COMPATIBILITY OF 4TH GRADE TURKISH COURSEBOOK WITH INTERNATIONAL PIRLS APPLICATIONS IN TERMS OF READING TEXT TYPES AND COMPREHENSION QUESTIONS

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Abstract

The aim of this study is to reveal the level of appropriateness of reading comprehension questions in 4th grade primary school Turkish coursebook with the targeted learning outcomes of international reading applications. In this study, PIRLS results of 2021 application have been evaluated in Turkish context. Results have been evaluated in line with the learning outcomes of current 4th grade Turkish teaching program. The application procedure and the content of PIRLS is explained together with the learning outcomes targeted in Turkish teaching program. In this study, the compatibility of 4th grade Ministry of Education Turkish book with the higher order thinking domains of PIRLS is evaluated. Those thinking levels are finding information clearly given in the text (20%), making direct inference (30%), interpreting by combining information and ideas (establishing a relationship between them) (30%), examining and evaluating the elements, content and language use of the text (20%). For evaluation, in each unit the texts have been categorised according to their types and comprehension questions are categorized according to higher order thinking levels. Findings have shown that the distribution of comprehension questions according to four levels of higher order thinking targeted in PIRLS applications is not distributed in a balanced number in each unit. In line with the findings in this study, suggestions for Turkish lessons and Turkish coursebooks are given.

Keywords: Turkish coursebook, Turkish teaching program, PIRLS, higher order thinking skills

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Introduction

Reading is the process of individuals making sense of the texts, symbols and visuals they encounter by using their prior knowledge. Reading is not just knowing the pronunciation of a written text or the grammatical features of the text and the meaning of the words, but also making sense of it as a whole. As Akyol (2003) states, "Reading comprehension is reaching a new idea by comparing and synthesizing the reader's prior knowledge with what they have learned from the texts " (Akyol, 2003). Demirel (1999) defines reading as follows: "the act of reading, seeing and voicing. It is a physiological process in terms of understanding, psychological in terms of understanding, and sociological in terms of meaning (Demirel, 1999)."

Many factors such as readers' background knowledge, interests, experiences, language proficiency and reading habits affect the reading comprehension process. Reading parallels linguistic and cognitive development. Reading strategies used in the reading comprehension process vary depending on reading purposes. Reading is not just about understanding what is written, it is about establishing extra-textual relationships such as making inferences, interpreting the idea that the author wants to express, and grasping the emotion of the text. Understanding the implications, different thoughts, and main idea/emotion in the text requires reading experience and language proficiency. Just knowing the language well does not mean being a good reader. Being a good reader is only possible by developing reading habits through a good reading experience. Developing reading strategies for different reading purposes according to different text types becomes possible with different reading experiences and a good reading habit. Reading is also not a skill that develops alone. It develops in an integrated manner with other language skills such as writing, listening and speaking. Writing skills, like reading skills, develop with experience and require developing different strategies over time depending on the purpose of writing (Yılmaz, 2008).

When we look at the periods of reading education, it develops in the same process as cognitive development. There is no general level in reading education. Reading experience, which varies according to individuals, should be planned by taking into account age, education process and developmental characteristics of learners. Aytaş (2015) explains the development of reading with the following periods. The first reading begins

with visual reading and perceiving the letter equivalents of sounds. The beginning of learning to read is the process of making sense of words and sentences. This period covers the 1st grade of primary school. The development of reading desire and habits begins in the 2nd and 3rd grades. The development of reading, reading in different types according to different interests, and reading for the purpose of gaining knowledge or reading for pleasure begins in the 4th grade of primary school and this habit continues to develop in secondary school. Reading development is also determined by interest and needs in reading (Aytaş, 2005). At the same time, reading activities in the family and the richness of the library at home are important factors that increase children's motivation for reading and enable them to take reading as a model.

Thinking skills that shape the student's life and future are acquired at an early age. One of the most important tools of education is to provide students with linguistic, cognitive and metacognitive skills such as problem solving, reasoning, reading and listening comprehension, and effective communication that they may need in their daily and academic life (Güneş, 2012).

The difference between skilled and unskilled readers can be differentiated by metacognitive awareness in reading comprehension. Skillful readers use flexible reading strategies and periodic self-monitoring, they go back and forward while reading and check their understanding. Inexperienced novice readers lack those strategies (Mokhtari & Reichard, 2002).

