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INVESTIGATION OF THE LEARNING OUTCOMES IN THE TURKISH COURSE CURRICULUM (FROM 5TH GRADE TO 8TH GRADE) IN TERMS OF THE SOLO TAXONOMY

TÜRKÇE DERSİ ÖĞRETİM PROGRAMININ 5., 6., 7. ve 8. SINIF KAZANIMLARININ SOLO TAKSONOMİSİNE GÖRE İNCELENMESİ

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ABSTRACT: The purpose of the study is to examine the Turkish Course Curriculum (2019) in terms of the SOLO taxonomy and determine to which level the learning outcomes correspond. Document analysis, one of the qualitative research methods, was used as the data analysis method. In this context, the learning outcomes in the Turkish Course Curriculum, which was drafted in 2017 and put into practice between 2018 and 2019, were used for the data source. It was observed that the learning outcomes in the curriculum were classified as listening, speaking, reading and writing. While classifying the learning outcomes, the levels of the Solo taxonomy were considered. The results showed that 162 learning outcomes s mostly corresponded to the level of relational. It was followed by the level of Multistructural (76 learning outcomes), the level of extended abstract (28 learning outcomes) and the level of unistructural (23 learning outcomes). As the grade level increased, the number of unistructural and multi-structural learning outcomes decreased. Additionally, as the learning outcomes of the extended abstract level were expected to increase, there was no increase. As a result, the o learning outcomes in the Turkish Course Curriculum are not adequate and suitable for the SOLO taxonomy.

Keywords: Curriculum, Learning Outcome, SOLO Taxonomy, Turkish Course

ÖZ: Bu çalışmada Türkçe dersi öğretim programı (2019) kazanımlarının SOLO taksonomisine göre incelenmesi ve kazanımların hangi düzeye karşılık geldiğinin belirlenmesi amaçlanmıştır. Çalışmada nitel araştırma yöntemlerinden doküman analizi tekniği kullanılmıştır. Bu kapsamda 2017 yılında taslak olarak hazırlanan ve 2018-2019 yılında uygulamaya konan Türkçe dersi öğretim programında yer alan kazanımlar veri kaynağı olarak kullanılmıştır. Öğretim programında yer alan kazanımların dinleme/izleme, konuşma, okuma ve yazma şeklinde sınıflandırıldığı görülmüştür. Kazanımlar SOLO taksonomisi düzeylerine göre sınıflandırılırken gösterge fiiller göz önünde bulundurulmuştur. Sonuçlara bakıldığında kazanımların en çok ilişkisel yapı basamağını (162 kazanım) temsil ettiği görülmüştür. Bu sıralamayı çok yönlü yapı basamağı (76 kazanım), soyutlanmış yapı basamağı (28 kazanım) ve tek yönlü yapı basamağı (23 kazanım) takip etmiştir. Sınıf seviyesi arttıkça tek yönlü ve çok yönlü kazanım sayısının azalıp, soyutlanmış yapı basamağı kazanımlarının artması beklenirken bir artış olmadığı görülmüştür. Sonuç olarak, Türkçe dersi öğretim programı kazanımlarının SOLO taksonomisinin yapısına uygun ve yeterli düzeyde olmadığı görülmüştür.

Anahtar sözcükler: SOLO Taksonomisi, Türkçe dersi, Öğretim programı, Kazanım

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GENİŞLETİLMİŞ ÖZET

Giriş

21. yy becerileri, bireylerin iş ve yaşamlarında başarılı olabilmeleri için ustalaşması gereken beceri, bilgi ve uzmanlık olarak tanımlanmaktadır (Framework for 21st Century Learning, 2019). Bu becerilere bakıldığında; bireylerin günlük hayatlarını kolaylaştırarak, yeniliklere ve teknolojik gelişmelere uyumlarını sağlamak, ayrıca onları sürekli öğrenmeye ve yaratıcı düşünmeye yönlendirmenin amaçlandığı görülmektedir. Bütün bu beklentiler gözleri eğitim kurumlarına çevirmiştir. Çünkü bu köklü değişimi sağlamada en büyük görev eğitim kurumlarına düşmektedir. Eğitim kurumlarının bu önemli görevi üstlenmesindeki en önemli unsur eğitim programlarıdır. Milli Eğitim Bakanlığı öğrencilerin sahip olması gereken beceri ve yeterlikleri dikkate alarak zaman zaman eğitim programlarında değişim sürecini başlatmaktadır. Türkiye'de 2017-2018 yıllarında eğitim programlarında değişiklik sürecine girilerek 21. yy becerilerini edinmiş öğrenciler yetiştirme hedeflemiştir. Değişime uğrayan programlardan biri de Türkçe dersi öğretim programıdır.

