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**TEXTBOOK ACTIVITIES THAT PROMOTE DEEPER PROCESSING IN EFL
LEARNING**

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Master`s thesis

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Abstract

The thesis deals with deeper processing likely to be promoted by vocabulary and grammar activities in EFL textbooks for Croatian elementary and high schools. The first part introduces the theoretical background on language processing, focusing primarily on the levels-of-processing theory and higher-order thinking. In addition, deeper processing is closely related to multimodal learning, so the thesis addresses the phenomenon of multimodal learning and the key models associated with it. The second part of the thesis pays special attention to the textbook analysis whose aim was to provide insight into the representation of vocabulary and grammar in EFL textbooks and examine whether vocabulary and grammar activities have the potential to encourage deeper input processing. In addition, the analysis investigated the illustrations present in the textbooks in order to see if they are purely decorative or actually contribute to learners' awareness and retention of the input.

Keywords: *deeper processing, higher-order thinking, grammar, vocabulary, EFL textbooks*

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1. Introduction

One's language proficiency is often associated with using appropriate and contextually correct vocabulary and grammar. How to memorize vocabulary and grammar and keep forms and meanings longer in mind seems to be the primary concern in the process of language learning. For this reason, learners have to engage in deeper input processing which should be promoted primarily by the activities in textbooks since they are the basic sources used in language teaching and learning. Therefore, the present thesis concentrates on the analysis of vocabulary and grammar activities present in EFL textbooks that are used in Croatian elementary and high schools.

The first part of the thesis will introduce language processing, focusing on the levels-of-processing theory and relating it to higher-order thinking. Furthermore, deeper processing cannot be explained without addressing the phenomenon of multimodal learning, so the thesis will also present the key aspects of multimodal learning and highlight the most important models. Apart from the theoretical background, this part will provide insight into previous research on deeper processing.

The second part of the thesis will show the results of the textbook analysis that aimed at examining the ways in which vocabulary and grammar are presented, as well as investigating whether vocabulary and grammar activities have the potential to encourage deeper processing in EFL learners. Moreover, the analysis also focused on textbook illustrations to see if they serve simply as decorative features or actually contribute to understanding and retaining the new material.

Finally, the third part of the thesis will draw a conclusion based on the theoretical part and the results of the study.

2. Language processing

Language is a complex cognitive and social phenomenon, which makes it one of the most significant abilities humans have. The features that distinguish every language of the world from other languages are the structures which speakers use to express their thoughts and feelings. In addition to the four language skills, knowing a language includes the knowledge of its vocabulary and grammar. This, of course, does not mean that one part of language has prevalence over the other(s). One cannot know a language by simply knowing grammatical rules or possessing an enviable amount of vocabulary, but both grammatical structures and vocabulary items need to be used correctly and appropriately in communication. During the process of language learning, language information is stored and processed within the human brain. For decades, human memory was analyzed in terms of stores and transfer among them. However, other theoretical frameworks appeared and contradicted that theory, so the following section gives their brief overview.

2.1. Levels-of-processing theory

Authors among which are Miller (1956) and Broadbent (1958) perceived people as processors of information. Broadbent (1958, as cited in Craik and Lockhart, 1972) suggested that information has to be held transiently before it enters the limited-capacity processing channel. Items could be held over the short term by recycling them through the same transient storage system. Then, information could be transferred into and retained in a more permanent long-term store. Ideas given by Broadbent were further developed by Atkinson and Shiffrin (1968).

Richard Atkinson and Richard Shiffrin (1968) propose a model of memory which explains how memory processes work. The authors divide the memory system into three components (sensory registers, short-term store and long-term store) and include various control processes which regulate the transfer of memory. Each component in the multi-store model differs in terms of its function, capacity and duration. Sensory information enters memory through sensory registers which have a large capacity, but much of the information passing through the sensory registers decays and is forgotten. However, some information is attended to and transferred to the second basic component – the short-term store. Just like in the sensory registers, information in the short-term store also decays and is lost, but it lasts and can be held longer through a process called *rehearsal*. Apart from *rehearsal*, authors also mention *coding* which refers to storing information in the final component – the long-term

store. It differs from other components in that information stored here does not decay and become lost in the same manner. Apart from that, the long-term store is limitless in terms of its capacity and duration.

In the later versions (Atkinson and Shiffrin, 1971) sensory registers are combined with the short-term store into a single component, which turns the multi-store model into the two-store model. Moreover, the authors emphasize that short-term store should not be viewed as a psychologically separate structure, but rather as the temporarily activated portion of the long-term store. In addition, due to confusion that arose among many, the distinction between rehearsal and coding was replaced by *maintenance rehearsal* and *elaborative rehearsal*. *Maintenance rehearsal* keeps the information in a readily accessible state, while *elaborative rehearsal* has the function of storing information in the long-term store.

Even though this model is notable for its significant influence, it has been under much scrutiny and criticized for a variety of reasons ever since it was published. Among many, the model proposed by Atkinson and Shiffrin was contradicted by Craik and Lockhart's (1972) levels-of-processing theory.

Craik and Lockhart (1972) propose an alternative theoretical framework for the research of human memory. They argue that memory recall of stimuli is simply a side-effect of information processing. The authors claim that language learning implies obtaining input which is then processed in the mind of the learners at different levels or stages, referring to this hierarchy of processing stages as "depth of processing" where greater depth implies a greater degree of semantic or cognitive analysis. The human mind processes stimuli on different levels, and the later stages "are concerned with pattern recognition and the extraction of meaning" (Craik and Lockhart, 1972, p. 675). Furthermore, the authors do not make a difference between long-term and short-term memory, but suggest that the levels of processing are directly related to the level of memory. In addition, they perceive levels of processing as a continuum of analysis. Thus, memory is also viewed as a continuum from the transient products of sensory analyses to the highly durable products of semantic-associative operations. According to Craik and Lockhart, learner's information processing falls into two categories. The first category is *shallow processing* which includes basic repetition activities, resulting in short-term knowledge retention and leading to fragile memory trace that is prone to rapid decay. *Shallow processing* is further divided into two main types: *structural* and *phonemic*. *Structural processing* refers to the fact that the mind encodes the physical traits of

the information, while *phonemic processing* is related to the encoding of the auditory features. The second category of processing is *deeper processing*. It takes place when learners analyze the information. Usually, they will relate their own meaning to the content, which will finally lead to stronger traces in the long-term memory, i.e. longer retention. There is only one type of deeper processing called *semantic processing* which means that learners encode the meaning of the information and connect it to the material that they already have stored in their memory.

Even though Craik and Lockhart wanted to contradict the multi-store (two-store) model, over the years there were many instances in which their conclusions were rejected. According to Raaijmakers (1993), the distinction made between the two types of processing cannot be distinguished from Atkinson and Shiffrin`s difference between rehearsal and coding or maintenance and elaborative rehearsal. Atkinson and Shiffrin`s coding is akin to processes which levels-of-processing theory calls deeper processing. Hence, Craik and Lockhart`s observations do not invalidate the multi-store model, but rather extend it.

2.2. Higher-order thinking

Previously elaborated deeper processing involves higher-order thinking skills which relate to skills that require more cognitive processing and mental effort and may take various forms such as problem-solving, contrasting and synthesizing. They are contrasted with lower-order thinking skills that do not require a lot of mental effort and are associated with basic recall or identification of forms.

Several major concepts important for higher-order thinking are to be explained, based on Crowl`s (1997) differentiation among *context*, *metacognition*, *procedural knowledge*, *comprehension*, *creativity*, etc. First of all, levels of thinking depend upon *context*. For higher-order thinking to be successful, an individual needs to be able to apply and reorganize their knowledge in accordance with the context of the situation. Secondly, *metacognition* includes one`s awareness of their own thinking processes and self-monitoring. *Procedural knowledge* is related to the knowledge of rules and their application. It is a type of knowledge that functions as a prerequisite for higher-order thinking. *Comprehension* is a process which individuals use to construct meaning from information. Finally, the act of generating solutions to problems requires *creativity* which involves divergent and convergent thinking to produce new ideas.

To this day, there have been many theories that describe higher-order thinking skills and the ways in which they are acquired. The following section presents Bloom's categorization of cognitive abilities which served as the basis for other theories. Bloom (1956, as cited in McDavitt, 1994) claims that knowledge can be classified according to its complexity and along a continuum which places the simplest types of knowledge at the low end of spectrum (Lower-Order Thinking) and the most complex ones at the higher end (Higher-Order Thinking). In order to complete Lower-Order Thinking tasks, one must simply recall or rearrange prior knowledge. On the other hand, Higher-Order Thinking requires learners' manipulation of information and ideas that transform their meaning and implications. Moreover, Bloom defines six categories related to thinking. The first three categories (*Knowledge, Comprehension, Application*) belong in the realm of Lower-Order Thinking, while the remaining three (*Analysis, Synthesis, Evaluation*) belong to Higher-Order Thinking. The author adds that learning that occurs within the Higher-Order levels is deeper, more meaningful and more lasting than the one in Lower-Order domains. First of all, *Knowledge* is defined as "the remembering of ideas, material or phenomenon either through recognition or recall" (Bloom, 1956, as cited in McDavitt, 1994, p.9). In this level of thinking learners are asked to spell, name, cite, match, describe, select, identify, etc. Secondly, *Comprehension* is characterized as the "ability to grasp the meaning and intent of the information without necessarily relating it to other material or recognizing its fullest implications" (Bloom, 1956, as cited in McDavitt, 1994, p.9). Thirdly, Bloom defines *Application* as the highest level of Lower-Order Thinking, adding that it includes remembering and using generalizations, theories or principles. Furthermore, *Analysis* is the first level of Higher-Order Thinking in which learners are often asked to uncover, deduce, categorize, compare or contrast. *Synthesis* requires learners to combine new information creatively. Tasks may include adding, creating, imagining, combining, supposing, playing, changing, or composing. The highest level in the taxonomy is *Evaluation* in which learners have to combine and use all previous levels, so they may be asked to debate, judge, prove or criticize.

Krathwohl (2002) revised Bloom's taxonomy and turned it into a two-dimensional framework including *Knowledge* and *Cognitive Processes*. The former resembles the original *Knowledge* category, while the latter resembles the six categories of the original taxonomy with the *Knowledge* category named *Remember*, the *Comprehension* category named *Understand*, *Synthesis* renamed *Create* and made the top category. In addition, the remaining

categories changed into their verb forms: *Apply*, *Analyze*, and *Evaluate*. These categories are hierarchically organized, but not as rigidly as in the original taxonomy.

In the sections that follow we are going to describe a study based on the idea that we can categorize all the activities present in EFL textbooks into two basic categories: those that are likely to promote deeper processing and higher-order thinking and those that do not seem to do so. Before categorizing the activities from the selected textbooks, we have examined the textbooks in order to identify the types of activities which are matched with Bloom`s (1956, as cited in McDavitt, 1994) taxonomy and processes that are believed to belong to higher-order thinking and prompting deeper processing.

Table 1. Textbook activities matched with Bloom`s taxonomy

BLOOM'S TAXONOMY ACTION VERBS			
LOWER-ORDER THINKING			
LEVEL	DEFINITION	SAMPLE VERBS	EXAMPLES OF ACTIVITIES
Knowledge	Student recognizes information, ideas and principles in the form similar to the one they learned.	define, describe, identify, list, match, name, order, recognize, repeat	<i>Write the plurals.</i> <i>Study the highlighted words in the text and in exercise 2. Then match them to definitions 1-6.</i> <i>Choose the correct item.</i> <i>Fill in: must or mustn't.</i> <i>Think of two more rules.</i> <i>Identify which sentences are conditionals type 1.</i> <i>Use the verbs: take, try, visit, learn, go, win, fly, in the present perfect to complete the sentences.</i>
Comprehension	Student understands information based on prior learning.	explain, summarize, describe, classify, give example(s), rewrite	<i>Rewrite the sentences using appropriate modal verbs.</i> <i>Read the text again and find more examples of defining relative clauses.</i> <i>Combine sentences 1-5 and the sentences below. Use a non-defining relative clause.</i>
Application	Student selects and uses data and principles in order to complete a task.	use, change, choose, illustrate, practice, show, write	<i>Use the cues to complete the sentences.</i> <i>Write conditional sentences based on these situations.</i>

HIGHER-ORDER THINKING			
LEVEL	DEFINITION	SAMPLE VERBS	EXAMPLES OF ACTIVITIES
Analysis	Student classifies the hypotheses, evidence or structure of a statement or question.	categorize, compare, change, predict, prepare, relate, write	<i>Which words can go under these headings? Draw your ideal bedroom. In three minutes write a few sentences about it. Compare your room with your partner`s. What is similar/different? Tell the class. Study sentences 1-6 in exercise 2 and decide which ones talk about situations likely to happen and which ones talk about something unlikely to happen. Then answer the questions.</i>
Synthesis	Student combines ideas into a product, plan or proposal that is new to him/her.	create, design, categorize, compose, plan, prepare, summarize, tell	<i>Your friend is coming to visit you. Show him/her around your room. Act out a dialogue like the one in Ex. 3. Prepare your family tree. Write sentences about your family. Present it to the class. Work in pairs. Tell your partner about the last long journey you went on.</i>
Evaluation	Student assesses or critiques on the basis of specific standards and criteria.	recommend, argue, choose, compare, explain	<i>Study sentences 1-5. What is the difference in meaning between sentences a and b?</i>

It is important to note that the primary focus of the study were those activities that are likely to promote higher-order thinking and thus deeper processing.

3. Multimodal learning

Multimodality, multimodal learning and multimodal instruction are not completely new concepts in foreign language learning and teaching. According to Farias, Obilinovic and Orrego (2011), instructional practices used in foreign language teaching and learning have always included a multimodal dimension even though probably not recognized as what we consider multimodality today. The authors also claim that presenting a foreign language, even in its monomodal form, demands aural or visual intervention by the learners either in the form of highlighting, creating a diagram or evoking sounds or translation. Language textbooks with illustrations make learners create associations between the image and the material they learn, i.e. material presented in a multimodal way facilitates the process of learning and enables learners to process input on deeper levels.

In the last twenty years or so technology has improved significantly, which led to it penetrating into all spheres of human activity, including education. Farias, Obilinovic and Orrego (2011) claim that the quick pace of change from print-based to more visually oriented and digitalized presentations of information asks for a quick reaction from language teachers to take advantage of multimodality to engage learners in meaningful cognitive, social and critical understandings. Some authors (e.g. Warschauer, 1996, as cited in Farias, Obilinovic and Orrego, 2011) mentioned multimedia in foreign language teaching and learning by including multimodality, which emerged with the introduction of digital technologies, such as CD Rom, in the language classroom. According to Farias, Obilinovic and Orrego, the dialogue between second language learning and multimodality has been for long a silent exchange and should be motivated by the necessary reflection on the use of technologies in education as cognitive tools.

The following paragraphs include a review of literature on multimodal learning and the most important concepts in second language acquisition that can be used in an integrated model. In addition, they also present an account of some studies including second and foreign language multimodal learning that demonstrate concrete examples of the dialogue between the two fields.

3.1. Models on multimodal learning

Farias, Obilinovic and Orrego (2011) state that literature on models of multimodal learning including second language acquisition is an unexplored area of research which needs urgent development. Even though they are not directly related to second language acquisition,

this thesis will first present two models of multimodal learning that can be used to understand language learning in the context of pedagogical environments including multimodally presented language input. One model is Mayer`s (2001) multimodal learning and the other one is Schnotz, Bannert & Seufert`s (2002) model of picture and text comprehension which deals with the issue of reading comprehension from multimodal text including text and pictures. After that, this thesis will provide an insight into two models that bring together the two fields: Plass & Jones` (2005) model of multimodal learning and second language acquisition and Schnotz and Baadte`s (2008) distinction between multimodal domain learning and multimodal second language learning.

3.1.1. Mayer`s model

Richard E. Mayer belongs to cognitive multimodal learning tradition. His multimodal learning theory is an approach focused on the learner and based on the constructivist view of learning. It means that "multimedia instructional messages that are designed in the light of how human mind works are more likely to lead to meaningful learning than those that are not" (Mayer, 2001, p.32). In other words, learners who learn with pictures and words learn and remember better than those who learn with words only. Consequently, multimodal learning can be seen as the construction of knowledge. In this regards, Mayer claims that learners construct their own learning by interacting with the multimedia designs. This makes them active sense makers who experience multimedia presentation and organize the presented material into coherent mental representation. Within this conception of learning teachers play the role of helpers or cognitive guides who lead learners through that sense-making process. To support multimodal cognitive theory, Mayer developed seven multimodal principles:

1. Multimedia Principle: Students learn better from words and pictures than from words alone.
2. Spatial Contiguity Principle: Students learn better when corresponding words and pictures are presented near rather far from each other on the page or screen.
3. Temporal Contiguity Principle: Students learn better when corresponding words and pictures are presented simultaneously rather than successively.
4. Coherence Principle: Students learn better when extraneous words, pictures, and sounds are excluded rather than included.
5. Modality Principle: Students learn better from animation and narration than from animation and on-screen text.

