1

# THE SCHEMATIC STRUCTURE USE OF NON-TRAINED AND TRAINED EFL LEARNER ENGLISH MAJOR BA STUDENTS

# Ágota Szűcs

Language Pedagogy PhD Programme Eötvös Loránd University, Budapest, agota\_szucs@hotmail.co.uk

**Abstract:** Having the appropriate schema plays a crucial role in text comprehension and in the ability to extract relevant pieces of information from a source text. Being able to successfully extract relevant information from a source text is most important in the case of tertiary education students, who are constantly required to solve tasks requiring this skill, for example, taking notes from books, writing summaries, or preparing presentations based on multiple source texts. Therefore, the aim of the present study is to investigate how tertiary education students apply the appropriate formal schema when they have to solve a global summary and a guided summary writing task. The issue raised was investigated by analysing the global and guided summaries written by 12 first year English major BA students before and after receiving training in summary writing. The results suggest that at the beginning of their university studies, first year students completely lack the formal schema required for solving the guided summary task.

Key words: formal schema, summary writing, reading comprehension, EFL, tertiary education

### **1** Introduction

Text comprehension involves decoding symbols and constructing meaning based on them (Rowe, Ozuru, & McNamara, 2006). According to Fender (2001), reading comprehension processes depend on three different types of information, namely linguistic information, contextual information, and the recipient's world knowledge or background knowledge. When recipients make sense of the information they read, there are two major ways of processing taking place. On the one hand, they rely on linguistic cues from the text, which is called bottom-up processing (Fender, 2001). On the other hand, they also rely on contextual clues and general knowledge during the comprehension process, which is called top-down processing (Fender, 2001). Readers rely on these two types of processing simultaneously; bottom-up and top-down processing occur at the same time because using multiple information sources that are available makes processing faster, deeper, and more thorough. This suggests that text comprehension is influenced by a series of highly complex cognitive processes among which having the appropriate background knowledge plays a crucial role (Fender, 2001).

Research in the field of text comprehension usually refers to the aforementioned background knowledge as a schema. A schema can be defined as a blueprint or a plan, which helps the reader identify and interpret a situation or even a text. A schema is specified by a set of fixed categories and rules of formation. When readers encounter a text, they subconsciously try to relate it to other texts previously read and to their knowledge of the world in order to comprehend the information contained in the text. With the use of appropriate schemata, readers can make valuable inferences that can make text comprehension more effective and more successful (Johns, 1988).

The topic of schemata is a well-researched area because it has more than five decades of research tradition. There are several studies investigating the role of background knowledge in comprehension (Carrel, 1983; Johns, 1985; Nelson & Schmid, 1989; Toledo, 2005; Yang & Shi, 2003). Based on previous studies, it appears that background knowledge has a crucial effect on comprehension, and it seems to be an important factor in the ability to generate inferences and to organize the mental representation of a text, thus improving text comprehension in general (O'Reilly & McNamara, 2007).

Despite the fact that numerous studies have explored how different types of schemata influence text comprehension, the role of formal schemata whilst undertaking different types of reading-into-writing tasks has not been thoroughly investigated, especially in the context of Hungarian tertiary education. Therefore, the aim of the present study is to explore how first year EFL learner English major BA students use different formal schemata when tackling global and guided summary writing tasks before and after receiving explicit training in summary writing.

# 2 Review of the literature

#### 2.1 What are schemata?

Generally speaking, schemata are the "building blocks of cognition" (Rumelhart, 1980, p.33). They function as blueprints specified by a set of fixed categories and rules of formation (Johns, 1988). The word 'schema' originally was a technical term used in cognitive psychology, and it was first put forward by Kant (1781), who claimed that new information gained meaning only when it was related to something already familiar to the individual. Later Bartlett (1932) used the term again, and he defined it as a reflection of one's past experiences. In other words, schemata are mental representations of typical events and instances; an organized structure of one's background knowledge of a particular field or an event.

The activation of existing schemata can help people decode and understand new situations quickly and in a time-efficient way because, based on their background knowledge and previous experiences, they can make educated guesses about the topic or event without having to pay attention to minor details and needing explicit information about them. For instance, if the speaker says that "I went to a restaurant yesterday", and if no other details are provided, the listener is likely to assume that the speaker entered the restaurant building, sat down at a table, ordered a meal, ate it, then paid the bill and left the restaurant. However, if the speaker continues saying "and I had a very successful job interview with the manager", the listener's interpretation is likely to change in assuming that the speaker was looking for a job in the restaurant.