Reading is a process which consists of identification, interpretation and perception of written or printed materials. Comprehension is understanding the meaning and the aim of the text. Reading comprehension is a composition of understanding the form and content. Comprehension is directly related with pre-knowledge which can be named as background knowledge concerning the content and form of the text. Reading strategies also help understanding the texts. However, reading strategies improve with reading experience. Different reading strategies can be provided in classrooms by classroom teachers and language teachers (Gómez Torres & Ávila Constain, 2009). For a successful reading comprehension, knowing about the genre also helps understanding a text as different genre means different structures, conventions and

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content. Genre awareness makes differences among the readers comprehension levels (Schmitz, Gräsel, & Rothstein, 2017).

Reading proficiency predicts academic performance. Reading improves problem solving skills. In a study conducted by Jala (2020), it was found that there is a significant relationship between reading comprehension and problem solving skills. Reading comprehension contributes to academic performance and problem solving skills. At schools there is a need for extra reading materials for improving students reading skills. Remedial classes and enrichment activities can improve students' comprehension skills through systematic comprehension instruction with reading materials (Jala, 2020).

According to Snow, Burns, and Griffin (1998), there are five components of reading development which are alphabetic principle, phonemic awareness, oral reading fluency, vocabulary, and comprehension. Those skills are the foundations of reading first and implicit developmental model of assembly and automation.

Reading skills can be tested with internationally administered exams. While these are administered as foreign language exams, they are also administered in the mother tongue and are evaluated as success criteria. In this context, PIRLS tests are applied in the 4th grade of primary school and PISA tests are applied in the 9th grade and the success rankings of the students are shared.

Many countries participate in the PIRLS (Progress in International Reading Literacy Study) application. An increasing number of countries are participating in the PIRLS application, which takes place every 5 years. This application, which was first implemented in 2001, has changed over time according to student needs and is now also implemented as e-PIRLS. The success levels of students in PIRLS applications are explained by relating them to different independent variables. The teacher, the social environment in which the school is located, the physical characteristics of the classroom, the linguistic and cultural characteristics of the students, the education and interest level of the parents, etc. Many different factors such as affect the student's success in education.

Reading education should be evaluated as a process and show a holistic development along with writing, listening and speaking skills. Considering

that reading is a process of establishing meaning, activities aimed at improving students' vocabulary, grammar skills and other skill areas should be included in this process. The texts must be suitable for the developmental characteristics, interests and needs of the students (Vatansever Bayraktar & Girgin, 2021).

For reading to be effective, there must be five basic principles. These are the process of establishing meaning, it must be fluent, strategic, motivational and a lifelong process (Dündar & Akyol, 2014). As stated by Güneş (2011), reading skill includes researching information, developing thinking processes, decision-making, interpreting, problem solving, communicating and collaborating activities. These skills are necessary both for school success and other needs throughout life. As a result of research conducted by OECD over many years, the key skills that students will acquire are grouped under 4 headings. These headings are listed as follows: mental, individual, social and mental independence skills in four groups. Mental skills can be listed as understanding, questioning, thinking, interpreting, synthesizing, questioning and problem solving. Individual skills are stated as skills such as language use, communication skills, using information, accessing knowledge, and using technology. Social skills are defined as the ability to communicate well with others, cooperate, participate in group work, and resolve conflicts. Mental independence skills are defined as the ability to make and implement decisions, determine their goals and needs, express and defend their interests and rights. These skills have been integrated into the educational programs of developed countries (Güneş, 2011).

Reading strategies have a great impact on students' reading comprehension skills. They found that skimming, scanning, guessing, and questioning strategies helped students understand what they read. Students should be trained or guided in the use of different reading strategies so that they know how to apply these strategies (Banditvila, 2020).

In the PIRLS application, students' reading comprehension performances are evaluated in relation to independent variables. These variables are dimensions such as school characteristics, teacher characteristics, program characteristics, student characteristics, parent characteristics and home environment. By conducting surveys on these issues, detailed data about students, teachers, schools and families are obtained and correlated with

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the success of the students. Within the scope of the PIRLS application, a 10 to 15-minute survey is administered to parents or primary caregivers of each student participating in data collection. There is information about the home context, such as languages spoken at home, activities done with the child, parents' reading activities and attitudes towards reading, and questions about parents' education levels and occupations.

