(ISSN: 2602-4047)

Erbudak, K. C. (2025). New curriculum and new hopes: an assessment of Türkiye 2024 social studies curriculum according to the solo taxonomy, *International Journal of Eurasian Education and Culture, 10(30), 230-248.*

**DOI:** http://dx.doi.org/10.35826/ijoecc.2871

**Article Type** (Makale Türü): Research Article

# NEW CURRICULUM AND NEW HOPES: AN ASSESSMENT OF TÜRKİYE 2024 SOCIAL STUDIES CURRICULUM ACCORDING TO THE SOLO TAXONOMY

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*Received: 01.05.2025* *Accepted: 17.08.2025* *Published: 15.09.2025*

**ABSTRACT**

The SOLO Taxonomy, designed to assess individuals' comprehension skills, consists of five hierarchical levels: “Pre-structural (PS), Unistructural (US), Multistructural (MS), Relational Structure (RS), and Extended Abstract (EA)”. This study aims to examine the learning outcomes of the Social Studies Curriculum, which began to be gradually implemented in 2024 for grades 1, 5, and 9, based on the SOLO Taxonomy. A document analysis method, a qualitative research approach, was employed for this study. The dataset is drawn from the Social Studies Curriculum (Grades 4-7) published by the Ministry of National Education in 2024. In total, 71 learning outcomes within the curriculum were analyzed according to the levels of the SOLO Taxonomy, and the data were evaluated using descriptive analysis. Findings revealed that, overall, the learning outcomes predominantly fall within the "Relational (RS)" level, followed by the "Extended Abstract (EA)" level. The "Relational (RS)" level was found to be the most represented across all grade levels and learning areas. However, a closer examination across grade levels and learning areas indicates limited representation of the “Unistructural (US)” and “Multistructural (MS)” levels, which highlights a scarcity in foundational and metacognitive learning levels. Generally, the 2024 Social Studies Curriculum (Grades 4-7) is crafted to promote metacognitive learning, with increased emphasis on the “Unistructural (US)” and “Multistructural (MS)” levels in areas covering history and geography.

**Keywords:** Social studies, SOLO taxonomy, 2024 social studies curriculum, learning outcomes.

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**Ethics Committee Approval:** This study does not require ethics committee approval.

**Plagiarism/Ethics:** This article has been reviewed by at least two referees and has been confirmed to comply with research and publication ethics, containing no plagiarism.

**INTRODUCTION**

Social, economic, cultural, scientific, and technological phenomena worldwide necessitate rethinking educational trends. In order to adapt to these developments and keep pace with the times, societies are revising their education systems. When it comes to rethinking education systems, curricula one of the essential building blocks come to mind first. Curricula are influenced by even the smallest phenomenon, and if they are not restructured, they risk falling behind the times. In 2024, Türkiye revised its curricula to meet contemporary requirements and transitioned to skills-based programs. The social studies curriculum was also impacted by this reform and with new hope, was made available to educators, teachers, and society as an innovative program. Social studies examine individuals, societies, systems and their interrelationships across time and space. Through this lesson, individuals gain competencies in local, national, and global citizenship. Social studies allow individuals to experience situations they may encounter in society and explore human-to-human and human-to-society relationships. With the competencies gained in this process, they can ask questions, gather evidence from scientific sources, analyze it, and develop various perspectives. Individuals who study the past to engage in today's world and learn to shape the future will also improve their civic engagement practices. Social studies aim to instill human rights and local, national, and global responsibilities. Therefore, individuals who take social studies can work toward shaping a more just world in which they wish to live. As seen, social studies is a highly significant course and primarily aims to cultivate active, productive, and problem-solving individuals from the local to the global level. Consequently, it is essential that the social studies curriculum be updated according to contemporary needs and address both local and global objectives to foster individuals capable of changing the world. This underscores the importance of the curriculum once again.

One of the most crucial elements of quality teaching is the teaching process itself, shaped by the curriculum of the respective course. The curriculum consists of learning outcomes, content, instructional activities, and assessment components (Ünsal, 2021, pp. 26-28). To implement the general objectives of the curriculum, it must address the specific goals set within the program and progress in line with these aims (Demirel, 2024, p. 5). In this regard, learning outcomes aligned with the specific objectives of the curriculum are among its most significant components. Since learning outcomes provide the foundation for other elements in the curriculum, they must be carefully crafted. Therefore, incorporating high-level skills when creating learning outcomes is crucial. In addition, lower-level learning outcomes should be included as prerequisites for higher-level outcomes, as they form the basis for advanced learning outcomes in the curriculum (Biggs, 1992, p. 21). For a curriculum to be effective, learning outcomes must encompass both higher and lower levels (Gezer & İlhan, 2015, pp. 3-4). Thus, ensuring that learning outcomes support the program's objectives will contribute to achieving these aims. Learning outcomes hold special importance as they serve as a starting point for other curriculum components. Properly crafting, defining, and conveying learning outcomes to students, along with addressing assessment components, are indispensable elements of a quality and consistent curriculum (Bümen, 2006, p. 3). To achieve the general aims of the curriculum, specific objectives should align with these aims (Demirel, 2024, pp. 4-5). Accordingly, structuring learning outcomes to correspond with the specific objectives of the curriculum at a high

level of skills, as foreseen by the program's general aims is a fundamental feature of an effective curriculum (Bümen, 2006, p. 4). Learning outcomes should be designed to match the cognitive levels of individuals and should follow a hierarchical structure that allows progression from lower to higher cognitive levels. Building high-level cognitive knowledge on top of foundational knowledge will ensure retention and increase the likelihood of transforming knowledge into skills. A curriculum that includes only low and high-level cognitive learning outcomes could negatively impact balance and adaptation in educational activities and hinder the cultivation of desired individuals.

