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The Influence Of Interventions On Reading Comprehension In A Second And Foreign Language

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THE INFLUENCE OF INTERVENTIONS ON READING COMPREHENSION IN A SECOND AND FOREIGN LANGUAGE

A Thesis
presented in partial fulfillment of requirements
for the degree of Master of Arts
in the Department of Modern Languages
The University of Mississippi

by

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ABSTRACT

Reading comprehension is one of the crucial skills for the students enrolled or planning to enroll in language learning courses at North American universities. In order to be able to read academic texts, the students need to develop strong comprehension skills. The present study plays an important role in the field of second/foreign language (L2/FL) acquisition due to its attempt to investigate those classroom practices that can foster reading comprehension among international students learning English as a second language and American students learning German as a foreign language.

The present study analyzes the influence of two interventions on reading comprehension of L2/FL college-level students. While some research described the positive effect of vocabulary knowledge (Anderson and Freebody, 1984; Laufer, 1997, Carlo et al., 2004) and prior acquisition of information (Palincsar and Brown, 1984; Anderson, 1999, Mehrpour and Rahimi, 2010) on students' performance on reading comprehension tasks, there is not enough research in the body of knowledge involving both ESL and German as a foreign language learners. This work draws on a quantitative study of three groups presented with three articles and a series of post-reading tasks. The data for this study stem from the tests that each group completed within a period of three weeks. The present study allows the researcher to gain more insights into the complexity of reading comprehension process of L2/FL learners, and the results of this research can be beneficial for instructors working with L2/FL college-level learners.
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I. INTRODUCTION

According to experts and educators in the field of reading comprehension and the development of reading skills, reading is considered a complex and interactive process that involves readers, texts and tasks (e.g., Grabe and Stoller, 2002; Birch, 2007). The reader is an active participant in the reading process who constructs meaning from clues found in the text (Bernhardt, Kamil, 1995; Grabe, 1991). Alternately stated, meaning is not inherent in texts, rather texts have the potential for meaning (Widdowson, 1984). Reading is also an individual process that often involves different interpretations for different readers.

Reading itself can be challenging, especially when the material is unfamiliar, complicated, or contains unknown terms. However, it becomes even more complex and elaborate in a second/foreign language. Reading in a second or foreign language (L2/FL) is a laborious process (Anderson, 1999). One reason for such reading difficulties may lie in the underdeveloped word recognition skills of second and foreign language readers, which puts the process of reading onto a lower level in which readers access word pronunciation and meaning from texts (Grabe, 2004; Grabe and Stoller, 2002). Compared to first language readers that have learned the mother tongue orally before learning to read, L2/FL readers are constrained in terms of the amount of exposure to the language they are learning.

Generally speaking, the variables affecting the nature of reading comprehension can be classified into two general categories: (1) reader variables, and (2) text variables (Alderson, 2000). In terms of the first category of variables, i.e. reader variables, the most important ones include the amount of time spent learning a language and background knowledge of the readers.
The second category of variables affecting reading comprehension processes addresses text variables, such as text content, text organization, text types and genre, sentence structure, lexis, etc. (Alderson, 2000). Of these variables, a learner’s level of vocabulary knowledge seems to be of crucial importance in comprehending a reading text. The significance of this variable can be seen when we consider the fact that knowledge of vocabulary is a deciding factor in bottom-up processing of a text, as opposed to the top-down processing where the use of reading comprehension strategies plays an important role (Carrell, 1988).

In view of the developments in second/foreign language reading research, Grabe (1991) points out that the pivotal importance of the reading skill in academic contexts has led to extensive research on reading in second or foreign language. It’s virtually impossible to overemphasize the importance of proficient reading today, especially in an educational setting. The ability to read efficiently is particularly relevant in academic contexts, most of all in higher education, where reading for study purposes, often in the second language, is exercised on a daily basis.

