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Research article

Evaluation of the Ethiopian Grade 9 Geography Textbook

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Abstract: *Textbooks play a critical role in the teaching and learning process as well as in quality of education. It is also important in determining course content and influencing students' impressions of a discipline. Therefore, to make the textbook suitable for the teaching and learning process, further improvements of the textbook is necessary. Moreover, textbooks must be assessed and evaluated continuously. Textbook evaluation plays an important role by collecting data in such a way that textbooks can afford students the chance to learn from teachers and to incorporate relevant content into textbook design and development. The main purpose of this evaluation was to assess the Ethiopian grade 9, geography textbook. The study used a mixed methods research design. Both primary and secondary data were the main source of data employed by the study. The study also used a checklist and interview as instruments of data collection. Thus, whenever syllabus and textbook are articulated, they should include all domains of objectives and the proportions across all chapters should be taken into consideration. The contents in four chapters of the grade 9 geography textbook are aligned with the aims laid down in the relevant syllabus prepared at the national level. The content included in the textbook is current. The ideas presented in the textbook are coherent. Though there are sufficient teaching aids, almost all the teaching aids available in the textbook are visual. Findings and results are depicted via tables and graphs. Weaknesses encountered in the textbook are presented with the possible solutions. It has been concluded that the assessment encouraged learns to develop only rote memorization of the subject matter, but much emphasis is not given to the development of higher-order thinking skills.*

Keywords**:** *Assessment techniques; Course content; Instructional objectives; Instructional strategies; Textbook evaluation*
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1. Introduction

Textbooks play an important role in determining course content and influencing students' impressions of a discipline (Achesona et al., 2020). They play a pivotal role in the quality of education (Alharbi, 2015). In their study of a grade 9 geography textbook, Solomon and

Alemayehu (2018) revealed that the textbook provided sufficient information on almost all topics, which makes students look for their information within the textbook itself.

Moreover, to create problem-solving citizens, curriculum materials (teacher's guides, syllabi, and textbooks) have to be prepared in line with standards to enhance problem-solving skills (Alemayehu & Assaye, 2013). In light of this, today's largely agreed-upon teaching paradigm, i.e. constructivism, the relevance of organizing textbooks in ways that support knowledge construction and problem-solving could not be overlooked (Solomon & Alemayehu, 2018). Moreover, an educational system is currently expected to cultivate the problem-solving skills of the young mind more than ever. Thus, the dynamic nature of the problems humans face in the contemporary world demands promoting problem-solving skills (Solomon & Alemayehu, 2018). However, the activities designed in the secondary education geography textbook do not stimulate students to think at a higher level and do not lead students to problem-solving (Ridha et al., 2018)

Geography textbooks were criticized for lacking depth and avoiding controversial content. While textbooks often present a neutral front, geographic knowledge was not objective, indisputable, or unbiased (Achesona et al., 2020). However, certain deficiencies remain; little attention was given to the affective and psychomotor domains (Yang, 2013). Furthermore, knowledge, as an outcome of education, was no longer believed to be sufficient to create the kind of citizens needed to effectively cope with the social, economic, and technological changes in the world. (Assaly & Smadi, 2015).

Textbook evaluation, in particular, helps to identify the challenges teachers face at the grassroots level. It helps to identify the things that were missed, i.e. inherent strengths as well as deficiencies of the curriculum (Solomon & Alemayehu, 2018). In addition, textbook evaluation systems play a critical role in this process by collecting data about the way that textbooks can afford learning from teachers and incorporating this data into textbook design and development (Wilkens, 2011). Moreover, it can be argued that textbook evaluation plays a crucial role in the development and strengthening of quality education (Fey & Matthes, 2018). Despite its contribution to the quality of education, textbook evaluation could be influenced by the criteria the respective evaluator employs. Thus, as to textbook approval criteria, there was arguably a difference if the emphasis was on criteria concerning content (curriculum coverage) or criteria

concerning the pedagogical approach. It was also important to consider the perspective from which these criteria were formulated: from the publisher's perspective, the ministry's perspective, the teacher's perspective, the parent's perspective, or the learner's perspective (Wilkens, 2011). On the other hand, numerous evaluation criteria have been proposed to help teachers assess materials more validly and reliably, using checklists with several categories or components, such as syllabus, content, illustrations, and price, to facilitate the evaluation process. However, few of these evaluation methods examined or considered a systematic method that integrates each criteria component to arrive at a final outcome and weighs each component to adapt the evaluation to the particular teaching context (Kato, 2013).