However, schemata are responsible for much more than just the initial comprehension process. According to Widdowson (1983), they are also "cognitive constructs which allow for the organization of information in long-term memory" (p.34). This is facilitated by the fact that schemata can be embedded in each other. A dominant schema can contain an infinite

number of sub-schemata, which all relate to the dominant schema to some extent. Schemata can be organized under so called scripts, which are dominant event sequences that describe the possible interactions and relationships between concepts, things, and events belonging to the same schema (Widdowson, 1983). This organisation enables the recipient not only to make sense of a situation but also to memorize new information more effectively by relating them to something that is already part of their schemata. As Nist and Mealey (1991) indicate, schemata organize knowledge in memory by putting information into the correct slot, each of which contains related parts. Therefore, activating the appropriate schema also makes new information easier to memorize.

In summary, schematic structures function as blueprints or maps, which contain a set of fixed categories and rules of formation. When encountering a text, the recipient subconsciously tries to relate it to previously encountered texts or situations in order to recognize the appropriate schemata. By applying the appropriate schemata, they can make valuable inferences that can make comprehension more effective and more successful. This approach to the process of text comprehension has been formalized under the term of schema theory.

#### 2.2 Schema theory

Schema theory was proposed by Bartlett (1932), who observed that when people were asked to retell a story from memory, they complemented the story with details that were not part of the original story they had heard or read, but which conformed to their cultural norms. The theory was further developed by Anderson (1977), who claimed that schemata are knowledge structures which contain slots or placeholders for each of the component pieces of information subsumed under a more general idea or structure. A schema indicates the typical relations among its component parts, such as concepts, events, or relationships. To comprehend a concept, an event, or a relationship is to find a one-to-one correspondence between the slots in a schema and the given pieces of information in the message (Anderson, 1977).

According to Rumelhart (1980), one of the fundamental claims of schema theory is that neither spoken nor written texts have any meaning on their own; they only provide pointers which activate the recipients' background knowledge and direct them towards the possible meanings. In other words, the actual meaning of any text is constructed by the recipient's pre-existing background knowledge. Therefore, according to schema theory, comprehension is an interactive process which takes place between the spoken or written text and the recipients' background knowledge. This means that comprehending a text involves not only relying on one's linguistic knowledge but also on the background knowledge possessed (Anderson, 1977).

During the process of interpretation, every piece of input is mapped onto an existing schema, and the aim is to find all the aspects of that schema compatible with the input information. This results in two different modes of information processing, namely bottom-up and top-down processing (Rumelhart, 1980). As schemata are hierarchically organized, the most general schemata are placed on the top, gradually becoming increasingly specific towards the bottom. First, during bottom-up processing, the input data triggers the activation of the most specific bottom-level schemata, and the input information enters the system through the most fitting bottom-level schema. As information proceeds through the system,

the higher-level and more general schemata become activated. For this reason, bottom-up processing is also referred to as 'data-driven processing' (Rumelhart, 1980). Top-down processing, on the other hand, involves the interpretation of information that starts from general predictions based on the more general, higher-level schemata. This is followed by an analysis of how input information fits into the selected possible schemata. The two types of processing usually occur simultaneously, and the appropriate meaning is found with the combination of the two (Rumelhart, 1980).