Learning in a second language introduces a unique set of challenges, be it comprehension or production related issues. In order to assist L2/FL learners with reading comprehension skills enhancement, it’s crucial that educators develop classroom practices that may be beneficial to the learner. One of the key instructional challenges of teaching ESL students, especially young adults, lies in the development of language skills required to participate in classroom activities. An even greater challenge essentially holds true for foreign language instruction where the level of exposure to the target language outside of the classroom is considerably lower, if at all, in a variety of settings.
For the previous reasons, the purpose of this study is to look at specific pedagogical strategies and practices to enhance reading comprehension of college-level students in two classroom settings – learning English as a second language and learning German as a foreign language. The research is aimed at examining the educational strategies that influence L2/FL reading comprehension development, i.e. which pedagogical practices facilitate and which hinder the process of understanding a text in a second or foreign language. The pedagogical strategies (interventions) that will be used in this research include pre-teaching of key vocabulary items (and its pre-learning by the students) and prior acquisition of background information relevant to the topic of the text. Several studies have indicated that prior knowledge about a topic or background knowledge affects reading comprehension (e.g., Stahl and Jacobson, 1986; Stahl, Jacobson, Davis, and Davis, 1989). Their findings suggest that the more learners know about a topic, the more likely it is for them to understand a text on that topic. Some other studies mention the key role of vocabulary in reading comprehension (e.g., Laufer, 1997). The present research seeks to determine whether these interventions will be useful in L2, FL or in both classrooms.

It is hypothesized in the present study that certain instructional interventions when employed before reading the text and doing the post-reading tasks, positively affect the process of reading comprehension and facilitate the completion of post-reading tasks. The pedagogical interventions in question include the pre-teaching of vocabulary and the acquisition of background knowledge prior to reading. Specifically, the following research questions were addressed in the study:

1) What interventions impact reading comprehension in second and foreign language classrooms?
   a) Does pre-teaching key vocabulary affect reading comprehension?
   b) Does background knowledge of the reading topic affect reading comprehension?
2) Are there differences in second language versus foreign language classrooms with regards to the efficacy of different interventions?

As an increasing number of students worldwide find it hard to read in second or foreign language, it is vitally important that research-based information on L2/FL reading development be properly incorporated into language instruction. The research topic under analysis plays an important role in second and foreign language university instruction as the results of the research will have implications for L2/FL instruction and assist teachers in adapting their pedagogical practices to enhance the development of reading comprehension skills, with the broader aim of improving second and foreign language acquisition.
II. LITERATURE REVIEW

The present research is intended to explore the influence of interventions on L2/FL learners' reading comprehension. Literature considered relevant to this research focus is reviewed to achieve greater insight. The literature review is divided into two main sections: second language reading and foreign language reading comprehension research and their implications. For the purpose of this study, Johnston's (1983) definition of reading comprehension is used:

Reading comprehension is considered to be a complex behavior which involves conscious and unconscious use of various strategies, including problem-solving strategies, to build a model of the meaning which the writer is assumed to have intended. The model is constructed using schematic knowledge structures and the various cuing systems which the writer has given (e.g., words, syntax, macrostructures, social information) to generate hypotheses which are tested using various logical and pragmatic strategies. Most of this model must be inferred, since text can never be fully explicit and, in general, very little of it is explicit because even the appropriate intentional and extensional meanings of words must be inferred from their context (p. 17).

As the definition above illustrates, reading comprehension can mean that comprehension of a text depends upon reader's conscious and unconscious usage of different strategies. Johnston (1983) suggests using strategies to comprehend a text; furthermore, he highlights the importance of examining the process of comprehension. The result of reading comprehension may demonstrate what the reader understands from the text, what they fail to understand, and how they transact with the text.
1. Research in Second Language Reading

Researching second language reading is considered a challenging task. Being a multidimensional construct, “reading involves a wide range of subskills and their acquisition depends on various learner-internal (e.g., cognitive abilities, linguistic knowledge) and learner-external (e.g., print-related experience at home, reading instruction, community-wide literacy practices) factors.” (Koda, 2012, p. 158). Because of this diversity, no single approach can adequately describe all aspects of reading. As a result, reading is tackled from a variety of perspectives using diverse methodologies.

Originally, second language reading research grounded its orientations, to a considerable extent, on principles derived from first language (English, L1) research and was considered by some researchers (Weber, 1991; Bernhardt, 2000) as elaborations of research trends in L1 reading (Sheorey, Mokhtari, 2001). Research in L2 reading, however, must go beyond research-based claims made by L1 reading studies to include and shed light upon the variables explaining the unique nature of second language reading. Its uniqueness stems from the fact that reading itself, when viewed as a psycholinguistic process, consists of three major operations, but when reading is learned in an L2, the number of subskills required for each operation doubles, since it entails two languages and their interactions.