It is through textbook evaluation that scholars can identify the strength as well as weaknesses of textbooks for further improvement of the teaching materials and betterment of students' performance. According to Alharbi (2015), textbook evaluation is a dynamic process that examines the different aspects of the textbook to improve its quality and ensure "quality assurance and enhancement," which allows "ongoing improvement of learning opportunities." However, one of the factors that trigger concerned bodies to evaluate textbooks might be their status of quality. Jusuf (2018) asserted that the reasons for evaluating textbooks were to adopt new course books, to reveal particular strengths and weaknesses, and to aid in the development of teachers and provide insights into a textbook's components. In addition to this, Jo and Bednarz (2014) concluded that little was known, however, about whether current geography textbooks function as a vehicle for student acquisition of knowledge and skills supporting spatial thinking.

Cunnings Worth (1995) points out that the impressionistic evaluation includes looking at the blurb, table of content, layout, physical format, and audio-visuals. This evaluation seems to be inadequate if it is administered solely (Moazam, & Jodai, 2014). Moreover, checklists enable researchers to record information conveniently to conduct comparisons, as checklists offer a common framework for decision-making (Alharbi, 2015). However, it was hardly possible to get textbook evaluation parameters that suit geography textbooks. Even there are only limited studies available in the area of textbook evaluation at the micro-level. Thus, in this study, the researchers used "in-use" evaluation for examining or evaluating geography textbooks with the simple modification that can fit geography textbooks. According to Cunningsworth (1995, as cited in Farichin, 2019) had suggested that there were three types of material evaluation:

'predictions' or 'pre-use evaluations, 'used' evaluations, and 'retrospective' or 'post-use (reflective). According to Dawit (2007, as cited in Alemayehu & Assaye, 2013) in his study of social studies and science textbooks of second cycle primary grades (Grade 5-8) concluded that textbooks were poorly aligned with curricula requirements for developing problem-solving capacity.

The Ethiopian Ministry of Education (2013) stated that the subject matter standards of geography teachers at the first cycle of secondary level (grades 9-10) set (1) the knowledge, capabilities, and dispositions associated with the central concepts, tools of inquiry, and structures related to Geography at this level; and (2) the learning experiences that make these aspects of subject matter meaningful for learners. In addition to this, Solomon and Alemayehu (2018) added that in the Grade 9 geography textbook, every unit has a list of unit outcomes at the beginning and specific objectives are provided at the beginning of each section. This helps students to understand what is expected of them and strive towards the attainment of objectives even in the absence of a teacher. However, there have been limited studies in the areas of evaluating geography textbooks at the secondary school levels. Most of the studies focused on how geography textbook promotes or contributes to the problem-solving ability of students at secondary school levels. It remains rare to find descriptive and analytic research about primary geography curricula and teaching, which was readily and widely accessible (Rige, 2015). In addition to this, the researchers have found that there are few studies in the area of geography textbook evaluation in the world in general and in Ethiopia in particular. One of the main reasons was that there have not been set criteria to evaluate geography textbooks. That is why these studies tried to adopt criteria from English textbooks evaluation criteria. However, this article would be a milestone for the upcoming researchers in the area of geography textbook evaluation.