Various researchers have developed different taxonomies to test the effectiveness of curricula. Besides notable figures known for their taxonomies, such as "Bloom, SOLO, Fink, Anderson, and Deettmer," others like "Haladayna, Marzano, Anderson and Associates, Williams, Tuckman, De Black, Geriach and Sullivan, Stahl and Murphy, and Romizowski" have contributed to the field as well. While all of these taxonomies are used to analyze learning outcomes or assessment questions across disciplines, SOLO and Bloom are the most widely used (Arı, 2013, p. 266). Atherton (2005) argues that the SOLO Taxonomy provides a framework that eliminates potential ambiguities in Bloom's Taxonomy, advocating for the SOLO Taxonomy in studies on cognitive levels of curriculum elements. The SOLO Taxonomy was developed by J. B. Biggs and K. Collis (Biggs & Collis, 1982, pp. 3-7). SOLO stands for "Structure of Observed Learning Outcomes," (Arı, 2013, p. 264). This taxonomy consists of five fundamental levels: "Pre-structural (PS), Unistructural (US), Multistructural (MS), Relational Structure (RS), and Extended Abstract (EA)." The levels of the SOLO Taxonomy are shown in Table 1.

**Table 1.** Levels of the SOLO Taxonomy

| ***SOLO Taxonomy*** | ***Level*** | | ***Feature*** |
|---|---|---|---|
| *Quantitative* | *Level-1* | *Pre-structural (PS)* | *Lacking any knowledge and skills related to the field.* |
| | *Level-2* | *Unistructural (US)* | *Limited interest and expresses a tendency in one direction.* |
| | *Level-3* | *Multistructural (MS)* | *It expresses the independence of multiple interests.* |
| *Qualitative* | *Level-4* | *Relational Structure (RS)* | *İt expresses the ability to relate and specify the characteristics of knowledge within a structure.* |
| | *Level-5* | *Extended Abstract (EA)* | *It expresses the expansion of the scope of knowledge.* |

(Biggs & Collis, 1982, pp. 17-18)

When Table 1 is examined, it is seen that the solo taxonomy consists of 5 levels and each level has different characteristics. In the first level, Pre-structural (PS), there is no learning situation. At the Unistructural (US) level, learning can be mentioned, albeit limited. At Multistructural (MS) level, multiple explanations can be made. At the Relational Structure (RS) level, there is the ability to relate and identify the features of interest. The last and highest level, Extended Abstract (EA), envisages the use of knowledge in other areas.

The SOLO Taxonomy is used to assess individuals' understanding skills (Biggs & Collis, 1982, pp. 151-153). This taxonomy consists of five levels that allow for the evaluation of learning. These levels are hierarchically defined

as “Pre-structural (PS), Unistructural (US), Multistructural (MS), Relational Structure (R), and Extended Abstract (EA)” (Biggs & Collis, 1982, p. 20). The “Pre-structural (PS)” level represents the first and lowest step of the taxonomy. At this level, the individual is unaware of the topic and does not understand it or understands very little. The responses given are either unrelated to the topic or only marginally related. In short, the individual positions themselves outside the topic. For example, in a learning activity related to “The First Turkish States Established in Turkistan,” the individual should be able to state what the First Turkish States are. If an individual responds with “The Great Seljuk State” or “The Ghaznavid State,” it is accepted that they are at this level. At the “Unistructural (US)” level, an individual focuses on only one aspect of the question or information presented (Lister, Simon, Thampson, Whalley & Prasad, 2006, pp. 118-120). The individual’s understanding level is very low, and only one concept is learned. Additionally, the individual can apply or recall basic information and can perform uncomplicated tasks requested of them within this knowledge framework (Doğan, 2020, pp. 2311-2313). At the “Multistructural (MS)” level, the individual can consider multiple elements related to the problem presented but cannot establish the connection between these elements (Padiotis & Mikropoulos, 2010, pp. 233-235). Individuals at this level can evaluate events and situations from different perspectives and can provide different interpretations, but they cannot establish relationality or draw conclusions (Doğan, 2020, p. 2312). At the “Relational Structure (RS)” level, individuals can achieve a meaningful whole by considering the knowledge from their previous learnings (Kanuka, 2011, p. 145). At this level, individuals can make connections, conduct comparisons, apply theories, and establish cause-and-effect relationships. However, these operations are limited to existing knowledge, and it is not possible to reach conclusions beyond this knowledge (Doğan, 2020, p. 2314). The last level of the SOLO Taxonomy, the “Extended Abstract (EA)”, represents the highest level. At this level, individuals can now structure their learning, understand it at a metacognitive level, and use their creativity skills with the information they have learned (Lake, 1999, pp. 192-193; Gezer & İlhan, 2015, p. 6). According to the taxonomy, while the learning that occurs at the “Unistructural (US)” and “Multistructural (MS)” levels is considered superficial, it appears that individuals cannot reach higher-level learning without experiencing or achieving learning at these levels (Gezer & İlhan, 2015, pp. 6-7). Additionally, due to individual differences and the education received, it is expected that individuals will reach one of the levels of “Unistructural (US)”, “Multistructural (MS)”, and “Relational Structure (RS)” (Pegg & Tali, 2005, pp. 469-470). However, it is not possible to reach the “Extended Abstract (EA)” level as a result of normal educational practices. Indicators and verbs have been established to describe and define each level of the SOLO Taxonomy. Since no learning activity occurs related to the topic at the first level, “Prestructural (PS),” there is no indicator verb corresponding to this level (Potter & Kustra, pp. 7-8). The indicator verbs created for the other levels are presented in Table 2.

