refined critical thinking ability that will in turn help him/her to process and apply information. Having higher-level cognitive skills is crucial for learners to prepare themselves to think on their own, in the real world (Daniati & Fitrawati, 2018). Therefore, the syllabus must be designed keeping this practical aspect of critical thinking skills in mind. The present study explores the textbooks taught to students in higher grades because they are building skills to step into adult life. There, they will need to use the knowledge that they have learnt in school i.e., the knowledge of the English language. Accordingly, the syllabus they are being taught must help to prepare them for that. Febrina et al. (2019) support this point by saying that a reasonable textbook should put more emphasis on HOTS to prepare students to think critically and find solutions to certain problems. The textbook designers should take into account the importance of HOTS and incorporate such elements into these books that facilitate the acquisition of HOTS among the learners.

The analysis of the target textbooks revealed that the learning outcomes did not achieve the goal of focusing more on the HOTS. The results were congruent with those of some other research works that explored the learning outcomes designed for course books. Those studies are from Riazi and Mosalanejad (2010), Qasrawi and BeniAbdelrahman (2020), and Torres et al. (2021). Following the same line of thought, Riazi and Mosalanejad examined the kinds of learning objectives specified in textbooks used in Iranian high schools. Similarly, Qasrawi and BeniAbdelrahman (2020) analysed the first two editions of Unlock English Reading, Writing, and Critical Thinking Skills

Textbooks keeping in view the prevalence of terms of the lower and the higher-order thinking skills. In a relevant research study, Torres et al., following Krahtwohl's (2002) Taxonomy for Teaching, Learning, and Assessment, classified the learning outcomes presented in SUC and CHEC prototype syllabi used in the Philippines. These learning outcomes and activities were classified based on six cognitive skills. Learning outcomes were then categorized as Higher-Order Thinking Skills (HOTS) and Lower-Order Thinking Skills (LOTS). All these studies revealed that the textbooks included more LOTS and HOTS.

RECOMMENDATIONS

Educational institutes are the centers that provide learners with a suitable learning environment, resources, and opportunities to develop communication skills among the learners. In this regard, textbooks are the most important teaching tools employed by instructors. This is why Kisanga (2016) and De la Rama et al. (2020) suggested that educational institutions come up with steady, early, and responsive in-service training on developing learning outcomes and assessment activities.

Following the results of the current study, it was found that in the Textbook of English grade X and grade XI, learning outcomes based on LOTS were more common than those based on HOTS. The total of HOTS outcomes is 22.4% and 23.1% in the target books, respectively. The percentage of LOTS was found to be 77.6% and 76.9% respectively. On one hand, it shows the importance of lower-order thinking skills. A mastery of these LOTS is required for the development of a sturdy base of critical thinking skills. However, the difference between the percentages of LOTS and HOTS is quite large. The low level of HOTS in the selected books indicates the non-uniform prevalence of LOTS and HOTS. Qasrawi (2020) asserts that educational reformers are in favor of improving the HOTS. This improvement is required for making students more critical in their thinking and creative in using the content of educational resources.

The current study tends to be valuable for all stakeholders, as it may help to steer attention to the evaluation of different aspects of these textbooks and the other ones. This study may also prove to be advantageous for instructors of English since it acknowledges the primacy associated with various levels of cognitive abilities, especially HOTS. Similarly, the present study, in compliance with other research endeavours, may provide the necessary data to course developers that they may rely on in the future. The researchers would like to give some suggestions based on the findings of this study that might prove to be valuable for course developers, instructors, learners, or other researchers. Coursebook developers should aim to develop learning outcomes that go beyond lower-order cognitive skills and incorporate higher-order ones since it is the learning outcomes on which the lessons presented in the books are

based. Instructors should choose a good coursebook to use as a teaching and learning resource which can direct the teachers and students both, to use the material more effectively. Researchers may take up other studies to explore textbook samples on a larger scale.