Thus, it would be advisable to explore the overall strength as well as weaknesses of the geography textbook to identify prominent gaps for further improvement of the material (syllabi, and textbook). Therefore, this study was intended to address the following research questions: (1) Do the objectives of the grade 9 geography textbook align with its respective syllabus? (2) What are the themes of content organization of the grade 9, geography textbook? (3) What types of instructional methods does the grade 9 geography textbook propose? (4) What types of instruction materials are available in the grade 9, geography textbook? (5) What are the available

assessment tools in the grade 9 geography textbook? (6) What are the shortcomings of the grade 9, geography textbook? The general objective of this study was to evaluate Ethiopia's grade 9 geography textbook of secondary education. Moreover, the following were the specific objectives of this study: (1) To assess the overall strength of the grade 9 geography textbook; (2) To list down the overall weaknesses of the grade 9 geography textbook and (3) To suggest possible solutions to the problems mentioned.

2. Methodology

Ethiopia is located in the north-eastern part of the African continent or what is known as the Horn of Africa. The country occupies an area of approximately 1,127,127km^2. Ethiopia's current population is about 115 million (World Population Review, 2022). The formal education comprises preschool education, primary and secondary education (general education), technical-professional education, and higher education. Hence, public education is free at primary, secondary, and tertiary levels. Primary education is offered for eight years and is compulsory between ages 7 and 12. Four years of secondary education, comprising two two-year cycles, follow. Primary schools are generally accessible, and there is a high rate of enrollment; in contrast, there is a shortage of secondary schools and a decline in enrollment at that level. The public school system, in general, has deteriorated from a lack of adequate funding, teaching staff, facilities, and space (MOE, 2015).

The study employed a descriptive (evaluative) research design. In addition, this textbook evaluation was based on the guiding principles developed by Keban et al. (2012) as well as Daoud and Celce-Murcia (1979), which include criteria for quality textbooks in areas such as content, learning, and teaching, structure, and organization, language, and textbook layout. However, this textbook evaluation used a mixed approach of study in which more emphasis was given for the qualitative part and supplemented by a quantitative approach.

The data types employed for this study include both primary and secondary data. Primary data was collected from geography teachers who taught the subject matter and grade 9 students who had the experience of the subject because the researchers believed that these experienced teachers would be able to identify the strengths as well as weaknesses of the textbook. Secondary data sources of this study were information gathered from the grade 9 geography syllabus and students' textbooks. The grade 9 geography textbook was chosen purposively as the sample of

the study. A sample of four geography teachers who had taught the subject matter four years, and five academically good grade 9 students were selected for interview.

The procedures of data collection were as follows. First, the researchers developed and adopted a systematic and comprehensive evaluation checklist. Moreover, the impressionistic method and checklist method of textbook evaluation were combined and employed. The first appropriate textbook evaluation checklist was selected with minor modifications. Secondly, themes of evaluation were developed for further analysis such as aims, content, teaching strategies, teaching materials, assessment techniques, and structure and organization of the textbook. Thirdly, through the overall evaluation of the textbook, the researchers counted and coded the items based on the themes created and converted them into a percentage for further analysis. Through this procedure, scholars in the area of curriculum instruction were interviewed and assessment to validate the items were employed. An Intra-Related Agreement result was made for the objectives of the study, thereby the result was above 75%. Finally, the data gathered through interviews of geography teachers and grade 9 students were compared with the empirical evidence and previous researchers' point of view of the evaluation of the textbook.

Data collection instruments used in this study were interviews of geography teachers and grade 9 students, as well as document analysis of geography subject syllabus and student's textbook. Checklists were developed to find out the strengths and weaknesses of the grade 9 geography textbook. Although no universal checklist has been agreed upon, the available literature revealed that there are several checklists. Thus, for this research Keban et al.'s (2012) evaluation criteria were used with little modification to suit geography textbook evaluation. This approach was used mainly because of its clear terminologies and variables.

This research applied a mixed research methods to analyze the data collected. Thus, qualitative data analysis, that is, content analysis was mainly employed to analyze qualitative data. According to Anderson (2007, as cited in Ayu and Indrawati (2018) defined content analysis as a method of analysis which is concerned with analyzing the content of certain matters through classification, tabulation, and evaluation. In addition, the data collected using questionnaires were analyzed using quantitative methods, mainly percentages.

