Evaluation of Activities in Secondary School Level Turkish Workbooks According to Types of Memory and Revised Bloom's Taxonomy

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Abstract

This study analyzes the activities in the Turkish student workbooks in the framework of secondary school level Turkish courses based on the literature of "memory, information processing process, memory-learning relationship and the Revised Bloom's Taxonomy." It seeks to determine which activities are associated with which type of information in the parts of the long-term memory (semantic memory and episodic memory), and to identify the steps in the Revised Bloom's Taxonomy which these information are linked to. The study further presents the distribution of the activities in the books according to the Revised Bloom's Taxonomy.

Based on the results, the inspection of the distribution of the activities in the books in terms of semantic and episodic information reveals that there are more activities for the semantic dimension in all grade levels. Most of the activities in the semantic dimension, which includes academic knowledge and skills, are intended for the lower-order thinking skills; in the episodic dimension, the highest number of the activities are designed at the level of create whilst the lowest number of the activities are intended for the level of analyze and evaluate in all grade levels. The inspection of the distribution of all the activities in the books according to the Revised Bloom's Taxonomy points to that there are less activities at the level of analyze, evaluate and create, which entail higher-order thinking skills, whilst there are more activities at the level of remember, understand and apply in all grade levels.

Keywords: teaching Turkish, memory, semantic memory, episodic memory, revised Bloom's Taxonomy

1. Introduction

Turkish courses seek to help students develop extensive academic and social knowledge and skills through four basic language skills and grammar knowledge. Thus, the content of the materials prepared for Turkish courses need to provide knowledge and skills relevant to Turkish courses as well as to enhance student knowledge in other fields and improve their mental skills. In order to achieve this, it is essential to benefit from the existing knowledge on learning and memory. In that regard, the following sections of the study will address information processing process, and regarding these, memory, memory types, the relationship between memory and learning. Additionally, some information about Revised Bloom Taxonomy will also be given. Based on the relevant literature, the study seeks to reveal the number of activities is presented for semantic and episodic memory in Turkish secondary school books, and to analyze the distribution of these activities according to cognitive steps and the distribution of all activities in the books according to the steps in Revised Bloom's Taxonomy.

1.1 Information Processing Process

Information processing process consists of cognitive processes in the memory-related mental structures (Onan, 2012). This section firstly goes through the mental structures, and then looks into the cognitive processes that occur in these mental structures in the context of the learning-memory relationship.

1.1.1 Memory

In an effective education process, the retention of the information is as important as what the information to be learned/taught is, the rate of learning and to what extent that the student can learn the presented information. The retention of the learned information has something to do with how long the learners can store the information. As it

is, the term "memory" plays a key role in determining whether the practices in the education and training process have achieved their purpose or not. Since the purpose of education and training is to bring about the desired behavior change in the individual in the process after the presentation of the information and in the long term. The type of the information that is forgotten soon after the receipt does not help achieve the desired behavior change in the student.

Speaking of the education of the man separated from other biological entities with their mind and ability to use their mind, what memory is, memory types, how it works, and other topics such as the connection of the concept of memory with learning are key considerations in the preparation of educational programs, in the organization of educational environments, in the development of necessary materials for education. That is, it is useful to first examine how memory is defined by various researchers.

Onan (2014, p. 87) recognizes memory as indispensable in understanding memory and defines the concept of memory as follows: "Memory is a person-centered selection of the learned information. It is the skill to retain and recall a past event or previous information. In other words, it is the ability that allows one to store and use the learned information learned when required."

Ün-Açıkgöz (2009, p. 286) states that memory is a structure that covers the processes where the memory encodes, stores and retrieves the information and that the structures and processes in the memory regulate the recall and recognition behaviors.

Yaltkaya (2000, p. 42) describes memory as "a basic brain function that provides learning, reasoning, consciousness, and thus the integrity of a person." According to the author, memory is a complex and multifaceted aspect of human cognition.

Zanden (1980 as cited in Ün-Açıkgöz, 2009, p. 286) defines memory as "the ability to recall, recognize and to learn faster during re-learning." Remarkably, unlike other definitions, this definition emphasizes the activation of memory during re-learning.

Based on the above definitions and explanations, it can be argued that memory is an element that enables retention and recall and affects understanding; is a brain function creating reasoning and consciousness and a brain's ability to learn faster while re-learning.