REFERENCES

- Aamad, A., & Khan, H., (2021). A textbook of English for Grade X, Test Edition. Khyber Pakhtunkhwa Textbook Board: Peshawar.
- Adam, S. (2004, July). Using learning outcomes. In *Report for United Kingdom Bologna Seminar* (pp. 1-2). Edinburgh, UK: Heriot-Watt University (Edinburgh Conference Centre).
- Anderson, L. W., & Krathwohl, D. R. (2001). A taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives. New York: Longman.
- Assaly, I., & Smadi, O., (2015). Using Bloom's taxonomy to evaluate the cognitive levels of master class textbook's questions. *Canadian Center of Science and Education*, 8 (5).
- Athanassiou, N., McNett, J. M., & Harvey, C. (2003). Critical thinking in the management classroom: Bloom's taxonomy as a learning tool. *Journal of Management Education*, 27(5), 533-555.
- Aviles, C. B. (2000). Teaching and testing for critical thinking with Bloom's taxonomy of educational objectives. ERIC Document ED446023. Available: <http://www.eric.ed.gov/ERICWebPortal/contentdelivery/servlet/ERICServlet?accno=ED446023>
- Ayu, M., & Indrawati, R. (2019). EFL textbook evaluation: The analysis of tasks presented in English textbook. *TEKNOSASTIK*, 16(1), 21. <https://doi.org/10.33365/ts.v16i1.87>
- Azmat, M. (2018). Evaluation of ETEA entrance test for medical colleges/universities in Khyber Pakhtunkhwa Province of Pakistan in light of Bloom's taxonomy. *European Academic Research*, 6 (7), 3393-3415.
- Bastos, A., & Ramos, A. (2017). Higher-order thinking in foreign language learning. *Advances in Social Sciences Research Journal*, 4(5) 90-118.
- Bayaydah, A. M., & Altweissi, A. I. (2020). A Bloom's taxonomy-based analysis of 9th and 10th grades English language textbooks' final examinations and revision questions. *International Online Journal of Primary Education (IOJPE)*, 9(2), 197-211.
- Bloom, B. S., Krathwohl, D. R., & Masia, B. S., (1984). *Taxonomy of educational objectives, Handbook 1: Cognitive domain*. New York: Longman.
- Case, R., (2013). The unfortunate consequences of bloom's taxonomy. *Social Education*, 77(4), 196-200.
- Daniati, N., & Fitrawati, F. (2020). High-order thinking skill questions in reading exercises (An analysis of reading exercises in Bright: An English course book for the Grade IX of Junior High School, published by Erlangga in 2018. *Journal of English Language Teaching*, 9(2), 368-375.
- De la Rama, J., Sabasales, M., Antonio, A., Ricohermoso, C., Torres, J., Devanadera, A., & Alieto, E. (2020). Virtual teaching as the 'new norm': Analyzing science teachers'