6. Redundancy Principle: Students learn better from animation and narration than from animation, narration and on-screen text.
7. Individual Differences Principle: Design effects are stronger for low-knowledge learners than for high-knowledge learners and for high-spatial learners rather than for low-spatial learners.

Farias, Obilinovic and Orrego (2011) point out that these principles have not been thoroughly tested in foreign language learning and teaching, but they still pose a challenge to language teachers at the moment of preparing and presenting classroom materials.

Mayer's cognitive multimodal learning model is based on Paivio's dual-coding theory. According to Paivio (2006), cognition involves the activity of two distinct subsystems, a verbal system which deals directly with language and a nonverbal system specialized for dealing with nonlinguistic objects and events. In addition, in the verbal system information is organized sequentially, while in the nonverbal system information is organized nonsequentially. The author claims that the two systems are composed of internal representational units called *logogens* and *imagens*, which are activated when one recognizes, manipulates or just thinks about words and things. *Logogens* are known as verbal representations, verbal encodings, mental language and inner speech, while *imagens* are nonverbal representations usually called mental images or imagery. Both *logogens* and *imagens* are concepts introduced to make a difference between the underlying neurological representations and their conscious expression in language and imagery.

3.1.2. Schnotz and Bannert's integrated model of text and picture comprehension

The basis for Schnotz and Bannert's integrated model of text and picture comprehension is a very important distinction made by Schnotz (2002) between descriptive and depictive representations. According to Schnotz (2005, as cited in Farias, Obilinovic and Orrego, 2011), descriptions are basic forms of representation. Some common examples of descriptions are texts and mathematical expressions. Descriptions basically consist of symbols. Schnotz (2005, as cited in Farias, Obilinovic and Orrego, 2011) claims that symbols are signs that are not similar to their referents. In other words, the meaning of the word *tree* is the result of convention and has no resemblance with the real tree. On the other hand, depictive descriptions are representations including pictures such as photographs and drawings. They are depictive representations because they consist of icons, defined by

Schnotz (2005, as cited in Farias, Obilinovic and Orrego, 2011) as signs associated with their referent by similarity or by another structural commonality. These descriptive and depictive representations are used differently for different objectives; descriptive ones express strongly abstract concepts. On the other hand, pictures such as photographs, drawings or paintings are depictive representations which are iconic because they resemble their referents more closely.

Schnotz and Bannert`s integrated model includes Baddeley`s (1986) theory of working memory. Baddeley (1986) argues that the limited capacity of working memory constrains descriptive and depictive channels.

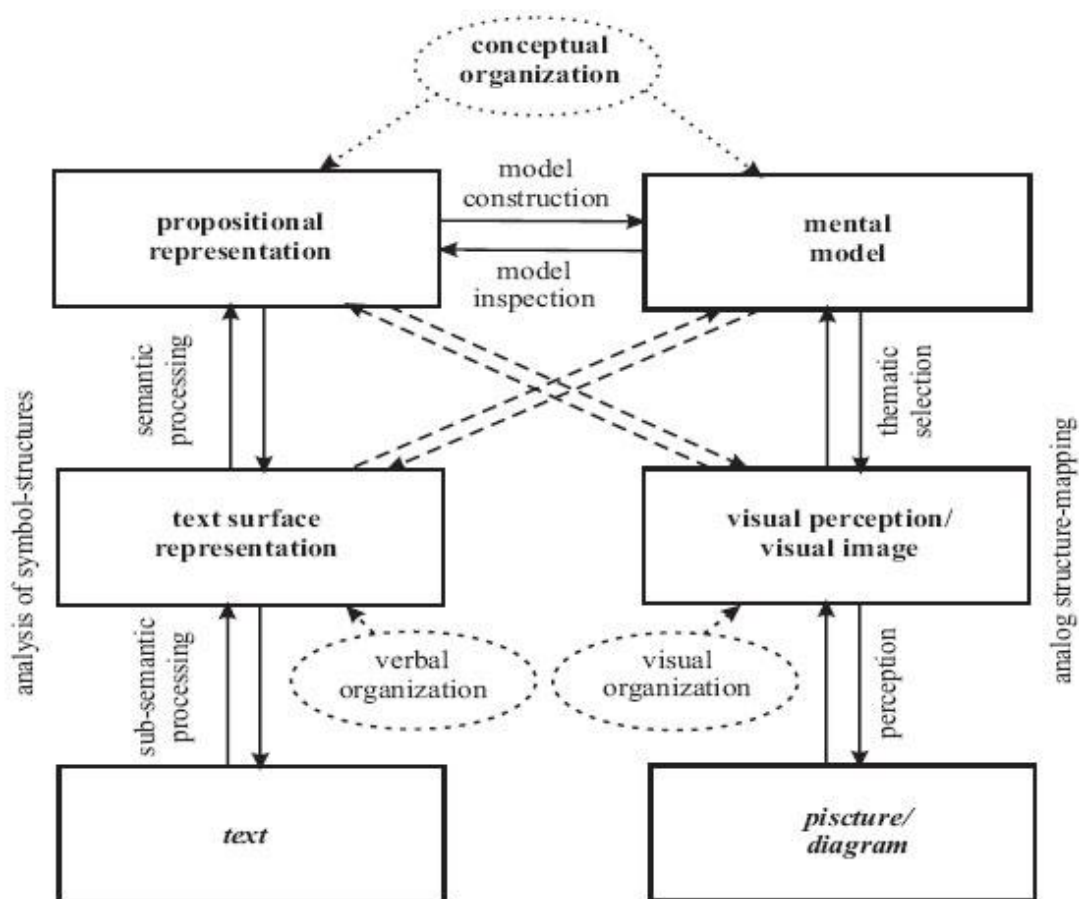


Figure 1. From "Text and Picture Comprehension" (Schnotz, Bannert & Seufert, 2002, p.394)

This model represents descriptive side on the left and depictive side on the right. The descriptive column shows the representation of written information. It includes three levels of representation: an external text, the internal mental representation of the text surface structure and a propositional level representing the text's semantic content. According to Schnotz and Bannert (2005, as cited in Farias, Obilinovic and Orrego, 2011), the interaction between descriptive representations is based on symbol processing. However, the depictive side

includes the external picture, the internal visual perception of the image or picture, and an internal mental model of the presented content. The representation of these levels is based on the processes of structure mapping such as analogy relations. The representation and understanding of text and picture information are based on the following: regarding textual comprehension, first, the reader of a text constructs a mental representation of the text surface structure, then, a propositional representation is generated and, finally, the reader constructs a mental model of the subject matter described in the text from the text base. During these processes top-down and bottom-up processes are applied. Similarly, during picture comprehension, different processes occur. First, the individual creates a visual mental representation of the picture through perceptual processing. Then, he constructs both a mental model through semantic processing and a propositional representation of the depicted subject matter. The resulting mental representation is the visual perception of the picture in the visuospatial sketchpad of the individual's working memory. Finally, the individual constructs a mental model of the depicted subject matter through a schema-driven mapping analogical process. As a conclusion, the authors claim that the essential point when comprehending textual and visual information is the fact that propositional representations and mental models are based on different sign systems and principles of representation that complement one another.

3.2. Integrated models

Models presented so far provide the basic metalanguage that is vital for understanding what happens in the learners' cognitive systems as they learn from multimedia. However, foreign language teachers need much more because (foreign) language learning is different from other types of learning. The following two models address these differences.

3.2.1. Schnotz and Baadte's model

To differentiate language learning and other types of learning, some authors (e.g. Schnotz & Baadte, as cited in Farias, Obilinovic and Orrego, 2011) refer to the latter as "domain learning". Domain learning with multimedia happens when an individual uses external representations to construct in working memory internal representations of the learning content and store them in long-term memory. An example of multimodal domain learning is the use of texts, pictures and graphs as external representations of content such as biology. The authors point out different relationships between the two types of learning since in many cases one needs to learn a language first to be able to use language as a tool for

domain learning. However, when it comes to first language acquisition, the order of the processes is reversed. This is confirmed by communicative activity used by most parents with their young children since their communication is based on the concepts children already know. Farias, Obilinovic and Orrego (2011) claim that adult second language learners go through a process similar to the one that children go through with the first language. They are engaged in learning the basic platform of the second language and are already familiar with many domains, but need to add a code to express known meanings. Schnotz & Baadte (as cited in Farias, Obilinovic and Orrego, 2011) claim that meaningful learning from text and pictures calls for a coordinated set of cognitive processes including selection of information, organization of information, activation of prior knowledge, and active coherent formation by integration of information from different sources. Farias, Obilinovic and Orrego (2011) say that meaningful learning is possible when the mind of the learner selects the information to be processed, organizes it activating the existing knowledge and finally integrates it into their cognitive structures.

3.2.2. Plass and Jones` model

Plass and Jones (as cited in Farias, Obilinovic and Orrego, 2011) postulated an integrated model of SLA and multimodal learning. They adapted theories from SLA and Mayer`s multimodal learning and organized a model in which the verbal and pictorial input is selected by the processes of apperception and noticing to create a verbal text base and a visual image base. Comprehension occurs as words and images are organized in a verbal model and a visual model which become integrated with the participation of the learner's background knowledge. This can be seen in the following figure:

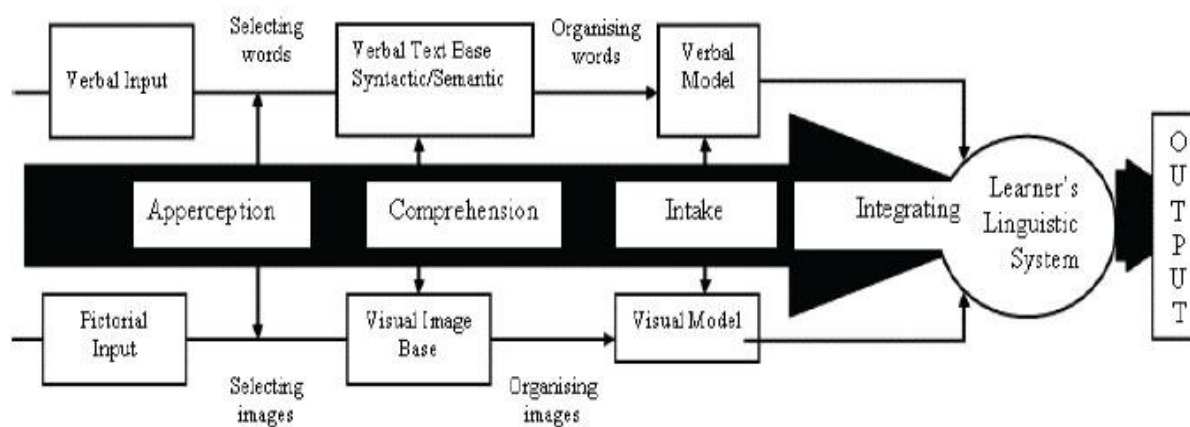


Figure 2. Integrated model of multimedia learning and SLA, Plass and Jones (2005)

In this model the authors combine multimodality and second language acquisition through the concepts of *apperception*, *comprehension* and *intake*. *Apperception* is the first stage in the process and is defined as the selection of input that learners must make before processing what is presented to them. If the information they are exposed to is verbal, the selection is mentally represented in a text base, while pictorial information is placed in a visual image base. After this selection process has taken place, the material is organized into visual mental representations and verbal mental representations. The authors point out that meaningful interaction with the material is important for the successful meaning construction. *Intake* is defined as input that has been successfully comprehended and can be integrated into the learner's linguistic system. The final result of the whole process is output or the learner's production of meanings using their linguistic system.

3.3. Illustrations in EFL textbooks

It has been stated that illustrations help learners process language input on deeper levels since they use them to make associations with the material they learn. Moreover, both teachers and learners rely on EFL textbooks as primary sources, so the following section explains the importance and function of using images in foreign language teaching and learning.

The notions of complexity and abstraction are often associated with both vocabulary and grammar since learners tend to struggle with grasping and using them correctly. This is why Szczepaniak and Lew (2011) claim that pictures are the best way to represent complex and abstract phenomena, especially the ones learners are not familiar with. To be beneficial, illustrations need to be meaningful and facilitate the process of learning. However, this is not always the case since the benefit of a certain illustration depends on numerous factors such as learners' perception and a variety of ways they use to construct meaning. According to Skorge (2008), for some kind of learning or better task management to take place, illustrations have to be processed carefully.

Moreover, Peeck (1993, as cited in Carney and Levin, 2002) suggests that pictures should be a part of the learning process for several reasons: increasing motivation, focusing attention, clarifying text content, dual coding and deep processing. This, of course, does not mean that the sole presence of illustrations in textbooks will suffice because illustrations prove to be beneficial only if they are able to attract learners' attention.

When dealing with illustrations used in language teaching and learning, Levin's (1981) typology of functions of illustrations needs to be addressed. The author claims that illustrations have eight different functions: *decoration, remuneration, motivation, reiteration, representation, organization, interpretation and transformation*. Pictures that have decorative function increase the attractiveness of the text, while remuneration serves to increase the sale of the book. Motivational images are supposed to increase learners' motivation. Reiterative images repeat the information from the text, while representational pictures make presented information more concrete, thus more memorable. Pictures with the organization function structure the information so it is understood easily. Finally, the aim of interpretational pictures is to make difficult or abstract phenomena clearer. Typology offered by Levin will be taken into account later in the study to explain the illustrations found in the analyzed textbooks.

Apart from analyzing vocabulary and grammar activities present in EFL textbooks used in Croatian elementary and high schools, one of the aims of the study was to investigate whether and to what extent illustrations present in these textbooks are likely to aid vocabulary and grammar instruction. In other words, we wished to investigate if these illustrations were purely decorative or actually contributed to the learners' awareness and retention of input.

4. Previous research

Before proceeding with the presentation of previous research on deeper processing, it is important to point out that we have not managed to find any research dealing directly with textbook activities promoting deeper processing in EFL learning. Research on deeper processing of grammar has not been found either. However, this part of the thesis will give an overview of research dealing with deeper processing in general, proceeding with presenting research on deeper processing of vocabulary.

Schulman (1971) instructed subjects to scan a list for target words described by physical characteristics, such as containing a specific letter, or by category, such as the word representing a living thing. The recall of words was much higher for the semantic-oriented group than for the group engaged in structural orienting tasks.

Craik and Tulving (1975) designed ten experiments to explore the levels of processing proposed by Craik and Lockhart (1972). They conducted a study in which participants were given a list of 60 words. Each word was presented along with three questions and the participants had to answer one of them. Those three questions were in one of three categories. One category of questions was about how the word was presented visually, the second category of questions was about the phonemic qualities of the word, and the third category was presented so that the reader was forced to think about the word within a certain context. The result of this study showed that the words which contained deep processing (the latter) were remembered better, which confirmed previous findings by Craik and Lockhart (1972).

While the majority of research related to levels of processing was conducted among college students as subjects and was short-term in duration, the research related to finding strategies for learning the meaning of vocabulary words was long-term and used elementary school children as subjects. A long-term study by Gipe (1978) tried to teach word meanings to third-graders and fifth-graders. The control group looked in the dictionary to find the meaning of target word, while the association group paired the unknown (target) words with a familiar synonym or brief definition. The category group added the target word to a list of three familiar words, and the context group used the target words in meaningful sentences. The context method was found to be the most effective method in every analysis made.

Beck, Perfetti and McKeown (1982) conducted a study among fourth-graders and they aimed at examining the relationship between knowledge of word meanings and semantic processes. Experimental subjects were exposed to various semantic encoding methods, such

as being presented with target words both within categories and in the context of sentences. Test conducted later compared performances of the experimental subjects and control subjects who had been matched with the experimental subjects, and the results showed that experimental subjects had made significant gains in both areas. This led Beck et al. (1982) to come to a conclusion that processing vocabulary words and their definitions at a semantic level leads to an easier understanding of word meanings that can improve reading comprehension.

A study by Rash, Johnson and Gleadow (1984) supported previous findings concerning the effectiveness of semantic processing. They presented eight target words to two groups of kindergarten children. One group was shown each word alone, while the other group was shown each target word in the context of two meaningful sentences. Both groups learned the words and their meanings, but the group presented with the words in context learned them in significantly less time.

5. Study

5.1. Aim

The aim of this study was to examine eight EFL textbooks used in Croatian elementary (5th and 7th grade) and high (1st and 3rd grade) schools and investigate whether they contain grammar and vocabulary activities that may promote deeper input processing. Apart from vocabulary and grammar, this study also concentrated on illustrations to see if they have functions that go beyond the decorative dimension.