**Table 2.** Indicator Verbs Used in Determining the Levels of SOLO Taxonomy

| ***Levels of SOLO Taxonomy*** | ***Pre-structural (PS)*** | ***Unistructural (US)*** | ***Multistructural (MS)*** | ***Relational Structure (RS)*** | ***Extended Abstract (EA)*** |
|---|---|---|---|---|---|
| ***Indicator Verbs*** | - | *"Explain<br>Convey<br>State<br>Sequence<br>Count<br>Remember<br>Recognize<br>Name<br>Repeat<br>Mark<br>Memorize"* | *"Classify<br>Combine<br>Create a list<br>Define<br>Plan<br>Clarify<br>Symbolize<br>Qualify<br>Explain the meaning<br>Assign metaphorical meaning<br>Follow the algorithm<br>Apply the method"* | *"Distinguish<br>Categorize<br>Question<br>Combine<br>Relate<br>Apply<br>Analyze<br>Compare<br>Predict<br>Evaluate<br>Summarize<br>Integrate<br>Explain the reasons<br>Establish cause-and-effect relationships<br>Apply the given theory to the field"* | *"Design<br>Create<br>Judge<br>Formulate a hypothesis<br>Evaluate<br>Discuss<br>Generalize<br>Develop a theory<br>Conduct an in-depth examination<br>Apply the theory to a new field"* |

(Biggs & Collis, 1982, pp. 35-36; Potter & Kustra, 2012, p. 8; Çetin & İlhan, 2016, pp. 861-862).

When Table 2 is examined, it is seen which indicator verbs are found at each level of the solo taxonomy on how the individual's learning situation is shaped. Since learning does not take place at the Pre-structural (PS) level, there are no indicator verbs. In the other levels, different indicator verbs were identified to determine the learning status of the individual and at which level learning took place.

When reviewing the literature, there are studies that examine learning outcomes according to the SOLO Taxonomy in the context of social studies courses, both globally and specifically in Türkiye. In these studies, not only are the learning outcomes analyzed but also the examination of textbooks has been addressed (Gezer & İlhan, 2014; Gezer & İlhan, 2015; Bursa, 2022; Korkmaz & Ünsal, 2017; Caniglia & Meadows, 2018; Brabrand & Dahl, 2009; Dönmez & Zorluoğlu, 2020; Ağçam & Babanoğlu, 2018; Alsaadi, 2001; Doğan, 2020; Leung, 2000; Putri, Mardiyana & Saputro, 2017; Kusmaryono, Suyitno, Dwijanto & Dwidayati, 2018; Mahmood, Ali & Hussain, 2014; Silwana, Subanji, Manyunu & Rashahan, 2021; Öner, 2022; Gövercin & Filiz, 2022; Acar & Peker, 2023; Polat, Bilen & Kayacan, 2022; Göçer & Kurt, 2016; Bağdat & Anapa-Saban, 2014; Yenilmez & Kağnıcı, 2023; İlhan & Gezer, 2017). Upon reviewing the literature, there has not been any study that examines the social studies curriculum implemented starting in the 2024-2025 academic year for 1st, 5th, and 9th grades, based on the SOLO Taxonomy. The results of this study will create opportunities to analyze the social studies curriculum, which will be gradually implemented starting in 2024, using a different classification, thereby improving the curriculum. The aim of this study is to analyze the learning outcomes in the social studies curriculum that will be gradually implemented in 2024 according to the SOLO Taxonomy. In line with this aim, answers have been sought for the following questions:

1. How is the distribution of the 2024 Social Studies Curriculum (Primary and Secondary School Grades 4, 5, 6, and 7) learning outcomes according to the levels of the SOLO Taxonomy?

2. How is the distribution of the 2024 Social Studies Curriculum (Primary and Secondary School Grades 4, 5, 6, and 7) learning outcomes according to the levels of the SOLO Taxonomy based on grade level and learning areas?

## METHOD

### Research Design

In the research, the document analysis method, which is one of the qualitative research models, has been used. Document analysis is also considered a qualitative research model as a data collection method. In the document analysis model, sources related to the study are accessed, these sources are examined in detail, and relationships are established based on these sources, leading to interpretations (Patton, 1990, pp. 5-7). In this study, the 2024 social studies curriculum for grades 4-7, which is being gradually implemented in grades 1, 5, and 9 in 2024, has been analyzed as a document. Since the study was conducted as a document analysis, there was no need to obtain ethics committee approval.

### Data Collection Tools

This study considers the Social Studies Curriculum (for Elementary School and Middle School grades 4, 5, 6, and 7) prepared by the Ministry of National Education (MEB) and gradually implemented starting in 2024 as the data collection tool (MEB, 2024). The learning outcomes for the 4th-grade elementary school and 5th, 6th, and 7th-grade middle school Social Studies courses included in this program constitute the data set for this study. Information regarding the learning outcomes is presented in Table 3.

**Table 3.** Information Related to the Learning Outcomes of the 2024 Social Studies Curriculum (Elementary and Middle School Grades 4, 5, 6, and 7)

| ***Grade Level*** <br> ***Learning Area*** | ***4*** <br> ***Number of Learning Outcomes*** | ***5*** <br> ***Number of Learning Outcomes*** | ***6*** <br> ***Number of Learning Outcomes*** | ***7*** <br> ***Number of Learning Outcomes*** |
|---|---|---|---|---|
| *Living Together* | *3* | *3* | *3* | *3* |
| *Our Home is the World* | *3* | *4* | *3* | *2* |
| *Our Common Heritage* | *3* | *3* | *4* | *3* |
| *Our Living Democracy* | *3* | *4* | *3* | *4* |
| *The Economy in Our Lives* | *3* | *3* | *3* | *2* |
| *Technology and Social Sciences* | *2* | *2* | *2* | *3* |
| ***Total*** | *17* | *19* | *18* | *17* |

When Table 3 is examined, a total of 71 learning outcomes in the social studies curriculum for grades 4-7 have been analyzed according to the SOLO Taxonomy. Descriptive analysis was used in analyzing the data obtained. Descriptive analysis refers to the examination of data within a defined scope and the findings derived from this data (Lune & Berg, 2017, p. 181). The levels of the SOLO Taxonomy were utilized in the analysis. The levels "Pre-structural (PS), Unistructural (US), Multistructural (MS), Relational Structure (RS) and Extended Abstract (EA)" formed the scope of the data analysis. Subsequently, it was determined which level the learning outcomes met according to the grade levels. Another factor used to determine the corresponding SOLO Taxonomy level was

indicator verbs. The meanings of the learning outcomes were established, and indicator verbs were used afterward. Investigations were conducted based on the established criteria, and for the reliability of the obtained data, the opinions of two measurement and evaluation experts, three social studies experts, and one curriculum development expert were consulted. To ensure consistency, Miles & Huberman's (1994) formula for "Agreement / (Agreement + Disagreement)" was used (p. 64). As a result of the consistency check, it was found that there was an 84% similarity between the SOLO Taxonomy levels assigned by the experts and the researcher to the questions.