The actual working of schema theory in action can be easily illustrated with Rumelhart's (1977) following example: "Mary heard the ice cream man coming down the street. She remembered her birthday money and rushed into the house..." (p. 265). Most readers would have no difficulty constructing an interpretation of these lines. Presumably, Mary is the name of a girl who wants to buy some ice cream from the approaching ice cream man. To buy ice cream, she needs money, and she remembers that she still has the money she got for her birthday. Most probably she keeps the money in the house, so she goes in to get it before the ice cream man arrives. Even though the text does not explicitly state all this information, and other interpretations are also possible, readers are able to infer the information from the text with the help of their schemata. However, if the same text is followed by the phrase "and she locked the door", this phrase will no longer fit the previously constructed interpretation. Therefore, new schemata have to be considered to create an interpretation that is able to accommodate the new piece of information. Possibly, a new interpretation could be that Mary is afraid that the ice cream man wants to steal her money and she wants to protect it by locking the door. What happens in this example is that first, top-down processing takes place to make general predictions about, and then interpret the situation. However, in the meantime, new information is encountered through bottom-up processing, which creates a mismatch between the current interpretation and the input, resulting in a revised version of the interpretation (Rumelhart, 1977). Therefore, top-down and bottom-up processing occur in a simultaneous and interactive way. This seems to suggest that for understanding a text, the background knowledge of the reader is just as important as the written text itself. Later, Brown (2001) also claimed that the text on its own does not have meaning. Meaning is created by the reader's background information, culture and emotion (i.e., schemata). Therefore, the misunderstanding of a text can often be a result of not possessing the necessary schemata.

In essence, it can be concluded that schema theory presupposes that the text itself does not contain the complete meaning. Rather it contains linguistic and contextual cues, which activate the reader's or the listener's appropriate schemata on the basis of which they try to construct a coherent interpretation. The act of reading is seen as creating a link between the reader's background knowledge and the textual information in the text. Therefore, the meaning does not completely reside in the text itself, but it is created from the interaction between the text and the schematic knowledge of the reader.

#### 2.3 General schema and task schema

Researchers draw a distinction between two major types of schemata (Carrell, 1983). On the one hand, a content schema represents the background knowledge of the content area of a topic, for example, being familiar with the phases of spending an evening at a restaurant. On the other hand, a formal schema represents the background knowledge on the rhetorical organization of different spoken or written genres (Carrell, 1983). For example, in the case of

formal schemata, by recognizing the genre, readers can make inferences about the underlying text structure, possible vocabulary items signalling the relationship among the ideas presented in the text, as well as content slots that must be present in a certain text type (Johns, 1988).

Possessing the appropriate formal schemata also gains importance when solving different types of tasks. Research suggests that being familiar with the formal schemata of different task types can help the candidate complete the task more successfully. For instance, Johns (1985) investigated summary writing with three different groups of university students. Participants of different levels of experience in academic genres were to summarize a short excerpt from an American history textbook in 100 words, and the findings suggested that students who were more familiar with various rhetorical structures and reading techniques were more successful at fully comprehending the text. Moreover, Yang and Shi (2003), who also analysed the summarization skills of university students, arrived at similar results. Their participants were from the same background and had similar levels of language knowledge. Based on the analysis of the think aloud data, retrospective interviews, and writing samples, they concluded that the participants with more writing experience were, potentially, the most efficient summary writers, because they had the ability to apply text processing and comprehension strategies more consciously during task execution.

The findings of these summarization tasks are very good indicators of the importance of having the appropriate formal schema for a task. However, these studies investigated only global summary writing tasks. Summarization tasks are most commonly classified according to the way they manipulate information presented in the source text. As Tankó (2013) pointed out, all the main ideas presented in the source text have to be included in a global summary, while in a guided summary only those which are relevant to the purpose of the reader are included. He then continues to explain that the most prominent distinction between global and guided summaries is the reader's intention. When creating a global summary, the summarizer has to include all the main ideas presented in the source text, whereas, in a guided summary, the summarizer has to focus on only those ideas which correspond with the rhetorical goals of the summarization task (Tankó, 2013). These two tasks require the application of different formal schemata, as the schema specifies what kind of information is selected as being relevant for a particular comprehension task (Kintsch & van Dijk, 1978).

To be able to choose the appropriate and relevant parts of the text, the summarizer has to have a full understanding of the macrostructure of the text. The macrostructure is the hierarchical structure of the information in a text (Renkema, 2004). As Kintsch and van Dijk's (1978) research suggests, the relevance of information presented in a text depends on the schemata of the summarizer, which is determined by pre-set categories and specifications driven by the summariser's purpose. In their study, Kintsch and van Dijk (1978) use the example of Boccaccio's *Decameron*. This book can be read in multiple ways. For instance, it can be viewed as a series of entertaining narratives. Reading the text in this way would represent the "main idea" schema, as the selected relevant pieces of information and their organization would most probably coincide with the originally intended macrostructure of the source text. However, the *Decameron* can also be read as a description of women's role in Italy in the 14<sup>th</sup> century. This approach of reading would represent a "guiding question" schema, where the ideas deemed relevant by the reader would probably be different from the main ideas of the source text. As a result, these two different purposes will result in the construction of two completely different macrostructures (Kintsch & van Dijk, 1978).