3. Result and Discussion

3.1. Instructional objectives of Grade 9 Geography Textbook

One of the main strengths of the grade 9 geography textbook is that the instructional objectives of the textbook were formulated based on the grade level syllabus prepared at the national level. However, the grade 9 geography lessons are articulated based on only Bloom's taxonomy of cognitive level in such a way that students will be able to develop understanding and acquire knowledge of geographic concepts to develop skills and abilities as well as to develop the habits and attitudes towards geographic concepts (MOE, 2013). Though the instructional objectives available in the syllabus are not written separately, the study tried to figure out and compare the instructional objectives of the grade 9 geography textbook as lower and higher-order cognitive domains, affective domains and psychomotor domains (Table 1). As it is clearly depicted in Table 1, except for Units Two and Four, the proportion of lower-order cognitive domain objectives is higher than the other categories of instructional objectives. On the other hand, Unit Two has a large share of the higher-order cognitive domain than the rest of the units.

Table 1: Instructional Objectives of Grade 9 Geography Textbook

No.	Chapter	Lower Order Cognitive Domain (1)	Higher-Order Cognitive Domain (2)	Affective Domain (3)	Psychomotor Domain (4)	Freq.	Percent
1	One	9	8	1	0	18	15.1
2	Two	21	36	7	3	67	56.3
3	Three	14	7	4	0	25	21.0
4	Four	0	6	3	0	9	7.6
Total		44	57	15	3	119	
Percent		37.1	47.9	12.6	2.4		

Source: Grade 9 Geography Textbook, 2021

Thus, it can be said that the limited number of units didn't inculcate all domains of instructional objectives. In addition, although the proportion of the higher level domains decreased, the proportion of all categories of instructional objective domains across all units is not uniform. MOE (2017) asserted that teachers need to know the shift from objective-based curricula (sometimes called the traditional curricula) to competency-based curricula (the contemporary curricula in Ethiopia). The learning outcomes in the objective-based curriculum focus on learning competencies described as knowledge, skills, or attitudes. However, in the competency-based curriculum, learning outcomes are described as competencies integrating knowledge, skills, attitudes, etc., and giving due emphasis to the development of dialogue with societal issues. Therefore, whenever syllabuses as well as textbooks are articulated, they should include all domains of instructional objectives and the proportions across all units should be taken into consideration. Hence, in the environment education textbook of Turkey and Macedonia, unlike that was given to skill, attitude and behavior sub-components, major attention was paid to the environmental knowledge (Srbinovskia, Erdogan, and Ismailia, 2010). Furthermore, Solomon, Alemayehu and Assaye (2020) concluded that as the difficulty level of items increases, there appeared to be a significant difference in students' problem-solving skills in favor of male students. Based on the results, the researchers noted that problem-solving skill is the result of the combination of a multitude of human skills. It is also manifested in several ways, such as thinking, reasoning, doing things, etc. In addition to this, MOE (2018) elaborated that in Ethiopia, the purpose of present educational system is knowledge transmission and passing examinations to join higher education. This system does not prepare students to be critical thinkers and critical actors. It simply offers education in the form of mastering content and preaching it (as borrowed from religious institutions). What is learned does not help students to be creative and innovative.

3.2. Content of Grade 9 Geography Textbook

Okeeffe (2012) argued that textbook content influences the selections and emphases applied by teachers and students, consequently impacting learning outcomes. Based on the criteria set, the present researchers tried to evaluate the grade 9 geography textbook and come up with the following concluding points as mentioned below.

The content in the four units of the grade 9 geography textbook was aligned with the aims and unit outcomes laid down in the relevant syllabus prepared at the national level. In addition, the content included in the textbook is current. The grade 9 geography textbook includes contemporary issues such as climate, resources of the earth, population growth, ecosystem, pillarization of the world through distance-time decay, and public as well as policy-related issues in Ethiopia like HIV/AIDS, environmental policy, and economic policy. The concepts and data were relevant and presented in a precise manner. The sources of information especially for statistical data were appropriately indicated. As per the response obtained from students and geography teachers' interview, based on the interview obtained from students and geography teachers, they replied the concepts included in the grade-9 geography textbook were valuable and interesting for their day-to-day lives. They replied that some of the issues like map reading, how the different surface features of the earth were formed, and HIV/AIDS were very crucial for them.