The survey also collects data about students' early childhood. Questions are asked about preschool activities, early literacy and arithmetic activities, the child's readiness to read, and the institutions in which he/she receives pre-school education. In the teacher survey filled out by the students' classroom teachers, information is collected about the classroom contexts for teaching reading, such as the characteristics of the classroom, the time allocated to reading lessons, and the teaching methods and techniques used. The survey directs questions about the teacher. Teachers' teaching experience, opinions about this occupation, attendance to inservice training programs are analyzed in this survey. This survey takes about 35 minutes to finish. The school survey, completed by each participating school director, consists of questions about school location, students' socio-economic background, neighbourhood characteristics, physical properties such as technological resources. As for the student survey, the students are asked to answer their relationship with the peers, their home activities, after school activities, reading experiences at school and at home, sense of belonging to school. (Mullis, Martin & Liu, 2023: 28).

Pirls Applications

Mullis & Martin (2023) stated that PIRLS applications are implemented in both paper-based and digital environments with the 2021 applications. Mullis & Martin (2023) also stated that PIRLS applications will be conducted digitally as well as being paper-based. Half of the countries preferred the PIRLS application implemented in the digital environment. It was preferred over paper-based application for ease of access and scoring by students. Computerized application has advantages such as accessing information through internet, which students frequently use in their daily life, seeing many images in the same window, and reaching more students in different regions at the same time. It is also thought that paper-based application is a waste of paper. However, this practice may also have disadvantages. These are that not every student has access to the internet at

the same rate and that their written expressions cannot reflect realistic results in their evaluation.

It is extremely important for students to encounter different text types in terms of their reading process. Any text type can appear in many different forms. These can be books, documents, magazines, newspapers, diaries or different types of texts found in digital media such as blogs, e-mails and news.

In this context, to be a successful reader in the context of developing 21st century skills, new digital literacies are required for reading not only in printed materials but also on the internet, where one can achieve reading goals by finding and understanding target information efficiently.

Distribution of Booklets by Country

With the aim of making equal assessment and participation in each country, all 18 passages are distributed in each country. 18 separate books are prepared for PIRLS, with different levels of difficulty, classified as more difficult and easier. Based on the country's previous PIRLS performance, school performance and field studies conducted before the exam, the most appropriate booklet is assigned to that country. In previous years, 70% of the countries with an average score above 550 were assigned harder booklets and 30% were assigned easier booklets. Of the countries below the 450 average, 70% were distributed with easier booklets and 30% with more difficult ones. Half the booklets, that is, 50% more difficult and 50% easier, were distributed to countries with scores between 450-550 (Mullis et al., 2023)

Comprehension Questions According to Higher Order Thinking Domains

There are questions regarding four different achievements in PIRLS applications. These are: finding information clearly given in the text (20%), making direct inference (30%), interpreting by combining information and ideas (establishing a relationship between them) (30%), examining and evaluating the elements, content and language use of the text (20%). Making direct inferences are related with identifying and retrieving information relevant to a specific reading target; looking for specific ideas; looking up definitions of words or phrases; identifying the setting of a story (e.g., time and place); finding the topic sentence or main idea (when clearly stated); it

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consists of sub-acquisitions of identifying specific information in a graph (e.g. graph, table or map). Direct inference is drawing the conclusion that one event caused another event; giving the reason for a character's action; describing the relationship between two characters; determining which part of the text or website will help a particular purpose consists of sub-objectives. Interpreting by combining information and ideas (establishing relationships between them) is the skill of distinguishing the general message or theme of a text; thinking of alternatives to the characters' actions; comparing and contrasting text information; inferring the mood or tone of a story; interpreting a real-world application of textual information; thinking of alternatives to the characters' actions. Examining and evaluating the elements, content and language use of the text is the skill related with deciding whether the information in the text is complete or clear; assessing the likelihood of the described events actually occurring; evaluating the likelihood that an author's argument will change what people think and do; evaluating how well the title of the text reflects the main theme; identifying the impact of language features such as metaphors or intonation; explaining the effect of text or graphic elements on the website; identifying the viewpoint or bias of the text or website; determining an author's perspective on the main topic (Mullis & Martin, 2023: 14-16).