Therefore, the following research questions are:

1. What is the percentage of activities likely to promote deeper processing and higher-order thinking?
2. Is there a difference between textbooks with regards to the age of the learners?
3. Are there illustrations added to vocabulary and grammar activities and do they aid the retention and recollection of form and meaning?

5.2. Sample

Even though different types of additional materials are available for classroom use, EFL textbooks remain the primary teaching and learning materials in Croatian classrooms. This is the reason why other materials, such as workbooks or teacher's books, were not analyzed for the purposes of the present study. The materials used were the following eight EFL textbooks:

1. Evans, V. and Dooley, J. (2013) *Spark 1* (5th grade)
2. Hutchinson, T. (2014) *Project 2* (5th grade)
3. Evans, V. and Dooley, J. (2013) *Spark 3* (7th grade)
4. Župan J. M., Lukić, V. and Pavuna, J. (2014) *New Building Bridges 7* (7th grade)
5. Wildman, J., Myers, C. and Thacker, C. (2014) *Insight Intermediate Student's Book* (1st grade)
6. Haries, M. and Sikorzyńska, A. (2012) *Choices Intermediate Student's Book* (1st grade)
7. Wildman, J. and Beddall, F.(2014) *Insight Upper-Intermediate Student's Book* (3rd grade)
8. Falla, T. and Davies A., P. (2013) *Solutions Upper-Intermediate* (3rd grade)

All textbooks are approved by the Ministry of Science, Education and Sports and are most frequently used in Croatian schools. They are intended for learners who started learning English as a foreign language in the first grade of elementary school. The study aimed at examining as many different textbooks as possible because it was assumed that, for example, the same textbook for fifth and seventh grade would not differ much in terms of grammar and vocabulary activities. In addition, we chose to analyze different levels of language proficiency to see if there were differences in the presentation of vocabulary items and grammar structures.

For this reason, the purpose of this study was to examine the textbooks and present the results in terms of whether vocabulary and grammar activities in the selected materials are likely to encourage deeper processing, and what kind of illustrations accompany these language components.

5.3. Procedure

In order to achieve the aim of the study, the content of the textbooks was examined both quantitatively and qualitatively. First of all, the selected materials were thoroughly analyzed to detect all vocabulary and grammar activities. The collection of data was followed by the enumeration and description of those activities that we believe have the potential to promote deeper processing. In order to present the collected data in detail, the study dealt with each textbook individually, describing its general characteristics and then accentuating all vocabulary and grammar activities as well as illustrations that accompany them.

While collecting the data, we decided to differentiate between those activities that are likely to encourage deeper processing and those that are not likely to do so. The first example for the latter group of activities is the one which requires learners to fill in the gaps or complete the sentences with the appropriate form of a certain grammatical structure such as in the Example 1 below.

2 Fill in: *have/has/haven't/hasn't got*.

1 Queen Amidala and Princess Leia *have got* long brown hair. They blue eyes.

2 Luke a beard. He fair hair.

3 Jar Jar Binks a big mouth. He long ears, too.

4 Yoda big ears. He a big nose.

Example 1. Gap-filling grammar activity (*Spark 1*, task 2, p. 24)

Another type of grammar activity belonging to this group is the multiple-choice activity that requires learners to circle one of the answers offered, as can be seen in Example 2 and Example 3.

7 Choose the best options (a–c) to complete the text.

Although 'Arriba!' calls itself a Mexican restaurant, ¹ its dishes are authentic; ² are American variations on Mexican food. Having said that, nearly ³ the food we tried was tasty and fresh. The service was fast, but that was ⁴ surprise: we arrived early and had ⁵ restaurant to ourselves!

1 a many	b few	c very few of
2 a much	b most	c many of
3 a much of	b most of	c all
4 a none	b no	c a little
5 a the whole	b all of	c all

Mark: ___ /5

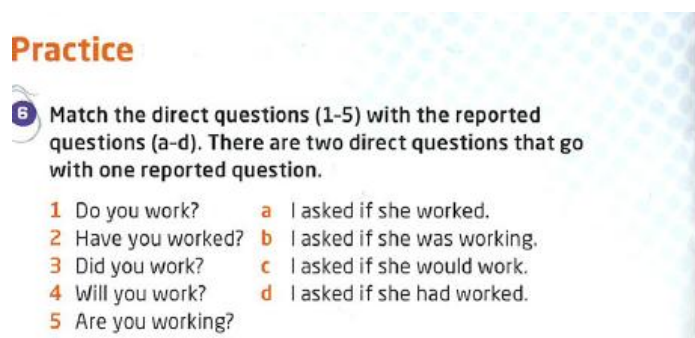
Example 2. Multiple-choice grammar activity (*Solutions Upper-Intermediate Student's Book*, task 7, p. 68)

7 Choose the correct word.

- 1 She/Her and she/her brother have a dog.
- 2 He/His has got a scarf. The scarf is he/his.
- 3 I/My parents have got a car. The car is their/theirs.
- 4 They/Their haven't got a bicycle.
- 5 We/Our cat is cute.
- 6 The gloves are your/yours.

Example 3. Multiple-choice grammar activity (*Spark 1*, task 7, p. 25)

Activities also frequently present in textbooks are those that ask learners to match sentence halves, sentences and their meaning, words and pictures, etc. as in the Example 4 below.¹



Practice

6 Match the direct questions (1-5) with the reported questions (a-d). There are two direct questions that go with one reported question.

1 Do you work?	a I asked if she worked.
2 Have you worked?	b I asked if she was working.
3 Did you work?	c I asked if she would work.
4 Will you work?	d I asked if she had worked.
5 Are you working?	

Example 4. Matching grammar activity (*Choices Intermediate Student's Book*, task 6, p.78)

Types of vocabulary activities that we believe do not encourage learners to process input on deeper levels are the same as grammar activities. In gap-filling activities learners are offered a list of words that need to be put into sentences. Instead of grammar structures, multiple-choice activities offer words that learners have to circle in order to complete the sentences. In matching activities related to vocabulary learners have to match words with their meanings or images. We consider them as activities that do not encourage significant cognitive effort.

As previously stated, this study aimed at identifying activities that have the potential to encourage learners to think, analyze, imagine, contextualize, compare language input to something they have learned before or do projects. Common instructions usually introducing these activities were found to be the following: *What is the difference between? How does this compare to what you learned before? Take a look at this and try to do the following. What do you think about? How do you understand this?*

The first type of activity we identified as such is the one in which learners are asked to sort words or grammar structures into categories or classes. Categorization facilitates learning and remembering new language material because it stimulates learners to classify words or structures into groups according to certain common qualities, which means learners have to invest more cognitive effort in completing the task, as in Example 5.

¹Instructions containing the verb "match" are usually very simple and do not engage learners in deeper input processing. However, it has to be noted that the level of processing depends on the content that needs to be matched as well as additional tasks that are included in the activity.

2 List the animals under these headings. Check with your partner, then tell the class.

domestic (*living on a farm*)

wild (*living in the wild*)

pet (*living in your house/garden*)

Sheep are domestic animals. They live on a farm.

Foxes are wild animals. They live in the wild.

Example 5. Sorting into classes/categories/headings (*Spark 1*, task 2, p.57)

Identifying the odd word out is also an example of an activity that is likely to foster deeper processing because these types of activities make learners analyze, compare and contrast the words given, i.e. engage in additional cognitive effort (see Example 6).

2 Choose the odd word out.

1 wardrobe – bed – sink – chair

2 fridge – book – table – cooker

3 sofa – washbasin – toilet – bath

4 armchair – sofa – chair – pillow

5 kitchen – bathroom – bedroom – carpet

(Points: $\frac{\quad}{5 \times 4} = \frac{\quad}{20}$)

Example 6. Odd word out. (*Spark 1*, task 2, "Self-Check 3")

The third group includes activities which make learners use certain vocabulary items or grammatical structures in context. There are various activities of this type such as the ones in which learners have to ask and answer questions, prepare dialogues, write their own sentences or use new language material in context that relates to their own experience (see Example 7 and Example 8). Relating language input to personal experience makes learners imagine and use new material creatively, which may lead to deeper processing and longer retention of the input.

11 Work in pairs. Take turns to ask about tomorrow's weather. Use the cues and *will* or *be going to* to answer.

A: *What do you think the weather will be like tomorrow?*

B: *Maybe it will rain.*

- 1 maybe ... (rain)
- 2 It's cold and cloudy ... (snow)
- 3 It's windy ... (weather - change)
- 4 think ... (be sunny)
- 5 It's frosty ... (roads - be icy)
- 6 sure ... (temperature - drop)
- 7 probably ... (be windy)

Example 7. Contextualizing in a dialogue (*Choices Intermediate Student's Book*, task 11, p.57)

16 Use the time expressions to write sentences about yourself, as in the example.

yesterday last night last Sunday

yesterday morning two years ago

I went to the museum yesterday.

Example 8. Contextualizing in sentences and relating to personal experience (*Spark 1*, task 16, p. 67)

There are also activities in which learners are asked to translate new words or certain grammatical rules and structures into their first language (see Example 9). Learners will remember and retain information better if they relate it to the knowledge they already have stored in mind. Moreover, translation can facilitate all potential difficulties learners may encounter when faced with new material.

5 Read the table. Say the examples in your language.

- **a/an** + countable nouns in the singular
Can I have a banana, please?
There is an apple in the fridge.
- **some** + countable nouns in the plural/
uncountable nouns (affirmative sentences/
questions to offer sth) *We'll take some oranges.*
There's some milk in the fridge. Would you like some?
- **any** + countable nouns in the plural/
uncountable nouns (negative sentences/
questions) *There isn't any butter. Are there any apples in the fridge?*
- **every** + countable nouns in the singular
There's a carton of juice for every child in the class.
- **no** + uncountable nouns/countable nouns in the plural
There is no money in my wallet.
There are no apples in the fridge.

Example 9. Translation activity (*Spark 3*, task 5, p.72)

Another activity that may engage learners in processing language at deeper levels is finding synonyms or antonyms. Words that are put in pairs which have either similar or opposite meaning are more likely to be retained better. Such exercise can be seen in Example 10.

4 Replace the words in bold with their opposites.

• cold • best • tiny • famous • miniature

1 unknown	3 worst time
landmarks	4 full-size model park
2 huge houses	5 warm waters

Example 10. Finding opposites (*Spark 3*, task 4, "Language Review 5")

It has been said that matching activities may be categorized as simple and not very engaging when it comes to levels of processing. However, there are some activities that prompt learners to use the matched words in sentences, as in the Example 11.

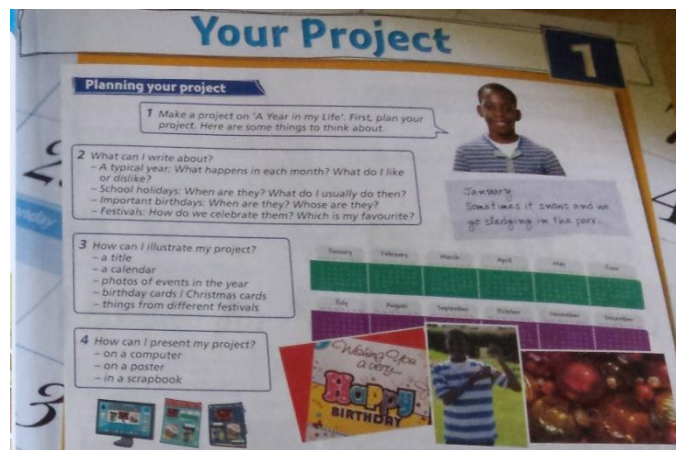
1 Match the words to form phrases. Use three of them to complete the sentences.

<input type="checkbox"/> 1 set	a his ankle
<input type="checkbox"/> 2 knock	b of water
<input type="checkbox"/> 3 hurt	c strike
<input type="checkbox"/> 4 severe	d (sb) unconscious
<input type="checkbox"/> 5 dumped a bucket	e burns
<input type="checkbox"/> 6 lightning	f on fire

1 A hit Roy Sullivan in 1973.
 2 Roy when he tried to run away from dark clouds.
 3 He over his head to cool down after his hair caught fire.

Example 11. Matching activity (*Spark 3*, task 1, "Language Review 2")

Finally, the last group of activities that could encourage deeper processing asks learners to do research or a project. They engage learners in thinking about the input more and putting additional effort in finding information about it, as in the Example 12.



Example 12. Project activity (Project 2, p.19)

5.4. Results

The following sections present the results and put them in relation to the questions posed at the beginning of the study. First, the total number of vocabulary and grammar activities in the textbooks will be presented and the number of activities that could promote deeper processing highlighted. Later, each textbook will be analyzed and described.

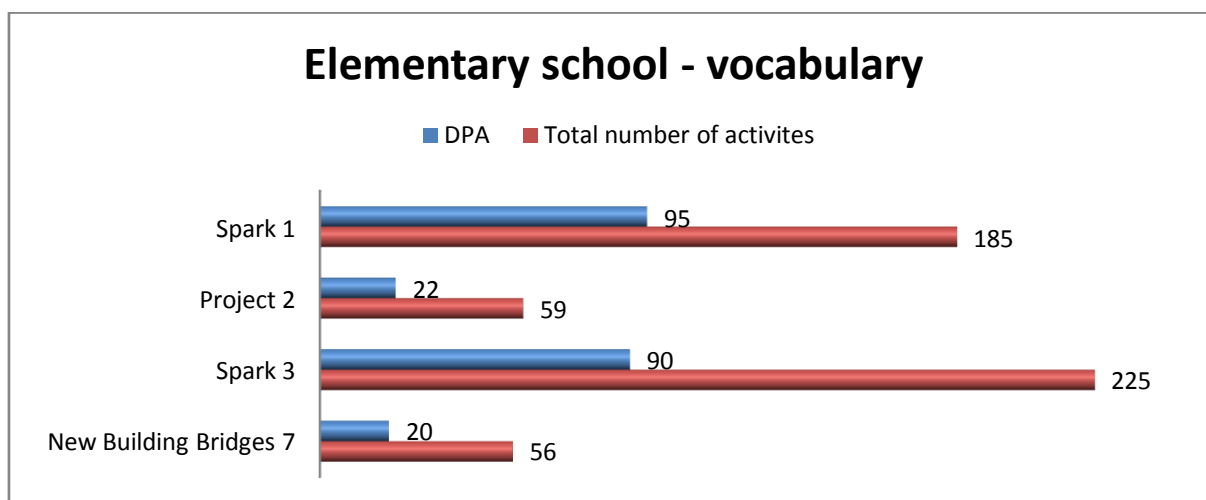


Figure 3. Vocabulary activities in textbooks for elementary schools (DPA = deep-processing activities)

Figure 3 shows the relation between the overall number of vocabulary activities and activities likely to encourage deeper processing in textbooks for elementary schools. As can be seen from the results, *Spark 1* focuses on vocabulary activities more than *Project 2* since their overall number in the former is 185 and only 59 in the latter. Great difference can be seen in the number of potential deep-processing activities as well since *Spark 1* has 95 activities and *Project 2* only 22. Turned into percentages, there are 51% of activities that may promote deeper processing in *Spark 1*, and 37% in *Project 2*. It can also be observed that there

is a big difference in the total number of vocabulary activities between *Spark 3* and *New Building Bridges 7*. *Spark 3* contains the total number of 225 activities among which there are 90 activities that could encourage deeper processing (40%). *New Building Bridges 7* has 56 activities among which only 20 have the potential to promote deeper processing (36%).