Öğretim programlarında hedefler, programın diğer öğelerine göre bir başlangıç noktası olduğundan ayrı bir öneme sahiptir. Öğretim programlarının hedeflerine ulaşmasında kazanımların sınıflandırılmasının ve değerlendirilmesinin önemi büyüktür. Öğrenme öğretme sürecinde öğrencilere kazandırılması istenen hedefler farklı düzeyde ve özellikte olabilir. Hedeflerin sınıflandırılmasında ve öğrenme çıktıklarını ölçmede daha etkili sonuçlar almak amacıyla kullanılan taksonomilerden en yaygın kullanılanlar arasında Bloom ve SOLO taksonomileri yer almaktadır. Gözlenebilen öğrenme çıktısı (Structure of Observed Learning Outcomes) anlamına gelen SOLO taksonomisi, Piaget'in bilişsel gelişim evreleri referans alınarak geliştirilmiştir (Bağdat, 2013). Sürekli değişimin en büyük etkilerinin görüldüğü eğitim sürecinde, yenilenen öğretim programlarının 21. yy öğrenci becerileri açısından incelenmesi önemli görülmektedir. Milli Eğitim Bakanlığı tarafından belirlenen değişim politikalarının öğretim programlarına yansımasına yönelik yapılacak çalışmaların, sonradan yapılacak program geliştirme süreçlerine etkisi olacağı düşünülmektedir. Yapılan bu çalışma ile Türkçe dersi öğretim programı (2019) kazanımlarının SOLO taksonomisine göre incelenmesi ve kazanımların hangi düzeye karşılık geldiğinin belirlenmesi amaçlanmıştır.

Yöntem

Bu çalışmada nitel araştırma yöntemlerinden doküman analizi tekniği kullanılmıştır. Araştırma kapsamında 2017 yılında taslak olarak hazırlanan ve 2018-2019 yılında uygulamaya geçen Türkçe dersi öğretim programında yer alan kazanımlar veri kaynağı olarak kullanılmıştır. Öğretim programında yer alan kazanımların dinleme/izleme, konuşma, okuma ve yazma şeklinde sınıflandırıldığı görülmektedir. Bu kazanımların SOLO Taksonomisi düzeylerine göre sınıflandırılması aşamasında literatürde belirlenmiş gösterge fiiller göz önünde bulundurulmuştur. Kazanım sınıflandırılmasında SOLO taksonomisinin ilk basamağı olan yapı öncesi basamak dahil edilmeksizin ikinci basamaktan başlanmış ve tek yönlü yapı, çok yönlü yapı, ilişkisel yapı ve soyutlanmış yapı göz önünde bulundurulmuştur. Farklı sınıf seviyelerinde yer alan toplam 289 kazanım araştırmacı haricinde iki farklı uzman tarafından incelenmiş ve hangi düzeye uygun olduğu belirlenmiştir. Uzman değerlendirmeleri sonrasında aradaki uzlaşmayı belirlemek için görüş birliği/(toplam görüş birliği+görüş ayrılığı) formülü ile hesaplanan basit uyum yüzdesi kullanılmıştır (Miles & Huberman, 1994). Yapılan hesaplama sonucu uzmanlar arasındaki uyumun %93 olduğu ve uzmanların 289 kazanımdan 269'unu aynı düzeye atadığı belirlenmiştir.

Bulgular

Türkçe dersi öğretim programı kazanımlarının SOLO taksonomisi basamaklarına göre dağılımlarının incelendiği çalışmada yapılan analizler sonucu, 5. sınıf öğretim programında yer alan 69 kazanımdan büyük çoğunluğunun SOLO taksonomisinin ilişkisel yapı basamağına (32 kazanım) yönelik olduğu görülmektedir. Bu sırayı çok yönlü yapı basamağı (19 kazanım), tek yönlü yapı basamağı (9 kazanım) ve soyutlanmış yapı basamağı (9 kazanım) takip etmektedir. 6. sınıf öğretim programında yer alan 68 kazanımdan büyük çoğunluğunun SOLO taksonomisinin ilişkisel yapı basamağına (36