E-Pirls

In addition to being implemented on paper, PIRLS applications have begun to be implemented digitally in the electronic environment. E-PIRLS is implemented in a digital environment and supports students in developing their strategies for accessing information using technology in the context of reading comprehension. Offering an authentic online reading experience, this platform offers a computer-based assessment environment with more variety of reading comprehension processes. Online applications have advantages as well as disadvantages. Every student may not have the same opportunity to have access to computer and the internet. Not every student may have the same experience using computers. It is not a suitable environment for evaluating students who have difficulty in written expression. For this reason, it may not be possible to ensure equality in evaluation among students.

Primary School Turkish Teaching Program

Turkish textbooks are prepared in accordance with the targeted learning outcomes of the Turkish curriculum. The texts and activities in textbooks may not always coincide with program outcomes. Reading outcomes in the primary school 4th grade Turkish curriculum, which was put into practice in 2019, are defined as fluent reading, vocabulary and comprehension.

4th grade "Turkish Teaching Program Learning Outcomes" are as follows:

Fluent reading: "Reads out loud and silently by paying attention to punctuation marks. Reads by paying attention to stress, intonation and pronunciation. Reads poetry. Reads texts in accordance with the characteristics of the genre. Reads texts written in different fonts. Applies reading strategies" (MEB, 2019).

Vocabulary Knowledge: "Distinguishes the meanings of homonyms, antonyms, synonyms. Identifies literal, figurative and literal words in the text s/he reads. Understands the contribution of idioms and proverbs to the meaning of the text. Guess the meaning of unfamiliar words and word groups by using the context" (MEB, 2019).

Comprehension: "Compares the characteristics of the heroes in the text s/he reads. Makes inferences about what s/he reads. Associate visuals with the content of the text they read. Makes comparisons between texts. Understands the message in short and simple digital texts. Answers questions about graphs, tables and charts. Uses information sources effectively. Questions the reliability of information sources. Express their thoughts about the events in the text they read" (MEB, 2019).

Türkiye received 496 points from the 2021 PIRLS evaluation and approached the threshold of 500 points. Progress has been made in Türkiye, which had an average score of 449 in the PIRLS evaluation of 2001 (Mullis et al., 2023: 30).

When evaluated according to reading purposes as for literary experience, to acquire and use information, participants in Türkiye showed an average score of 495 in narrative texts, while they showed an average score of 498 in informative texts (Mullis et al., 2023: 59). When looking at the answers given to the questions according to thinking levels, the students showed an

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average performance of 499 points in the directly inferred questions and 494 points in the interpretation and evaluation questions (Mullis et al., 2023: 64).

According to performance at international benchmarks for PIRLS 2021, 5% of the students in Türkiye performed at an advanced level, 29% performed at an above average level, 62% performed at an average level and 86% performed at a low level (Mullis et al., 2023: 71).

According to the information given by the students' families, the education levels and economic classifications of the parents were examined at three different levels. Families with high socioeconomic status, which constitute 15% of the participants, stated that they have over 25 books and that their children have over 25 books, and at least one of the parents is a university graduate and professionally employed. In families with low socioeconomic status, the number of books is low and the parents are, on average, a secondary school graduate.

Information was obtained from parents about reading habits at home and it was correlated with students' reading comprehension performances. Three grades were created: those who frequently engage in reading activity in the preschool period, those who do it sometimes, and those who almost never do it. When we look at the data about Türkiye, the number of students who do reading frequently is lower than those who do reading sometimes. However, it is also noteworthy that the average number of students with almost no reading activity is 13% (Mullis et al., 2023: 90). Türkiye remained below the 500 limit and had 496 points. The most successful country in this ranking is Singapore, while South Africa is at the bottom.

In this research the following research questions have been investigated:

What is the distribution of activities in the texts used in Turkish textbooks according to higher-level thinking processes?

To what extent are the post-text activities in the Turkish textbook aimed at reading comprehension?

To what extent are text types in Turkish textbooks compatible with international PIRLS application criteria?

Are reading comprehension questions in Turkish textbooks compatible with international PIRLS application criteria?

How does the distribution of text types in Turkish textbooks coincide with the international PIRLS application criteria?