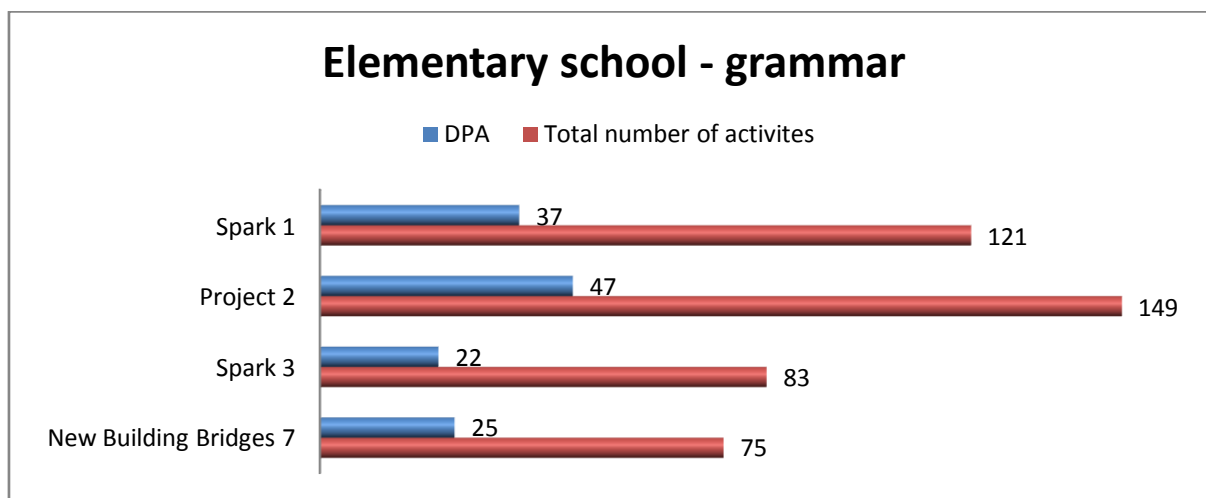


Figure 4. Grammar activities in textbooks for elementary schools (DPA= deep-processing activities)

As can be seen from Figure 4, the overall number of grammar activities in 5th grade textbooks is almost the same, but there is a slight difference of 28 activities in favor of *Project 2*. In addition, more activities likely to promote deeper processing (47) can be found in *Project 2* as well. Textbooks for 7th grade do not have that many grammar activities, and they are not abundant in activities likely to prompt deeper processing either. If the results are turned into percentages, *Project 2* has more activities that have the potential to encourage deeper processing (32%) as opposed to *Spark 1* (31%). When it comes to 7th grade textbooks, bigger percentage is present in *New Building Bridges 7* (33%).

5.4.1. Analysis of *Spark 1*

Spark 1, written by Virginia Evans and Jenny Dooley, was published by Express Publishing in 2013. The textbook is composed of six large units that are further divided into seven sections. Each unit contains separate sections called "Vocabulary" and "Grammar" which are placed at the beginning of each unit. While vocabulary section takes up one page in each unit, grammar sections take up two pages, with the exception of Unit 5 in which grammar is spread over six pages in total. Even though vocabulary and grammar activities are mostly presented in separate sections in the book, there are other sections in which they appear. In addition, at the end of the textbook, there are "Language Review" and "Self-Check"

pages with vocabulary and grammar tasks for all six units which learners can use for additional practice and self-evaluation.

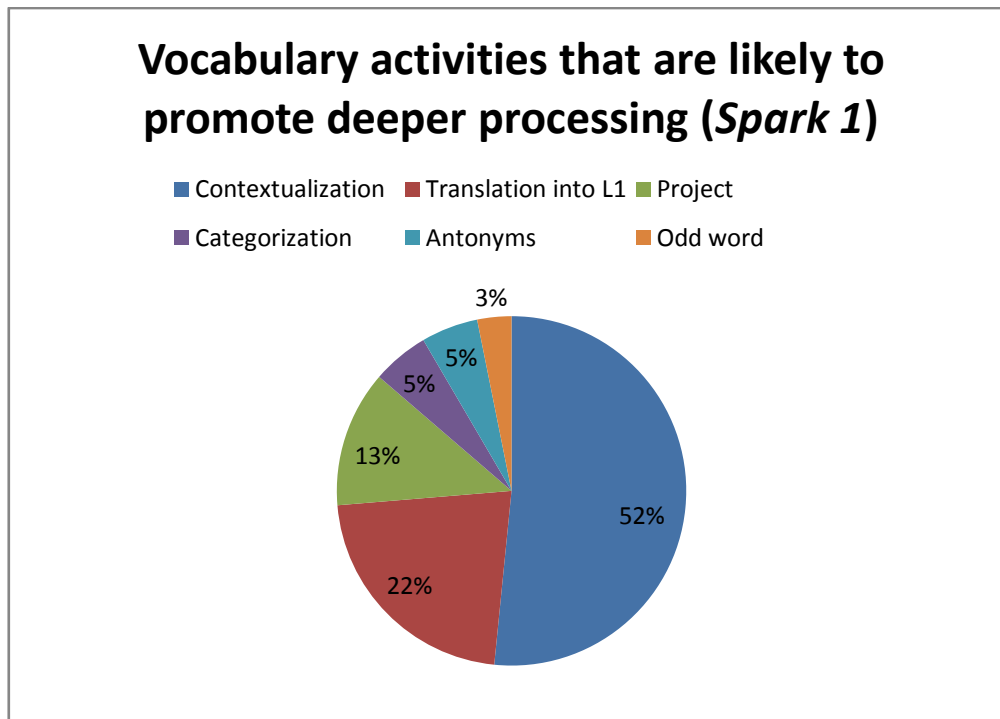


Figure 5. The ratio of vocabulary activities that are likely to promote deeper processing in *Spark 1*

Spark 1 contains a great number of vocabulary associated activities (see Figure 3), but not all of them could encourage deeper processing. There are many activities that do not seem to prompt deeper processing. Among them, gap-filling and multiple-choice exercises prevail. However, each section contains a few activities that may prompt learners to process vocabulary at deeper levels. Figure 5 shows that among the overall number of 95 (see Figure 4) activities likely to encourage deeper processing, contextualization accounts for the biggest percentage (52%). Dialogues, questions that need to be asked and answered, sentences or activities instructing learners to write about personal experience are all examples of activities related to setting language material in context. They fall into the set of activities that are likely to trigger deeper processing because they imply learners' emotional attachment to or personalization of the input. In other words, learners are more likely to remember vocabulary items better if they use it in a context that is closely related to their experience. In addition, as Boers and Lindstromberg claim, "it is widely accepted that it is mnemonically helpful for learners to incorporate target lexis into meaningful sentences" (Boers and Lindstromberg, 2008, p.16). Examples of such activities are: *Use the adjectives to make sentences about your family and friends.* / *Look at today's international weather chart. Listen and complete. Then*

ask and answer questions, as in the example. /Imagine your friend has a new pet snake. Act out a dialogue similar to the one in Ex. 1. /Your friend asks you to do one of these things. Change the words in color to act out a dialogue like the one in Ex. 2. /Find about your partner`s family. etc. Furthermore, 22% of activities are related to the introduction of new vocabulary and focused primarily on the meaning of the items. At the beginning of each section, learners are given a list of words, phrases or sentences that they need to listen to and repeat, but apart from that, they have to translate them into their first language. Learners are more likely to retain information if it is linked to the L1 knowledge already stored in mind. Apart from that, not only does translation as a method help learners acquire and strengthen their knowledge of vocabulary, but it also facilitates all potential difficulties they may encounter while facing a list of new words. In addition, every unit contains a few activities entitled *ICT* in which learners are asked to use online resources and learn more, collect information and prepare a short presentation or quiz about a certain topic, etc., as in the following examples: *Prepare a short presentation of other mythical creatures. /Prepare a short T/F quiz about birds. / Collect facts about insects. Write five facts. Present your project to the class. You can use the key word: insects.* Having collected the necessary information, learners have to put them in their own words to create the finished product. The aforementioned activities give learners a chance to learn more about a topic by investigating it in depth. Project-related activities make up 13% of activities likely to encourage deeper processing (see Figure 5). Moreover, categorization and antonyms both account for 5% of potential deep-processing activities. Categorization, i. e. classifying words into classes or categories, provides a review and enrichment of previously learned items. Such activities ask learners to put the word(s) in the right category or column, for example: *Look at the picture in Ex. 5 for a minute. Close your books. Group the words in the picture under these headings (Bedroom, Living room, Bathroom, Kitchen). / Listen and repeat. What are these words in your language? List the words under the headings (Fruit, Vegetables, Dairy products, Grains, Meat). Check with your partner. / List the animals under these headings (Domestic, Wild, Pet).* In addition, remembering words in pairs of synonyms or antonyms is a great way of ensuring their retention. There are several examples of these activities, especially in the section "Language Review", where learners are asked to either write or match the opposites. Finally, 3% of activities are found in the section "Language Review" and they ask learners to find the odd word. They are given a string of words in which they need to detect which word does not belong to the string. This is a great example of an activity with the potential to

promote processing at a deeper level because it requires learners to activate their previously acquired knowledge and analyze the offered words to be able to do the task successfully.

When it comes to multimodality of vocabulary activities present in this textbook, it has to be noted that it is replete with different types of pictorial support, which increases its overall visual attractiveness. Various images and illustrations are added to vocabulary activities, and some of them surely encourage better understanding and longer retention of the input. In each unit new vocabulary items are accompanied by images which represent them in a concrete manner and make them more memorable. Apart from that, there are instances where images serve as a starting point for speaking or writing activities because learners have to describe them by using the newly acquired vocabulary. Taking Levin`s (1981) typology into consideration, it can be concluded that the majority of vocabulary activities are followed by illustrations that are not purely decorative and can be defined as useful.

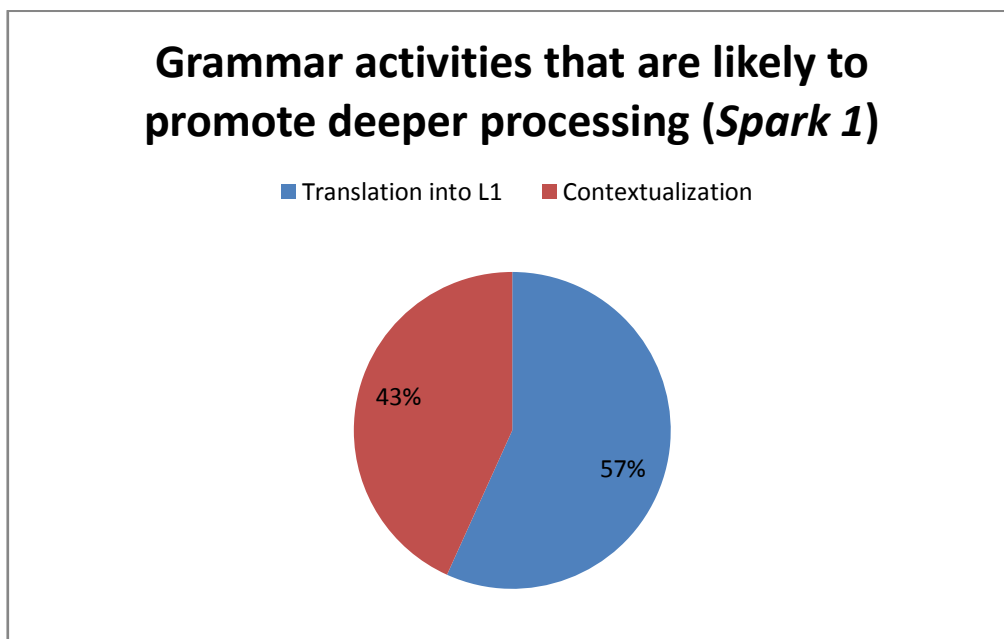


Figure 6. The ratio of grammar activities that are likely to promote deeper processing in *Spark 1*

When it comes to grammar, one cannot help but notice that the overall number of activities is smaller compared to vocabulary activities (see Figure 3 and Figure 4). Gap-filling exercises are predominantly present in the "Grammar" section, but as Figure 6 shows, there are two types of activities that may foster deeper levels of processing. Translation into L1 accounts for 57% of these activities. Grammar rules are given at the beginning of the section, and learners are usually asked to read the box, table or rules, and translate or compare them with the rules in their first language. Learners have to activate their existing knowledge, i.e.

grammar knowledge from their first language, and use it to understand how the grammar system of the foreign language works. Questions often asked in this type of activity are *Say the examples in your language.* or *Are there similar structures in your language?*. The remaining 43% are similar to those in vocabulary section(s). This means that grammar activities encourage learners to write sentences, ask and answer questions, work with a partner or write about themselves or their personal experience by using certain grammatical structures. Examples of such activities are the following: *Write a few sentences about things you have got and things you haven't got. / Ask and answer questions to find out what your partner has. Use the objects in Ex.4. / Write a short text about your typical weekday. Read it to the class. Who in your class has got a similar daily routine? / What could/couldn't your partner do at the age of seven? Use the phrases to find out.*

Grammar as a language component is often considered tedious, so learners do not show much interest in studying it. However, adding different types of visual support makes it more appealing. In this textbook, there are three possible options: first of all, there are grammar activities that are not followed by any type of image or illustration. Secondly, there are images or illustrations added to grammar activities, but their function serves decorative purposes only. Finally, there are illustrations whose functions are primarily representational and interpretational. Representational images make abstract grammar structures more concrete, which can be seen in the example with the representation of prepositions that are often very difficult to grasp. Prepositions *in, on, under, behind, next to, in front of* and *between* are depicted with a ball and a box. Depending on the preposition that needs to be explained, the ball is put in, on, under, behind, next to, in front of the box or between two boxes, which surely helps in memorizing the meaning of the prepositions. In addition, there are images which learners have to look at to be able to speak or write about it by using certain grammatical structures. Finally, the overall impression leads to the conclusion that there is still a greater number of activities that have no image or are accompanied by images whose function does not exceed the decorative level.

5.4.2. Analysis of *Project 2*

Project 2, written by Tom Hutchinson, was published by Oxford in 2014. It consists of six large units that are divided into four smaller lessons. At the beginning of each lesson there are "Vocabulary" sections that are followed by "Comprehension" and "Grammar" sections. In addition, there is the "Revision" section at the end of each unit for learners to use and practice newly acquired vocabulary and grammar. In the section called "Your project" learners are

encouraged to do a project on a topic related to what they have done in a particular unit. For example, if the topic of a unit is "Food", learners can do a project about food in their country (write about meals and mealtimes, places to buy food, make a recipe book, film one recipe, etc.).

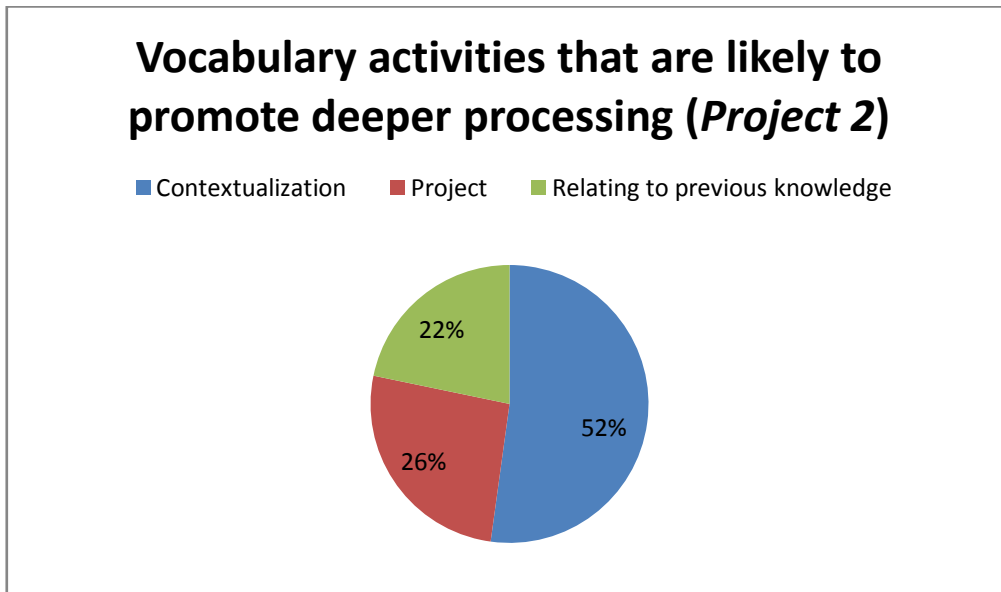


Figure 7. The ratio of vocabulary activities that are likely to promote deeper processing in *Project 2*

When it comes to vocabulary activities in *Project 2*, there is a pattern which is followed when introducing new vocabulary. The instructions include the following: *Listen and repeat. / Match words and pictures. / Label the pictures.* The majority of activities (52%) that may lead to better retention of vocabulary items are the ones in which learners have to write sentences about themselves, for example: *Answer the questions about yourself. (What animals do you like? What animals don't you like?). / Choose six things from the list and make a meal for yourself.* Again, making the input personal, i.e. putting it into a context close to learner's own experience, evokes strong emotions or holds personal significance for the learner, which is a great prerequisite for successful vocabulary processing. Furthermore, 26% of potential deep-processing activities encourage learners to do a project on a certain topic. At the end of each unit, there is a section called "Your Project" in which learners are given a project task that can be in written form, in the form of a poster or leaflet, etc. Examples of such activities are: *Make a project on "A year in my Life". First, plan your project. Here are some things to think about. / Make a project about holidays. / Make a project about food in your country.* Task-based activities boost learners' processing because they have to process language input deeply to be able to perform a task. Furthermore, once learners have been introduced with the new vocabulary, on several occasions in the textbook they are asked to

think of some more examples related to the particular topic, which can be seen in the following instructions: *What other wild animals do you know? Work in a group. Make a list.* (Topic: Animals) / *How many more places can you think of? Make a list.* (Topic: Holidays)/ *What other kinds of food and drink do you know?* These activities (22%) make learners analyze the knowledge they already have and relate it to the newly acquired material. This is why these activities are also a good example of deep-processing activities.