kazanım) yönelik olduğu görülmektedir. Bu sırayı çok yönlü yapı basamağı (20 kazanım), soyutlanmış yapı basamağı (8 kazanım) ve tek yönlü yapı basamağı (4 kazanım) takip etmektedir. 6. sınıf öğretim programında yer alan 68 kazanımdan büyük çoğunluğunun SOLO taksonomisinin ilişkisel yapı basamağına (36 kazanım) yönelik olduğu görülmektedir. Bu sırayı çok yönlü yapı basamağı (20 kazanım), soyutlanmış yapı basamağı (8 kazanım) ve tek yönlü yapı basamağı (4 kazanım) takip etmektedir. Buradan hareketle en fazla temsil edilen basamakların ilişkisel yapı ve çok yönlü yapı basamakları olduğu görülmektedir. 8. sınıf öğretim programında yer alan 76 kazanımdan büyük çoğunluğunun SOLO taksonomisinin ilişkisel yapı basamağına (50 kazanım) yönelik olduğu görülmektedir. Bu sırayı çok yönlü yapı basamağı (16 kazanım), soyutlanmış yapı basamağı (5 kazanım) ve tek yönlü yapı basamağı (5 kazanım) takip etmektedir. Buradan hareketle en fazla temsil edilen basamakların ilişkisel yapı ve çok yönlü yapı basamakları olduğu görülmektedir.

Tartışma ve Sonuç

Türkçe dersi öğretim programında yer alan kazanımların SOLO taksonomisi basamaklarına göre incelenmesinin amaçlandığı bu araştırma sonucunda; kazanımların çoğunun (162 kazanım) ilişkisel yapı basamağında olduğu görülmüştür. Bunu sırasıyla çok yönlü yapı basamağı (76 kazanım), soyutlanmış yapı basamağı (28 kazanım) tek yönlü yapı basamağı (23 kazanım) takip etmiştir. Çalışmadan elde edilen sonuçlar doğrultusunda Türkçe dersi öğretim program kazanımlarının SOLO taksonomisinin yapısına uygun ve yeterli düzeyde olmadığı görülmüştür. Öğrencilerin lise ve üniversite giriş sınavlarında karşılarına çıkan ve "yeni nesil" olarak adlandırılan soruları anlayabilmeleri, edindikleri bilgileri farklı alanlara transfer edebilmeleri ve akıl yürütme becerilerini kullanabilmeleri ancak üst bilişsel düşünme becerileri ile sağlanabilmektedir (Erbaş, 2021). SOLO taksonomisinin düzeyleri niceliksel ve niteliksel öğrenmeleri yansıtacak yapıda düzenlenmiştir (Goel, 2011). Bu nedenle öğretim programları hazırlanırken SOLO taksonomisi düzeyleri göz önünde bulundurularak öncelikle 5 ve 6. Sınıflarda daha çok ön öğrenmelerin ve kavramların öğrenilip, uygulamaya koyulmasını sağlayan tek yönlü ve çok yönlü yapı basamaklarında yer alan kazanımların yer alması; 7 ve 8. Sınıflarda ise ilişkisel yapı ve soyutlanmış yapı basamaklarında yer alan kazanımların yer alması gereklidir.

INTRODUCTION

21st-century skills and needs stand out with the developments in science and technology and the increase in knowledge accumulation. Today, information, which was valid and valuable in the past years, is no longer sufficient on its own (Kocakaya & Kotluk, 2015). 21st-century skills are defined as the skills, knowledge, and expertise that individuals need to master to be successful in their business and life (Framework for 21st Century Learning, 2019). We can see that these skills are aimed to facilitate the daily lives of individuals, ensure their adaptation to innovations and technological developments, and also direct them to continuous learning and creative thinking. All these expectations have turned the eyes to educational institutions. It is because educational institutions have great importance to ensure this radical change. Educational programs are the most important factor for educational institutions to undertake this important task. The Ministry of National Education initiates the process of change in education programs from time to time by considering these skills and competencies that students should bear. In Turkey, it was aimed to raise students who have acquired 21st-century skills by changing the content of education programs in the 2017-2018 academic year. One of the programs that have changed is the Turkish course curriculum. The aim of the Turkish teaching program is defined as "Students acquire language skills (listening, speaking, writing, reading) and mental skills that they can use throughout their lives, develop themselves individually and socially by using these skills, and let them communicate effectively" (Ministry of National Education, 2017). The fact that the Turkish course curriculum has undergone developments according to the needs of the time since the establishment of the Turkish Republic has been revealed with program comparison studies (Altunkeser & Coşkun, 2016; Aydın, 2017; Kalaycı & Yıldırım, 2020; Özenç, 2018; Şahin & Bayramoğlu, 2016). The Turkish course curriculum (1st and 8th grades) was renewed by the Ministry of National Education in 2017 and applied for the first time at the 5th grade level and has been implemented at every grade level as of the 2018-2019 academic year.