Methodology

Descriptive content analysis method was used in this study. Texts are categorized according to their types. In each unit, text-related activities were categorized according to their types and their distribution within the unit was determined.

"Descriptive content analysis method means in-depth examination and organization of qualitative and quantitative studies conducted independently of each other on a specific subject or field. Thus, general trends in that subject or field are determined." (Ültay, Akyurt, & Ültay, 2021).

In this study, the distribution and evaluation of text-related activities according to higher-level thinking processes were coded with higher-case letters A, B, C, D and written in tables. The thinking levels corresponding to the letters are as follows: A- Finding information clearly given in the text, B- Making direct inference, C- Interpreting by combining information and thoughts (establishing a relationship between them), D- Examining and evaluating the elements that make up the text, its content and language use. Activities and questions that are not related to the text are stated as other. The texts in the units are coded with the unit number and lower-case letter a, b, c, d, respectively.

Data Analysis

Data is analyzed in SPSS program. The distribution of comprehension questions according to different higher order thinking levels is defined. Each unit is analyzed separately in terms of distribution of comprehension questions.

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Findings

Table 1. *Distribution of Text Types*

	Poem	Narrative Text	Informative Text
Number of text type	7	25	8
Distribution	%17,5	%62,5	%20

Total Number of Texts: 40

Out of 40 texts, 7 of them are found to be poems, 25 of them are narrative texts and 8 of them are informative texts. When we look at the distribution of text types, it is revealed that narrative texts exist in Turkish coursebook 62.5% more than other text types. 25 of the 40 texts in total consists of narrative texts. Each unit comprises 5 different texts. The texts which are named as free reading texts and there are no activities and questions for reading comprehension related to these texts. In the first 4 texts of each theme, the activities aim to measure and develop different achievements in addition to reading comprehension. There are activities related to words related to the text, but these activities are not directly aimed at holistic understanding of what is read. Reading comprehension questions directly related to the text consist of open-ended questions and questions are asked to find information clearly given in the text or to make direct inferences. There are open ended questions related to reading comprehension, and there are also a small number of matching, ordering and classification questions.

Table 2. *UNIT 1 texts, comprehension questions and number of total exercises for each text*

Texts	Comprehension Questions According to Higher Order Thinking Levels	Total Number of Exercises
1a.Arkadaş	1-A, 2-B,3-A,4-C,5-C,	11
1b.Kirpi Masalı	1-A, 2-B,3-B	10
1c.Yavru Ahtapot Olmak Çok Zor	1-A,2-B,3-B	9
1d.Gün Bey'in Penceresi	1-A, 2-A,3-A,4-B,5-C,6-C,7-C	10

Table 3. *Distribution of comprehension questions according to higher order thinking skills in Unit 1*

	A	B	C	D	Total	A%	B%	C%	D%	Other
1a	2,00	1,00	2,00	0,00	11,00	18,18	9,09	18,18	0,00	54,55
1b	1,00	2,00	0,00	0,00	10,00	10,00	20,00	0,00	0,00	70,00
1c	1,00	2,00	0,00	0,00	9,00	11,11	22,22	0,00	0,00	66,67
1d	3,00	1,00	3,00	0,00	10,00	30,00	10,00	30,00	0,00	30,00
Total	7,00	6,00	5,00	0,00	40,00	17,50	15,00	12,50	0,00	55,00

There are no questions at the evaluation level in Unit 1. The majority of questions are at the level of finding clearly given information and making direct inferences. The ratio of text-related activities to the total number of activities is evaluated as 18 out of 40 activities in total. In other words, the number of activities that are not related to the text is higher than those that are related.

Table 4. *UNIT 2 texts, comprehension questions and number of total exercises for each text*

Texts	Comprehension Questions According to Higher Order Thinking Levels	Total Number of Exercises
2a.Babamızın Elleri	1-A, 2-A, 3-B, 4-B,	9
2b.Ye Kürküm Ye	1-A, 2-A,3-B,4-C,5-B,6-B,7-C	9
2c.Dil Devrimi Yapılıyor	1-A, 2-A, 3-C,	9
2d.Oğuz Ata Boy Boyladı	1-A, 2-B, 3-A, 4-B, 5-B,7-D	10

Table 5. *Distribution of comprehension questions according to higher order thinking skills in Unit 2*