In this textbook, different images and illustrations are added to vocabulary activities, which results in better retention of the input. However, there is a pattern related to the visual presentation of vocabulary. In each unit images are added to new vocabulary items that learners have to listen to and repeat. Apart from that, there are instances where learners have to match images and expressions. Such multimodal approach to vocabulary instruction makes language material easier to remember.

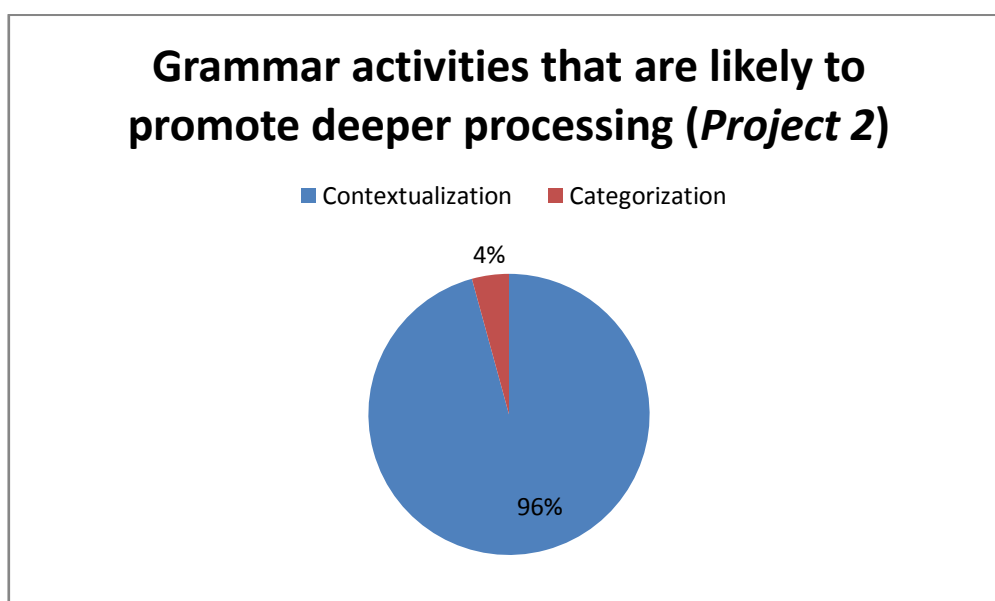


Figure 8. The ratio of grammar activities that are likely to promote deeper processing in *Project 2*

As opposed to *Spark 1*, *Project 2* is more focused on grammar than on vocabulary, which can be concluded from the number of grammar activities (see Figure 4). In this textbook there are 96% of potential deep-processing activities which require learners to contextualize new grammar material in the form of either sentences or dialogues, as can be seen from the examples: *Write six true sentences about your partner. / Write sentences about your life. Write about something that: you always do, you usually do at the weekend, you don't often do, is usually good, you never watch on TV, you don't normally play. / Make new dialogues. Use the cues.* As it has been mentioned, contextualization of the input helps

learners retain it for a longer period of time. Apart from that, there are also a few activities (4%) that make learners categorize grammar structures, and categorization also helps in the recollection and retention of form and meaning, for example: *Are these words countable or uncountable? Put them in the correct basket.*

Visual support of grammar activities in *Project 2* is not very impressive. Every grammar structure is presented in a table and followed by practice activities. In every grammar section, there is an image of a dog that explains grammar or asks questions about it so that learners reach certain conclusions on their own. There are a dozen activities to which illustrations or images are added, and these images can be classified as motivational because they motivate learners to look at them and make sentences by using new grammar structures. Other activities either do not have any visual support or are followed by illustrations that are primarily decorative.

5.4.3. Analysis of *Spark 3*

Spark 3, a textbook written by Virginia Evans and Jenny Dooley, was published by Express Publishing in 2013. Just like *Spark 1*, *Spark 3* is structured in six large units that are further divided into seven sections. Each unit contains separate vocabulary and grammar sections called "Vocabulary" and "Grammar". These sections are positioned at the beginning of the unit. While vocabulary section takes up one page in each unit, grammar sections take up two pages. There are also other sections in which vocabulary and grammar activities appear. In addition, at the end of the textbook, there are "Language Review" and "Self-check" pages with vocabulary and grammar tasks for all six units which learners can use for additional practice and self-evaluation.

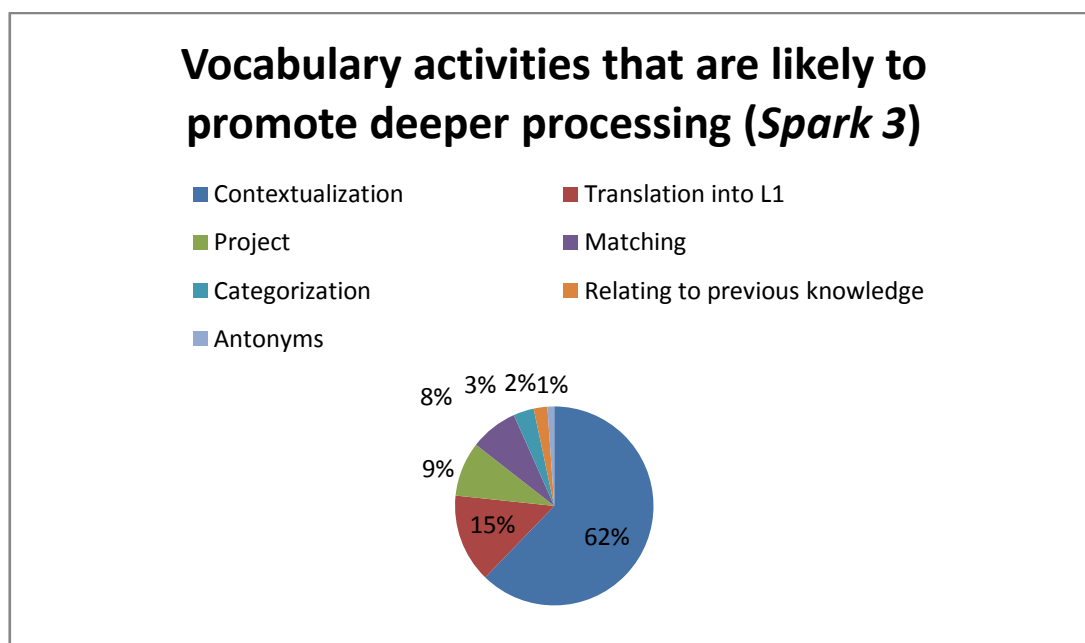


Figure 9. The ratio of vocabulary activities that are likely to promote deeper processing in *Spark 3*

Higher levels of language proficiency require greater amount of vocabulary, which explains the fact that *Spark 3* has so many vocabulary activities (see Figure 3). However, greater number of vocabulary activities does not necessarily imply that there are more activities that may promote deeper processing. Activities including contextualization make up 62% of all potential deep-processing vocabulary activities (see Figure 9). Valuable learning and input retention takes place when target lexis is put in a meaningful context, as in the following examples: *Look at the pictures in Ex. 6a and write sentences, as in the example. Tell the class. / Act out a similar dialogue. Use the dialogues in Ex. 2 as a model. / Use the adjectives to discuss. / Imagine you are going to spend your holiday in London. Act out your dialogue. Use ideas from the text in Ex. 2. / Which of the following do you like doing while on holiday? Tell your partner.*etc. Furthermore, 15% of activities are related to the translation into L1. New vocabulary items are given in lists of words, phrases and sentences that learners have to translate. It has been mentioned that this is an example of an activity that may trigger deeper processing since it helps learners retain information by creating meaningful connections with the knowledge from the first language. Moreover, 9% of activities prompt learners to do research or collect additional information on a certain topic. Once they gather the information, learners have to put them in their own words and present the final product. Instructions of this type are: *Do some research on other places of interest to see in Dubrovnik and tell the class. / Do some research on another type of wildlife that people can see in Croatia and write a short text. Read it to the class. / Collect information about a traditional*

musical instrument in your country under the headings. Matching activities make up 8% of activities that could prompt deeper processing (see Figure 9). Not only do learners have to match two columns, but they also have to use the matched expressions in sentences, as can be seen in this example: *Match the words to form phrases. Use three of them to complete the sentences*. The lowest percentages belong to activities including categorization (3%), relating new input to previous knowledge (2%) and antonyms (1%). There are instances in the textbook where learners are asked to write words in categories, compare and relate new material to items they already have stored in their mind or write the opposites. Even though there are not many activities of this type, they contribute to both deeper processing and task variety.

Similar to *Spark 1*, there are many instances in which vocabulary activities are visually supported, which makes the textbook more attractive. New vocabulary items are accompanied by images whose main function is to represent them so they are easier to remember. In addition, there are activities in which images are used to set the context for speaking and using vocabulary items in context. For this reason, it can be concluded that activities predominantly followed by illustrations are the ones including contextualization, categorization and translation into L1.

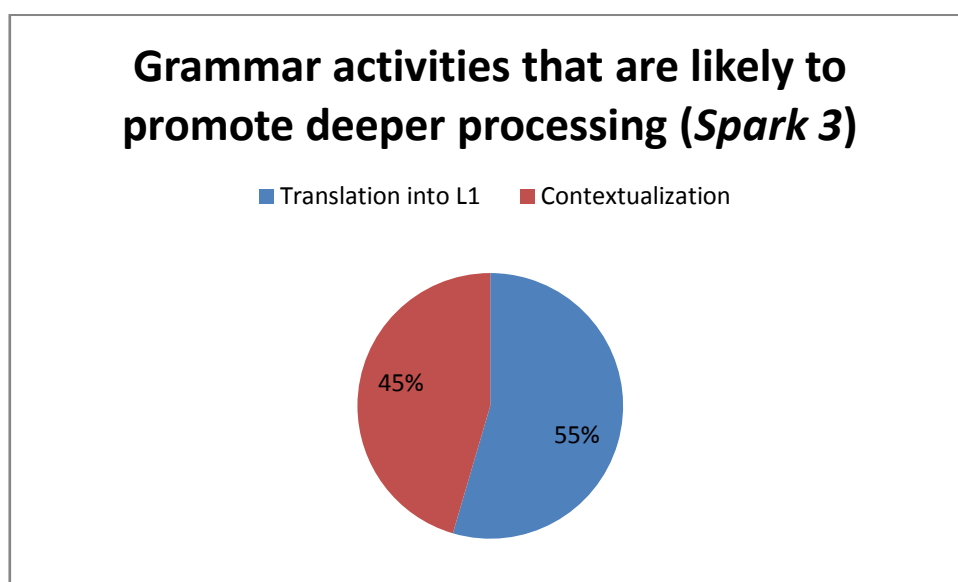


Figure 10. The ratio of grammar activities that are likely to promote deeper processing in *Spark 3*

As opposed to vocabulary, grammar takes up fewer activities in the textbook (see Figure 4). Activities that could promote deeper processing include two main types – contextualization and translation. As can be seen from Figure 10, 55% of activities stimulate

learners to read grammar rules and structures and translate them into their first language. Again, this type of instruction activates learners' knowledge from the first language, which finally leads to longer retention of L2 grammar. In addition, 45% of grammar activities engage learners in writing sentences, asking and answering questions or writing about themselves and their personal experience by using certain grammatical structures.

When it comes to illustrations and images added to grammar activities in *Spark 3*, there are only three activities in the entire textbook that are visually supported. The first multimodal activity is the one in which learners are given seven signs and seven verbs that they have to use to ask and answer questions. Images present in this activity are representational because they make the information more concrete and memorable. In the second activity learners have to use verbs to write sentences, but they are also given illustrations to be able to perform the task more easily. The final multimodal activity is related to partitives. Learners are given seven images and seven words that they need to fill the blanks with. Each image depicts a container, which should make filling in easier.

5.4.4. Analysis of *New Building Bridges 7*

The textbook *New Building Bridges 7*, written by Mirta Jelenc Župan, Vida Lukić and Jasna Pavuna, was published by Profil in 2014. It is comprised of seven large thematic units which are further divided into four smaller lessons. Each lesson contains grammar and vocabulary sections that are put in separate boxes, so they can be easily distinguished from other content present in the textbook. Grammar is presented either in Do you remember? or Remember box. Do you remember? box deals with grammar inductively, which means that learners have to come up with a rule or conclude which grammar structure is related to a particular rule based on the examples given. On the other hand, Remember box presents grammar deductively, thus simply providing learners with rules and uses for a specific grammar structure. There are no vocabulary or grammar summaries, neither at the end of each lesson nor at the end of the textbook.

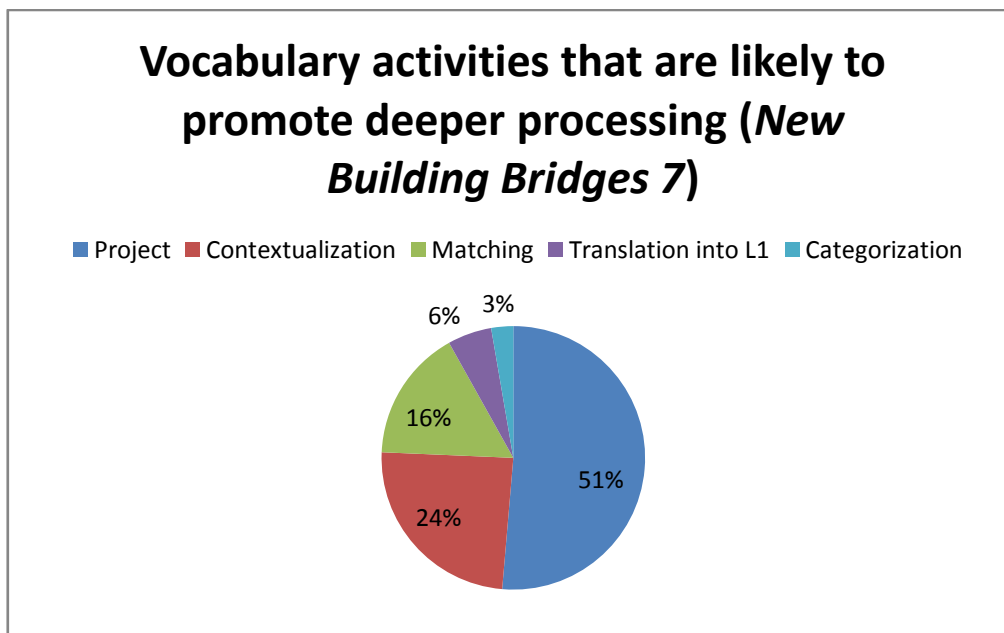


Figure 11. The ratio of vocabulary activities that are likely to promote deeper processing in *New Building Bridges 7*

As can be seen from Figure 11, potential deep-processing vocabulary activities are divided into five major groups: project, contextualization, matching, translation to L1 and categorization. Projects account for 51% of these activities in the textbook. They are found at the end of each unit and are thematically related to the topic of the unit. Some of the projects learners can do are: *Work in a group. Prepare a display with photographs of you and your classmates. Write a few lines about each of you. Think of nicknames, favorite sports, hobbies, pets and dislikes and any other interesting details. You can include some of the blogs that you and your classmates wrote. /Interview your friends about running away from home. Ask them if they know anyone who ran away, if they ever wanted to run away and why etc. Write an article it.* 24% of activities encourage learners to contextualize vocabulary items in meaningful sentences, dialogues, questions and answers, etc.: *Work in groups. Do any of the letters make you think of somebody you know or maybe yourself? Choose one of the letters and answer it. / Work in groups. Choose one bird in the quiz. What else do you know about it? Report to the class.* Furthermore, 16% of activities prompt learners to match, for example, nouns and adjectives that describe them: *Match the nouns to the adjectives that describe them.* The lowest percentages are related to categorization (6%) and translation (3%) of vocabulary items. On several occasions learners are asked to categorize vocabulary items on the basis of certain common qualities, as can be seen in the following example: *Put the words below into the correct column in the table.* Finally, they are also asked to translate vocabulary into their first language, which helps them retain L2 vocabulary longer.

Among the four textbooks for elementary school, visual presentation of vocabulary is the poorest in this textbook. All present images and illustrations are related to listening and reading activities, but these are not the focus of attention of the present study. There are only a few activities in which images or illustrations are used to facilitate vocabulary acquisition. New vocabulary items are predominantly given in lists with no visual support. There is only one exception to this rule: learners are given four words (*Minotaur*, *wax*, *wings*, and *labyrinth*) that they need to match to illustrations depicting them. In addition, there are a couple of activities in which learners are given images that they need to talk about by using new vocabulary items.