Some of the main questions asked in the field of second language reading nowadays include those focused on the reading strategies readers use and whether or not those strategies are similar in L1 and L2. Learner strategies are the cognitive steps learners take to process second language input and first language input. There are three types of strategies at work in reading comprehension: cognitive strategies (the deliberate actions taken by readers when comprehension problems develop), followed by metacognitive strategies (advanced planning and
comprehension monitoring techniques), and support strategies (the tools readers look for to aid comprehension). Since the use of strategies has been considered one of the important factors for various aspects of successful language learning, strategy instruction using various methods has been implemented in many contexts (e.g., Dreyer and Nel, 2003; Oxford, 1990). At the same time, the efficacy of such strategy instruction has been ascertained in terms of one or more of three criteria: learners’ language proficiency, the frequency of their strategy use, and their reactions to the strategy instruction (Ikeda and Takeuchi, 2006).

Previous studies on reading in a second language showed that: (i) Reading strategies assist understanding of texts read (Oxford, 1990; Reinhart and Isbell, 2002); (ii) Good readers monitor comprehension better than poor readers (Block, 1992; Nambiar, 2009). These reading comprehension strategies are cognitive procedures that include retrieving and storing new input. Such strategies are specific “attacks” that learners implement when faced with a problem. More specifically, reading strategies are those comprehension processes that readers use in order to make sense of the texts they read. These processes may involve scanning, skimming, reading for meaning, guessing, recognizing cognates and word families, predicting, activating general knowledge, making inferences, following references, and separating main ideas from supporting ideas (Barnett, 1988).

Readers employ cognitive strategies which enable them to understand new language by many different means, for example, by repeating words mentally to oneself to better understand the meaning or by using dictionaries to look up the meaning of a word. The latter strategy involves the use of external resources to find out the meaning of what is read in the target language, or to produce messages in the target language. Analyzing and reasoning, such as translating what has been read, allows learners to use their own language as the foundation for understanding what
they read in the target language. Word-for-word translation, however, is avoided, as readers may fail to understand the overall idea of the text if they focus on individual words in it. The meaning of separate words does not necessarily constitute the meaning of the whole text; moreover, it can hinder reading comprehension process. Examples of the analyzing and reasoning strategy are taking notes, summarizing and highlighting ideas to create structure for language input and output. One more strategy of reading comprehension is compensation strategy. An example of this strategy is when the respondents guess intelligently by using linguistic clues, which allows them to refer to previously gained knowledge of the target language or the learner’s language that can provide linguistic clues to the meaning of the text. The above mentioned cognitive strategies add to reading comprehension and, when used properly, help improve comprehension of what is read.

A number of professionals in the field, such as Carrell (1991) and Nambiar (2009), draw attention to the fact that reading in both L1 and L2 involves the use of various strategies that assist readers in understanding what is read. Some researchers have perceived reading as an interactive cognitive process in which readers interact with the text using their prior knowledge (Carrell, 1988) and cultural background (Pritchard, 1990).

Within the last two decades, considerable attention has been paid to understanding what proficient (skilled) second language readers typically do while reading, including identifying the strategies they employ and how and under what conditions they use those strategies. This line of research has been beneficial in instructing both non-proficient first and second-language readers to increase their awareness and implementation of reading strategies to improve reading comprehension (e.g. Block, 1992; Jiménez et al., 1996; Song, 1998).
The reader’s awareness is considered one of the metacognitive strategies aimed at reading comprehension improvement. Many of the studies, such as Carrell (1988), Block (1992), and Pressley et al. (1992) recognize the role of metacognitive awareness in reading comprehension, no matter whether one is reading in the native language or a second language. Strategic awareness and comprehension monitoring are critically important aspects of skilled reading. Such awareness and monitoring is often referred to as “metacognition,” which can be described as the knowledge of readers’ cognition relative to the reading process and those self-control mechanisms that they use to monitor and enhance comprehension. Carrell (1989) and Auerbach and Paxton (1997), for example, regard metacognitive awareness – which they describe as “planning and consciously executing appropriate actions to achieve a particular goal” – to be a critical element of proficient reading (p. 239). According to Auerbach and Paxton (1997), such metacognition “entails knowledge of strategies for processing texts, the ability to monitor comprehension, and the ability to adjust strategies as needed” (pp. 240-41). A similar view is expressed by Pressley and Afflerbach (1995), whose examination of 38 research studies on native English speakers’ reading revealed that proficient readers are strategic and “constructively responsive” and make conscious steps to comprehend what they are reading. Such steps involve an implementation of available cognitive resources to ensure maximum comprehension.