	A	B	C	D	Total	A%	B%	C%	D%	other
2a	2,00	2,00	0,00	0,00	9,00	22,22	22,22222	0,00	0,00	55,56
2b	2,00	3,00	2,00	0,00	9,00	22,22	33,33	22,22	0,00	22,22
2c	2,00	1,00	0,00	0,00	9,00	22,22	11,11	0,00	0,00	66,67
2d	2,00	3,00	0,00	1,00	10,00	20,00	30,00	0,00	10,00	40,00
total.	8,00	9,00	2,00	1,00	37,00	21,62	24,32	5,41	2,70	45,95

In the second unit, activities at the interpretation and evaluation level are included. In this unit, 21 of the 37 activities are aimed at reading

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comprehension. Questions not related to the text are included at a rate of 45.95. The fourth text contains questions at levels A, B, and D.

Table 6. *UNIT 3 Texts, Comprehension Questions and Number of Total Exercises for Each Text*

Texts	Comprehension Questions According to Higher Order Thinking Levels	Total Number of Exercises
3a.Çanakkale Türküsü	1-A, 2-B, 3-B,4-B,5-B	8
3b.Amerika'lı Bir Çocuktan Mustafa Kemal'e Mektup Var	1-A, 2-A,3-A, 4-A,5-B	9
3c.Kastamonulu Safiye	1-A, 2-B, 3-B,4-A,5-B, 6-C	12
3d.Atatürk, Çocuklar ve Çocuk Bayramı	1-A,2-A,3-C, 4-B,	9

Table 7. Distribution of comprehension questions according to higher order thinking skills in Unit 3

	A	B	C	D	Total	A%	B%	C%	D%	Other
3a	1,00	4,00	0,00	0,00	8,00	12,50	50,00	0,00	0,00	37,50
3b	4,00	1,00	0,00	0,00	9,00	44,44	11,11	0,00	0,00	44,44
3c	2,00	3,00	1,00	0,00	12,00	16,67	25,00	8,33	0,00	50,00
3d	2,00	1,00	1,00	0,00	9,00	22,22	11,11	11,11	0,00	55,56
top.	9,00	9,00	2,00	0,00	38,00	23,68	23,68	5,26	0,00	47,37

In this unit, there are C level questions from the third and fourth texts. However, there are no questions at level D. Questions not related to the text are included extensively. All texts contain text-related questions at A and B levels.

Table 8. *UNIT 4 texts, comprehension questions and number of total exercises for each text*

Texts	Comprehension Questions According to Higher Order Thinking Levels	Total Number of Exercises
4a.Çiçeklere Maniler	2-A,3-B,4-B,5-B,6-B	9
4b.Büyük Gün	1-A, 2-A,3-B,4-A,5-B,5-B,6-C, 7-D	9
4c.Dimyat'a Pirince Giderken Evdeki Bulgurdan Olmak	1-A,2-B,3-B,4-A,5-A,6-B	8
4d. Aziz Sancar	1-B,2-A,3-B,4-C,5-B, 9-D	9

Table 9. *Distribution of comprehension questions according to higher order thinking skills in Unit 4*

	A	B	C	D	Total	A%	B%	C%	D%	Other
4a	1,00	4,00	0,00	0,00	9,00	11,11	44,44	0,00	0,00	44,44
4b	3,00	2,00	1,00	1,00	9,00	33,33	22,22	11,11	11,11	22,22
4c	3,00	3,00	0,00	0,00	8,00	37,50	37,50	0,00	0,00	25,00
4d	1,00	3,00	1,00	1,00	9,00	11,11	33,33	11,11	11,11	33,33
top.	8,00	12,00	2,00	2,00	35,00	22,86	34,29	5,71	5,71	31,43

In this unit, questions at all levels are asked in the second and fourth texts. Compared to the first and third texts, the distribution of questions according to higher-level thinking processes is more homogeneous. In the first and third texts, the questions are at level A and B. In this unit, there are questions that are not related to the text.