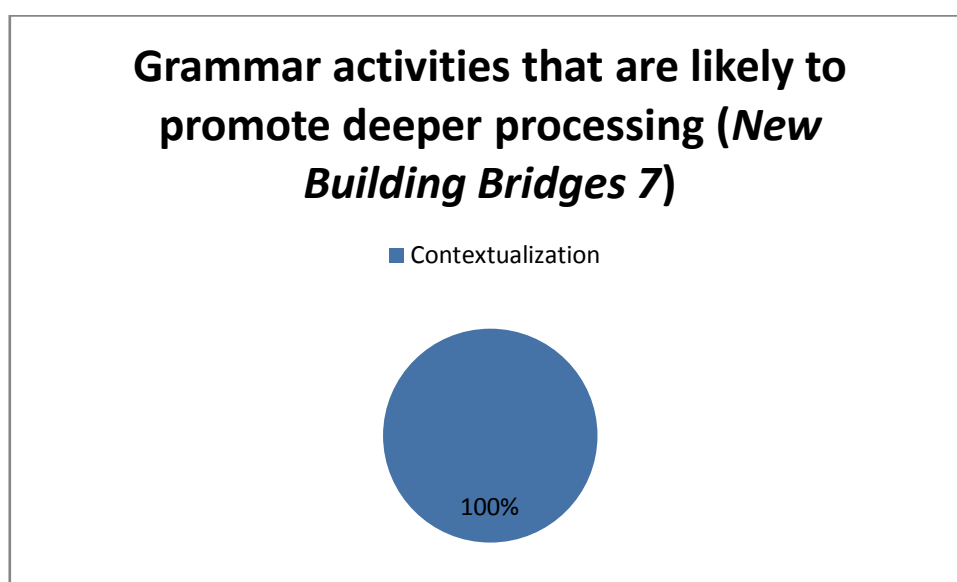


Figure 12. The ratio of grammar activities that are likely to promote deeper processing in *New Building Bridges 7*

Figure 12 shows an interesting fact that is not present in any other textbook. All potential deep-processing activities related to grammar ask learners to use certain grammatical structures in context, as can be seen in the following examples: *Write two true and two false sentences about things you have done today. In pairs read the sentences to each other. Guess which are true and which are false. Look at the example. / In pairs, ask and answer questions. Report back to the class. / Work in pairs. You need to guess if your partner has ever done the following. Make sentences from the prompts below.* This does not go in favor of task variety, but activities of this type are undoubtedly useful for learners' vocabulary understanding and acquisition.

As it has been said, grammar instruction in this textbook consists of two types of tables: Do you remember? and Remember box. They present grammar either inductively or

deductively and are followed by practice activities. In the entire textbook there is only one example of a multimodal activity which encourages learners to practice going to future by using pictures. Other illustrations are mostly related to reading and speaking activities, and their function is primarily decorative, which means that they contribute to textbook's visual attractiveness.

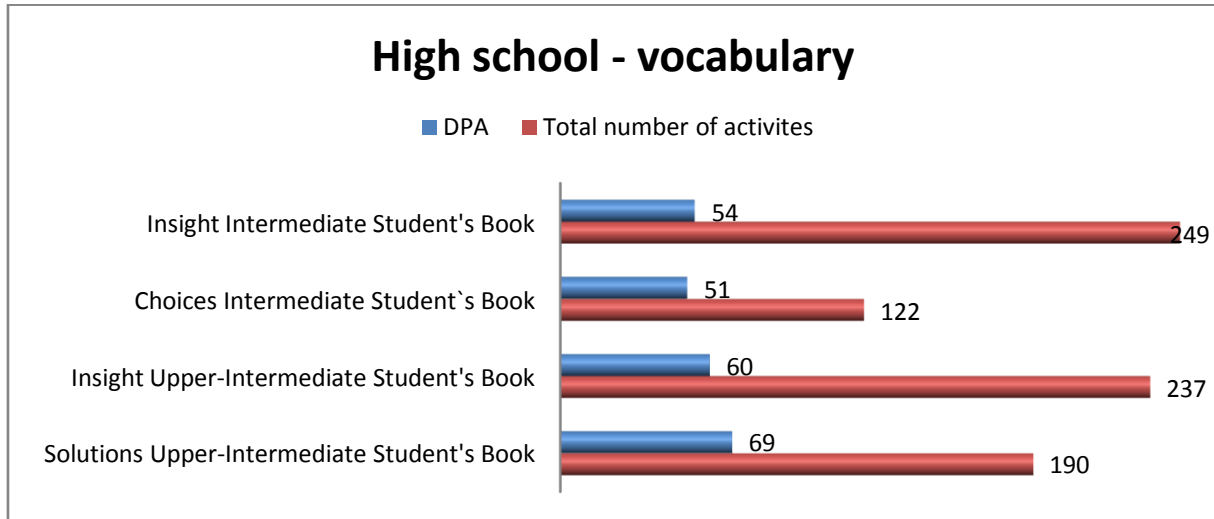


Figure 13. Vocabulary activities in textbooks for high schools (DPA = deep-processing activities)

Figure 13 shows the total number of vocabulary activities as well as the number of activities that may promote deeper processing in EFL textbooks for high schools. As can be seen from the results, 1st grade textbooks differ significantly in the total number of vocabulary activities. The number of activities in *Insight Intermediate* (249) is twice the number of activities in *Choices Intermediate* (122). On the other hand, the number of activities likely to encourage deeper processing is almost the same in the two textbooks. If the numbers are turned into percentages, potential deep-processing activities make up 22% of all vocabulary activities in *Insight Intermediate*, while the percentage of these activities in *Choices Intermediate* is 42%. It can also be noted that there is a difference between *Insight Upper-Intermediate* and *Solutions Upper-Intermediate* in the total number of vocabulary activities. *Insight Upper-Intermediate* contains 237 vocabulary activities among which there are only 60 activities that could encourage deeper processing (25%). *Solutions Upper-Intermediate* has 190 activities among which 69 activities have the potential to promote deeper processing (36%).

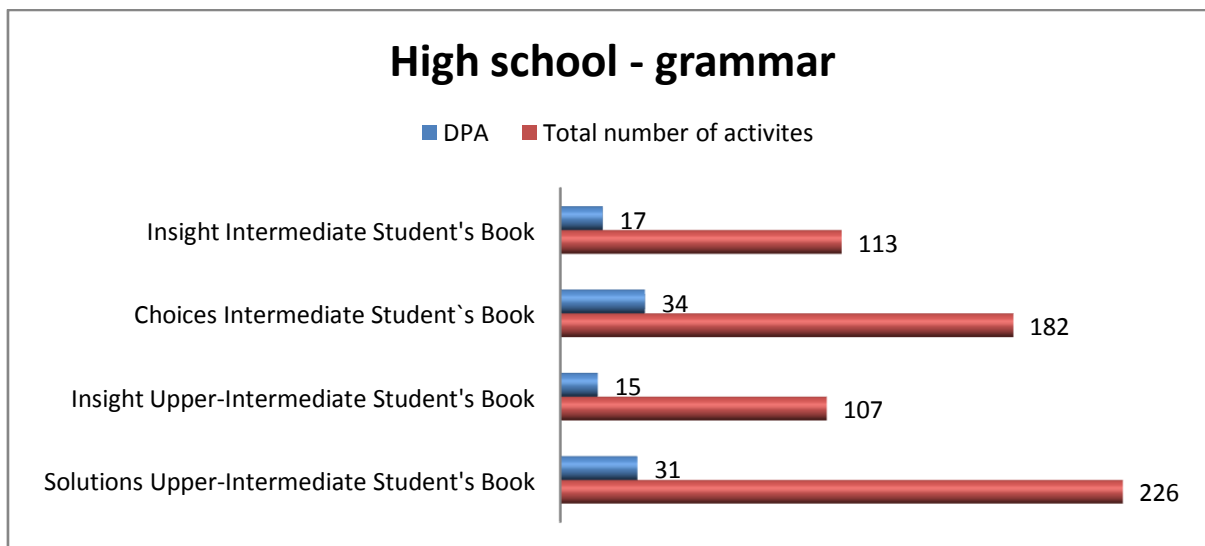


Figure 14. Grammar activities in textbooks for high schools (DPA = deep-processing activities)

It can be seen from the results (see Figure 14) that the difference in the total number of grammar activities in textbooks for 1st grade goes in favor of *Choices Intermediate*. In addition, when it comes to potential deep-processing activities, *Choices Intermediate* has prevalence over *Insight Intermediate*. However, the percentage of these activities is low in both textbooks – they make up only 15% of activities in *Insight Intermediate* and 19% in *Choices Intermediate*. Textbooks for 3rd grade differ significantly in the overall number of grammar activities, as the number of activities in *Solutions Upper-Intermediate* is double the number of activities in *Insight Upper-Intermediate*. However, both textbooks are not abundant in activities likely to promote deeper processing. If the results are turned into percentages, potential deep-processing activities in both *Solutions Upper-Intermediate* and *Insight Upper-Intermediate* make up 14% of the overall number of activities.

5.4.5. Analysis of *Insight Intermediate Student's Book*

Insight Intermediate, a textbook written by Jayne Wildman, Cathy Myers and Claire Thacker, was published by Oxford in 2013. The textbook is composed of ten units that are further divided into five sections. Vocabulary activities appear in sections called "Reading and Vocabulary", "Listening, Speaking and Vocabulary" and "Culture, Vocabulary and Grammar", while grammar activities appear in sections called "Grammar and Listening" and "Culture, Vocabulary and Grammar". Furthermore, there is a section called "Review" at the end of each unit. This section contains exercises which learners can use to practice newly acquired vocabulary and grammar. In addition, after every two units there is a section titled "Cumulative Review" in which, apart from listening, speaking and reading activities, there are

also vocabulary and grammar activities aimed at practicing vocabulary and grammar presented in these units. Finally, at the end of the textbook there is a section called "Vocabulary Bank" aimed at practicing vocabulary presented throughout the book.

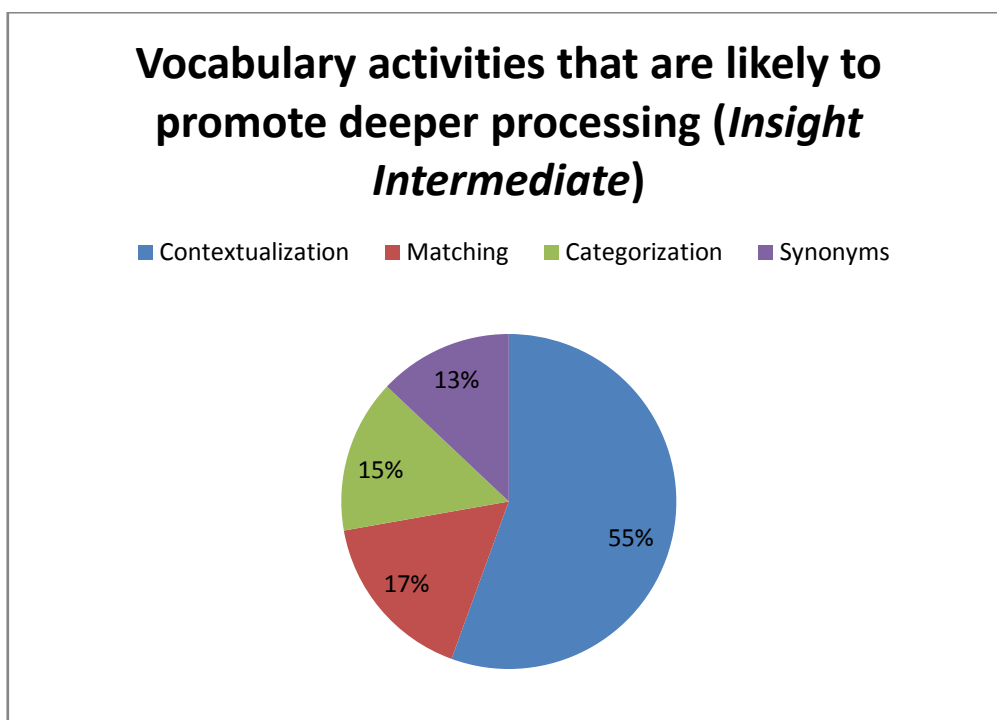


Figure 15. The ratio of vocabulary activities that are likely to promote deeper processing in *Insight Intermediate*

Based on the number of tasks related to vocabulary and grammar (see Figure 13 and Figure 14), it can be concluded that this textbook is more vocabulary-oriented. Vocabulary activities are predominantly multiple-choice, gap-filling and matching activities. However, there are a few types of activities that can be considered as activities that may promote deeper processing. The biggest percentage (55%) belongs to contextualization (see Figure 15). Using language input in one's own sentences is a desirable strategy because deeper processing takes place when learners use language material in contexts they find familiar, as in the following examples: *Write your own example sentences with the fixed phrases in exercise 5. / Use a dictionary to find homonyms or homophones of the words below. Then write your own example sentence with each word.* Moreover, there are many instances in the textbook where learners have to match the words to make compounds or match words and their meaning and then use them to make their own sentences, for example: *Study the highlighted phrasal verbs in questions 1-8. Match them to meanings a-h. Then work in pairs and answer the questions.* It has been said that activities which require learners to match words and their meaning or two halves of a compound, etc. engage learners to process input on shallow levels. However, it has

to be borne in mind that the level of processing depends on what follows the matching activity. Furthermore, categorization is another type of activity that accounts for 15% of all potential deep-processing activities. For example, there is an exercise in which learners are given a list of words and they have to decide which words belong to team sport, which to individual and which to both. Other similar activities are: *Study the highlighted phrases in sentences 1-8 from the recording. Then put them into the correct part of the table.* / *Study the highlighted words and phrases in both letters. Then put them into the correct part of the table.* / *Study the phrases from the listening text. Put them into the correct category.* Memorizing and retention of vocabulary will be better if vocabulary items are put into synonym or antonym pairs, and there are 13% of such activities. Examples are the following: *Study the highlighted adjectives in the text. Then replace the adjectives in italics in sentences 1-6 with the correct words.* / *Read the text. Then replace the words and phrases in italics with the correct form of the highlighted words in the article about Rosa Parks.* / *Study the highlighted phrasal verbs in the text. Then replace the phrases in italics with the correct form of the phrasal verb.*

Pictures present in *Insight Intermediate* mostly serve decorative purposes in reading and listening activities. When it comes to vocabulary, new vocabulary items are given as lists only, i.e. there are no instances in which visual support is added. However, there are very few cases in which learners are asked to use the newly acquired vocabulary items to describe photos. Apart from that, in sections called "Vocabulary Bank" there are several activities in which learners have to label the pictures.

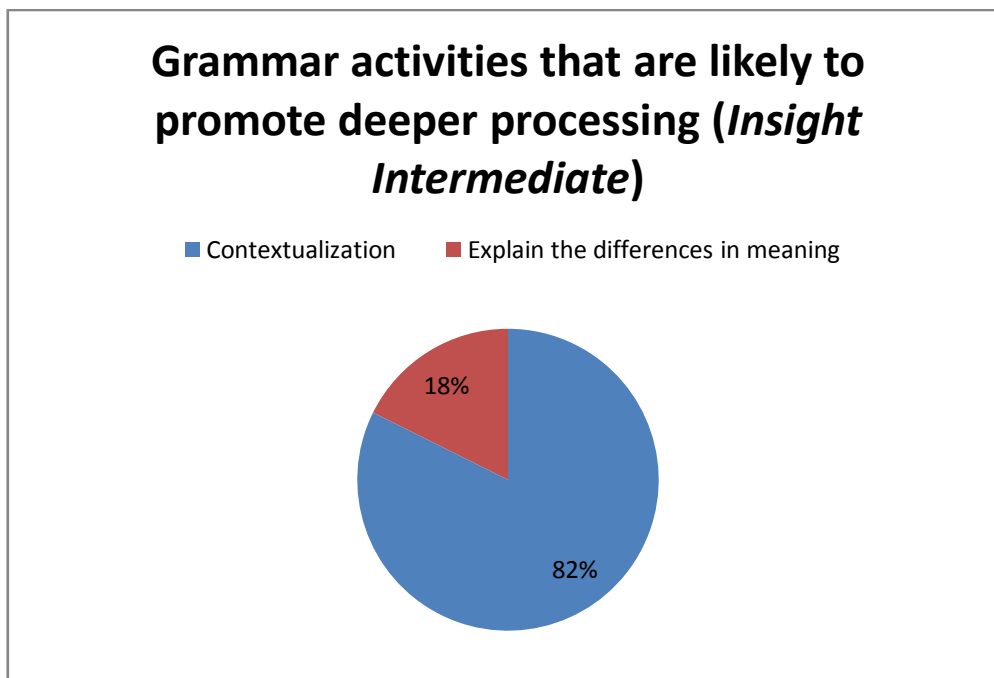


Figure 16. The ratio of grammar activities that are likely to promote deeper processing in *Insight Intermediate*

Insight Intermediate has many grammar activities (see Figure 14), but learners are mostly asked to fill the gaps with the correct grammatical form, circle the correct form or match grammar rules and sentences. Among grammar activities, there are only two types of activities that have the potential to foster deeper processing. There are 82% of activities that are related to using certain grammatical structures in a particular context (see Figure 16), for example: *Which of these things is it necessary/not necessary for you to do? Which of them are you allowed/not allowed to do? / Work in pairs. Choose a situation from below and discuss what you will do or what you will need to have done. Use the dialogue in exercise 8 to help you. / Work in pairs. Ask and answer questions about a memorable journey you have had. Use the ideas below.* The second type of activity is the one in which learners have to explain the differences in meaning between sentences or grammatical structures. Among all potential deep-processing activities, there are 18% of activities of this type, and example is the following: *Study sentences 1-5. What is the difference in meaning between sentences a and b?*

When it comes to the visual support of grammar activities, in only a few instances learners are given photos or images so that they can use certain grammatical structures and make sentences related to these images.