1.1.2 Memory Types

Onan (2014, p. 94) classifies the memory types as follows:

A. Based on the type of the incoming information

1)   Declarative (Explicit) Memory

2)   Non-declarative/Reflexive (Unidentified) Memory

B. Based on the processing of the incoming information

1) Short-Term Memory

a. Encoding

b. Storing

c. Retrieval

2) Long-Term Memory

a. Encoding

b. Storing

c. Retrieval

In addition to this classification, the sensory recording phase, which acts as a tool for transferring information to short-term memory, is also included in the memory system (Karakaş, 2000; Yüksel, 2011). In addition, according to some researchers, another type of memory related to the long-term memory is procedural memory. "Procedural memory is the section of memory where information about how to perform a particular process is stored. In the procedural memory, the formation of the procedure steps takes a long time, but it is very easy to remember them after their formation" (Madi, 2006, p. 140). Learning to ride a bike, to swim, to perform a division, etc. are the information stored in the procedural memory.

1.1.3 Divisions of Long-term Memory

Issues related to our personal life, academic knowledge, relevant information on social issues, skills, habits, etc.

many types of information are stored in our long-term memory. "Long-term memory consists of different memory divisions. Accordingly, long-term memory is divided into two — *episodic* and *semantic*. The difference between these two types of memory can be called "memory" and "information" (Tulving, 1985 as cited in Terry, 2011, p. 339). These two types of long-term memory are forms of declarative memory.

1.1.3.1 Episodic Memory

Episodic memory is a type of memory related to an individual's personal experiences. This memory stores information such as the elementary school that you attended, your birthdate, the movies you like, etc. This type of memory is also referred to as *autobiographical memory*, or *event memory*.

Williams and Conway (2015, p. 43) describe how autobiographical memory works:

> "The term *autobiographical memory* refers to our memory for specific episodes, *episodic memory*, and to our conceptual, generic, and schematic knowledge of our lives, *autobiographical knowledge*. Typically these two types of long-term memory representation are brought together in an act of remembering where they form a specific memory. Autobiographical memories are the content of the self; and they position us within the socio-historical time, within our social groups and define the self. They path the way for the development of the self and define who we can yet become."

Similar to Williams and Conway (2015), Tanrıdağ (2015, p. 92) reports that episodic memory is the memory associated with us and the social group that we are affiliated with for defensive purposes.

Unlike these arguments, Boyer (2015, p. 8) puts forth that this definition in terms of what-where-when soon proved less than satisfactory. It turns out that we often have information about what-where-when for situations that we did not actually experience; conversely, many autobiographical memories lack at least some of that information.

1.1.3.2 Semantic Memory

Semantic memory is not linked to personal experiences. "The concepts, facts, generalizations and rules of subject areas are stored in this division of the long-term memory. What we learn at school is mostly stored in semantic memory" (Senemoğlu, 2013, p. 282).

Semantic memory involves general information and concepts available in the environment and not tied to a particular context. Examples include the words to the "Star Spangled Banner" and the chemical formula for water (H_2O). The two types of memories often are combined, as when a child tells a parent, "Today in school I learned [episodic memory] that C. Colomb discovered America in 1492 [semantic memory]" (Schunk, 2011, p. 151).

In addition to Senemoğlu's (2013) and Schunk (2011)'s academic approaches to semantic memory, Tanrıdağ (2015, p. 92) expresses that semantic memory is a "world knowledge" memory which enables the storage of events only in the categorical and chronological way. According to the author, semantic memory refers to the memory of our "world knowledge" and what we behave without showing any emotion or as if we were socially emotional.

Semantic memory can be compared to a dictionary or encyclopedia in the way that it stores our general information. Probably that is why it is sometimes called *generic memory* or *information*. Although semantic memory stores general information, it does not store information about how and when such information is learned (Terry, 2011, p. 339).

Having explained the type of information stored by semantic memory, it would be useful to elaborate how it stores information. The information in semantic memory is stored in the form of 'propositional networks' and 'schemas.'

1.1.4 Memory-Learning Relationship

"Though the phenomenon of learning has been long explained by theoretical contents, it has not been easy to make a definition that can include all of its aspects. One of the most important reasons for this is that learning is directly related to a multiple variable such as behavior" (Onan, 2014, p. 84). Researchers interested in Gestaltian, behaviorist or cognitive psychology have developed different approaches to learning. The most widely accepted definition in the recent times is that learning is a permanent behavioral change that occurs as a result of experience. The remarkable aspects of this definition are that a behavioral change occurs, that such change occurs due to an experience, and that the resulting change is permanent at least for a certain period of time (Ün-Açıkgöz, 2009, p. 8). To achieve all of these, it is prerequisite to process what has been learned in the memory. This is the first step to reveal the memory-learning relationship.

"In general, the theories put forward in relation to memory fall into three main categories:

1)   Electrical theories: These theories suggest changes in the electrical field in the brain.