-
- attitude toward online teaching, technological competence, and access. *International Journal of Advanced Science and Technology*, 29 (7), 2705-2715.
- Dharma, Y. P. (2018, May 1). An analysis of English textbook relevance to the 2013 English curriculum, *Journal of English Educational Study*. <http://jurnal.stkippersada.ac.id/jurnal/index.php/JEES/article/view/277>
- Farber, J. G., & Klein, E. R. (1999). Classroom-based assessment of a collaborative intervention program with kindergarten and first-grade students. *Language, Speech, and Hearing Services in Schools*, 30(1), 83-91.
- Febrina, F., Usman, B., & Muslem, A. (2019). Analysis of reading comprehension questions by using revised Bloom's taxonomy on higher order thinking skill (HOTS). *English Education Journal*, 10(1), 1-15.
- Forehand, M. (2005). Bloom's taxonomy: Original and revised. Emerging perspectives on learning, teaching, and technology. Retrieved from <http://projects.coe.edu/epltt>.
- Glasnovic Gracin, D. (2018). Requirements in mathematics textbooks: a five-dimensional analysis of textbook exercises and examples. *International journal of mathematical education in science and technology*, 49(7), 1003-1024.
- Gosling, D. & Moon, J., (2001). *How to use learning outcomes and assessment criteria*, SEEC Office, London.
- Hanna, W. (2007). The new Bloom's taxonomy: Implications for music education. *Arts Education Policy Review*, 108(4), 7-16.
- Healy, W. J., Taran, Z., & Betts, S. C. (2011). Sales course design using experiential learning principles and Bloom's taxonomy. *Journal of Instructional Pedagogies*, 6.
- Husain, W., & Faize, F. A. (2022). The state of education in Pakistan: Assessment through Bloom's taxonomy. *Contemporary Education and Teaching Research*, 3(1), 01-13.
- Karanja, E., & Malone, L. C. (2020). Improving project management curriculum by aligning course learning outcomes with Bloom's taxonomy framework. *Journal of International Education in Business*.
- Khan, H. (2021). A textbook of English for Grade XI, Test Edition. Khyber Pakhtunkhwa Textbook Board: Peshawar.
- Khodadady, E., & Shayesteh, S. (2016). Cultural and linguistic imperialism and the EIL movement: Evidence from a textbook analysis. *Issues in Educational Research*, 26(4), 604-622.
- Kisanga, D. (2016). Determinants of teachers' attitudes towards e-learning in Tanzanian higher learning institutions. *International Review of Research in Open and Distributed Learning: IRRODL*, 17(5), 109-125.
- Kidwell, L. A., Fisher, D. G., Braun, R. L., & Swanson, D. L. (2013). Developing learning objectives for accounting ethics using Bloom's taxonomy. *Accounting Education*, 22(1), 44-65.
- Kim, G. (2014). Textbook analysis: Examining how Korean secondary mathematics textbooks support students' mathematical thinking. Development (ICMT-2014), 283.
- Kusaka, L. L., & Robertson, M. (2006). Beyond Language: Creating Opportunities for Authentic Communication and Critical Thinking. 14, 21-38.
- Liaw, M. (2007). Content-Based reading and writing for critical thinking skills in an EFL context. *English Teaching & Learning*, 31(2), 45-87
-

- Lord, T., & Baviskar, S. (2007). Moving students from information recitation to information understanding-Exploiting Bloom's Taxonomy in creating science questions. *Journal of College Science Teaching*, 36(5), 40.
- Mahajan, M., & Singh, M. K. S. (2017). Importance and benefits of learning outcomes. *IOSR Journal of Humanities and Social Science*, 22(03), 65-67.
- Mahmood, A., Mahmood, S., & Butt, M. W. (2020). Comparative study of English textbook I of Federal and Khyber Pakhtunkhwa Boards at SSC Level: Application of Bloom's taxonomy. *Kashmir Journal of Language Research*, 23(2).
- Mahyuddin, R., Lope Pihie, Z. A., Elias, H., & Konting, M. M. (2004). The incorporation of thinking skills in the school curriculum. *Kajian Malaysia, Jld*, 22(2), 23-33.
- Małgorzata S. Żywno (2003). hypermedia instruction and learning outcomes at different levels of Bloom's taxonomy of cognitive domain. *Global J. Of Engng. Education*, 7(1).
- Meda, L., & Swart, A. J. (2017). Analysing learning outcomes in an Electrical Engineering curriculum using illustrative verbs derived from Bloom's Taxonomy. *Assessment & Evaluation in Higher Education*, 46(5) 673-684.
- Nentl, N., & Zietlow, R. (2008). Using Bloom's taxonomy to teach critical thinking skills to business students. *College & Undergraduate Libraries*, 15(1-2), 159-172.
- Nida, C. F. (2021). The perspective of SLA principles of materials analysis on a thematic English textbook for sixth-grade elementary school. *Journal of Applied Linguistics and Literature*, 6(2), 208-227.
- Pasaribu, M. F., Lubis, S. W. P., Siagian, M. M., Previna, S., & Saragih, E. (2020). Content analysis of vocabulary materials in English textbook in 10th grade. *Yavana Bhasha: Journal of English Language Education*, 1(1), 43-52.
- Pratiwi, N. U. R. (2014). Higher order thinking skill in reading exercise (An Analysis of Reading Exercises in Pathway to English Textbook for the Eleventh Grade of Senior High School Students). In higher order thinking skill in reading exercise. the Syarif Hidayatullah State Islamic University.
- Qasrawi, R., & BeniAbdelrahman, A. (2020). the higher and lower-order thinking skills (HOTS and LOTS) in Unlock English textbooks (1st and 2nd Editions) Based on Bloom's Taxonomy: An Analysis Study. *International Online Journal of Education and Teaching*, 7(3), 744-758.
- Rafi, M. S. (n.d.). Promoting Critical Pedagogy in Language Education. *International Research Journal of Arts & Humanities (IRJAH)*, 37, 63-73.
- Rahayu, M., Mariani, N., & Jumariati, J. (2020). The analysis of critical thinking skills on bahasa Inggris 10th grade book used in one of senior high school at Banjarmasin. *LINGUA EDUCATIA*, 2(4), 314-327.
- Rahman, S. A., & Manaf, N. F. A. (2017). A critical analysis of Bloom's taxonomy in teaching creative and critical thinking skills in Malaysia through English literature. *English Language Teaching*, 10(9), 245. <https://doi.org/10.5539/elt.v10n9p245>
- Rao, N. J. (2020). Outcome-based education: An outline. *Higher Education for the Future*, 7(1), 5-21.
- Rentawati, H., Djidu, H., Apino, K., Anazifa, R., (2018). teachers' knowledge about higher-order thinking skills and their learning strategy. *Problems of Education in 21st Century*, 76 (2).
- Reza, A. A. W. (2020). Higher order thinking skills (hots) analysis of English national