Because of this difference in the rhetorical goal of the two tasks, comparing the global summaries and guided summaries produced by the same candidate can provide valuable insights into how the candidate applies the different schemata required for the two different tasks. However, such a study has not been carried out in the Hungarian context yet. Being able to successfully extract relevant information from a source text is crucial for students in tertiary education, who are constantly required to use this skill, for example, when taking notes from books, writing summaries, or preparing presentations based on multiple source texts. Therefore, the aim of the present study is to investigate how students in tertiary education apply the appropriate formal schemata when they are asked to solve a global summary and a guided summary writing task.

### **3 Methods**

To contribute to the research niche presented in the review of the literature, the aim of the present small scale qualitative study is to examine how first year EFL learner BA students apply different task schemata required for global and guided summarization before and after receiving explicit training in summary writing. To fulfil this aim, the study attempts to answer the following research questions:

- 1. How do first year EFL learner BA students apply the "main idea" task schema before and after receiving explicit training in summary writing?
- 2. How do first year EFL learner BA students apply the "guiding question" task schema before and after receiving an explicit training in summary writing?
- 3. In which task are they able to produce more task-appropriate macrostructures *before* receiving explicit training in summary writing?
- 4. In which task are they able to produce more task-appropriate macrostructures *after* receiving explicit training in summary writing?
- 5. To what extent does the language proficiency of the participants influence the quality of their summary writing?

#### 3.1 Data collection

Data collection was carried out at a large Hungarian university. Twelve first year English major BA students (9 female, 3 male) between the ages of 18 and 25 attending the same Academic Skills class were asked to participate. Participation was on a voluntary basis. Before data collection began, the participants had verified that none of them had received any formal training in global or guided summary writing before.

The data collection was conducted in two phases. To begin with, in phase one students were administered the listening and grammar parts of the Oxford Placement Test (OPT) and an IELTS academic reading task on the first day of the autumn semester in 2015. The results of the placement test showed that all the participants were between the language proficiency levels of B1-C2. Administering the placement test was important to determine whether the participants possessed adequate language skills so that it would not have a detrimental effect on their information processing skills.

As the second step of phase one, the participants were asked to write a global summary and a guided summary based on the same source text. The data collection was

carried out during class time, and the participants were given 70 minutes to solve the two tasks. On completion, the participants were given a questionnaire with open-ended questions prompting them to describe which task they had found more difficult.

As for the source text, an expository text about Père Lachaise Cemetery was chosen. For both the guided and global summarization tasks the same source text was used, and both tasks were specifically designed for teaching and assessing the summarization skills of BA students (Tankó, 2013). The selection of the tasks was informed by the course book author's (Tankó, 2013) notes and by pilot-based student feedback collected on the tasks in earlier semesters. When selecting the task, the length and the topic of the source text were also taken into consideration. The selected text had 38 lines (376 words), and discussed a topic which first year university students can be expected to be familiar with: the history of Père Lachaise Cemetery. The global summary writing task required participants to read the passage and write an English language summary in which they included all the main ideas of the text. The guided summary writing task, on the other hand, involved reading the source text and summarizing the reasons for the unpopularity and popularity of burials at Père Lachaise Cemetery.

Phase two was carried out in the last week of the autumn semester of 2015. During the semester, participants received formal training in both global and guided summary writing. The second phase was conducted the same way as the first one; however, during the second data collection phase, no placement test was administered. Similarly to the first data collection, the second data collection was also carried out during class time, and the participants had 70 minutes to complete the same tasks as during phase one. During both data collections, half of the participants were given the global summary as the first task and the guided summary as the second task, whereas the other half of the group were to complete the tasks in reverse order. Asking participants to complete tasks in this order was to avoid the method effect, and the tasks were administered in a counterbalanced design.