2)   Neural theories: These theories suggest that brain cells anatomically change as a result of an experience.

3)   Biochemical theories: They suggest a change in the molecular structure of a cell" (Smith, 1986 as cited in Onan, 2014, p. 88).

Looking into memory in terms of its operating mechanism, Onan (2014: 89) implies that it includes electrical, neural and biochemical processes, and that all three approaches fail to indicate a specific section in the brain where memory and learning occur. Onan further states that although the hippocampus is effective in the formation of new memory, the memory mechanism of this component is merely associated with the new recording stage. The author then concludes that different systems and structures work together in the brain during certain learning stages; the micro-level functioning of this system in the brain takes place at the molecular level. Based on the information given, it would be more reasonable to discuss the relationship between memory and learning in the context of the information processing process.

Stimuli are recorded via sensory recording in the learning process. The processes that enable the transfer of information from the sensory recording to the short-term memory are perception and selective attention. "So that we can keep the information received through the senses, it is necessary that the intensity and duration of the incoming sense is high and attract our interest as well (meet our needs) (Note 1). Interest brings "attention" to mind (Madi, 2006, p. 138).

When the information is transferred from the sensory recording to the short-term memory, mental activities such as repetition, grouping, etc. are performed to keep such information there. Then, the acquired information relevant to the newly received information is recalled from the long-term memory. The learning process begins. In the short-term memory, a new schema is created by carrying out mental processes such as comparison, interpretation, reasoning, analysis, synthesis, evaluation, classification, etc. The currently updated information is transferred to the long-term memory by means of cognitive processes such as repetition, encoding/making sense of, organization, expansion/articulation, and memory supporting tips and remains there. Besides, during the transfer of the information from the short-term to the long-term memory, the process of elaboration in the short-term memory makes the information more permanent. When the information is encoded in the short-term memory in detail, the transition to the long-term memory is also facilitated (Onan, 2016, p. 115).

In the context of the relationship between learning-memory, some precautions should be taken considering the features of the memory. In order to benefit from the limited capacity of the short-term memory effectively in education, various strategies can be employed such as breaking information into smaller parts, rehearsing, allowing sufficient time for the learners to commit the information to memory and emphasizing important points while conveying information (Banikowski, 1999); and visuals that organize information (Onan, 2016).

1.2 Revised Bloom's Taxonomy

One of the most notable tools to classify thinking skills and teaching objectives in education is the taxonomy prepared by Bloom et al. in 1956. "The basic idea of the Bloom's Taxonomy lies in that what the educators want their students to know can be arranged in a gradual order from simple to complex. In other words, the idea is that what students should know is expressed as educational goals" (Tutkun, 2012, p. 16). These being said, the original Bloom's Taxonomy is as follows (Krathwohl, 2002, p. 213):

1. Knowledge	3. Application
1.1. Knowledge of specifics	
1.1.1. Knowledge of terminology	
1.1.2. Knowledge of specific facts	
1.2. Knowledge of ways and means of dealing with specifics	4. Analysis
1.2.1. Knowledge of conventions	*4.1. Analysis of elements*
1.2.2. Knowledge of trends and sequences	*4.2. Analysis of relationships*
1.2.3. Knowledge of classifications and categories	*4.3. Analysis of organizational principles*
1.2.4. Knowledge of criteria	
1.2.5. Knowledge of methodology	
1.3. Knowledge of universals and abstractions in a field	5. Synthesis
1.3.1. Knowledge of principles and generalizations	5.1. Production of a unique communication
1.3.2. Knowledge of theories and structures	5.2. Production of a plan, or proposed set of operations
	5.3. Derivation of a set of abstract relations
2. Comprehension	6. Evaluation
2.1. Translation	6.1. Evaluation in terms of internal evidence
2.2. Interpretation	6.2. Judgments in terms of external criteria
2.3. Extrapolation	

1.2.1 Dimensions of the Revised Bloom's Taxonomy

1.2.1.1 Knowledge Dimension

The types and the content of these types of the dimension of knowledge in the RBT are as follows (Krathwohl, 2002, p. 214):

A. Factual Knowledge	C. Procedural Knowledge
A.1. Knowledge of terminology	*C.1. Knowledge of subject-specific skills and algorithms*
A.2. Knowledge of specific details and elements	*C. 2. Knowledge of subject-specific techniques and methods*
	C.3. Knowledge of criteria for determining when to use appropriate procedures
B. Conceptual Knowledge	D. Metacognitive Knowledge
B.1. Knowledge of classifications and categories	*D.1. Strategic knowledge*
B.2. Knowledge of principles and generalizations	*D.2. Knowledge about cognitive tasks, including appropriate contextual and conditional knowledge*
B.3. Knowledge of theories, models and structures	*D.3. Self-knowledge*

1.2.1.2 Cognitive Process Dimension

The original number of categories, six, was retained, but with important changes. Three categories were renamed, the order of two was interchanged, and those category names retained were changed to verb form to fit the way they are used in objectives (Krathwohl, 2002, p. 214).