Since the learning outcomes in the curriculum constitute a starting point compared to the other elements of the program, they have significant importance. Classification and evaluation of learning outcomes are of great importance in achieving the learning outcomes of the curriculum. The learning outcomes that are desired to be acquired by the students in the learning-teaching process can be at different levels and characteristics. In the 1950s, studies were carried out by Bloom et al. to get more effective results in classifying learning outcomes and measuring learning learning outcomes and they were diversified over time. Taxonomies are frequently used to increase the quality of the curriculum. Educators such as Bloom, Biggs and Collis, Fink, Anderson, and Dettmer have studies on cognitive domain taxonomies. Taxonomy can be defined as the gradual ordering of target behaviors from simple to complex, easy to difficult, concrete to abstract (Sönmez, 2004). According to Gökler (2012), taxonomies are guides and facilitators in the determination of new targets after expressing the expected behaviors from students with purposes. Taxonomies can be used to analyze learning outcomes or evaluation questions in different disciplines (Arı, 2013). Bloom and SOLO are the most widely used taxonomies among these. Hattie and Burdie (1998) proposed that the SOLO taxonomy is more practical in eliminating the uncertainties in determining the cognitive levels in Bloom's taxonomy (Gezer & İlhan, 2015). The SOLO taxonomy was used in this study by considering the importance of cognitive levels in the evaluation process of the outcomes.

SOLO Taxonomy and Related Research

SOLO taxonomy, which stands for Structure of Observed Learning Outcomes was developed regarding Piaget's cognitive development stages (Bağdat, 2013). Although this taxonomy is a model that was first proposed to explain the structure of learning outcomes, some studies have shown that it can also be used in determining the learning outcomes of the curriculum (Ağçam & Babanoğlu, 2018; Ertem Akbaş & Baki, 2020; Fensham & Bellocchi, 2013; Gezer & İlhan, 2015; Pegg & Tall, 2005). SOLO taxonomy consists of five stages of understanding and these stages are arranged to reflect qualitative and quantitative learning (Brabrand & Dahl, 2009; Biggs & Tang, 2007; Goel, 2011; Ivanitskaya, Clark, Montgomery & Primeau, 2002; Minogue & Jones, 2009). The lowest level of this taxonomy is the pre-structural level. At this level, students cannot properly fulfill the task expected from them or give meaningful answers to the questions asked to them (Brabrand & Dahl, 2009). Also, the learner has

difficulty in understanding the subject and the information they learned will not be structured in their minds. At this level, the student cannot put forward ideas for the solution of the problem (Leung, 2000). The second stage of the taxonomy is the uni-structural level. At this level, the student focuses on conceptual structure and naming by dealing with a single aspect of the relevant field (Minogue & Jones, 2009). Students, who learn a single method or concept can use terminology, follow simple instructions, and develop a narrow and superficial point of view towards the question asked (Brabrand & Dahl, 2009; Minogue & Jones, 2009). The third stage of the taxonomy is the multi-structural level. At this level, the student understands different aspects of a problem but cannot establish a relationship between them (Padiotis & Mikropoulos, 2010). The student can count, introduce, classify, combine, and apply methods one by one. In other words, it is safe to say that the student can see the trees but not the forest at the multi-structural level (Burnett, 1999). The fourth stage of the taxonomy is the relational level. In this level, we go beyond the explanatory approach at the multi-structural level and connect the parts to form a coherent whole (Hattie & Brown, 2004; Weyers, 2006). At this level, the student can understand the relationship between various views and how they form a whole. Generalizations can be made at this level. At this level, the student is expected to make comparisons and associations, analyze, and apply theory, and express according to cause and effect relationship. In the extended abstract level, which is the last stage of the taxonomy, students can transfer what they have learned about the subject to a different field and put forward new and creative ideas (Thompson, 2007). In this stage, which is regarded as the highest level, students can have the competencies to generalize, make assumptions, criticize, and create theories.

When the relevant literature is examined, it is possible to find studies, in which the SOLO taxonomy is used in the determination and evaluation of curriculum outcomes (Ağçam & Babanoğlu, 2018; Doğan, 2020; Ertem Akbaş & Baki, 2020; Fensham & Bellocchi, 2013; Gezer & İlhan, 2015; Göçer & Kurt, 2016), evaluation questions and academic achievement levels in the textbooks (Çetin, Boran & Yazıcı, 2014; Dönmez, 2019), learning and teaching processes (Ertem Akbaş, 2016; Konyalıhatipoğlu, 2016), thinking skills (Bağdat & Anapa-Saban, 2014; Elazzabi & Kaçar, 2020) and in the determination of learning levels (Şendur, 2019).