#### 3.2 Data analysis

The collected guided and global summaries were analysed for propositional content. The main aim of the analysis was to investigate whether the participants had managed to include the appropriate macro-propositions in their global and guided summaries, and, therefore, had been able to apply the appropriate schema for each task. The purpose of examining the results of the global summaries was to see whether the participants had managed to recognize the author's original line of argumentation and find the main ideas in the source text. In contrast, the purpose of investigating the results of the guided summaries was to ascertain whether the participants had managed to reset their schema according to the guiding question and find ideas in the text that were relevant. Simultaneously, the number of additional pieces of information was also scrutinized.

When developing the coding scheme for the present study, the protocol analysis used by Johns (1985) was considered initially. The protocol divides its data into Kroll's "idea units" and groups them into two main categories: correct replications and distortions (Johns, 1985). However, using Kroll's idea units as units of the analysis and using Johns' (1985) categorization proved to be inappropriate for the analysis of the global and guided summaries investigated in this study. For this reason, "propositional content units" were chosen as the unit of analysis instead. A propositional content unit contains one single idea, which may or may not be present in the source text, and it has no grammatical or length restrictions. For instance, the following sentence quoted from one of the participants' summary contains three propositional content units: "Pere-Lachaise, the most famous<sup>1</sup> $\angle$  and visited cemetery in the world,<sup>2</sup> $\angle$  was named after Francois de la Chaise, King Louis XIV's confessor. <sup>3</sup> $\angle$ " (Student 2, Global summary 2)

During the analysis, the first step was to divide the source text into propositional content units. This was followed by defining the task-relevant propositional content units for both the global and guided summary tasks. For a comprehensive list of the propositional content units in the source text, see Appendix A.

As the second step, the global and guided summaries produced by the participants in both data collection phases were divided into propositional content units. The propositional content units found in the global and guided summaries were then classified into three categories: the pieces of information that were present in the source text and appropriate to the task schema were labelled as "task relevant propositional content" (TRPC). Moreover, the ideas present in the source text but irrelevant from the point of view of the task schema were labelled as "task irrelevant propositional content" (TIPC). Finally, the pieces of information not present in the source text were labelled as "additional information".

During the analysis, three types of additional information were detected: (1) cases where source text (ST) information was misinterpreted (e.g., "Certainly there are well-known grave sites across the globe, but they tend to be secular, identified with a particular battle or moment in time or in remembrance of an individual <hello, the Pyramids!> [...] Pere-Lachaise, on the other hand, is a cemetery..." (ST)  $\Box$  interpreted by the participant as "Pere-Lachaise, also called Pyramids..." (Student 1, Global summary 1)); (2) cases where fact-like information not present in the original source text was included in the summary (e.g., "But after the remains of famous playwright/actor Moliere [...] arrived at the new cemetery, it became the afterlife destination for residents who wanted to spend eternity with the departed 'Who's Who' of European culture." (ST)  $\Box$  interpreted by the participant as "Famous remains" were placed here to make people buy parcels" (Student 2, Guided summary 1); and (3) cases where the participant's own remarks were included in the summary (e.g., "All in all, this cemetery is popular, but there will be always people who unlike it." (Student 4, Guided summary 1)). For a list of task-appropriate propositional content for the global summary, see Table 1, and for a list of task appropriate propositional content for the guided summary, see Table 2.

#### TRPC of the global summary writing task

- 1. Père Lachaise cemetery (PLC) is the most famous cemetery in the world.
- 2. There are all kinds of people in PLC (from 200 years).
- 3. PLC is the most visited cemetery in the world.
- 4. PLC has not always been popular.
- 5. PLC was built to end health hazard prone burials in Paris.
- 6. The location of PLC was less convenient than digging a hole in the yard.
- 7. PLC was located away from the easily accessible and densely populated parts of Paris.
- 8. PLC was unpopular until a few famous people were buried there.
- 9. One can spend eternity with these famous people.
- 10. PLC is a large cemetery ("a city of its own").
- 11. PLC is a real historical site.
- 12. PLC gives a thorough insight into Parisian culture.

Table 1. Task appropriate propositional content for the global summary

### **TRPC** of the guided summary writing task

- 1. Père Lachaise cemetery (PLC) was built to end health hazard prone burials in Paris.
- 2. The location of PLC was less convenient than digging a hole in the yard.
- 3. PLC was located away from the easily accessible and densely populated parts of Paris.
- 4. PLC was unpopular until a few famous people were buried there.
- 5. One can spend eternity with these famous people.