Cognitive Dimension of the Revised Bloom's Taxonomy (Krathwohl, 2002, p. 215)

1. Remember		4. Analyze
1.1. Recognizing 1.2. Recalling		4.1. Differentiating 4.2. Organizing 4.3. Attributing
2. Understand		5. Evaluate
2.1. Interpreting 2.2. Exemplifying 2.3. Classifying 2.4. Summarizing	2.5. Inferring 2.6. Comparing 2.7. Explaining	5.1. Checking 5.2. Critiquing
3.Apply		6. Create
3.1. Executing		6.1. Generating
3.2. Implementing		6.2. Planning 6.3. Producing

As seen above, the original "knowledge" category was renamed "remember" and "comprehension" was renamed "understand"; the application, analysis, and evaluation categories were retained, but in their verb forms. The synthesis category changed places with the evaluation category and was renamed "create." All the original subcategories were replaced with gerunds and called "cognitive processes" (Krathwohl, 2002, p. 214). These subcategories are shown in the table.

In short, Forehand (2005) discusses the changes in the new taxonomy in the following three groups: 1) Terminology changes: Bloom's six major categories were changed from noun to verb forms. Additionally, the lowest level of the original knowledge was renamed and became remembering. Comprehension and synthesis were retitled to understanding and creating. 2) Structural changes: While Bloom's original cognitive taxonomy was a one-dimensional form, the revised one takes the form of a two-dimensional table. One of the dimensions identifies the knowledge dimension, and the second identifies the cognitive dimension. 3) Changes in emphasis: The revised version is intended for a much broader audience. Emphasis is placed upon its use as a "more authentic tool for curriculum planning, instructional delivery and assessment." (oz-TeacherNet, 2001 as cited in Forehand, 2005, p. 44)

1.3 Relationship between the Revised Bloom's Taxonomy and Learning/Thinking

As part of this study, it is deemed necessary to evaluate the revised taxonomy, outlined above, in terms of its contribution to memory and thinking processes.

The step of remember is directly associated with the storage function of the memory. This step involves the process of recalling information in the long-term memory and identifying them. The information placed in appropriate schemes can be more easily remembered in the long-term memory.

In the level of understand, the brain transfers information to different grounds. The mind employs the information processing process to perform the operations in the sub-categories of this process. During this process, the information stored in the long-term memory and the implicit and explicit memory, the parts of the long-term memory, are activated based on the information to be processed.

The step of apply involves carrying out a process related to the subject learned. The long-term memory is used in this step, because the information on how to carry out a process is kept in this memory. The attempts to comprehend the information are included in this step as well.

The level of analyze involves mental processes such as distinguishing and organizing. The correct use of schema and propositional networks in the long-term memory is essential to perform these processes. Since, in order to be able to process a type of information in the semantic or episodic area in the dimension of analysis, such information should be not only comprehended but also evaluated in different dimensions.

The step of evaluate involves judgment and appraisal. For that reason, in order to perform a process in this step, the information in the memory should be regularly stored, as in the step of analysis, and the information stored in the episodic and semantic memory should be used in the most accurate way.

In the step of create, an individual presents a new product by making use of the previously acquired information. The acquired information stored in the long-term memory is necessary to perform a process in this step. The individual may also need to synthesize previous knowledge with new knowledge in the step of create. In this case, the individual may benefit from the functions of both the short-term and long-term memory. Further, he or she may need both the semantic and the episodic parts of the long-term memory.

1.4 Purpose of the Research

This research aims to determine which activities are associated with which type of information in the parts of the long-term memory (semantic and episodic memory) in Turkish secondary school books, and to determine the steps in the Revised Bloom's Taxonomy which this information are linked to. Moreover, it analyzes the distribution of the activities in the book according to the Revised Bloom's Taxonomy. In line with this purpose, the study seeks to answer the following questions:

1)   What is the distribution of the activities in the books according to the types of semantic/episodic knowledge?

2)   What is the distribution of the activities prepared in the semantic or episodic dimension according to the steps in the Revised Bloom's Taxonomy?

3)   What is the distribution of the activities in the books according to the Revised Bloom's Taxonomy?