**Data Analysis**

The findings of this study, in which the learning outcomes of the 2024 Social Studies Curriculum (Grades 4, 5, 6 and 7) were examined according to the SOLO Taxonomy, were discussed and presented in two stages. First, the distribution of the learning outcomes of the 2024 Social Studies Curriculum (Grades 4, 5, 6 and 7) according to the SOLO Taxonomy levels is given, and then the distribution of the 2024 Social Studies Curriculum (Grades 4, 5, 6 and 7) learning outcomes according to the SOLO Taxonomy levels by grade level and learning areas is presented.

**FINDINGS**

The findings of this study, which examines the learning outcomes of the 2024 Social Studies Curriculum (4th, 5th, 6th, and 7th grades) according to the SOLO Taxonomy, are presented in two stages. First, the distribution of the learning outcomes of the 2024 Social Studies Curriculum (4th, 5th, 6th, and 7th grades) according to the levels of the SOLO Taxonomy is provided. Then, the distribution of the learning outcomes of the 2024 Social Studies Curriculum (4th, 5th, 6th, and 7th grades) according to the levels of the SOLO Taxonomy is presented based on class levels and learning areas.

**2024 Social Studies Curriculum (Grades 4, 5, 6 and 7) Learning Outcomes According to SOLO Taxonomy Levels**

A total of 71 learning outcomes were examined to determine the distribution of the 2024 Social Studies Curriculum (Grades 4, 5, 6 and 7) Learning Outcomes according to the SOLO Taxonomy levels. As a result of the analysis, it was determined to which level the learning outcomes were appropriate. The findings obtained are presented in Table 4.

**Table 4.** Distribution of Learning Outcomes of the Social Studies Curriculum by SOLO Taxonomy Levels for 4th, 5th, 6th, and 7th Grades

| *Grade* | *Unistructural (US)* | *Multistructural (MS)* | *Relational Structure (RS)* | *Extended Abstract (EA)* | *Total* |
|---|---|---|---|---|---|
| *4* | *1* | *-* | *12* | *4* | *17* |
| *5* | *1* | *3* | *12* | *3* | *19* |
| *6* | *-* | *3* | *10* | *5* | *18* |
| *7* | *-* | *3* | *9* | *5* | *17* |
| ***Total*** | *2* | *9* | *43* | *17* | *71* |

When Table 4 is examined, it is determined that a significant portion of the learning outcomes in the social studies curriculum is at the “Relational Structure (RS) (n=43)” level. Secondly, the learning outcomes corresponding to the “Extended Abstract (EA) (n=17)” level are predominant. Following this, learning outcomes corresponding to the “Multistructural (MS) (n=9)” and “Unistructural (US) (n=2)” levels have also been identified. The "Relational Structure (RS)" and “Extended Abstract (EA)” levels are higher cognitive levels compared to the other levels. On the other hand, the “Unistructural (US)” and “Multistructural (MS)" levels represent levels where higher cognitive processes are utilized less. It is observed that there are many learning outcomes that include higher-level skills. The “Unistructural (US)” level is represented by a total of 2 learning outcomes, while the “Extended Abstract (EA)” level has 17, and the “Relational Structure (RS)” level has 43 learning outcomes. This situation indicates that the learning outcomes included in the 2024 social studies curriculum encompass higher cognitive skills. However, it is also noted that there are few learning outcomes that do not include higher-level skills. In this context, it can be said that the related program has been designed to equip individuals with higher-level skills.

**Distribution of the 2024 Social Studies Curriculum Learning Outcomes by Class Level and Learning Areas According to SOLO Taxonomy Levels**

The other findings obtained in the study are the distribution of the learning outcomes determined according to the SOLO Taxonomy by class level and learning area. This study examines the learning outcomes for 4th-grade primary school and 5th, 6th, and 7th-grade middle school, as well as the levels at which the learning areas correspond to the SOLO Taxonomy.

The SOLO Taxonomy levels vary according to the learning outcomes and learning areas. Table 5 presents the distribution of the SOLO Taxonomy levels for the learning outcomes of 4th-grade primary school and 5th, 6th, and 7th-grade middle school in relation to the “Living Together” learning area.

**Table 5.** Evaluation of the Learning Outcomes in the 'Living Together' Learning Area for Grades 4, 5, 6, and 7 According to the Levels of SOLO Taxonomy

| *Grade* | *Learning Area* | *Learning Outcomes* | *Levels of SOLO Taxonomy* |
|---|---|---|---|
| *4* | *Living Together* | *SS.4.1.1. Being able to interpret the contributions of social studies to one's life* | *Relational Structure (RS)* |
| | | *SS.4.1.2. Being able to draw conclusions about the importance of respecting individual characteristics* | *Relational Structure (RS)* |
| | | *SS.4.1.3. Being able to generate ideas to sustain social unity* | *Extended Abstract (EA)* |
| *5* | | *SS.5.1.1. Being able to analyze the relationships between the groups one is a part of and their roles within those groups* | *Relational Structure (RS)* |
| | | *SS.5.1.2. Being able to interpret the impact of respecting cultural characteristics on cohabitation* | *Relational Structure (RS)* |
| | | *SS.5.1.3. Being able to contribute to cooperation and solidarity activities aimed at sustaining social unity* | *Relational Structure (RS)* |
| *6* | | *SS.6.1.1. Dâhil olduğu grupların ve bu gruplardaki rollerinin zaman içerisinde değişebileceğine ilişkin çıkarım yapabilme* | *Extended Abstract (EA)* |
| | | *SS.6.1.2. Being able to interpret the impact of our cultural ties and national values on social unity* | *Relational Structure (RS)* |
| | | *SS.6.1.3. Being able to discuss proposed solutions to issues encountered in social life* | *Extended Abstract (EA)* |

| | | | |
|---|---|---|---|
| *7* | | *SS. 7.1.1. Being able to question the importance of effective communication in the groups one is part of and in social life* | *Relational Structure (RS)* |
| | | *SS.7.1.2. Being able to generate ideas to maintain equal opportunities for individuals with special needs.* | *Extended Abstract (EA)* |
| | | *SS.7.1.3. Being able to draw conclusions about the attitudes and behaviors of Turkish society towards national issues* | *Relational Structure (RS)* |