In the education process, where the greatest effects of continuous development are seen, it is considered important to examine the renewed curriculum in terms of 21st-century student skills. Framework for 21st Century Learning was proposed by P21 as a result of the feedback from educators, education experts, and business representatives, to define the knowledge, skills, expertise, and support systems that students need to become competent individuals in the fields of education, social life, business life, and citizenship, which are the final output of education systems. Similar to the P21 framework, various classifications of 21st-century skills have been made by The American National Research Council (NRC) and the International Society for Technology In Education (ISTE).

- P21 framework,
    - Learning and Innovation Skills
    - Information, Media, and Technology Skills
    - Life and Career Skills
- The American National Research Council [NRC],
    - Cognitive Skills
    - Interpersonel Skills
    - Intrapersonal Skills
- International Society For Technology In Education-[ISTE],
    - Empowered Learner
    - Digital Citizen
    - Knowledge Constructor
    - Innovative Designer
    - Computational Thinker
    - Creative Communicator

It is believed that the studies on the reflection of the change policies determined by the Ministry of National Education on the curriculum will have an impact on the subsequent program development processes. The purpose of this study is to examine the learning outcomes of the Turkish course curriculum (2019) according to the SOLO taxonomy and to determine which level the learning outcomes correspond to. Considering the purpose of the study, answers to the following questions were sought:

- What is the distribution of the learning outcomes of the 5th grade Turkish course curriculum (2019) according to the SOLO taxonomy levels?
- What is the distribution of the learning outcomes of the 6th grade Turkish course curriculum (2019) according to the SOLO taxonomy levels?
- What is the distribution of the learning outcomes of the 7th grade Turkish course curriculum (2019) according to the SOLO taxonomy levels?
- What is the distribution of the learning outcomes of the 8th grade Turkish course curriculum (2019) according to the SOLO taxonomy levels?

METHOD

In this study, the document analysis technique, one of the qualitative research methods, was used. The document analysis is the process of collecting materials containing information about the cases targeted to be investigated and analyzing them according to certain criteria (Çepni, 2012; Yıldırım & Şimşek, 2013). Bowen (2009) defined document analysis as a method that allows the examination of documents obtained from printed or electronic sources. Within the scope of the study, the learning outcomes in the Turkish course curriculum, which was prepared as a draft in 2017 and implemented in the 2018-2019 academic year, as the data source. It is seen that the learning outcomes in the curriculum are classified as listening/watching, speaking, reading, and writing. According to this classification, the number of learning outcomes for the 5th, 6th, 7th, and 8th grades are provided in the table below.

Table 1.
Number of learning outcomes according to grades in the Turkish course curriculum

Number of Learning Outcomes by Grades					
	Listening/Watching	Speaking	Reading	Writing	Total
5th Grade	12	7	34	16	69
6th Grade	12	7	35	14	68
7th Grade	14	7	38	17	76
8th Grade	14	7	35	20	76
Total	52	28	142	67	289

The verbs in the table below are considered at the stage of classification of these learning outcomes according to the SOLO Taxonomy levels. In the classification of learning outcomes, the pre-structural level, which is the first stage of SOLO taxonomy, was excluded and classification started from the second stage and uni-structural, multi-structural, relational, and extended abstract levels were taken into consideration.

Table 2.
Indicative verbs determined according to the levels of the SOLO taxonomy

Uni-Structural	Multi-Structural	Relational	Extended Abstract
- Transfer	- Connect	- Question	- Examine in-depth
- Speak	- Classify	- Apply	- Design
- Express	- Number	- Outline	- Create
- Diagnose	- List	- Distinguish	- Judge
- Notice	- Define	- Analyze	- Hypothesize
- Remember	- Mock	- Sort	- Assess
- Repeat	- Plan	- Compare	- Discuss
- Mark	- Implement	- Categorize	- Reflect
- Name	- Clarify	- Observe	- Applying theory to a new field
- Know	- Clear up	- Summarize	- Generalize
	- Make clear	- Guess	- Creating theory
	- Explain	- Integrate	- Estimate
	- Symbolize	- Explaining reasons	
	- Qualify	- Evaluate	
		- Implementing a theory	

* (Biggs, 2003; Burnett, 1999)

A total of 289 learning outcomes at different grade levels were examined by two different experts other than the researcher and their levels were determined. After the expert reviews, the simple percentage of agreement (Miles & Huberman, 1994) calculated with the formula of consensus/ (total agreement+disagreement) was used for the agreement. As a result of the calculation and regarding the level to which the learning outcomes assigned by experts, dissensus was found out in 1 learning outcome out of 69 learning outcomes for 5th grade, 5 learning outcomes out of 68 learning outcomes for 6th grade, 6 learning outcomes out of 76 learning outcomes for 7th grade, and 8 learning outcomes out of 76 learning outcomes for 8th grade. As a result of the calculation, it was found that the agreement between the experts was 93% and experts assigned 269 out of 289 learning outcomes to the same level.