2. Method

2.1 Research Model

The study employs a screening method. Karasar (2012: 77) explains the model as follows:

"Screening models are the research approaches that aim at describing past or present events as they are. The event, individual or the object of the research subject is described as it is and within its own conditions. No attempt is made to change or affect the research subject in any way."

2.2 Population and Sampling

The population of the study consists of the student workbooks for the course of Turkish, which are acknowledged as a secondary school level workbook by the Board of Education, Ministry of National Education of Turkey and were used as the course book in the 2017-2018 academic year in the city of Hatay, Turkey. The sample of the study consists of the 5th grade textbook by MEB Publications, the 6th grade student workbook by Başak Publishing House, the 7th grade student workbook by Ez-De Publishing House, and the 8th grade student workbook by Dörtel Publishing House. The reason that the 5th grade book was not identified as a workbook is that there is no distinction between textbook (school book) and workbook at this level.

2.3 Data Collection and Analysis

In the process of data collection, the activities in four books were examined by the researcher through document analysis method in terms of the following three aspects:

1) The type of information, either the information in the episodic memory or in the semantic memory, which the students chose to work with during the activity.

2) The step that the activity, which was identified as relevant either to the semantic information or to the episodic information, was at according to the Revised Bloom's Taxonomy.

3) The distribution of all the activities in the book according to the Revised Bloom's Taxonomy.

The considerations which were taken into account in the evaluation can be outlined as follows:

If an activity includes a practice that addresses more than one cognitive step or type of memory, they are encoded individually. In this respect, the number of activities was calculated by counting the lower steps in each activity; since each step in the activity leads the student to a different study—hence to think in a different way. The activities that do not address any cognitive step or any type of information are excluded from the analysis. For instance, an activity with an instruction like "Take a look at the visuals below" is not relevant to any step in the taxonomy. The results from the evaluation are presented in tables along with their frequency and percentage values.

Moreover, to ensure the reliability of the analysis, each book was re-evaluated by the researcher one month after the first evaluation. An expert evaluation meeting was held with a faculty member specialized in the field of Turkish language education for the classifications inconsistent with the first evaluation, to decide which activities would be considered in which type of memory and step.

Below are some examples to show which activities are considered as in the semantic or episodic type and the relevant steps in the Revised Bloom's Taxonomy:

The following activity is considered as a semantic activity in the level of understand in the 5th grade level: "Are the words 'counting' and 'selling' literally or metaphorically used in the text?" For this grade level, the following activity is considered as an episodic activity in the level of create: "Write a story or a text describing your thoughts and feelings based on the cartoon below.".

The activity based on the following activity is considered as a semantic activity in the level of analyze in the 6th grade level: "What is the main feeling of the poem? (How does the poet make us feel?)" For this grade level, the following activity is considered as an episodic activity in the level of remember: "What examples come to mind when you think of fall fruits? Please write."

The activity based on the following activity is considered as a semantic activity in the level of apply in the 7th grade level: "Please carefully review the spelling of the compound words below. Complete the missing statements by identifying the ones that should be spelled as two words and those should be joined to form a single word." (p.13). For this grade level, the following activity is considered as an episodic activity in the level of understand: "Describe the area of use of the following technological products that emerged through scientific studies and explain how they facilitate life in this area." (The visuals of the activity include a phone, an X-ray machine, a plane and a compass.)

The activity based on the following activity is considered as a semantic activity in the level of create in the 8th grade level: "Create a paragraph using a quotation mark, a colon, and a dash.". For this grade level, the following activity is considered as an episodic activity in the level of apply: "Some of Atatürk's personality traits are given below. As shown in the example, find his sayings that describe these personality traits and write them down."

3. Results

Table 1. The distribution of the 5th grade Turkish text book according to information types

Information Types	f	%
Semantic Information	366	71.34
Episodic Information	147	28.66
Total	513	100

Inspection of Table 1 reveals that out of 513 activities in the 5th grade Turkish text book, 71.34% of them contain semantic information whilst 28.66% of them contain episodic information. Accordingly, it can be stated that the information for the semantic memory are much more available than the information for the episodic memory in this grade level.

Table 2. The distribution of the 5th grade Turkish text book according to cognitive steps in information types

Information types	Cognitive Steps													
	Remember		Understand		Apply		Analyze		Evaluate		Create		Total	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
S.I.	82	22.41	131	35.8	97	26.51	19	5.2	23	6.29	14	3.82	366	100
E.I.	15	10.21	22	14.96	15	10.21	0	0	12	8.17	83	56.46	147	100
Total	97	18.91	153	29.83	112	21.84	19	3.71	35	6.83	97	18.91	513	100

Inspection of the distribution of the activities in the semantic dimension according to the cognitive steps in Table 2 indicates that most of the activities were at the level of understand (35.8%), followed by the level of apply (26.51%), remember (22.41%), evaluate (6.29%), analyze (5.2%) and create (3.82%), respectively. Thus, the steps of analyze, evaluate and create, which are related to higher-order thinking skills, formed a very small proportion of the steps at the level of semantic information.