Table 10. *UNIT 5 texts, comprehension questions and number of total exercises for each text*

Texts	Comprehension Questions According to Higher Order Thinking Levels	Total Number of Exercises
5a.Yokuş	1-A,2-A,3-A,4-B	8
5b.Padişahın Ebrusu	1-A,2-A,3-A,4-A,5-B,6-B	12
5c.Masalcı Dede Pertev Naili Boratav	1-A,2-A,3-D,4-B,5-B	9
5d.Aşık Veysel: Uzun İnce Bir Yol	1-A,2-A,3-B,4-B,5-B,6-B,7-B	10

Table 11. *Distribution of comprehension questions according to higher order thinking skills in Unit 5*

	A	B	C	D	Total	A%	B%	C%	D%	Other
5a	3,00	1,00	0,00	0,00	8,00	37,50	12,50	0,00	0,00	50,00
5b	4,00	2,00	0,00	0,00	12,00	33,33	16,67	0,00	0,00	50,00
5c	2,00	2,00	0,00	1,00	9,00	22,22	22,22	0,00	11,11	44,44
5d	2,00	5,00	0,00	0,00	10,00	20,00	50,00	0,00	0,00	30,00
tot.	11,00	10,00	0,00	1,00	39,00	28,21	25,64	0,00	2,56	43,59

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In this unit, no C level questions are asked, and mostly A and B level questions are included. Except for the fourth text, the number of questions not related to the text are higher than the questions related to the text.

Table 12. UNIT 6 texts, comprehension questions and number of total exercises for each text

Texts	Comprehension Questions According to Higher Order Thinking Levels	Total Number of Exercises
6a.Kardan Adamın Evi	1-A,2-B,3-B,4-B	9
6b.Termit Kolonisi	1-A,2-A,3-A	8
6c.Kim Korkar Kırmızı Başlıklı Kızdan?	1-A,2-A,3-B,4-B,5-C	9
6d.Sakız Ağacı	1-A,2-A,3-B,4-B,5-B,6-A	8

Table 13. *Distribution of comprehension questions according to higher order thinking skills in Unit 6*

	A	B	C	D	Total	A%	B%	C%	D%	Other
6a	1,00	3,00	0,00	0,00	9,00	11,11	33,33	0,00	0,00	55,56
6b	3,00	0,00	0,00	0,00	8,00	37,50	0,00	0,00	0,00	62,50
6c	2,00	2,00	1,00	0,00	9,00	22,22	22,22	11,11	0,00	44,44
6d	3,00	3,00	0,00	0,00	8,00	37,50	37,50	0,00	0,00	25,00
tot.	9,00	8,00	1,00	0,00	34,00	26,47	23,53	2,94	0,00	47,06

In this unit, the number of non-text related questions is higher than the text related questions. Questions related to the text are never at D level, but mostly at A and B levels. In the second text, only knowledge questions are asked and there are no questions at other levels. The majority of the activities consist of questions unrelated to the text.

Table 14. UNIT 7 texts, comprehension questions and number of total exercises for each text

Texts	Comprehension Questions According to Higher Order Thinking Levels	Total Number of Exercises
7a.Hızlı Düşünmek	1-A,2-A,3-B,4-C	7
7b.Elektronik Beyinlerle Dolu Bir Dünya	1-A, 2-A,3-A,4-A,5-A,6-A,7-B	10
7c.Güneş'in Gittiği Gün	1-A,2-A,3-B,4-B,5-B,9-C	9
7d.Bilgisayar	1-A,2-A,3-B,4-B	8

Table 15. *Distribution of comprehension questions according to higher order thinking skills in Unit 7*

	A	B	C	D	Total	A%	B%	C%	D%	Other
7a	2,00	1,00	1,00	0,00	7,00	28,57	14,29	14,29	0,00	42,86
7b	6,00	1,00	0,00	0,00	10,00	60,00	10,00	0,00	0,00	30,00
7c	2,00	3,00	1,00	0,00	9,00	22,22	33,33	11,11	0,00	33,33
7d	2,00	2,00	0,00	0,00	8,00	25,00	25,00	0,00	0,00	50,00
tot.	12,00	7,00	2,00	0,00	34,00	35,29	20,59	5,88	0,00	38,24

It has been revealed that in this unit, there are more unrelated questions about the texts than related questions which are at the A, B, C, D levels. Regarding the text-related questions, it is revealed that there are no questions at level D, but mostly questions are distributed at level A and B which are information and direct inference level questions.