Monitoring of the reading comprehension process plays an important role in constructing a mental representation of a text. The primary goal of reading in any language, first or second, is to construct a mental representation of meaning from a text (Grabe and Stoller, 2002, p. 145). Comprehension monitoring is defined as “a metacognitive process...essential for competent reading, which directs the reader's cognitive processes as he/she strives to make sense of incoming textual information” (Wagoner, 1983, p. 328). This process involves a series of
activities which can be categorized into three categories of behavior: evaluation, planning and regulation. Evaluation gives readers an opportunity to evaluate their current understanding of the text and allows them to decide whether there is a need to take compensatory actions. If it is so, planning is required to select strategies relevant to the comprehension problem. Then, regulation utilizes the appropriate strategies to fix comprehension breakdown. Proficient readers may re-allocate attention, slow down the speed of reading, re-interpret certain chunks in the text, re-evaluate the hypothesis they have made, and move backward or look ahead in the text in order to resolve the ambiguity (Casanave, 1988).

The above mentioned strategies that assist readers in the comprehension process are more learner-oriented rather than teacher-centered. They do involve the participation of the teacher, especially when these strategies need to be taught; after that, it’s a completely reader-oriented process that they go through to comprehend the meaning of the text. Some important comprehension strategies, however, may only be implemented with teacher’s assistance. A more teacher-related approach has been designed by Anderson (1999) and presented in his book *Exploring Second Language Reading: Issues and Strategies*. It centers on the philosophy Anderson has developed through extensive research and practice. The philosophy is represented through the word ACTIVE, each letter of which represents the initial letter of the elements of this approach (Anderson, 1999, p. 4):

A – *Activate prior knowledge*

C – *Cultivate vocabulary*

T – *Teach for comprehension*

I – *Increase reading rate*
V– Verify reading strategies

E – Evaluate progress

These are, however, only six out of eight elements that constitute the overall philosophy. The last two are: consider the role of motivation and select appropriate materials. With the help of this framework Anderson examines instructional issues that reading teachers are concerned with in ESL classrooms. Anderson does mention strategy training, but he uses the designed framework to integrate strategy training and reflection into the instructional process.

Anderson's study findings suggest the role of background knowledge to be part of reading comprehension. Unfamiliar information is always harder to comprehend, which is related to the problems ESL students come across when faced with an unfamiliar text. Palincsar and Brown (1984) further elaborate on the idea that comprehension is influenced by the extent of overlap between the content of the text and the readers' prior knowledge. Their research has been informed by studies demonstrating schematic constructive processes in reading comprehension (Rabinowitz, Mandler, 1983; Stein & Trabasso, 1982). There exist certain strategies of activating background knowledge, such as pre-reading discussion, semantic mapping, or students' monitoring their use of background knowledge (Anderson, 1999). Employed by L2 teachers, these strategies foster reading comprehension of L2 students.

Background knowledge activation is a powerful teaching strategy, though not the only way to improve second language reading comprehension. The crucial role of vocabulary in comprehending L2 reading is quite evident. Research on L1 reading comprehension demonstrates that vocabulary knowledge and reading comprehension are very closely related to each other (Stahl, 1990). This relationship is, of course, two-directional because vocabulary knowledge can help reading, and reading can contribute to vocabulary growth (Chall, 1987).
This assumption is applicable both to L1 and L2/FL reading comprehension. Text comprehension is impossible, either in one’s native language or in a second or foreign language, without understanding the text’s key words (Laufer, 1997). It does not mean, however, that reading comprehension and vocabulary comprehension are the same, or that reading comprehension is determined by vocabulary alone.