Moreover, the concepts incorporated in the grade 9 geography textbook are correct and precise. The ideas presented in the textbook are coherent. There are adequate examples and illustrations. Such examples and illustrations are interesting and relevant to students' experiences. The development of concepts, in all sub-topics, begins with brainstorming questions, so that the teacher has an opportunity to assess the prior knowledge of students and the areas to focus on at the time of explanation. In addition, there is an appropriate balance between depth and scope in the treatment of the subject content. Hence, the level of difficulty of the content is consistent with the curriculum requirements, the standards of the grade level available in the syllabus, and the cognitive level of students. Appropriate consideration is given to students' prior knowledge and learning experience. There is continuity in the development of concepts and skills to facilitate a smooth transition between different key stages of learning. Connections between related topics or concepts are highlighted. There are no unnecessary repetitions in the content. Furthermore, there is no bias in the content, such as over-generalization and stereotyping. The content and illustrations do not carry any form of discrimination on the grounds of gender, age, race, religion, culture, disability, etc., nor do they suggest exclusion. In Albania, the majority of teachers think that there was an excellent agreement between the objectives of the curriculum and the content of geography textbooks; they acknowledged that the pedagogical content of the text was constructed and presented very well (Sokoli and Doka, 2004)

However, as per the evaluator's perceptions, there is no presentation of multiple perspectives and balanced viewpoints on issues. Hence, there is only linearity in the presentation of the concepts. Moreover, to encourage and facilitate students to read larger amounts of materials on their own, selected further reading lists or related websites are not included to let students read extensively. It is the only glossary of keywords included to make the easy reference of words.

3.3. Teaching strategies in Grade 9 Geography Textbook

Through critical evaluation of the grade 9 geography textbook, the study revealed that the most widely mentioned instructional strategies in textbook is pair discussion, both large and small group discussion, field trip, case study, word game, lecturing, brainstorming, demonstration, and explanation. Thus, in Nepal, all geography teachers used to lecture, question and answer, fieldwork, and discussion method in teaching geography at secondary schools. In addition, Solomon and Alemayehu (2018), in their study of grade 9 geography textbook evaluation, mentioned that the teaching/learning methods included in the textbook consisted of description and explanation, discussion/cooperative activity, project work, and case study. Almost all topics provide reading and comprehension as the strategy of learning in a form of description and explanation (Solomon & Alemayehu, 2018). However, in the preparation of a textbook, the value and action components require a new approach to teaching incorporating inquiry methods and field studies, ensuring the integration of knowledge, emotion, and action, i.e. “heads, hearts, and hands” (Erdogan et al., 2009). Therefore, the grade 9 geography textbook encourages learners' independent learning. Moreover, Dhakal (2019) concluded that geographic knowledge and effective geography teaching and learning are necessary for teachers, educationists, planners, and policymakers of the country owing to the geographic diversity of the country.

3.4. Teaching Aids of Grade 9 Geography Textbook

Teaching aids are tools and equipment used in teaching as a supplement in classroom instruction to enhance the academic acceptance and interest of students. There are different types of teaching aids that can be used in class. Visual aids use a sense of vision. They include actual objects, charts, maps, flashcards, pictures, flannel board, whiteboard, flip charts, models, etc. Audio aids are common teaching tools that include classroom stereo systems, individual headsets, radio, etc. They involve the sense of hearing. Audio-visual aids can have a great impact on teaching. They involve the sense of vision as well as hearing. Audio-video aids are multi-

sensory materials. They can be produced, distributed, and used as planned components of an education program. Teachers can use instructional or documentary videos to enhance specific subjects or topics. They usually require television, a digital video player, projection, film strips (Mukherjee, n.d.). Hence, the following table indicates the type of teaching aids available in the grade 9, geography textbook.