Table 3.
The learning outcomes that the researchers disagreed on the 5th, 6th, 7th, 8th grade Turkish course curriculum according to the SOLO Taxonomy levels

Grade	Disagreed Learning Outcome	SOLO Level by Researcher	SOLO Level by First Expert	SOLO Level by Second Expert	SOLO Level by Final Decision
5th Grade (1 Learning outcome)	T.5.3.6. Determines the contribution of idioms and proverbs to the text.	Multi-Structural	Relational	Uni-Structural	Relational
6th Grade (5 Learning outcomes)	T.6.2.2. Speaks without preparation.	Multi-Structural	Extended Abstract	Relational	Extended Abstract
	T.6.3.6. Determines the contribution of idioms and proverbs to the text.	Multi-Structural	Relational	Relational	Relational
	T.6.3.16. Summarizes what he reads.	Multi-Structural	Relational	Relational	Multi-Structural
	T.6.3.18. Asks questions about the text.	Relational	Relational	Uni-Structural	Relational
	T.6.3.29. Makes inferences about what he reads.	Relational	Relational	Uni-Structural	Extended Abstract
7th Grade (6 Learning outcomes)	T.7.2.2. Speaks without preparation.	Multi-Structural	Extended Abstract	Relational	Extended Abstract
	T.7.3.6. Determines the contribution of idioms and proverbs to the text.	Multi-Structural	Relational	Relational	Relational
	T.7.3.15. Summarizes what he reads.	Multi-Structural	Relational	Relational	Multi-Structural
	T.7.3.28. Makes inferences about what he reads.	Relational	Relational	Uni-Structural	Extended Abstract
	T.7.3.30. Answers questions about the images.	Multi-Structural	Relational	Relational	Multi-Structural
	T.7.4.15. Uses appropriate transitional and linking expressions in his writings.	Multi-Structural	Relational	Relational	Uni-Structural
8th Grade (8 Learning outcomes)	T.8.1.4. Answers questions about what he has listened to/watched.	Multi-Structural	Relational	Relational	Multi-Structural
	T.8.3.6. Determines the contribution of idioms, proverbs, and aphorisms to the text.	Multi-Structural	Relational	Relational	Relational
	T.8.3.9. Comprehends the functions of the verbs in the sentence.	Multi-Structural	Relational	Relational	Multi-Structural
	T.8.3.13. Summarizes what he reads.	Multi-Structural	Relational	Relational	Multi-Structural
	T.8.3.15. Asks questions about the text.	Multi-Structural	Extended Abstract	Uni-Structural	Relational
	T.8.3.27. Answers questions about the images.	Multi-Structural	Relational	Relational	Multi-Structural
	T.8.4.8. Uses humorous elements in his writings.	Multi-Structural	Extended Abstract	Multi-Structural	Relational
	T.8.4.15. Uses appropriate transitional and linking expressions in his writings.	Multi-Structural	Relational	Relational	Uni-Structural

The analysis process of the study was completed with the re-evaluation of the outcomes with disagreements, the consensus of field experts, and making the final decisions.

Ethical Procedures

Since document analysis was used in the article, there was no need for an ethics committee report.

FINDINGS

In this section, as a result of the analysis, the distribution of the learning outcomes in the Turkish course curriculum according to the levels of the SOLO taxonomy is given. Findings were presented according to grade levels by the sub-objectives of the study. Firstly, we have examined the distribution of the 5th grade learning outcomes according to the SOLO taxonomy levels in line with the purpose of the study and then we have provided the obtained results in Table 4.

Table 4.
Distribution of 5th grade Turkish course curriculum learning outcomes according to SOLO taxonomy levels

	Uni-Structural	Multi-Structural	Relational	Extended Abstract	Total
Listening/Watching	-	3	8	1	12
Speaking	-	3	3	1	7
Reading	5	9	16	4	34
Writing	4	4	5	3	16
Total	9	19	32	9	69

When we examine Table 4, it is seen that the majority of the 69 learning outcomes in the 5th grade curriculum are related to the relational level (32 learning outcomes) of the SOLO taxonomy. This is followed by multi-structural level (19 learning outcomes), uni-structural level (9 learning outcomes), and extended abstract level (9 learning outcomes). Considering these, it is seen that the most represented levels are the relational and multi-structural levels.

Considering the listening/watching, speaking, reading, and writing skills/learning areas, it is seen that the learning outcomes belonging to the relational level are most dominant and the number of learning outcomes in the reading skill/learning area (16 learning outcomes) is higher.