5.4.6. Analysis of *Choices Intermediate Student's Book*

Choices Intermediate, written by Michael Harris and Anna Sikorzyńska, was published by Pearson in 2012. The textbook is composed of twelve large units that are further divided into three smaller lessons. Each unit contains a separate lesson called "Grammar", while vocabulary appears in each lesson. After every two units there is a section called "Language Review" with grammar and vocabulary exercises which learners can use for additional practice. The textbook also has an appendix called "Language Choice" that sums up all grammar covered in the textbook and offers grammar and vocabulary exercises for the learners to solve.

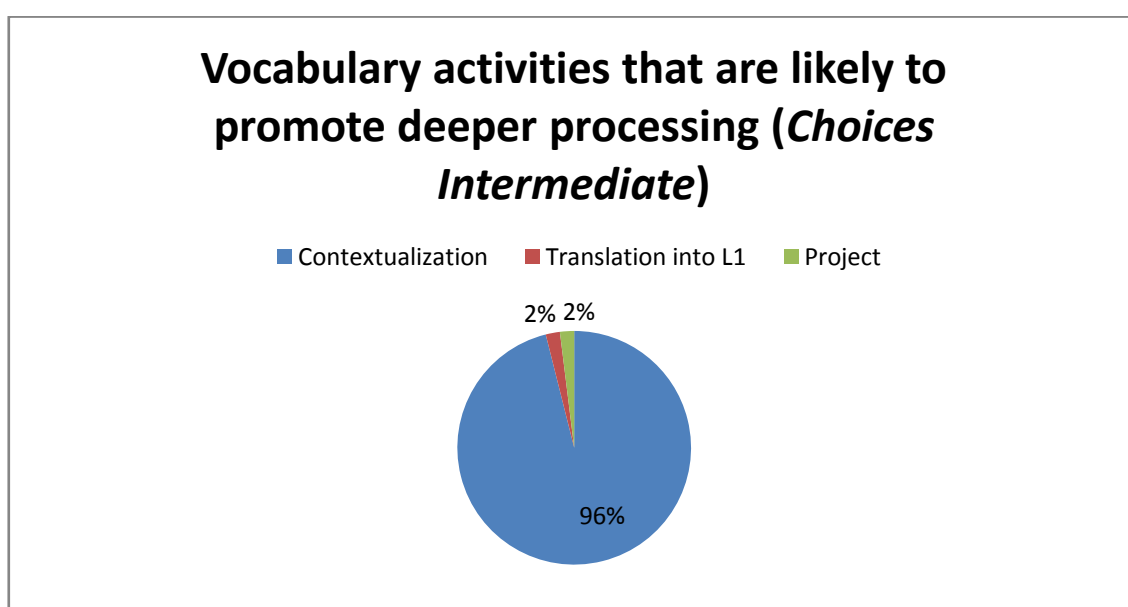


Figure 17. The ratio of vocabulary activities that are likely to promote deeper processing in *Choices Intermediate*

Among 122 vocabulary activities only 51 activities may promote deeper processing (see Figure 13). The majority of activities (96%) stimulates learners to use new material in context such as dialogues, questions and answers or sentences (see Figure 17), for example: *Work in groups. Use the network to talk about your interests and ideas about science and technology. / Work in groups. Use the network to talk about your area. / Plan a meal or a party. Write notes about the things below.* There is the exact percentage (2%) of activities related to translation into L1 and doing a project. There are two activities in the entire textbook which require learners to translate vocabulary items to their first language and one of them is: *Look at the Word Builder. How do you say the words in your language? Do you use the same words for place and movement?* The final group of activities likely to promote deeper processing is the one in which learners have to do a project by collecting information

on a certain topic such as the following: *Choose a hero/heroine from your country. Find out information about him/her. Then work in groups. Use the network to talk about your person.*

Visual support in *Choices Intermediate* is mostly a part of reading and listening activities and is used to make the textbook visually more interesting. When it comes to vocabulary, new items are given in forms of lists or networks. There are instances in which visual support is added to facilitate memorization and retention of word form or meaning. For example, at the beginning of a few units, there are new vocabulary items to which images are added so that learners memorize them easily. In addition, there are cases in which learners have to use new vocabulary to describe photos.

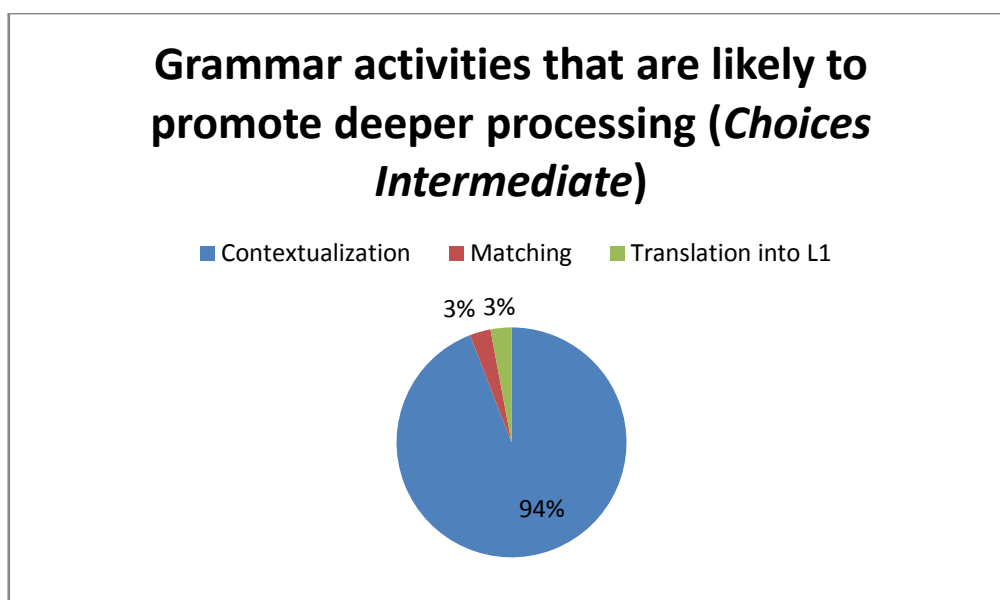


Figure 18. The ratio of grammar activities that are likely to promote deeper processing in *Choices Intermediate*

As can be seen from Figure 18, 94% of potential deep-processing grammar activities include using grammatical structures in a meaningful context by asking and answering questions, imagining a situation and writing about it, making dialogues with a partner, as in the following examples: *Use the notes to write sentences the people (1-3) could say. Use the Present Simple, Present Continuous and Present Perfect. / Use the notes to prepare explanations why you did not go to a friend's birthday party. Use the Past Simple, Past Continuous and Past Perfect. / Work in pairs. Use the cues to make dialogues.* Matching activities and activities requiring translation into first language make up 3% of potential deep-processing activities respectively.

There are no multimodal grammar activities in *Choices Intermediate*. These activities are all designed in the same manner, which means that grammar instruction is very simple and is followed by practice activities only.

5.4.7. Analysis of *Insight Upper-Intermediate Student`s Book*

Insight Upper-Intermediate is a textbook written by Jayne Wildman and Fiona Beddall. It was published by Oxford in 2013. Just like *Insight Intermediate*, *Insight Upper-Intermediate* is structured in ten units that are further divided into five sections. Vocabulary activities also appear in sections called "Reading and Vocabulary", "Listening, Speaking and Vocabulary" and "Culture, Vocabulary and Grammar", while grammar activities appear in sections called "Grammar and Listening" and "Culture, Vocabulary and Grammar". The section called "Review" is placed at the end of each unit and learners can use it to practice vocabulary and grammar presented throughout the unit. The section called "Cumulative Review" appears in this textbook as well and it contains vocabulary and grammar activities aimed at practicing vocabulary and grammar acquired in these units. Finally, at the end of the textbook there is the section called "Vocabulary Bank" for practicing vocabulary presented throughout the book.

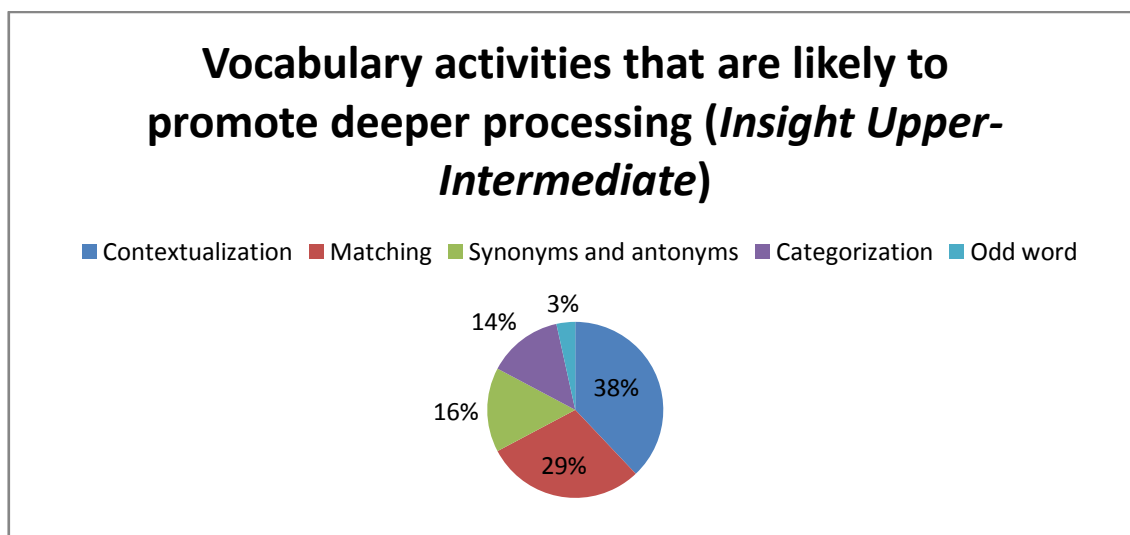


Figure 19. The ratio of vocabulary activities that are likely to promote deeper processing in *Insight Upper-Intermediate*

Just like *Insight Intermediate*, this textbook is also more focused on vocabulary instruction. Vocabulary activities are mostly conventional, hence learners have to circle the right option, fill in the gaps or simply match words with their meaning. However, there are a few types of activities that can be considered as activities likely to promote deeper processing (see Figure 19). Contextualization is a type of activity predominantly present in this textbook

(38%). It encourages learners to process language input on deeper levels by using it in familiar contexts, as in the following examples: *Look at the photos in the article. Use the words in exercise 6 to describe them. / Describe an exhibition or museum you have attended using compound adjectives.* Moreover, it has been said that activities which require learners to match words and their meaning or two halves of a compound, etc. engage learners to process input at lower levels. However, it has to be borne in mind that the level of processing depends on what follows the matching activity. There are 29% of potential deep-processing activities in the textbook that prompt learners to match the words to make compounds and then use them in a text, as in this example: *Match the compound nouns below to definitions 1-8. Complete the text with the correct singular or plural form of the words in exercise 1.* Furthermore, other activities that foster the memorization and retention of vocabulary items are the ones which require learners to use synonyms or antonyms, for example: *Read the text about another project by Candy Chang. Replace the words in italics with a synonym in exercise 5. / Write the antonyms of the words below. / Complete the list of synonyms with the highlighted words in the article. Check any words you do not know in a dictionary and write any common collocations./Match the pairs of synonyms below.* Moreover, categorization is another type of activity that could help learners process language at deeper levels. Examples of such activities are: *Complete the table with the words from the two recordings. Use a dictionary to help you./ Study phrases 1-7 from the interview. Then match the highlighted adjectives to categories a-i below./ Study the words and phrases from the radio programme. Which do you think describe the old and which the young? Which can describe both? Use a dictionary to help you./ Work in pairs. Look at the words in exercise 1. Describe things near to where you live using the adjectives in exercise 3.* The final group is related to choosing the odd one out and it makes up 3% of activities that could promote deeper processing.

Visual support present in *Insight Upper-Intermediate* is mostly a part of reading and listening activities and serves decorative purposes. When it comes to vocabulary, new items are given in forms of lists, i.e. there are no instances in which visual support is added to facilitate memorization and retention of word form or meaning. Just like in *Insight Intermediate*, there are a few cases in which learners have to use the newly acquired vocabulary to describe photos. Apart from that, "Vocabulary Bank" contains several activities in which learners have to label the pictures.

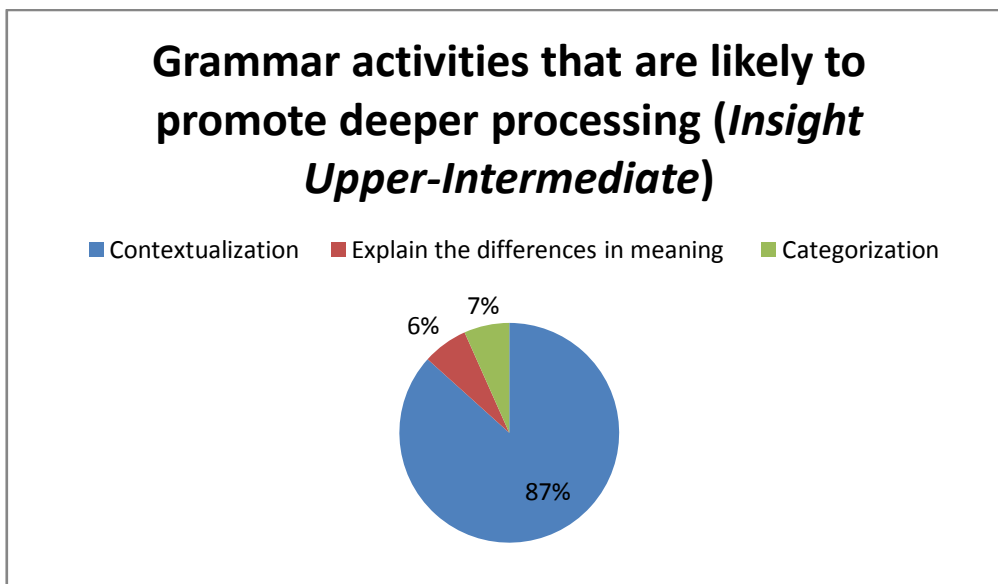


Figure 20. The ratio of grammar activities that are likely to promote deeper processing in *Insight Upper-Intermediate*

The number of grammar activities is significantly smaller in relation to vocabulary activities (see Figure 13 and Figure 14), but it has to be noted that almost all of them belong to activities in which learners are mostly instructed to fill in the gaps with the correct grammatical form, circle the correct form or match grammar rules and sentences. Among grammar activities, the biggest percentage (87%) includes activities in which learners have to use certain grammatical structures in a particular context (see Figure 20), for example: *Work in pairs. Talk about your hopes and plans for the future using the prompts below.* Furthermore, there are also activities in which learners study the sentences and explain the differences in meaning. This type of activity encourages learners to analyze language input and reach certain conclusions about it by processing it at a deeper level. The third type of activity engages learners in putting grammatical structures in the right category, as in the following: *Study the highlighted determiners in the text and put them into the correct category. Then decide which can be used with both uncountable and plural countable nouns. Use the Grammar reference section in the Workbook to help you.* Even though categorization is a good activity for input retention, only 7% of potential deep-processing activities prompt learners to categorize language material.

As in *Insight Intermediate*, there are only a few grammar activities in *Insight Upper-Intermediate* which are supported by images that learners have to use for the application of certain grammatical structures.