Table 2. Task appropriate propositional content for the guided summary

To ensure the reliability of the coding, a fellow researcher, familiar with this research area and the coding scheme, was asked to co-code the division of the source text into idea units. Approximately 25% of the global and the guided summaries of the participants were co-coded, and the results of the co-coding were entered into SPSS 17.0 to calculate the Cohen's Kappa coefficient. The inter-coder reliability for the co-coding was Kappa = 0.783, p <0.005, which can be considered good agreement between the coders. Besides the manually conducted qualitative analysis, the data was also subjected to statistical analyses, namely the Wilcoxon signed-rank test and one-way ANOVA test.

# 4 Findings

During the data analysis, the global and guided summaries collected were subjected to both content analysis and statistical analysis. The macro-propositional content found in the summaries was categorized into "task relevant propositional content" (TRPC), "task irrelevant propositional content" (TIPC), and "additional information". The categorized data was entered into SPSS 17.0, and it was subjected to statistical analyses. First, the pre and post training task performance of the students were compared and contrasted with the help of the Wilcoxon signed-rank test. This nonparametric test was chosen over a dependent T-test because of the small sample size of the present study.

The results of the Wilcoxon signed-rank test showed a significant improvement as far as including TIPC in pre and post training guided summaries are concerned and additional information in the pre and post training guided summaries. The Wilcoxon signed-rank test showed that in a single semester, global and guided summary writing training elicited a statistically significant change in the amount of task irrelevant propositional content (Z= -2.823, p=0.005) and in the amount of fact-like pieces of information not present in the source text (Z=-2.236, p=0.025) included in the guided summaries written after a one semester training in summary writing. The results suggest that guided summaries written after one semester of training, contained significantly less task irrelevant propositional content and additional information than the guided summaries written before the explicit instruction. Regarding the global summaries, no significant results were yielded by the statistical analysis.

To investigate the possible effects of language proficiency on the quality of pre and post training global and guided summaries, one-way ANOVA was also calculated. However, no significant difference was found between the amounts of task relevant or irrelevant propositional content included in the pre and post training global and guided summaries. This result suggests that above a certain level, language proficiency plays a less prominent role in the success of text comprehension than having the task appropriate schema. The result might also suggest that academic reading should be handled as a skill in itself, which has to be mastered regardless of one's general language proficiency.

Besides the statistical analysis, a qualitative analysis was applied to examine the macro-propositional content of the summaries. The results emerging from this analysis show that altogether, during the second data collection, participants managed to find more task relevant propositional content both in the global and the guided summaries. Regarding the global summaries, during the first data collection, most participants (7 out of 12) found only five or six pieces of TRPC out of 12; whereas, during the second data collection, most participants (9 out of 12) found eight pieces of TRPC out of 12. The guided summaries also show some improvement; however, it is a less prominent one. During the first data collection, only two participants managed to find all five of the TRPC points, while in the second data collection, three participants found all of the TRPC.

The amount of task irrelevant content (TIPC) shows similar improvement. In the global summaries collected during the first data collection session, most students (8 out of 12) included four or more pieces of TIPC. In comparison, in the post training global summaries, a maximum of four items of TIPC were included, and most participants (8 out of 12) included only 3 or less items of TIPC in their summaries. The guided summaries also improved. In the pre training global summaries, every participant included at least two items of TIPC, but in the post training global summaries, half of the participants did not include any TIPC at all.

Regarding pieces of additional information, it can be concluded that the guided summaries show a notable improvement. While during the first data collection, only four guided summaries had no additional information of any type, during the second data collection, 10 out of 12 were completely free of additional pieces of information. However, a similar progression cannot be observed in the global summaries; with regard to additional information, students performed better even during the first data collection. Both before and after the training, half of the participants did not include any pieces of additional information in their global summaries. Nevertheless, it should be mentioned that while in the initial global summaries one student included as many as seven pieces of additional information, in the post training global summaries the highest number of pieces of additional information was three.