In line with the second purpose of the study, the distribution of 6th grade learning outcomes according to the SOLO taxonomy levels was examined and the findings are provided in Table 5.

Table 5.
Distribution of 6th grade Turkish course curriculum learning outcomes according to SOLO taxonomy levels

	Uni-Structural	Multi-Structural	Relational	Extended Abstract	Total
Listening/Watching	-	4	7	1	12
Speaking	-	2	3	2	7
Reading	2	11	18	4	35
Writing	2	3	8	1	14
Total	4	20	36	8	68

When we examine Table 5, it is seen that the majority of the 68 learning outcomes in the 6th grade curriculum are related to the relational level (36 learning outcomes) of the SOLO taxonomy. This is followed by multi-structural level (20 learning outcomes), extended abstract level (8 learning outcomes), and uni-structural level (4 learning outcomes). Considering these, it is seen that the most represented levels are the relational and multi-structural levels.

Considering the listening/watching, speaking, reading, and writing skills/learning areas, it is seen that the learning outcomes belonging to the relational level are most dominant and the number of learning outcomes in the reading skill/learning area (18 learning outcomes) is higher.

In line with the third purpose of the study, the distribution of 7th grade learning outcomes according to the SOLO taxonomy levels was examined and the findings are provided in Table 6.

Table 6.
Distribution of 7th grade Turkish course curriculum learning outcomes according to SOLO taxonomy levels

	Uni-Structural	Multi-Structural	Relational	Extended Abstract	Total
Listening/Watching	-	4	8	2	14
Speaking	-	1	4	2	7
Reading	2	13	21	2	38
Writing	3	3	11	-	17
Total	5	21	44	6	76

When we examine Table 6, it is seen that the majority of the 76 learning outcomes in the 7th grade curriculum are related to the relational level (44 learning outcomes) of the SOLO taxonomy. This is followed by multi-structural level (21 learning outcomes), extended abstract level (6 learning outcomes), and uni-structural level (5 learning outcomes). Considering these, it is seen that the most represented levels are the relational and multi-structural levels.

Considering the listening/watching, speaking, reading, and writing skills/learning areas, it is seen that the learning outcomes belonging to the relational level are most dominant and the number of learning outcomes in the reading skill/learning area (21 learning outcomes) is higher.

In line with the fourth purpose of the study, the distribution of 8th grade learning outcomes according to the SOLO taxonomy levels was examined and the findings are provided in Table 7.

Table 7.
Distribution of 8th grade Turkish course curriculum learning outcomes according to SOLO taxonomy levels

	Uni-Structural	Multi-Structural	Relational	Extended Abstract	Total
Listening/Watching	-	4	9	1	14
Speaking		1	5	1	7
Reading	2	9	22	2	35
Writing	3	2	14	1	20
Total	5	16	50	5	76

When we examine Table 7, it is seen that the majority of the 76 learning outcomes in the 8th grade curriculum are related to the relational level (50 learning outcomes) of the SOLO taxonomy. This is followed by multi-structural level (16 learning outcomes), extended abstract level (5 learning outcomes), and uni-structural level (5 learning outcomes). Considering these, it is seen that the most represented levels are the relational and multi-structural levels.

Considering the listening/watching, speaking, reading, and writing skills/learning areas, it is seen that the learning outcomes belonging to the relational level are most dominant and the number of learning outcomes in the reading skill/learning area (22 learning outcomes) is higher.

In line with the fifth purpose of the study, the distribution of 5th, 6th, 7th, and 8th grade learning outcomes according to the SOLO taxonomy levels were examined and the findings are provided in Table 8.

Table 8.
Distribution of 5th, 6th, 7th, and 8th grade Turkish course curriculum learning outcomes according to SOLO taxonomy levels

	Uni-Structural	Multi-Structural	Relational	Extended Abstract	Total
5th Grade	9	19	32	9	69
6th Grade	4	20	36	8	68
7th Grade	5	21	44	6	76
8th Grade	5	16	50	5	76
Total	23	76	162	28	289

When we examine Table 8, it is seen that the majority of the 289 learning outcomes in the Turkish course curriculum are related to the relational level (162 learning outcomes) of the SOLO taxonomy. This is followed by multi-structural level (76 learning outcomes), extended abstract level (28 learning outcomes), and uni-structural level (23 learning outcomes).

RESULTS, DISCUSSION AND RECOMMENDATIONS

As a result of this study, in which we aimed to examine the learning outcomes in the Turkish course curriculum according to the SOLO taxonomy levels, it was found that the majority of the learning outcomes (162 learning outcomes) belong to the relational level. This is followed by multi-structural level (76 learning outcomes), extended abstract level (28 learning outcomes), and uni-structural level (23 learning outcomes).