5.4.8. Analysis of *Solutions Upper-Intermediate Student's Book*

Solutions Upper-Intermediate is a textbook written by Tim Falla and Paul A. Davies. It was published by Oxford in 2013. It is structured in ten large units that are further divided into seven sections. This textbook has section A called "Vocabulary and Listening" which always begins with exercises related to vocabulary. Sections B and D are reserved for grammar and they contain rules presented in Learn this! box as well as various exercises for grammar practice. There are also smaller sections with grammar and vocabulary rules and tasks that appear several times in each lesson. Apart from that, at the end of each unit there is a section called "Get Ready for Your Exam" in which learners are given exercises for practicing all four language skills. After every two units there is a section called "Language Review" aimed at practicing vocabulary and grammar acquired in these units. Finally, at the end of the textbook there are also "Grammar Builder and Reference" and "Vocabulary Builder" sections. "Grammar Builder and Reference" contains all grammar rules and practice activities, while "Vocabulary Builder" is used for practicing the newly acquired vocabulary.

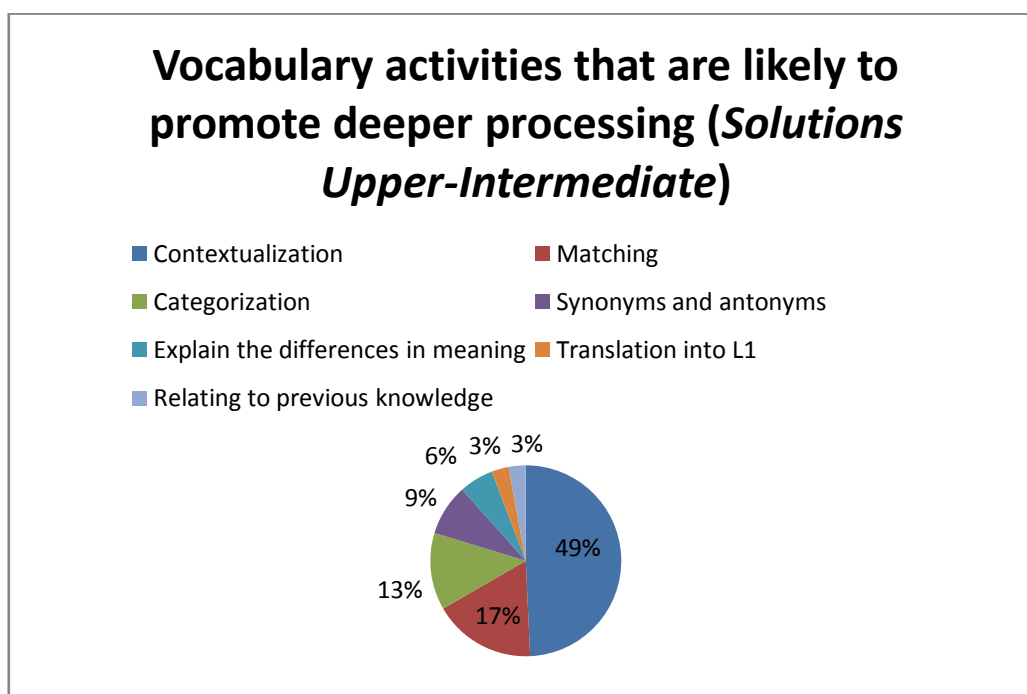


Figure 21. The ratio of vocabulary activities that are likely to promote deeper processing in *Solutions Upper-Intermediate*

Even though the overall number of activities is smaller than in the textbook *Insight Upper-Intermediate*, *Solutions Upper-Intermediate* contains more activities that have the potential to foster deeper processing (see Figure 13). First of all, in a variety of activities (49%) learners have to use vocabulary items to describe photos. Photos present in the

textbook set the context that helps learners make sentences by using new language material. If photos are not available, learners are encouraged to work in pairs, thus creating their own context for language use. Another option is that they use vocabulary items in their own sentences. Furthermore, categorization is frequently used in this textbook as well (13%). There are several instances in which learners have to complete the chart containing a few categories. Organizing words in categories helps learners create links between the words pertaining to a particular category, which finally results in better memorization and retention of the material, as can be seen in the following examples: *Work in pairs. Add the words below to the mind map. Then add as many other words as you can in two minutes.* (Categories: hair, make-up, jewelry, expression/posture, clothes) / *Complete the chart with the adjectives below.* (Categories: money, price and cost, attitudes to money, rich or poor?) / *Divide the words below into two groups: those that describe taste and those that describe texture.* Activities stimulating learners to use or write synonyms or antonyms of the words given make them relate words they have already learned to new vocabulary input. This is realized by putting pairs of words into relations that are based either on similarity or opposition. There are 9% of such activities (see Figure 21), while 6% of activities ask learners to explain differences in meaning. These activities make learners analyze language material they are faced with, which finally leads to better understanding and longer retention. Two types of activities account for 3% of potential deep-processing activities and these activities are: translating to L1 and relating to previous knowledge. The latter type of activity encourages learners to relate new language material to words they already have stored in their mind, as can be seen in this example: *Work in pairs. Add the words below to the mind map. Then add as many other words as you can in two minutes.*

Solutions Upper-Intermediate does not have a lot of images. Those that are present and relevant for vocabulary instruction appear in the section "Vocabulary and Listening". Such vocabulary activities usually instruct learners to use new vocabulary items to describe images or photos. However, there is not a single activity that uses visual support to facilitate vocabulary learning because new vocabulary is mostly given in lists and such activities are followed by practice activities only. All other photos serve decorative and motivational purposes and are related to reading and listening activities.

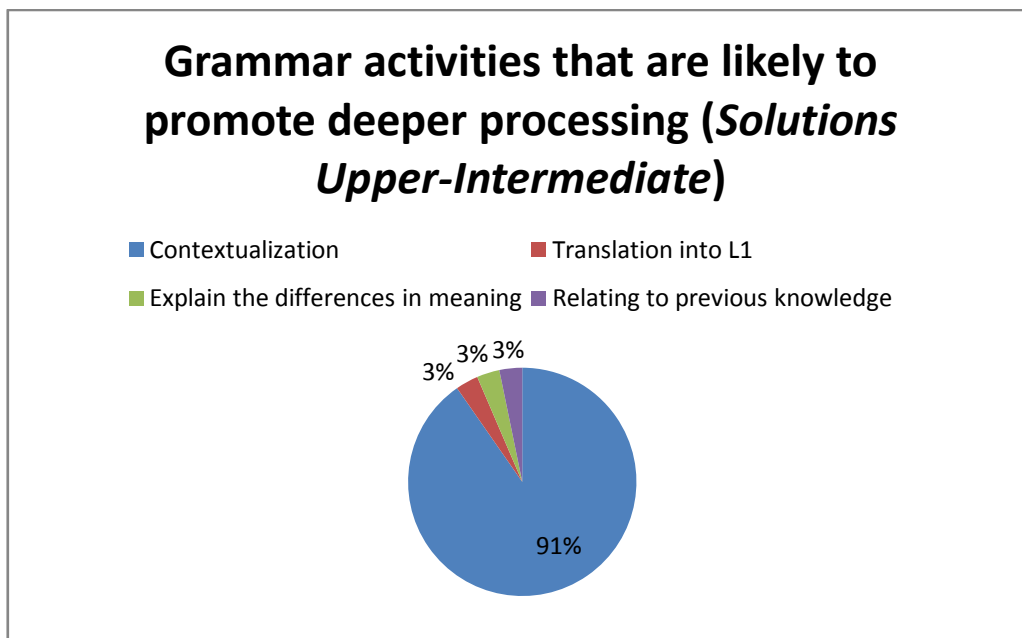


Figure 22. The ratio of grammar activities that are likely to promote deeper processing in *Solutions Upper-Intermediate*

Solutions Upper-Intermediate contains a great number of grammar activities, but several dozen activities belong in the realm of activities that could promote deeper processing. These activities can be divided into four big groups: activities including contextualization (91%, see Figure 22), activities including translation into L1 (3%), explaining differences in meaning (3%) and activities focusing on the relation to previous knowledge (3%). These are the examples for the first group of activities: *Work in pairs. Think about when you were younger. Using would and used to, tell your partner about. /In pairs, ask and answer the indirect questions in exercise 4. Add three indirect questions of your own.* The second group includes the following: *Divide the words below into two groups: those that describe taste and those that describe texture.* The final group of activities formulates these instructions: *Explain the meaning of these sentences. Translate them into your language.*

Grammar instruction in *Solutions Upper-Intermediate* does not include any kind of visual support, neither when new structures are explained nor when they are practiced.

5.5. Discussion

Based on the results of the analysis, several observations can be made in relation to the research questions posed at the beginning of the study. In the following sections, each research question will be answered with regard to the analyzed textbooks.

The first research question was related to textbook activities that could promote deeper input processing. There were two major groups of activities classified as either those that may encourage deeper processing or the ones that do not seem to do so. The latter are the ones that do not encourage learners to put additional cognitive effort, which means that they process language material solely at lower levels. They usually include gap-filling exercises, multiple-choice activities or activities in which learners have to match A and B columns (halves of sentences, questions and answers, compounds, etc.). Figure 3, Figure 4, Figure 13 and Figure 14 show the overall number of vocabulary and grammar activities in textbooks for Croatian elementary and high schools and highlight the number of activities that have the potential to foster deeper input processing. It can be seen from the figures that each textbook contains potential deep-processing activities for both vocabulary and grammar, but among textbooks for elementary schools, only *Spark 1* has over 50% of vocabulary activities that could promote deeper processing, whereas the percentages in other textbooks are around 40%. When it comes to grammar in textbooks for elementary school, no textbook has over 50% of these activities. Among all high school textbooks, there was no textbook that had a high percentage of either vocabulary or grammar activities that could encourage learners to process these language components at deeper levels.

The results of the analysis lead to the conclusion that several categories of potential deep-processing activities are present in the textbooks. Among vocabulary activities that may promote deeper processing of the input, every textbook contains those that prompt learners to use new vocabulary items in meaningful contexts. Contextualization can include: asking and answering questions, making a dialogue, writing sentences and speaking or writing about personal experience. Apart from contextualization, activities that include doing research or a project are also present in every of the analyzed textbooks. When learners do research or a project on a certain topic, they have to process the topic with more input, put the information in their own words and present the final product. Furthermore, among four textbooks for elementary school, only *Project 2* does not contain vocabulary activities that include translation into the first language. Translation is a good example of an activity that may promote deeper processing because it engages learners in activating vocabulary knowledge

from their first language, which leads to understanding and retaining L2 vocabulary. In addition, all textbooks apart from *Project 2* have activities that encourage learners to put vocabulary items into categories. Finding common qualities of words helps learners process them at deeper levels. Furthermore, *Spark 1* and *Spark 3* are the only textbooks that have activities in which learners have to write opposites. This type of activity is also adequate for deeper processing of new language material since learners easily retain words that are in pairs of either synonyms or antonyms. There are instances in *Project 2* and *Spark 3* that encourage learners to relate new language material with what they already have stored in mind, which is another great example of a potential deep-processing activity. For example, learners are asked to think of more animals, food items, etc. Finally, *Spark 3* and *New Building Bridges 7* have activities which ask learners to match two columns and then use the matched words in sentences. Matching alone does not lead to processing at deeper levels, but additional tasks related to it could. This is why these types of activities belong in the realm of potential deep-processing activities. When it comes to grammar, contextualization is once more predominantly present in all four textbooks for elementary school. Learners have to use new grammar structures in dialogues, questions and answers, their own sentences or in short texts related to their personal experience. Apart from contextualizing, *Spark 1* and *Spark 3* encourage learners to translate grammar structures and rules into L1, and *Project 2* contains activities in which learners have to categorize grammar structures in columns according to common features they think exist. All high school textbooks contain vocabulary activities that include contextualization, which means that learners are often asked to use vocabulary items in different types of context (usually, those are: sentences, questions and answers, dialogues, etc.). Only *Choices Intermediate* does not have categorization, finding synonyms or antonyms and matching as types of activities that may promote deeper processing. However, it is the only textbook that has activities encouraging learners to do a project and find out more about a certain topic. *Solutions Upper-Intermediate* and *Choices Intermediate* are the only two textbooks that have activities in which learners have to translate vocabulary items into their first language, which is a great activity that aids learners recollect the meaning and form of a word since they can relate it to their L1. Only *Solutions Upper-Intermediate* asks learners to explain differences in meaning of a list of words or to relate new language material to what they already know by adding other words to the same category. Finally, only in *Insight Upper-Intermediate* there is an instance in which learners have to choose the odd word out. This activity makes learners analyze, compare and contrast the words offered, which leads to longer retention of the input. When it comes to grammar activities, contextualization once

again proved to be the most reliable activity since each textbook has activities encouraging learners to use grammar structures in meaningful contexts.

The second research question referred to differences between textbooks with regards to the age of the learners. As can be seen in Figure 3 and Figure 4, the results for elementary school showed that between 5th grade textbooks, *Spark 1* focuses more on vocabulary than on grammar, while the number of grammar activities in *Project 2* is significantly higher than the number of vocabulary activities. When it comes to textbooks for 7th grade, it can be noticed that *Spark 3* predominantly focuses on vocabulary, whereas in *New Building Bridges 7* there is a slight difference in the presentation of vocabulary and grammar since this textbook contains more grammar activities. The results are similar for high school textbooks as well (see Figure 13 and Figure 14). *Insight Intermediate* contains more vocabulary activities, while *Choices Intermediate* is more grammar-oriented. Moreover, in *Insight Upper-Intermediate* the number of vocabulary activities is much higher in relation to grammar activities. This is not the case with *Solutions Upper-Intermediate* since in this textbook grammar takes up more activities as opposed to vocabulary. Even though grammar and vocabulary activities should be equally present in all textbooks, based on the analysis, it can be concluded that the representation of vocabulary and grammar in textbooks used in Croatian elementary and high schools is quite uneven. Smaller number of vocabulary or grammar activities in textbooks could imply that there are more activities in additional materials such as workbooks. However, this study focused only on textbooks as primary teaching and learning materials, so this creates space for research on additional teaching materials. Moreover, unequal number of vocabulary and grammar activities in EFL textbooks could mean that English teachers are the ones who should overcome these differences by including additional materials or classroom activities.

Finally, the third research question aimed at examining the presence of illustrations in vocabulary and grammar activities to see if they help learners recollect and retain form and meaning. When it comes to images in the textbooks for elementary school, they are used more for vocabulary than grammar instruction. When new vocabulary items are introduced, they are followed by images that should help learners understand and remember word meaning better. This is the case with all textbooks except for *New Building Bridges 7* in which new vocabulary is predominantly given in the form of lists. In addition, there are also images and illustrations that learners have to describe by using new vocabulary items, which is also a good activity for the recollection of word form and meaning. Only in *Spark 1* grammar

instruction is followed by images that could help learners understand it better. However, there are only a few such examples. All textbooks contain a few activities in which learners have to say something about a photo by using a certain grammatical structure. On the other hand, in high school textbooks, visual support is provided mostly for reading and listening activities. In *Insight Intermediate*, *Insight Upper-Intermediate* and *Solutions Upper-Intermediate* new vocabulary is given in lists, while in *Choices Intermediate* there are instances in which new vocabulary items are supported by images that help learners remember vocabulary input better. In addition, all textbooks contain images or photos that need to be described by using the newly acquired vocabulary. When it comes to grammar, images are used only in activities that require learners to describe them by using certain grammatical structures. However, no textbook offers visual support for making abstract grammar rules more concrete and easier to retain. Having taken everything into consideration, it can be concluded that illustrations and images in EFL textbooks for elementary school are better used than those present in textbooks for high school.

6. Conclusion

The aim of the thesis was to analyze eight EFL textbooks used in Croatian elementary and high schools to examine whether they contain vocabulary and grammar activities that are likely to promote deeper processing in EFL learners. Since activities accompanied by illustrations support deeper processing of the input, the study focused on the presence of illustrations as well in order to investigate if they help in the retention and recollection of language material or serve decorative purposes only.

The first part of the thesis discussed the phenomenon of language processing from the perspective of levels-of-processing theory and higher-order thinking. It also included the concept of multimodal learning due to its close relation to deeper processing. Even though there were instances of potential deep-processing activities in every textbook, the results of the analysis showed that the authors are still more inclined to types of vocabulary and grammar activities such as gap filling, matching or sentence completion. When it comes to illustrations and visual support of vocabulary and grammar, the results prove that they are frequently present in textbooks for elementary school since they are a great tool for attracting young learners' attention. However, no textbook has constant visual support of vocabulary and grammar activities.

In conclusion, when it comes to vocabulary and grammar activities in EFL textbooks, the findings show that primary materials do not contain enough activities that are likely to encourage deeper processing. This suggests that learners' successful retention and recollection of language material still greatly depends on teachers and the effort they put in language teaching. Doing this research has been very interesting, but it would also be very good to see whether and how teachers promote deeper processing in EFL learners. The findings of such research would certainly be useful for all future teachers and those interested in this topic.

7. References

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