When examining Table 5, it is observed that out of the 3 learning outcomes at the 4th-grade level, 2 are at the “Relational Structure (RS)” level, while one is at the “Extended Abstract (EA)” level. At the 5th-grade level, all 3 learning outcomes are at the “Relational Structure (RS)” level. Out of the 3 learning outcomes at the 6th-grade level, 2 are at the “Relational Structure (RS)” level, and 1 is at the “Extended Abstract (EA)” level. Finally, at the 7th-grade level, 2 of the 3 learning outcomes are at the “Relational Structure (RS)” level, and 1 is at the “Extended Abstract (EA)” level. Overall, it has been determined that the “Relational Structure (RS)” level is the most utilized in evaluating the learning outcomes within the "Living Together" learning area across all grade levels. Additionally, it has been identified that there are no learning outcomes at the “Unistructural (US)” and “Multistructural (MS)” levels within this learning area at any grade level.

Table 6 presents the distribution of SOLO Taxonomy levels for the learning outcomes of 4th-grade elementary and 5th, 6th, and 7th-grade middle school students in relation to the “Our Home: The World” learning area.

**Table 6.** Evaluation of the Learning Outcomes in the “Our Home is the World” Learning Area for 4th, 5th, 6th, and 7th Grades According to the Levels of the SOLO Taxonomy

| ***Grade*** | ***Learning Area*** | ***Learning Outcomes*** | ***Levels of SOLO Taxonomy*** |
|---|---|---|---|
| *4* | ***Our Home is the World*** | *SS.4.2.1. Be able to use maps for finding location and direction* | *Unistructural (US)* |
| | | *SS.4.2.2. Be able to analyze the relationship between nature and humans based on the immediate surroundings* | *Relational Structure (RS)* |
| | | *SS.4.2.3. Be able to share the product created regarding actions to mitigate the impacts of disasters* | *Extended Abstract (EA)* |
| *5* | | *SS.5.2.1. Be able to identify the relative location features of the city of residence* | *Multistructural (MS)* |
| | | *SS.5.2.2. Be able to interpret changes in the natural and human environment of the city of residence, along with their causes and effects* | *Relational Structure (RS)* |
| | | *SS.5.2.3. Be able to organize awareness activities aimed at reducing the impacts of potential disasters in the city of residence* | *Extended Abstract (EA)* |
| | | *SS.5.2.4. Be able to gather information about the countries neighboring our nation* | *Unistructural (US)* |
| *6* | | *SS.6.2.1. Be able to identify the location characteristics of our country, continents, and oceans* | *Multistructural (MS)* |
| | | *SS.6.2.2. Be able to analyze the relationship between the natural and human environmental features of our country* | *Relational Structure (RS)* |
| | | *SS.6.2.3. Be able to interpret our country's cultural collaborations with the Turkic world* | *Relational Structure (RS)* |
| *7* | | *SS.7.2.1. Be able to interpret the changes brought about by globalization in human and social life* | *Relational Structure (RS)* |
| | | *SS.7.2.2. Be able to summarize our country's role in solving regional and global issues* | *Multistructural (MS)* |

When examining Table 6, it is observed that there are three learning outcomes at the 4th and 5th-grade levels, and these learning outcomes are represented at different levels. At the 6th-grade level, it has been determined that there are two learning outcomes at the “Relational Structure (RS)” level and one learning outcome at the “Extended Abstract (EA)” level. At the 7th-grade level, two learning outcomes are distributed at the “Relational Structure (RS)” and “Extended Abstract (EA)” levels. When the “Our Home is the World” learning area is evaluated as a whole, it has been identified that the learning outcomes at the "Relational Structure (RS)" level are predominant. In comparison to other learning areas, a relatively balanced level distribution can be mentioned. It has been possible to encounter all levels of the SOLO Taxonomy within this learning area.

Table 7 presents the distribution of SOLO Taxonomy levels related to the learning outcomes of 4th grade in primary school and 5th, 6th, and 7th grades in middle school concerning the 'Our Common Heritage' learning area.

**Table 7.** Evaluation of the Learning Outcomes in the “Our Common Heritage” Learning Area for 4th, 5th, 6th, and 7th Grades According to the Levels of the SOLO Taxonomy

| *Grade* | *Learning Area* | *Learning Outcomes* | *Levels of SOLO Taxonomy* |
|---|---|---|---|
| *4* | *Our Common Heritage* | *SS.4.3.1. Be able to compare the changes in children's games and toys from the past to the present* | *Relational Structure (RS)* |
| | | *SS.4.3.2. Be able to create a product that reflects family history* | *Extended Abstract (EA)* |
| | | *SS.4.3.3. Be able to interpret the importance of recognizing the common heritage elements in the immediate surroundings* | *Relational Structure (RS)* |
| *5* | | *SS.5.3.1. Be able to share the product created regarding the common heritage elements in the city of residence* | *Extended Abstract (EA)* |
| | | *SS.5.3.2. Be able to develop a perspective on the social lives of the societies that established the first settlements in Anatolia* | *Relational Structure (RS)* |
| | | *SS.5.3.3. Be able to compare the contributions of Mesopotamian and Anatolian civilizations to the common heritage* | *Relational Structure (RS)* |
| *6* | | *SS.6.3.1. Be able to question the contributions of the first Turkish states established in Turkistan to our civilization* | *Relational Structure (RS)* |
| | | *SS.6.3.2. Be able to reason about the contributions of Islamic civilization to the common heritage of humanity in the fields of education, science, law, culture, art, and architecture between the 7th and 13th centuries* | *Extended Abstract (EA)* |
| | | *SS.6.3.3. Be able to evaluate the changes in the social and cultural lives of the Turks following the acceptance of Islam from the perspective of that period* | *Relational Structure (RS)* |
| | | *SS.6.3.4. Be able to summarize the impact of the political activities and military struggles that occurred between the 11th and 13th centuries on the Turkification and Islamization of Anatolia* | *Multistructural (MS)* |
| *7* | | *SS.7.3.1. Be able to question the policies that enabled the Ottoman Empire to become a world state* | *Relational Structure (RS)* |
| | | *SS.7.3.2. Be able to interpret the innovations implemented by the Ottoman Empire in response to changing global balances, along with their causes and effects* | *Relational Structure (RS)* |
| | | *SS.7.3.3. Be able to share the product created regarding the elements of Ottoman culture and civilization* | *Extended Abstract (EA)* |