Inspection of the distribution of the activities in the episodic dimension according to the cognitive steps reveals that the activities at the level of create accounted for the highest proportion (56.46%), followed by the level of understand (14.96%), remember and apply (10.21%), evaluate (8.17%), and lastly analyze (0%).

The distribution of all activities in the book according to the cognitive steps demonstrates that the activities at the level of understand accounted for the highest proportion (29.83%). This was respectively followed by the level of apply (21.84%), remember and create (18.91%), evaluate (6.83%) and analyze (3.71%). It is notable that the activities for higher-order thinking skills formed a relatively smaller proportion in general.

Table 3. The distribution of the activities in the 6th grade Turkish student workbook according to information types

Information Types	f	%
Semantic Information	494	77.06
Episodic Information	147	22.94
Total	641	100

Inspection of Table 3 reveals that out of 641 activities in the 6th grade Turkish work book, 77.06% of them contain semantic information whilst 22.94% of them contain episodic information. Accordingly, it can be stated that the information for the semantic memory are much more available than the information for the episodic memory in this grade level.

Table 4. The distribution of the activities in the 6th grade Turkish student workbook according to cognitive steps of information types

Information Types	Cognitive Steps													
	Remember		Understand		Apply		Analyze		Evaluate		Create		Total	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
S.I.	126	25.51	200	40.48	109	22.07	41	8.29	11	2.22	7	1.41	494	100
E.I.	29	19.72	26	17.68	20	13.61	2	1.37	8	5.45	62	52.17	147	100
Total	155	24.29	226	35.25	129	20.13	43	6.71	19	2.97	69	10.77	641	100

As evident in Table 4, the distribution of the activities in the semantic dimension according to the cognitive steps is as follows: In the semantic dimension, most of the activities were at the level of understand (40.48%), followed by remember (25.51%), apply (22.07%), analyze (8.29%), evaluate (2.22%) and create (1.41%) respectively. It is remarkable that the activities for higher-order thinking skills formed a very small proportion in this distribution too.

Inspection of the distribution of the activities in the episodic dimension according to the cognitive steps reveals that the activities at the level of create accounted for the highest proportion (52.17%), followed by the level of remember (19.72%), understand (17.68%), apply (13.61%), evaluate (5.45%), and analyze (1.37%) respectively. There are many activities at the level of create in the episodic dimension, as in the 5th grade.

The distribution of all activities in the book according to the cognitive steps demonstrates that the activities at the level of understand accounted for the highest proportion (35.25%). This was respectively followed by the level of remember (24.29%), apply (20.13%), create (10.77%), analyze (6.71%) and evaluate (2.97%). It is also notable that the activities for higher-order thinking skills formed a relatively smaller proportion in general.

Table 5. The distribution of the activities in the 7th grade Turkish student workbook according to information types

Information Types		
	f	%
Semantic Information	198	81.14
Episodic Information	46	18.86
Total	244	100

Inspection of Table 5 reveals that out of 244 activities in the 7th grade Turkish student workbook, 81.14% of them contain semantic information whilst 18.86% of them contain episodic information. Accordingly, it can be stated that the information for the episodic memory are much less available than the information for the semantic memory in this grade level.

Table 6. The distribution of the activities in the 7th grade Turkish student workbook according to cognitive steps of information types

Information Types	Cognitive Steps													
	Remember		Understand		Apply		Analyze		Evaluate		Create		Total	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
S.I.	13	6.57	61	30.8	105	53.03	13	6.57	1	0.51	5	2.53	198	100
E.I.	4	8.7	4	8.7	3	6.53	0	0	0	0	35	76.09	46	100
Total	17	6.96	65	36.63	108	44.27	13	5.32	1	0.41	40	16.4	244	100

Inspection of the distribution of the activities in the semantic dimension according to the cognitive steps in Table 6 indicates that most of the activities were at the level of apply (53.03%), followed by the level of understand (30.8%), remember and analyze (6.57%), create (2.53%), and evaluate (0.51%), respectively. There are many activities at the level of apply in this grade level, unlike other grade levels. Yet, the activities for higher-order thinking skills, again, formed a very small proportion in this distribution.