### **5** Discussion

Both the results of the statistical and the manual analysis show that compared to the summaries written at the beginning of the semester, there is an improvement in the summaries produced after receiving formal training in summary writing. Looking at the initial products created during the first data collection phase, it can be seen that the students managed to complete the global summary task more successfully than the guided summary writing task. This claim is supported by the number of TIPC items and pieces of additional information included in them, and it can be explained by the fact that first year students are probably already familiar with the formal schemata of expository texts at the beginning of their university studies. Therefore, participants were able to follow the original line of argumentation of the author more successfully before receiving training. In contrast, the guided summary task seemed to be more difficult for them, as their answers, discovered during the first data collection, show that the task at hand was most likely to be unfamiliar to them. This suggests that a lack of appropriate task schema makes successful task execution impossible.

During the one semester-long formal training, students received formal instruction on how to distinguish between the different types of summaries and how to select the appropriate pieces of information relevant for each task type. Possibly owing to this training and to thorough practice in summary writing, the end products of the second data collection show notable improvement. Selecting the relevant pieces of information for the global and guided summaries require different schema settings and using the appropriate schema for the guided summary (i.e., focused reading) seems to cause more difficulties. This is understandable as using the "main ideas" schema for the global summary requires the students to follow the original line of argumentation in the text, whereas, when they have to select the main ideas for the guided summary, their schema must be set by the requirements of the task. The requirements of the task must overwrite the relevance defined by the initial line of argumentation. Information originally irrelevant in the source text may become relevant for the guided summary task, whereas macro-propositions which contain the main ideas in the original text may have to be ignored (Kintsch & van Dijk, 1978).

During the analysis, the role of language proficiency was also investigated. All the students participating in this research had an adequate level of English knowledge. Based on the statistical analysis, it can be claimed that in the present study, the level of language proficiency did not have any significant impact on the quality of the content in producing global and guided summaries. Regardless of their language proficiency level, during the first data collection phase, participants struggled to apply the appropriate schema for the guided summary writing task. In the second phase of the data collection, no language proficiency test was administered to monitor the improvement in language proficiency; nevertheless, having trained the participants suggests that explicit instruction and practice have a higher impact on the success of appropriate schema use than language proficiency. This finding is also in agreement with the results of previous studies conducted on the effects of training on summarization skills (Anderson, 1977; Olson & Land, 2007; Toledo, 2005; Yang & Shi, 2003).

# **6** Conclusion

Having the appropriate formal schemata plays an important role in being able to execute a summarization task successfully. Students in tertiary education often have to solve tasks which require the ability to write global and guided summaries on a daily basis, so having the appropriate formal task schema is essential. Therefore, the aim of the present study was to explore how first year English major BA students use the "main idea" schema and the "guiding question" schema when writing global as well as guided summaries before and after receiving formal instruction.

The results of this study suggest that at the beginning of their university studies, first year students completely lack the formal schema required to solve the guided summary task. Therefore, they might not be ready to undertake academic reading tasks needed for their studies. However, after one semester of formal training, the participants all managed to develop the appropriate schema and improve their summarization skills. The results also suggest that language proficiency level does not play a significant role in the ability to apply the appropriate formal schema: students, regardless of their language proficiency levels, struggled with the guided summary writing task during the first data collection session. With regards to possible pedagogical implications, the results show that explicit instruction and practice can greatly improve the formal schema of the participants; therefore, steps should be taken to ensure that university students receive explicit training to improve their ability to select relevant pieces of information for different types of tasks.

Proofread for the use of English by: Monika Ford, Department of English Applied Linguistics, Eötvös Loránd University, Budapest.

#### References

- Anderson, R. C. (1977). The notion of schemata and the educational enterprise: General discussion of the conference. In R. C. Anderson, R. J. Spiro, & W. E. Montague (Eds.), *Schooling and the acquisition of knowledge* (pp.415–431). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Bartlett, F. C. (1932). *Remembering: A study in experimental and social psychology*. Cambridge, UK: Cambridge University Press.
- Brown, H. D. (2001). *Teaching by principles: An interactive approach to language pedagogy*. White Plains, NY: Addison Wesley Longman, Inc.
- Carrell, P. L. (1983). Background knowledge in second language comprehension. *Language Learning and Communication*, 2(1), 25–34.
- Fender, M. J. (2001). A review of L1 and L2/ESL word integration skills and the nature of L2/ESL word integration development involved in lower-level text processing. *Language Learning*, *51*, 319–396.
- Johns, A. M. (1985). Summary protocols of "underprepared" and "adept" university students: Replication and distortions of the original. *Language Learning*, *35*, 495–517.
- Johns, A. M. (1988). Reading for summarizing: An approach to text orientation and processing. *Reading in a Foreign Language*, *4*, 79–90.
- Kant, I. (1781). Critique of pure reason. London, UK: Macmillan Publishing Company.