When examining Table 7, it is observed that the learning outcomes at the 4th and 5th-grade levels are at the “Relational Structure (RS)” and “Extended Abstract (EA)” levels. For the learning outcomes at the 6th-grade level, it has been determined that two are at the “Relational Structure (RS)” level, one is at the “Extended Abstract

(EA)" level, and one is at the "Extended Abstract (EA)" level. At the 7th-grade level, it has been identified that among the three learning outcomes, two are at the "Relational Structure (RS)" level and one is at the "Extended Abstract (EA)" level. When evaluating the "Our Common Heritage" learning area, it can be stated that the learning outcomes corresponding to higher-level skills of the SOLO Taxonomy are present.

Table 8 presents the distribution of SOLO Taxonomy levels related to the learning outcomes of 4th grade in primary school and 5th, 6th, and 7th grades in middle school concerning the "Our Living Democracy" learning area.

**Table 8.** Evaluation of the Learning Outcomes in the "Our Living Democracy" Learning Area for 4th, 5th, 6th, and 7th Grades According to the Levels of the SOLO Taxonomy

| *Grade* | *Learning Area* | *Learning Outcomes* | *Levels of SOLO Taxonomy* |
|---|---|---|---|
| *4* | *Our Living Democracy* | *SS.4.4.1. Be able to interpret the sacrifices made by Mustafa Kemal Atatürk and the Turkish nation on the path to the declaration of the Republic* | *Relational Structure (RS)* |
| | | *SS.4.4.2. Be able to interpret the contributions of the changes brought about by the Republic to our lives* | *Relational Structure (RS)* |
| | | *SS.4.4.3. Be able to generate ideas regarding decision-making and democratic participation processes in schools* | *Extended Abstract (EA)* |
| *5* | | *SS.5.4.1. Be able to analyze the relationship between the concepts of democracy and republic* | *Relational Structure (RS)* |
| | | *SS.5.4.2. Be able to draw conclusions about the importance of being an active citizen in terms of its impact on social order* | *Relational Structure (RS)* |
| | | *SS.5.4.3. Be able to question the importance of fundamental human rights and responsibilities* | *Relational Structure (RS)* |
| | | *SS.5.4.4. Be able to gather information about institutions that can be consulted in case of a need or problem* | *Multistructural (MS))* |
| *6* | | *SS.6.4.1. Be able to analyze the factors that influence the decision-making process of management* | *Relational Structure (RS)* |
| | | *SS.6.4.2. Be able to interpret the importance of fundamental rights and responsibilities in maintaining social order* | *Relational Structure (RS)* |
| | | *SS.6.4.3. Be able to question the effects of digitalization and technological developments on the exercise of citizenship rights* | *Extended Abstract (EA)* |
| *7* | | *SS.7.4.1. Be able to summarize the fundamental characteristics of the Republic of Türkiye* | *Multistructural (MS)* |
| | | *SS.7.4.2. Be able to analyze the governance structure of the Republic of Türkiye* | *Relational Structure (RS)* |
| | | *SS.7.4.3. Be able to interpret the development of democracy in our country in terms of the fundamental principles of democracy* | *Relational Structure (RS)* |
| | | *SS.7.4.4. Be able to summarize the challenges encountered in the implementation process of democracy* | *Multistructural (MS)* |

When examining Table 8, it is observed that among the three learning outcomes at the 4th-grade level, two are at the "Relational Structure (RS)" level, and one is at the "Extended Abstract (EA)" level. For the four learning outcomes at the 5th-grade level, three are at the "Relational Structure (RS)" level, and one is at the "Extended Abstract (EA)" level. It has been determined that the three learning outcomes at the 6th-grade level also show distribution and correspond to different levels of the relevant taxonomy. Among the four learning outcomes at the 7th-grade level, two correspond to the "Relational Structure (RS)" level, while the other two outcomes are at the "Extended Abstract (EA)" level. When evaluating the "Our Living Democracy" learning area, it can be stated

that the learning outcomes correspond to higher-level skills, indicating the presence of outcomes that encompass higher-level skills according to the taxonomy.

Table 9 presents the distribution of SOLO Taxonomy levels related to the learning outcomes of 4th grade in primary school and 5th, 6th, and 7th grades in middle school concerning the "Economy in Our Lives" learning area.

**Table 9**. Evaluation of the Learning Outcomes in the "Economy in Our Lives" Learning Area for 4th, 5th, 6th, and 7th Grades According to the Levels of the SOLO Taxonomy

| *Grade* | *Learning Area* | *Learning Outcomes* | *Levels of SOLO Taxonomy* |
|---|---|---|---|
| *4* | *The Economy in Our Lives* | *SS.4.5.1. Be able to interpret graphs related to the consumption of natural resources* | *Relational Structure (RS)* |
| | | *SS.4.5.2. Be able to reflect conscious choices between desires and needs in one's life* | *Relational Structure (RS)* |
| | | *SS.4.5.3. Be able to analyze the production, distribution, and consumption processes of a product* | *Relational Structure (RS)* |
| *5* | | *SS.5.5.1. Be able to interpret the effects of using resources efficiently on nature and people* | *Relational Structure (RS)* |
| | | *SS.5.5.2. Be able to plan the necessary budget to meet needs and desires* | *Relational Structure (RS)* |
| | | *SS.5.5.3. Be able to summarize the economic activities in the province where one lives* | *Multistructural (MS)* |
| *6* | | *SS.6.5.1. Be able to analyze the relationship between our country's resources and economic activities* | *Relational Structure (RS)* |
| | | *SS.6.5.2. Be able to make inferences about the relationship between economic activities and professions* | *Relational Structure (RS)* |
| | | *SS.6.5.3. Be able to prepare an investment and marketing project proposal for a product designed* | *Extended Abstract (EA)* |
| *7* | | *SS.7.5.1. Be able to interpret national development initiatives with their reasons and consequences* | *Relational Structure (RS)* |
| | | *SS.7.5.2. Be able to analyze the relationship between economic development and the production, distribution, and consumption cycle* | *Relational Structure (RS)* |