Table 2: The types of teaching aids available in grade 9 Geography textbook

No.	Types of Teaching Aid	Chapter 1	Chapter 2	Chapter 3	Chapter 4	Total
1	Figures	6	31	4	1	42 (42%)
2	Map	4	14	3	0	21 (21%)
3	Photo/Image	1	16	9	0	26 (26%)
4	Graph	2	2	2	1	7 (7%)
5	Models	0	0	0	0	0
6	Globe	0	4	0	0	4 (4%)
Total		13 (13%)	67 (67%)	18 (18%)	2 (2%)	100

Source: Grade 9 Geography Textbook, 2021

As depicted in the above table, in terms of the type of teaching aid available in the textbook, figures (42), photo/image (26), and map (21) took 1st, 2nd, and 3rd share, respectively. While there is only a small share of graphs, the globe, and models as teaching aids in the grade 9 geography textbook. On the other hand, in terms of units, Unit Two (67), Unit Three (18), and Unit One (13) took the lion-share of teaching aids available in the grade 9 geography textbook.

Therefore, it can be concluded that though there were sufficient teaching aids, almost all the teaching aids available in the grade 9 geography textbook are visuals. However, there is no balanced distribution of teaching aids across all units, and the textbook does not create an opportunity to use audio materials as well as audio-visual aids. Moreover, almost all aids are presented as figures. Thus, no distinction is made between maps, the globe, figures, photos, and graphs. Furthermore, Solomon and Alemayehu (2018) revealed that the three most frequently used aids in the grade 9, geography textbooks were sketches/drawings, tables, and pictures/photos, but the least used aid was the pie chart. Unit-wise, Unit Two ranks first to have the lion-share of aids, while Unit Four has only two aids. However, according to Dhakal (2019), who reviewed the integration of technology into teaching, during their education, prospective geography teachers should be encouraged to produce technology-aided instructional materials

that could be utilized in teaching geography. On the other hand, the teaching materials were up-to-date.

3.5. Assessment techniques in the Grade 9 Geography Textbook

There are mainly two types of assessment, formative assessment and a summative assessment. Summative assessment is given at the end of a unit or semester to assess the overall performance of students. Whereas formative assessment is administered to measure the day-to-day performance of students using different techniques; MOE (2009) asserted that every teacher should carry out regular checks on the progress of all students in each subject. This is done through continuous and formal assessment. It is intended to be a spontaneous and natural part of the teaching and learning process, not merely an activity that takes place at the end of the term or year. It should ensure that students at all levels are genuinely able to achieve the competencies expected of them. Grade 9 geography textbook utilizes various techniques of formative assessment as is displayed in the following table.

Table 3: The tools of assessment for Grade 9 geography textbook

No.	Techniques of Assessment	Unit One	Unit Two	Unit Three	Unit Four	Freq.	Percent	Remark
1	Brainstorming	31	64	45	6	146	28.7	
2	Group Activity	16	35	20	14	85	16.7	
3	Pair Activity	9	25	12	2	48	9.4	
4	Individual Activity	2	19	1	0	22	4.3	
5	Summary/Review Exercises	40	66	48	42	196	38.6	
6	Project Work	0	8	3	0	11	2.2	
7	Word Game (Across & Down)	0	1	0	0	1	0.2	
	Total	98	218	129	64	509		
		19.3	42.8	25.3	12.6			

Source: Grade 9 Geography Textbook, 2021

As shown in Table 3, the textbook uses different tools of assessment. Such tools include brainstorming, group activities per activity. However, project work and individual activities are given the least significance in the textbook. Moreover, across all chapters, according to their

order, Unit Two (43%), Unit Three (25%), Unit One (19%), and Unit Four (13%) contain methods of assessment in the grade 9 geography textbook. Thus, it can be deduced that there is an imbalance in the distribution of assessment methods and their availability in the grade 9, geography textbook.

On the other hand, the main strength of the grade 9 geography textbook is that it begins every topic by brainstorming questions. That is why various scholars in the field of pedagogy believed that a teacher can utilize questions to check the previous knowledge of pupils. It is always a good idea that a teacher introduces his/her lessons by reviewing pupils' previous knowledge. The activities are in line with the objectives of the units and the activities encourage students to learn collaboratively. In addition, though limited in number (11), the textbook encourages learners to do project work collaboratively. Furthermore, the following table displays the types of questions available in summary or review questions and their statistics as well.