Inspection of the distribution of the activities in the episodic dimension according to the cognitive steps reveals that the activities at the level of create accounted for the highest proportion (76.09%), followed by the level of

remember and understand (8.7%), apply (6.53%), analyze and evaluate (0%), respectively. As in other grade levels, there are many activities at the level of create in the episodic dimension. Further, it is quite remarkable that there is no activity at the step of analyze and evaluate and also that there are very few activities for lower-order thinking skills.

The distribution of all activities in the book according to the cognitive steps demonstrates that the activities at the level of apply accounted for the highest proportion (44.27%). This was respectively followed by the level of understand (36.63%), create (16.4%), remember (6.96%), analyze (5.32%) and evaluate (0.41%). It is remarkable that the activities for higher-order thinking skills, except for the step of create, as well as the activities for the step of remember formed a smaller proportion in general.

Table 7. The distribution of the activities in the 8th grade Turkish student workbook according to information types

Information Types	f	%
Semantic Information	184	78.96
Episodic Information	49	21.04
Total	233	100

As evident in Table 7, out of 233 activities in the 8th grade Turkish student workbook, 78.96% of them contain semantic information whilst 21.04% of them contain episodic information. Accordingly, it can be stated that the information for the episodic memory are much less available than the information for the semantic memory in this grade level too.

Table 8. The distribution of the activities in the 8th grade Turkish student workbook according to cognitive steps of information types

Information Types	Cognitive Steps													
	Remember		Understand		Apply		Analyze		Evaluate		Create		Total	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
S.B.	10	5.44	51	27.71	99	53.81	13	7.07	3	1.64	8	4.34	184	100
E.B.	0	0	4	8.17	9	18.36	0	0	0	0	36	73.46	49	100
Total	10	4.3	55	23.61	108	46.36	13	5.57	3	1.28	44	18.89	233	100

Inspection of the distribution of the activities in the semantic dimension according to the cognitive steps in Table 8 indicates that most of the activities were at the level of apply (53.81%), followed by the level of understand (27.71%), analyze (7.07%), remember (5.44%), create (4.34%), and evaluate (1.64%) respectively. The activities for higher-order skills, again, formed a very small proportion in this distribution.

Inspection of the distribution of the activities in the episodic dimension reveals that the activities at the level of create accounted for the highest proportion (73.46%) as in the other grade levels. This was followed by the level of apply (18.36%) and understand (8.17%). On the other hand, it is remarkable that there is no activity at the level of remember, analyze, and evaluate.

The distribution of all activities in the book according to the cognitive steps demonstrates that the activities at the level of apply accounted for the highest proportion (46.36%). This was respectively followed by the level of understand (23.61%), create (18.89%), analyze (5.57%), remember (4.3%) and evaluate (1.28%). Notably, the reason that the activities for the step of create, which is one of the higher-order steps, were relatively higher in number in this grade level, as in other grade levels is that the level of create formed a high proportion in the episodic dimension.

4. Discussion and Suggestions

The study seeks to determine which activities in the 5th grade textbook by MEB Publications, the 6th grade student workbook by Başak Publishing House, the 7th grade student workbook by Ez-De Publishing House, and the 8th grade student workbook by Dörtel Publishing House, which were used as the course book in the 2017-2018 academic year in the city of Hatay, Turkey are related to which type of information in the parts of the long-term memory (semantic and episodic memory), and to determine the steps in the Revised Bloom's Taxonomy which

these information are linked to. Further, the study aims to reveal the distribution of the activities in the book according to the steps in the Revised Bloom's Taxonomy.

Inspection of the distribution of the activities in the books according to the semantic and episodic types of information points out that there are more activities for the semantic dimension in all grade levels. (In the 5th grade, 71.34% of them contain semantic information whilst 28.66% of them contain episodic information; in the 6th grade, 77.06% of them contain semantic information whilst 22.94% of them contain episodic information; in the 7th grade, 81.14% of them contain semantic information whilst 18.86% of them contain episodic information; in the 8th grade, 78.96% of them contain semantic information whilst 21.04% of them contain episodic information.) The reason for such finding may be that the activities in the books are mostly designed to measure and consolidate knowledge and skills in the curriculum. However, the process of learning is the process where an individual creates a mental product by synthesizing their prior knowledge with their newly acquired knowledge. Furthermore, the information internalized and encountered by an individual in daily-life tend to be easier to learn and more difficult to forget. Therefore, the presentation of theoretical information as well as the information intended to activate the episodic memory of the students in the activities to be prepared will increase the effectiveness of teaching.

Regarding this, Onan (2016, pp. 117-118) states that these two types of information stored in the long-term memory can be utilized to ensure the peer-peer motivation of the students with different mindsets and motivation levels during the preparation of the learning-teaching process. It is important to perform activities in these two different types of memory in order to reach the students with different mindsets in the classroom in the most effective way.