When we analyze them according to the grades, it has been observed that most of the learning outcomes in 5th, 6th, 7th, and 8th grade are relational level, followed by multi-structural level and there are fewer learning outcomes in the uni-structural and extended abstract level. Students need to learn some basic concepts about a course they encounter for the first time in secondary school education. The uni-structural level is considered important in the individual's learning of concepts and understanding an event from one perspective. Learning outcomes acquired at this level constitute the basis of the learning that will take place in the following years. Since the learning outcomes in the uni-structural level make it easier to acquire the learning outcomes in the multi-structural level, it is especially required in the 5th grade. Therefore, considering that the SOLO taxonomy has a hierarchical structure, it is expected that the 5th and 6th grade learning outcomes will take place primarily in uni-structural and multi-structural levels. However, considering the results, there are no learning outcomes at the uni-structural level, especially in listening/watching and speaking skill areas. The number of achievements remains as a minority in reading and writing skills. A similar concept is observed when we examine the 7th and 8th grade learning outcomes. It is expected that the number of learning outcomes of relational and extended abstract levels must be plenty in these grades. However, the results obtained indicate that the number of learning outcomes in the multi-structural level is more compared to the extended abstract level. Learning outcomes at the multi-structural level may be insufficient for students to go beyond superficial learning and realize more meaningful and deep learning. In this context, it is important that the learning outcomes of the relational and extended abstract levels, which are described as the high-level structures of the SOLO taxonomy, are represented more in the program so that students can relate the information they learned with each other and with their daily lives when they reach the upper secondary school levels, generalize, use their analysis and reasoning skills (Gezer & İlhan, 2014). In their study, Göçer and Kurt (2016) examined the verbal communication skills learning outcomes of the Turkish course curriculum according to the SOLO taxonomy and concluded that learning outcomes of uni-structural level are predominant. Dönmez (2019) examined learning outcomes and evaluation questions of the Science course curriculum according to the SOLO taxonomy and concluded that learning outcomes of uni-structural level are predominant. Similarly, Şendur (2019) stated that learning outcomes in the Science course curriculum are not in a hierarchical relationship at the level that SOLO taxonomy aims.

It is expected that metacognitive levels increase as students move from lower to higher levels in the SOLO taxonomy (Anderson & Krathwol, 2001; Biggs & Collis, 1982; Göçer & Kurt, 2016). In the studies on curriculum, it has been observed that the learning outcomes are not evenly distributed while it is expected that the learning outcomes in the relational and extended abstract levels will increase as the grade level increases (Gezer & İlhan, 2014; Konyalıhatipoğlu, 2016). Considering that the

learning outcomes representing extended abstract level support students' analytical thinking, creativity, and relational learning skills, it is important to revise the curriculum prepared in this direction.

As a result, it has been observed that the learning outcomes of the Turkish course curriculum are not adequate and suitable for the stages of the SOLO taxonomy. Students can only understand the so-called "new generation" questions that are available in high school and university entrance exams, transfer their acquired knowledge to different fields, and use their reasoning skills are only possible with their metacognitive thinking skills (Erbaş, 2021). SOLO taxonomy stages are arranged in a structure that reflects quantitative and qualitative learning (Goel, 2011). Therefore, it is necessary to include the learning outcomes of uni-structural and multi-structural levels in 5th and 6th grades, which allow pre-learning and putting the learned concepts into practice, and learning outcomes in the relational and extended abstract levels in 7th and 8th grades while preparing curriculum.

In this regard, it may be necessary to revise the outcomes in the Turkish curriculum. For example, considering the 5th and 6th-grade outcomes, it may be suggested to increase the number of indicative verbs such as "to answer, convey, say, repeat, clarify, etc." instead of verbs used in the outcomes at the relational and abstracted structure level such as "to guess, summarize, identify, animate, distinguish, etc." Similarly, considering the 7th and 8th-grade outcomes, it may be suggested to increase the number of indicative verbs such as "to design, create, judge, hypothesize, reflect, discuss, etc." instead of verbs of the omnidirectional structure step such as "to answer, identify, giving an opinion, understand, summarize, etc."

Considering that SOLO taxonomy is a model, which is independent of the content (Kanuka, 2011), it is believed that this study can guide the curriculum development efforts. Since the study carried on the Turkish course curriculum, which can be the limitation of the study, it can be recommended that similar studies be carried out on new curriculum of different courses. Also, since only the evaluation of the learning outcomes is considered insufficient in the evaluation process of curriculum, it is believed that the relational and experimental studies to be conducted will also contribute to the field.

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