As discussed above, reading comprehension is influenced by textually relevant background knowledge and the application of general reading strategies, such as predicting the content of the text, recognizing the type of text and text structure, guessing the meaning of unknown words in context, and understanding the main idea of the paragraph as well as some other strategies discussed above. In some cases, the use of above mentioned reading comprehension strategies and having a general idea about the text may, to some extent, compensate for the lack of sufficient knowledge of vocabulary in a particular text, but the comprehension will not be complete. However, the reader’s familiarity with the key vocabulary of a particular text and their usage of reading comprehension strategies may lead to a better comprehension of the text.

An important insight into the correlation between vocabulary knowledge and reading comprehension is given by Anderson and Freebody, who propose three hypotheses to explain this correlation (Anderson, Freebody, 1981). The instrumentalist hypothesis argues that the presence or absence of vocabulary knowledge promotes or hinders reading comprehension, and teaching the meanings of words will directly affect comprehension. According to the general aptitude hypothesis, vocabulary and comprehension are related indirectly due to their connection with aptitude. Anderson and Freebody (1981) draw attention to vocabulary knowledge as one of the strongest indicators of overall intelligence which, in its turn, relates to comprehension. The third hypothesis, the general knowledge hypothesis, also suggests the indirect character of
relationship between vocabulary and comprehension determined by general knowledge rather than intelligence.

Currently there exists certain L2 scholarship investigating the effects of pre-learning key vocabulary on reading comprehension. Carlo et al. (2004) found that pre-learning vocabulary by means of intensive tasks facilitated reading comprehension for ESL learners. It is not surprising that rich instruction (when the time spent on vocabulary tasks is much more than would normally be used) facilitates reading comprehension. If vocabulary knowledge does affect reading comprehension, the question is whether intensive tasks are more likely to be effective and what types of tasks (contextual vs. decontextualized) are likely to be more effective.

Only a few widely known studies provide an answer to this question in L2 context. One of them is by Carlo et al. (2004), who found that intensive rich instruction that involved coming across target words in multiple contexts and focused participants on learning various aspects (spelling, pronunciation, morphology, syntax) of words had a considerable effect on ESL learners’ scores on a reading comprehension test. Beck et al. (1982) and Stahl (1983) have demonstrated that improved reading comprehension can sometimes be attributed to an increase in vocabulary knowledge. Similarly, Laufer (1991) found significant correlations between vocabulary and reading scores of L2 learners. Coady et al.’s (1993) two experiments showed that increased proficiency in high frequency vocabulary also entailed an increase in reading proficiency.

Nation and Kyongho (1995) emphasize the importance of specific vocabulary knowledge. The authors point to the fact that providing learners with special purposes words, after they have learned about 2000 general vocabulary items, would be very useful for those learning English for specific purposes (e.g., English for academic purposes). It has been demonstrated that reading
comprehension is strongly related to the knowledge of vocabulary, more strongly than to the other components of reading comprehension, such as familiarity with topic and knowledge of grammar. Anderson and Freebody (1981) looked at a number of studies that show that vocabulary knowledge as a variable is more highly predictive of comprehension than the sentence variable (i.e., the grammatical complexity of a sentence), the ability to grasp main idea and the inferencing ability. Moreover, L2 learners themselves reported that their limited vocabulary knowledge is the main problem they face when reading authentic texts in their second language (Yorio, 1971). Despite the date of the study, it still highlights the importance of vocabulary knowledge in reading comprehension.

2. Research in Foreign Language Reading

Significantly less research has been conducted in the field of foreign language reading comprehension in comparison to L2 reading comprehension; both fields are yet to reach the research volume done in L1 reading comprehension.

The findings of research on FL reading comprehension do not provide an exact answer to the question of effectiveness of reading comprehension strategies. Earlier research, such as Johnson's (1982), found that vocabulary learning did not have any effect on reading comprehension for EFL learners. The researcher examined the effect of studying the definitions of target vocabulary prior to reading a passage. In contrast, the findings of Mehrpour and Rahimi's research (2010) suggest that gaining prior and/or concurrent familiarity with the difficult vocabulary items of the reading texts has had a significant effect on the performance of the participants on the reading comprehension tests. The reported findings also show that the knowledge of the specific vocabulary plays a very important role in EFL learners’ reading comprehension.
The explanation that lies in the center of Mehrpour and Rahimi's (2010) study points out that, in terms of pedagogical implications, particular attention should be paid to teaching and learning specific vocabulary. Teaching vocabulary for specific purposes adds to the general vocabulary knowledge of the students; it also helps them to effectively comprehend specific texts they read. Another pedagogical implication may suggest that it be useful to associate vocabulary teaching with reading comprehension tasks to make it more meaningful.