Table 4: Types of questions in the grade 9 geography textbook

No.	Types of Questions	Unit One	Unit Two	Unit Three	Unit Four	Freq.	Percent
1	Open-ended	14	0	5	0	19	9
2	Close-ended	26	66	48	42	182	91
		40	66	53	42	201	
		20	33	26	21		

Source: Grade 9 geography textbook, 2021

Thus, the above table displays that the majority (91%) of the questions available in the review/summary part are close-ended questions which include multiple-choice, true or false, matching, and fill in the blank spaces questions. However, a limited number (19 out of 201) of questions are open-ended questions that need learners' higher-order thinking and problem-solving capabilities. Scholars suggest that open-ended questions encourage pupils to use their experience and justify their opinions/thinking. Some open-ended questions ask pupils to make judgments based on their values. Solomon and Alemayehu (2018) confirmed that in the grade 9 geography textbook, most of the problems at the end of each unit (i.e. Review Exercises) are particularly flat routine problems. The problems/review exercises are generally of "closed type," having only a single solution. Therefore, it can be concluded that the question types that are available in the summary or review part encourage learners to develop only rote memorization of the subject matter, but much emphasis is not given to the higher-order thinking questions.

Furthermore, the following table also displays the levels of difficulty of activities available in the grade 9 geography textbook.

Figure 1 portrays that the activities that exist in the grade 9 geography textbook promote students to possess convergent thinking (60%) capabilities, while the analytic thinking (24%) and problem-solving capabilities (16%) questions have a limited share. In addition, the total number of questions decreases as the levels of difficulty of the activities increase, that is, Unit One (32, 13, 9), Unit Two (75, 29, 20), Unit Three (34, 14, 9), and Unit Four (7, 3, 1). From this, it can be concluded that the textbook is prepared by considering the levels of learner's capabilities in which much more emphasis is given to convergent as well as analytic types of questions. However, limited emphasis is given to problem-solving types of questions.

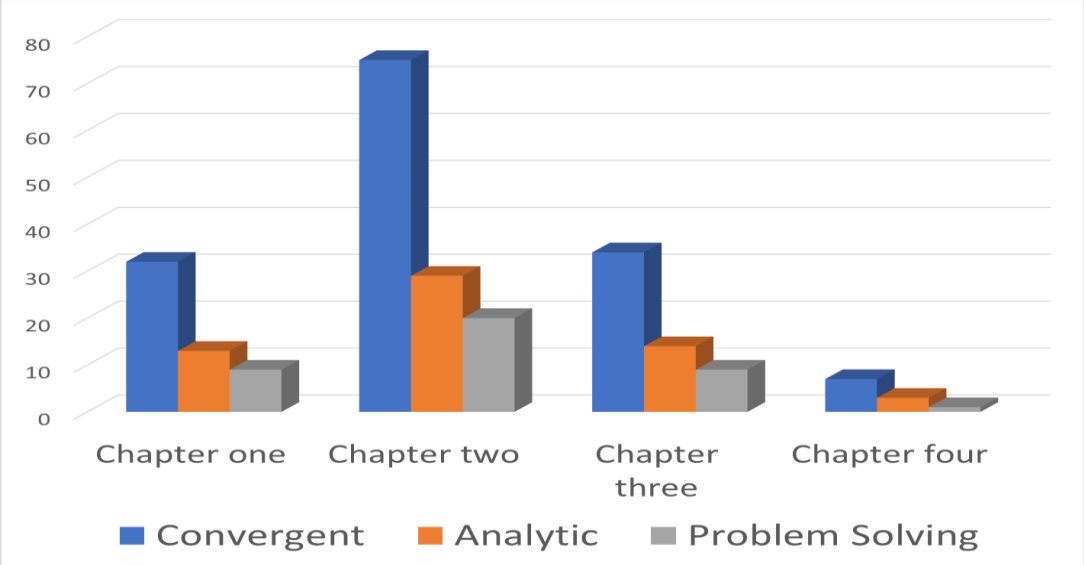

Figure 1: The levels of difficulty of activities in Grade 9 Geography Textbook

Source: Own work, 2021

3.6. The overall structure and organization of Grade 9 Geography Textbook

An appropriate structure of the content was provided to facilitate learning. The content sequence was appropriate and logical. 'Key terms' as well as 'Focus Concepts' were identified and highlighted (encircled) to give great emphasis. The structure of the content was made apparent employing functional devices including table of contents, chapter titles, headings, outlines, unit