Table 16. *UNIT 8 texts, comprehension questions and number of total exercises for each text*

Texts	Comprehension Questions According to Higher Order Thinking Levels	Total Number of Exercises
8a.Elimde Değil	1-A,2-B,3-B,4-B,5-C,6-D,7-C,8-C	10
8b.Bütün Yollar Kalbe Çıkar	1-A, 2-B, 3-A,4-B,5-B,6-B	9
8c.Haydi Spora	1-A, 2-A,3-A,4-B,5-C	10
8d.Çiçek Hastalığı	1-A,2-B,3-B	7

Table 17. *Distribution of comprehension questions according to higher order thinking skills in Unit 8*

	A	B	C	D	Total	A%	B%	C%	D%	Other
8a	1,00	3,00	3,00	1,00	10,00	10,00	30,00	30,00	10,00	20,00
8b	2,00	4,00	0,00	0,00	9,00	22,22	44,44	0,00	0,00	33,33
8c	3,00	1,00	1,00	0,00	10,00	30,00	10,00	10,00	0,00	50,00
8d	1,00	2,00	0,00	0,00	7,00	14,29	28,57	0,00	0,00	57,14
tot.	7,00	10,00	4,00	1,00	36,00	19,44	27,78	11,11	2,78	38,89

When looking at the total distribution of comprehension questions in this unit, it is revealed that the number of questions at A and B levels are higher than the questions at C and D levels. In the fourth and third texts in this unit, it is revealed that there are more questions that are not related to the

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text and are not directly aimed at understanding what is read, than questions about the text. It has been revealed that the questions regarding reading comprehension in this unit are mostly at B level, that is, they are questions that require only direct inference.

Discussion and Conclusion

Reading comprehension is a process which includes decoding, identification, understanding, genre awareness which are gained through reading experience (Güneş, 2012). Background variables make individual differences in the achievement levels of comprehension process.

Reading activities at home and at school play an important role for children's reading development. Reading materials properness is also important. Coursebooks need to be evaluated in terms of appropriacy for children's interests and coherence with real life reading experiences. Appropriate reading strategies and interactive reading tasks improve reading comprehension (Echeverri & Ferri, 2010).

In this study, the distribution of text types and comprehension questions related to each text is analyzed according to the targeted learning outcomes in international PIRLS applications. In addition, Turkish 4th grade students performance in 2021 PIRLS reading achievement is analyzed in line with Turkish Teaching Program and Turkish coursebook used at Ministry of National Education Schools.

Although it was determined that narrative texts was predominantly included in the textbooks, students showed a better performance in informative texts than in narrative texts in PIRLS 2021 applications. In the PIRLS application, it was revealed that the students participating from Türkiye were more successful in informative texts than in narrative texts (Mullis et all., 2023). However, when we look at the distribution of texts in the textbooks, it can be seen that narrative texts are predominantly used. It was concluded that this situation was due to the fact that the students did not engage in activities in high-level thinking processes, such as inference and analysis, which were specified as C and D levels in the study, in narrative texts. Majority of students answered direct information and direct inference questions more successfully than the questions which required higher order thinking skills and in this study majority of comprehension questions related to the texts were basic level direct information questions.

Higher order level comprehension questions were found to be much lower than direct information questions. In addition, in some units the number of unrelated questions about the texts were much higher than related comprehension questions.

Looking at the distribution of the text types in the 4th grade Turkish coursebook, it can be said that the majority of these texts consist of narrative texts. Despite this, it is noteworthy that students' performance on narrative texts is lower than on informative texts. In this context, the content of the texts and the activities related to the texts need to be reviewed and adapted to the students' interests, affective and cognitive development.

Students' reading skills do not improve by rewarding students who read more books. It is necessary to offer students activities that will encourage them to read books. They may be asked to examine different works by the same author and may be asked for information about the author's style. They may be asked to write and interpret their favorite words in the book they read with their peers. By teaching different text types, the differences between these types can be addressed (Echeverri & Ferri, 2010). Multiple reading strategies according to text types should be included in the program extensively.

By including questions of different types and at different thinking levels about texts, students can be enabled to develop reading comprehension strategies (Yılmaz, 2008). Teaching aim should be to develop students' skills such as critical thinking, making comments, expressing themselves, understanding what they read and expressing it in written and oral forms.

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