When examining Table 9, it is observed that all three learning outcomes at the 4th-grade level are constructed at the "Relational Structure (RS)" level. At the 5th-grade level, among the three learning outcomes, two correspond to the "Relational Structure (RS)" level, while one aligns with the "Multistructural (MS)" level. In the 6th-grade level, two of the three learning outcomes are identified at the "Relational Structure (RS)" level, and one is found at the "Extended Abstract (EA)" level. Similarly, the two learning outcomes at the 7th-grade level are also designed to correspond to the "Relational Structure (RS)" level. The evaluation regarding the "Economy in Our Lives" learning area suggests that the learning outcomes are structured to correspond to higher-order cognitive levels, aiming to equip individuals with advanced cognitive skills.

Table 10 presents the distribution of SOLO Taxonomy levels for the learning outcomes related to the "Technology and Social Sciences" learning area for primary school 4th grade and middle school 5th, 6th, and 7th grades.

**Table 10.** Evaluation of Learning Outcomes in the "Technology and Social Sciences" Learning Area for 4th, 5th, 6th, and 7th Grades According to SOLO Taxonomy Levels

| Grade | Learning Area | Learning Outcomes | Levels of SOLO Taxonomy |
|---|---|---|---|
| 4 | Technology and Social Sciences | SS.4.6.1. Being able to reflect online safety rules in one's actions | Relational Structure (RS) |
| | | SS.4.6.2. Being able to make connections between the childhood lives of scientists and their own lives | Relational Structure (RS) |
| 5 | | SS.5.6.1. Being able to discuss the effects of technological advancements on social life | Relational Structure (RS) |
| | | SS.5.6.2. Being able to create a product regarding the importance of the conscious use of technological products | Extended Abstract (EA |
| 6 | | SS.6.6.1. Being able to structure the role of developments in transportation and communication technologies in cultural interaction | Relational Structure (RS) |
| | | SS.6.6.2. Being able to gather information about the copyright and patent processes for a product or idea | Multistructural (MS) |
| 7 | | SS.7.6.1. Being able to make predictions about the effects of scientific and technological developments on future social life | Extended Abstract (EA) |
| | | SS.7.6.2. Being able to generalize about the fields of study in social sciences based on example texts | Extended Abstract (EA) |
| | | SS.7.6.3. Being able to conduct scientific inquiry into a problem that may be encountered in social life | Extended Abstract (EA) |

When Table 10 is examined, it is observed that 2 learning outcomes at the 4th grade level are at the "Relational Structure (RS)" level, and it has been determined that 2 learning outcomes at the 5th grade level are at the "Relational Structure (RS)" and "Extended Abstract (EA)" levels. Among the 2 learning outcomes at the 6th grade level, one corresponds to the "Relational Structure (RS)" level, while the other corresponds to the "Multistructural (MS)" level. It is also noted that 3 learning outcomes at the 7th grade level are at the "Extended Abstract (EA)" level. When evaluating the "Technology and Social Sciences" learning area, it has been identified that the distribution of levels belonging to the relevant taxonomy is balanced and that learning outcomes are generally included, which can be used for acquiring higher-order cognitive skills.

**CONCLUSION and DISCUSSION**

The aim of this study is to analyze the learning outcomes included in the 2024 Social Studies curriculum according to the SOLO Taxonomy. According to the findings of the research, it was determined that the most frequently included learning outcomes for grades 4 to 7 were at the "Relational Structure (RS)" level. Following this, the outcomes were found to be most commonly at the "Extended Abstract (EA)," "Multistructural (MS)," and "Unistructural (US)" levels. Acar and Peker (2023), in their study, found that learning outcomes were generally most common at the "Unistructural (US)" level and least common at the "Relational Structure (RS)" level. At the 4th and 5th grade levels, learning outcomes were found to be at the "Multistructural (MS)" and "Unistructural (US)" levels, while outcomes at the 6th and 7th grade levels increasingly aligned with the "Relational Structure (RS)" and "Extended Abstract (EA)" levels. There are studies in the literature that both support and contradict these findings. Gezer and İlhan (2015) found in their research that learning outcomes at the 4th and 5th grade levels were generally aligned with the "Multistructural (MS)" and "Unistructural (US)" levels, while those at the 6th and 7th grade levels were more suitable for the "Relational Structure (RS)" and "Extended Abstract (EA)" levels. The presence of learning outcomes at the "Relational Structure (RS)" level in the 5th grade, which marks

the transition to the second phase of the 4+4+4 education system, indicates the effectiveness of the newly developed curriculum. However, the limited presence of outcomes at the "Multistructural (MS)" and "Unistructural (US)" levels is concerning, as the 5th grade represents a critical period for forming foundational concepts, serving as an entry point to middle school. Göçer and Kurt (2016) state that it is quite challenging to establish connections and apply learned skills without prior knowledge. Moreover, for students to apply the knowledge they have acquired to different areas, make generalizations from concrete information, and generate original ideas, they must first master fundamental concepts (Gezer and İlhan, 2014). The research also revealed that learning outcomes at the 6th and 7th grade levels do not include those at the "Multistructural (MS)" and "Unistructural (US)" levels. Dönmez and Zorluoğlu (2020) analyzed 187 learning outcomes in their study and found that 31% were at the "Unistructural (US)" level, 19% at the "Multistructural (MS)" level, 29% at the "Relational Structure (RS)" level, and 21% at the "Extended Abstract (EA)" level.