Other research on FL reading comprehension concerns narrative text comprehension. It investigates the influence of different pre-reading instructions on situational representations and problem-solving in FL narrative text comprehension. One implication from the experiment is that asking FL readers to follow the textual structure helps enhance their comprehension of a text when their language proficiency level is low. Another implication about readers with higher FL proficiency is that asking readers to pay attention to the dimension of situational representations, whose structure deviates from the text structure, helps readers generate the dimension of situational representations. Thus, language proficiency needs to be taken into consideration in choosing specific methods of instruction to help FL learners comprehend a text.

Some researchers (Brown, 1998; Swaffar and Bacon, 1993) insist that implications from L1 reading comprehension research discussed above need to be implemented in L2 and FL teaching and research. However, this implementation should be done with care, as more research needs to be conducted to reveal the relation before findings from L1 research is applied to L2 and FL research and teaching practice.

Studies in FL comprehension monitoring demonstrate that in comparison to the amount of research on metacognitive strategies, specifically comprehension monitoring in L1 reading comprehension, little attention has been paid to comprehension monitoring in FL reading. The
majority of FL comprehension monitoring studies compared how native and non-native readers monitored comprehension (Block, 1992); studied bilingual readers' comprehension monitoring processes in reading in their stronger and weaker languages (Jiménez et al., 1996); compared what more proficient and less proficient EFL readers did to monitor reading comprehension in English (Yang, 2002); and investigated how high reading proficiency and high metacognitive awareness readers and low reading proficiency and low metacognitive awareness readers monitored their comprehension (Khonamri and Kojidi, 2011).

Block (1992) demonstrates that comprehension monitoring was more influenced by reading proficiency than by language background, as both proficient L1 and FL readers tended to monitor their comprehension efficiently. In a similar vein, Jiménez et al. (1996) demonstrated that successful readers carefully monitored their comprehension, whereas the less successful readers employed fewer strategies in solving comprehension problems. In terms of EFL reading comprehension monitoring, Yang (2002) determined that good readers displayed more competency in monitoring their thinking process and were able to successfully integrate the information they previously encountered to interpret the meaning. On the contrary, poor readers seemed to only process information sporadically and did not know how to integrate it. In a recent study with Iranian EFL learners, Khonamri and Kojidi (2011) showed that high proficiency and high metacognitive awareness readers used all kinds of reading strategies more frequently than did low proficiency low awareness readers. In particular, the first category of readers employed nearly double the amount of comprehension monitoring strategies when compared to the second category. However, this study did not examine how successfully the readers monitored comprehension (i.e. the rate of error detection) and whether their reading proficiency affected the rate of error detection.
III. METHODOLOGY

The present study focused on exploring the pedagogical interventions that affect reading comprehension of L2/FL students and the extent of their influence on reading comprehension process. Background information collected during the study is offered to be considered as instrumental in determining the reasons for success or failure of the interventions in question. The study lasted for a month. Populations in my study included students from a public southeastern university. Methods of data collection that have been employed include participant survey and quantitative research of test results of the participants. Data collection was achieved in three stages and preceded by a background survey completed by the participants.

1. Site description

The research has been conducted at a public university in the south-east of the USA. The school offers both foreign language and English as a second language education in the form of classroom instruction. The focus of the research was primarily on two language classrooms with different emphases: teaching English as a second language and teaching German as a foreign language. This entails the involvement of the Modern Languages department, which offers German classes, and the Intensive English Program (IEP). The IEP offers academic English courses from beginner to advanced level with a curriculum designed to prepare students to enroll into academic programs at the university and be able to interact in the English-speaking academic and social environment.
2. Population

My sampling consisted of the students enrolled in German and Intensive English classes at the university. They constituted a convenience sample and were easily accessible for the researcher. These students were of diverse ethnic backgrounds: except two students, all of the participants studying German came from the USA, with two students being from Finland and Armenia, while the students enrolled in the IEP program were from East Asia to Europe to South America. Another important factor was their classification at the university. All German students were enrolled in a 300-level course; therefore, they were classified as either junior or senior students. Their age range varied between 20 and 22, with some students being younger or older. The age range of the IEP students varied more significantly, as they had completely different reasons for enrolling into the program. In both experimental and control IEP groups, there were 4 exchange students, who were junior or senior students in their home universities. The majority of those students came to the IEP to improve their English language proficiency with a further aim of getting admitted into academic programs; therefore, they were younger than their exchange counterparts. Lastly, there was one graduate student in the experimental group. This being said, the age of the IEP students ranges from approximately 19 till 25.