objectives, sub-topics, sub-topic objectives, brainstorming questions, explanations supported by illustrations (visuals), and activities were prepared for further discussions.

An overview of the learning targets was put at the summary/unit review at the end of each sub-unit as well as a chapter of the grade 9, geography textbook. Finally, there were review exercises at the end of each sub-topic and chapter as well. A glossary was placed at the end of the textbook.

Concerning the layout of the textbook, it was logical and consistent. The material was well-organized, with appropriate use of space and margin for ease of reading, but avoiding unnecessary use of blank spaces. Illustrations such as photographs, pictures, and graphs were precise, proper, effective, and appropriately explained to stimulate and facilitate learning. Though the textbook is voluminous (215 pages), it uses lightweight paper. Its contrasting colors and design can help to create a sense of satisfaction in students.

However, based on the interview of geography teachers and grade 10 students, the following were some of the limitations of the grade 9 geography textbook: the font type as well as size was not consistent throughout the textbook in some units of the textbook. The font size looks below the standard limit (12); the use of italics, the sources of the illustration were not mentioned throughout the textbook except statistical data (page 32, Microsoft Encarta (2008), Population Reference Bureau (2009) page 33, CSA Ethiopian Statistical Abstract (2009) were acknowledged). The illustrations didn't encourage the use of audio and audio-visuals (optional); the brainstorming questions didn't promote further reading rather there was a question.There were explanations with limited scope, and references were not listed at the end to promote further reading.

4. Conclusion

The grade 9 geography textbook and syllabi don’t include all domains of instructional objectives. However, there was an appropriate balance between depth and scope in the treatment of the subject content. Hence, the level of difficulty of the content was consistent with the curriculum requirements, the standards of the grade level available in the syllabus, and the cognitive level of the students. Furthermore, there was no biased concept in the content, such as over-generalization and stereotyping. Hence, the grade 9 geography textbook begins every topic by

brainstorming questions. That is why various scholars in the field of pedagogy believe that a teacher can utilize questions to check the previous knowledge of pupils. It is always a good idea that a teacher introduces his/her lessons by reviewing pupils' previous knowledge. On the other hand, the question types that are available in the summary or review part are dominantly closed questions that encourage learners to develop only rote memorization of the subject matter, but much emphasis is not given to the higher-order thinking questions, that is, problem-solving capabilities.

Therefore, this article has both implicit and explicit contributions for international readers in geography education in three ways: (1) by showing the yardstick used in textbook preparation; (2) by drawing attention to textbook preparation in considering alignment across key elements of curriculum; and (3) by sharing gaps in textbook preparation in geographic education in countries in sub-Saharan Africa. With the systematic evaluation of the grade 9 geography textbook and consulting of practitioners, the following points are suggested for the further improvement of the textbook. First, the grade 9 geography textbook instructional objectives should encompass all domains of taxonomy. In addition, great attention should be given to the proportion of all categories of taxonomy across all chapters. Second, in the preparation of contents, the chapters should entertain multiple perspectives and balanced viewpoints on issues so that learners could develop problem-solving as well as critical thinking capabilities. Third, across all chapters, there should be sufficient teaching aids. The teaching aids available in the textbook should include and should open an opportunity to use audio materials as well as audio-visual aids. Finally, the assessment types available in the textbook should give due emphasis to learners to develop higher-order thinking and problem-solving capabilities.

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This research work has not received any grant from any institution or individual. We declare that there exists no conflict of interest.

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