The analysis of the learning outcomes in the Social Studies curriculum revealed that they are not hierarchically distributed according to the SOLO taxonomy levels and are not evenly balanced across grade levels. As the grade level increases, it was found that learning outcomes at the "Relational Structure (RS)" and "Extended Abstract (EA)" levels are not distributed evenly. The most common learning outcomes across grades 4-7 were found at the "Relational Structure (RS)" level, a conclusion also reached by Dönmez and Zorluoğlu (2020). According to Gezer and İlhan (2014), this uneven distribution could hinder the development of lower-level learning and stifle students' creativity. To ensure that learning-teaching activities effectively engage students and support their academic development, learning outcomes should be distributed evenly and increase in complexity with grade level (Anderson & Krathwohl, 2001; Biggs & Collis, 1989).

The findings also indicate that outcomes at the "Unistructural (US)" and "Multistructural (MS)" levels are scarce. Although the "Extended Abstract (EA)" level should increase with grade level, it was found to be evenly distributed. Göçer and Kurt (2016) emphasize that outcomes at the "Extended Abstract (EA)" level enhance skills like creativity, relational thinking, and analytical reasoning. Thus, outcomes evenly distributed at this level could support the active use of creativity, analytical thinking, originality, and problem-solving skills. The 2024 Social Studies curriculum appears to be strong in this aspect, structured to foster higher-order thinking skills. Even though outcomes suitable for the "Unistructural (US)" and "Multistructural (MS)" levels are limited at the foundational 4th and 5th grades, an effort has been made to maintain a spiral structure in learning areas. Scouller (1998) and Van Rossum & Schenk (1984) point out that learning outcomes at these levels assess foundational knowledge about a subject.

When the findings are examined according to learning areas, it was observed that the "Living Together" area mostly includes outcomes at the "Relational Structure (RS)" level across all grade levels. The "Our Home The World" area shows a balanced distribution, while the "Our Common Heritage" area emphasizes the "Relational Structure (RS)" level. The "Our Living Democracy" area also shows a balanced distribution. The "Economics in Our Life" area mainly features outcomes at the "Relational Structure (RS)" level, while the "Technology and Social

Sciences" area has outcomes mostly at the "Extended Abstract (EA)" level. In a study by Bursa (2022), it was found that as grade levels increase, outcomes at the "Abstract Structure (AS)" level increase, while those at the "Multistructural (MS)" level decrease correspondingly. Additionally, Bursa (2022) concluded that the 2018 Social Studies curriculum primarily contained outcomes at the "Unistructural (US)" level, mainly in the fields of History and Geography. Compared to the 2018 program, the 2024 curriculum appears to be more effective, containing higher-order cognitive processes. Brabrand and Dahl (2009), using the SOLO taxonomy, found that Mathematics and Science subjects have the highest-level learning outcomes when compared across different courses. In conclusion, the 2024 Social Studies curriculum is organized at the "Relational Structure (RS)" level across all grade levels. However, the limited number of outcomes at the "Unistructural (US)" and "Multistructural (MS)" levels in 4th and 5th grades could be a disadvantage for students transitioning to higher levels. History and Geography, which are typically content-heavy areas, feature outcomes at these levels, whereas the "Technology and Social Sciences" area is designed to be more advanced. According to Hartman (1998), higher-order cognitive skills are crucial in teaching and learning because they directly affect a student's ability to apply knowledge.

**SUGGESTIONS**

In light of the findings, several recommendations can be proposed for the development and refinement of the Social Studies curriculum. First, learning outcomes should be distributed more evenly across the SOLO taxonomy levels, ensuring that foundational skills at the Unistructural (US) and Multi-structural (MS) levels are sufficiently emphasized in the lower grades (4th and 5th), while outcomes at the Relational Structure (RS) and Extended Abstract (EA) levels are gradually intensified in the upper grades (6th and 7th). To achieve this, the curriculum should adopt a spiral structure, with cognitive complexity increasing progressively across grade levels. In knowledge-intensive areas such as History and Geography, outcomes should prioritize foundational knowledge, whereas in more interdisciplinary domains like Technology and Social Sciences, higher-order skills should be emphasized. Furthermore, learning outcomes should be carefully designed to foster creativity, analytical thinking, problem-solving, and originality. Professional development programs are also needed to equip teachers with the skills to design instructional activities aligned with different SOLO levels. Comparative analyses with previous curricula should be conducted to evaluate the impact of revisions on cognitive development. Finally, transitional stages, particularly the 5th grade, require special attention to ensure that students develop strong conceptual foundations before advancing to higher-order skills.

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**Ethics Statement:** In this article, the journal's writing rules, publication principles, research and publication ethics rules, and journal ethical rules have been complied with. The responsibility for any violations that may arise regarding the article belongs to the author(s). This study does not require ethics committee approval.

**Declaration of Author(s)' Contribution Rate:** In this study, the contribution rate of the author is 100%.

| CONTRIBUTION RATE | CONTRIBUTORS |
|---|---|
| **Idea or Notion** | Kadir Can ERBUDAK |
| **Literature Review** | Kadir Can ERBUDAK |
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| **Data Collecting** | Kadir Can ERBUDAK |
| **Data Analysis** | Kadir Can ERBUDAK |
| **Findings** | Kadir Can ERBUDAK |
| **Discussion and Commentary** | Kadir Can ERBUDAK |

**Funding:** No contribution and/or support was received during the writing process of this study.

**Informed Consent Statement:** Informed consent forms were not obtained from the participants in the study.

**Data Availability Statement:**

- The data sets created and/or analyzed during the study will be provided by the relevant author upon request of the editor or referees.
- For questions regarding datasets, etc., the corresponding author should be contacted.
- All data related to the article is included in the article

**Conflict of Interest:** There is no conflict of interest between the author and other individuals, institutions or organizations related to the research.