The level of the students’ language proficiency did not differ greatly by the language. The experimental and control IEP group that took part in the experiment were defined as Advanced level students, whereas the German learners were Intermediate to Low Advanced. The number of hours allocated to language learning was different depending on the language. ESL learners get an average of 18-20 hours of language instruction per week, while the German language classes take place twice a week only, for a total of 3 hours weekly. Both courses exposed to the study were reading classes. Thus, for the purpose of the present study, only the number of hours spent
on reading instruction was taken into consideration. This number was the same for all groups and amounted to 3 hours.

The experimental groups were one IEP and one German group. All the students enrolled in those courses participated in the study, there was no selection on any basis. In addition to that, there was supposed to be two control groups (one for German, one for ESL) that would be given the same texts and tasks as the experimental groups, but no interventions would take place. Due to the limited student sample, however, it was not possible to get the control group for German, so the IEP control group served as reference group for both experimental groups. The results of the experimental groups were then compared with the results of the control group, and several adjustments were made with regard to the language under analysis and the interpretation of the results.

3. Methods and Stages of Data Collection

Because this was a quantitative study, the main techniques were intended to reflect the analysis of data collected throughout the study. The data obtained from three classroom tests of experimental and control groups was analyzed by means of quantitative data analysis. Best and Khan (1989) define quantitative research as consisting of those studies in which the data concerned can be analyzed in terms of numbers. Quantitative research is concerned with the collection and analysis of data in numeric form. It has a tendency to examine relatively large-scale and representative sets of data. The quantitative research design of the present study was preferable, as the tests required the use of written texts and post-reading tasks, the results of which were later analyzed and coded in the numeric form. For the purpose of the research, it was necessary to understand the influence of two different interventions on the process of reading comprehension and then express this influence in numeric form.
Preliminary survey

Before the actual study took place, a preliminary survey was conducted in both experimental and control groups. The purpose of the survey was to gain background information about the participants, which later could be worthy of special consideration upon results analysis. Depending on the students' answers to the survey questions, the collected data could be interpreted from a slightly different angle. The survey was designed in the form of an open-ended questionnaire and included six questions seeking to address a set of general issues about the students' background and English/German learning experience. The following questions were included into the questionnaire:

1. What is your native language?
2. What is, in your opinion, your current level of English/German?
3. Do you have any prior experience learning English/German?
4. If your previous answer was 'yes', how long have you been studying English/German?
5. What are your reasons for taking this class (in English/German)?
6. Are there any additional motivational factors that have prompted you to take this class?

The total of 39 students filled out the questionnaire, with 15 being IEP experimental group, 15 - IEP control group, and 9 - German experimental group students. The analysis of their answers produced mostly predictable results due to the students' environment (university) and goal of the studies (pass university-administered exams, get the desired grade/score, finish the course successfully/get admitted to the academic program).