The analysis of the distribution of the activities designed in the semantic or episodic dimension according to the steps in the Revised Bloom's Taxonomy presents the following results:

As evident in the distribution of the activities in the semantic dimension according to the cognitive steps, there were more activities at the level of remember, understand and apply which require lower-order thinking skills and fewer activities that entail higher-order thinking skills. Yet, in the 7th grade level, unlike other grade levels, the activities requiring higher-order skills formed a small proportion, but the number of the activities at the level of remembers and analyze were the same. In the 8th grade level, most of the activities in the semantic dimension were at the level of apply and understand (81.52%); however, there were more activities at the level of analyze than those at the level of remember, evaluate and create in this grade level, unlike other grade levels.

Based on these results and except for the exceptions mentioned above, the finding that most of the activities in the semantic dimension, which includes academic knowledge and skills, were intended for the lower-order thinking skills may result from the fact that it is easier to prepare activities for these levels and perform them in the classroom. Since students need more control and time to carry out activities related to mental processes such as analysis, synthesis, evaluation on a piece of information or a subject. Considering the content targeted in the curriculum, the course hours allocated to the Turkish course in schools and the high class size together, it would be slightly more difficult to perform the activities that require more effort, time, and student-teacher interaction. However, this does not justify the fact that there are few or no activities entailing higher-order thinking skills in the class works. For that reason, a special emphasis should be placed by those responsible for preparing curricula and course books on the attempts to provide students with functional activities, rather than a multitude of activities.

The analysis of the distribution of the activities in the episodic dimension according to the cognitive steps points to a different distribution than the semantic distribution. It is notable that the highest number of the activities were designed at the level of create whilst the lowest number of the activities were intended for the level of analyze and evaluate in all grade levels. There were fewer activities at the level of remember, understand and apply, which require lower-order thinking skills compared to the semantic dimension. Although the number of the activities for higher-order thinking levels, such as the level of analyze and evaluate, was very low in the episodic dimension in all grade levels, the activities at the level of create were high in number, which can be explained by the nature of episodic knowledge. Episodic knowledge impels students to look at their own lives and to their prior knowledge. The personal knowledge, which is necessary for an individual to create a new product, is obtained from the episodic memory.

An overview of the distribution of the types of information and cognitive steps in the activities shows that there is a disproportionate distribution between the episodic and the semantic dimensions, and between the activities that require higher-order thinking skills and those entailing lower-order thinking skills.

Inspection of the distribution of all the activities in the books according to the Revised Bloom's Taxonomy reveals the following conclusion:

There were less activities at the level of analyze, evaluate and create, which entail higher-order thinking skills, whilst there were more activities at the level of remember, understand and apply in all grade levels. A remarkable finding was that the activities at the level of create and at the level of remember were equal in number in the 5th grade and that those at the level of remember were higher than those at the level of create in number in the 7th and 8th grade levels and formed a relatively higher proportion in the activities compared to other higher-order thinking skills. The reason for such finding may be the fact that the activities at the step of remember were more abundantly available in the episodic dimension. The study conducted by Durukan and Demir (2017) to classify the activities in the 6th, 7th, and 8th grade student workbooks for Turkish course according to the Revised Bloom's Taxonomy concluded that the activities designed for listening, speaking and reading skills included less activities at the steps related to higher-order thinking skills and that the activities prepared for the development of writing skills included relatively more activities at the level of create. Besides, the inspection of all the activities in the books according to the steps in the taxonomy indicated that the activities at the levels of remember, understand and apply were more abundant whilst the activities at the levels of analyze, evaluate and create were less common, which is a finding congruent with the results on this dimension in this present study.

Based on the findings, the following suggestions can be offered regarding the activities in the secondary school level Turkish workbooks:

1)   More studies should be undertaken on the accumulation of knowledge of episodic type as well as the activities for the knowledge in the semantic memory.

2)   The activities designed for semantic knowledge should include activities for higher-order skills such as analysis, evaluation and creation.

3)   It is notable that although there are many activities at the level of create among the activities in the episodic dimension, the activities at other higher order steps and lower order steps are less common. In the episodic dimension, activities may be designed for different cognitive levels.

4)   Inspection of the distribution of the activities according to the cognitive steps in the Revised Bloom's Taxonomy reveals that the activities at higher order steps formed a smaller proportion of the activities in general. The provision of more activities for these steps would enable students to acquire age-appropriate language and thinking skills.

5)   Lecturing cannot be boiled down to workbooks and textbooks. In addition to the activities in the books, teachers should support the educational process through questions and tasks designed for different memory types in order to enhance the effectiveness of teaching.

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