- examination questions from 2014 to 2019 in senior high school (Doctoral dissertation, Universitas Islam Majapahit).
- Riazi, A. M., & Mosalanejad, N. (2010). Evaluation of learning objectives in Iranian high-school and pre-university English textbooks Using Bloom's Taxonomy. *TESL-EJ*, 13(4).
- Rusdin, R. (2016). An Analysis of Gender-Based Task in the Textbook Literature of Senior High School in Curriculum 2013. *AL-FURQAN*, 4(2), 75-93.
- Scott, T. (2003). Bloom's taxonomy applied to testing in computer science classes. *Journal of Computing Sciences in Colleges*, 19(1), 267-274.
- Shabatura, J. (2014). Bloom's taxonomy of verb chart. syllabus & course creation. The University of Arkansas. Retrieved May 23, 2022, from <https://tips.uark.edu/?s=Bloom%27s+Taxonomy+>
- Sivaraman, S. I., & Krishna, D. (2015). Bloom's taxonomy-application in exam papers assessment. *Chemical Engineering (VITU)*, 12(12), 32.
- Susiati, S., & Mufidati, E. (2020). An Indonesian National English Textbook for Secondary Level: Is It Qualified Enough? *Jurnal VARIDIKA*, 32(1), 118-124. <https://doi.org/10.23917/varidika.v32i1.11511>
- Torres, J. M., Collantes, L. M., Millan, A. R., Alieto, E. O., Estigoy, E. B., & Barredo, C. P. (2021). Classification of learning outcomes and assessment activities in CHED prototype and SUC syllabi based on Kratwohl's Taxonomy. *Elementary Education Online*, 20(5), 497-510.
- Veilleux, N. (1999). Assessment Tools Based on Bloom's Taxonomy of Educational Objectives. Metropolitan College of Boston University. Retrieved May 23, 2022, from <https://peer.asee.org/assessment-tools-based-on-bloom-s-taxonomy-of-educational-objectives.pdf>
- Watson, S. (2020, August 26). Higher-Order Thinking Skills (HOTS) in Education. Retrieved from <https://www.thoughtco.com/higher-order-thinking-skills-hots-education-3111297>
- Whiteley, T. R. (2006). Using the Socratic method and Bloom's taxonomy of the cognitive domain to enhance online discussion, critical thinking, and student learning. In Developments in Business Simulation and Experiential Learning: *Proceedings of the Annual ABSEL conference* (Vol. 33).
- Yamanka, A. & Wu, L.Y. (2014). Rethinking trends in instructional objectives: Exploring the alignment of objectives with activities and assessment in higher education – A case study. *International Journal of Instruction*, 7(2), 75-88.
- Yen, T. S., & Halili, S. H. (2015). Effective teaching of higher-order thinking (HOT) in education. *The Online Journal of Distance Education and e-Learning*, 3(2), 41-47.
- Yildiz, D. Ç. (2015). The analysis of Turkish course exam questions according to re-constructed Bloom's taxonomy. *Gaziantep University Journal of Social Sciences*, 14(2), 479-497.