13

- Kintsch, W., & van Dijk, T. (1978). Toward a model of text comprehension and production. *Psychological Review*, 85(5), 363–394.
- Nelson, G., & Schmid, T. (1989). Reading: Schema theory and standardized tests. *TESOL Quarterly*, 23(3), 539–543.
- Nist, S. L., & Mealey, D. L. (1991). Teacher-directed comprehension strategies. In R. Flippo & D. Caverly (Eds.), *Teaching reading and study strategies at the college level* (pp.42–85). Newark, DE: International Reading Association.
- Olson, C. B., & Land, R. (2007). A cognitive strategies approach to reading and writing instruction for English language learners in secondary school. *Research in the Teaching of English*, 41(3), 269–303.
- O'Reilly, T., & McNamara, D. S. (2007). Reversing the reverse cohesion effect: Good texts can be better for strategic, high-knowledge readers. *Discourse Processes*, 43, 121–152.
- Renkema, J. (2004). *Introduction to discourse studies*. Amsterdam & Philadelphia, PA: John Benjamins.
- Rowe, M., Ozuru, Y., & McNamara, D.S. (2006). An analysis of a standardized reading ability test: What do questions actually measure? In S. A. Barab, K. E. Hay, &D. T. Hickey (Eds.), *Proceedings of the Seventh International Conference of the Learning Sciences* (pp.627–633). Mahwah, NJ: Erlbaum.
- Rumelhart, D. E. (1977). Understanding and summarizing brief stories. In D. LaBerge, & S. J. Samuels (Eds.), *Basic processes in reading: Perception and comprehension* (pp.265–303). Hillsdale, NJ: Lawrence Erlbaum.
- Rumelhart, D. E. (1980). Schemata: the building blocks of cognition. In R. J. Spiro et al. (Eds.), *Theoretical issues in reading comprehension* (pp.33–59). Hillsdale, NJ: Lawrence Erlbaum.
- Tankó, Gy. (2013). Paraphrasing, summarising and synthesising skills for academic writers: Theory and practice. Budapest, HU: Eötvös University Press.
- Toledo, P. F. (2005). Genre analysis and reading of English as a foreign language: Genre schemata beyond text typologies. *Journal of Pragmatics*, *37*, 1059–1079.
- Widdowson, H. G. (1983). *Learning purpose and language*. Oxford, UK: Oxford University Press.
- Yang, L., & Shi, L. (2003). Exploring six MBA students' summary writing by introspection. *Journal of English for Academic Purposes*, 2, 165–192.

# APPENDIX

### Propositional content units in the source text

- 1. Père Lachaise cemetery (PLC) is the most famous cemetery in the world.
- 2. Many well-known grave-sites (e.g. Pyramids) in the world are not cemeteries.
- 3. There are all kinds of people in PLC (from 200 years).
- 4. PLC is the most visited cemetery in the world.
- 5. PLC has not always been popular.
- 6. PLC was named after King Louis XIV's confessor.
- 7. PLC was built in 1804.
- 8. PLC was built to end health hazard prone burials in Paris.
- 9. Originally, PLC was named Eastern Cemetery.
- 10.1. The location of PLC was less convenient than digging a hole in the yard.
- 10.2. PLC was located away from the easily accessible and densely populated parts of Paris
- 11.1. PLC was unpopular until a few famous people were buried there.
- 11.2. One can spend the eternity with these famous people.
- 12. PLC is a large cemetery ("a city of its own").
- 13.1. PLC is a real historical site.
- 13.2. The last supporters of the Paris Commune were executed in PLC.
- 13.3. The last supporters of the Paris Commune were buried in PLC.
- 13.4. The man who ordered their deaths is also buried in PLC.
- 14. Many societies claim that their culture can be known by watching their busy streets.
- 15. PLC gives a thorough insight into Parisian culture.