The following table summarizes the study participants' answers to the survey questions.
<table>
<thead>
<tr>
<th>Questions</th>
<th>ESL experimental group (15 students)</th>
<th>Control group (15 students)</th>
<th>German experimental group (9 students)</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is your native language?</td>
<td>Chinese, Arabic, Portuguese, Japanese, Korean, German</td>
<td>Arabic, Korean, Portuguese, Japanese, Chinese</td>
<td>English, Finnish, Armenian</td>
</tr>
<tr>
<td>What is, in your opinion, your current level of English/German?</td>
<td>Elementary - Advanced</td>
<td>Low (elementary) - Advanced</td>
<td>Intermediate - Advanced</td>
</tr>
<tr>
<td>Do you have any prior experience learning English/German?</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes (except 1 student)</td>
</tr>
<tr>
<td>If your previous answer was 'yes', how long have you been studying English /German?</td>
<td>2-12 years (including prior to college experience)</td>
<td>3-14 years (including prior to college experience)</td>
<td>3-9 years (including prior to college and study abroad experience)</td>
</tr>
<tr>
<td>What are your reasons for taking this class (in English/German)?</td>
<td>• to enter a university in the US; • globalization of all aspects of life; • to improve communication skills; • to improve language proficiency level (incl. listening, speaking skills);</td>
<td>• for academic purposes; • to enter a university in the US; • to improve language proficiency; • to be able to communicate with people from all over the world; • to get a better job; • to learn more about</td>
<td>• to fulfill requirements for the major / minor; • to continue practicing; • enjoyable experience while studying abroad; • &quot;on a whim&quot; choice of subject.</td>
</tr>
<tr>
<td>Are there any additional motivational factors that have prompted you to take this class?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------------------------------------------------------------------------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• to become an English teacher in the students' home country;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• to improve academic language skills.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>other countries and cultures;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• to be able to read literature for specific purposes.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• to be able to read literature without a dictionary;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• to enlarge vocabulary;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• love of learning something new;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• to learn the correct intonation and pauses while reading aloud.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• to learn a new language;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• to improve reading skills;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• to brush up English skills;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• this class helps to understand written texts;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• inclination to reading;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• friend motivation;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• to get extra knowledge;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• to improve second language proficiency to get a good job in the students' country of residence;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• teachers being passionate about the subject and motivating students;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• to be able to watch movies, read books, listen to music in English.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• an interesting subject;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• an interesting language;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• interest in contemporary German culture.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
As can be seen from the table, there was no group with one native language shared by all students. The minimum number of languages in a group was three, the maximum - six. This preliminary survey yielded some surprising results regarding the level of L2/FL proficiency, as estimated by the students themselves. The ESL experimental group students ranked themselves from Elementary ("poor", "not good") to Intermediate ("average", "so so") to Advanced. Overall, 80% of students of this group determined their level as Intermediate or Advanced, and only 35% considered themselves Advanced level students. The German experimental group consisted of 9 students, all of whom placed themselves on Intermediate to Advanced proficiency levels, with 20% considering themselves Advanced level learners. The control group generally witnessed the same proficiency level range as the ESL experimental group, with 55% of students ranking themselves on the Advanced level. As was stated earlier, all three groups are ranked as Advanced level groups according to the university classification of levels and courses.

The number of years spent studying L2/FL varied from group to group; however, the median value is very similar for the ESL and control group. The ESL experimental group students studied English for an average of 7 years, while for the control group this number was slightly higher and amounted to 8.5 years. The average number of years a student from the German experimental group had spent studying German was 6. All these values included college and prior to college experience, e.g. middle and high school education.

The reasons that prompted the students from all group to take up English/German can be principally divided into three main categories: academic, professional, and personal. Academic reasons include major or minor requirements, opportunity of enrollment into an American university, and positive study abroad experience; among professional reasons we can name higher chances of finding a job (both in the USA and in the students' home countries), more
competitive salary offers, and ability to work as an EFL teacher in the students' home countries. Personal reasons include, among others, the ability to communicate with a wider range of people due to improved communication skills, to read literature in L2/FL (both general and academic), to learn more about other countries and cultures in an increasingly globalised world. The additional motivational reasons included mostly personal reasons, such as improvement of language skills, especially reading comprehension; acquisition of extra knowledge; ability to read authentic literature, watch authentic movies, and listen to authentic songs; interest in contemporary culture of the language.

Data Collection Tests

After the preliminary survey that gave more insight into the participants' background and proficiency levels, actual data collection tests took place. The whole study lasted for a month, the first week of which was devoted to the preliminary survey. The three following weeks were three stages of the study; each test took place on the same day throughout three consecutive weeks. The consecutive character of the study adds to the credibility of the research, since no external factors, such as week-long breaks, could interfere with data collection.

Data collection included three texts that were being given to the students of experimental and control groups once a week throughout three consecutive weeks. The texts were selected to reflect then-current events or happenings and be “as enjoyable as possible to encourage the student to do more reading in different academic areas of course content as well as reading for relaxation and pleasure” (Ediger, 2012, p. 132). Since the study took place in Fall 2015 and the texts had to resemble academic style, though not deeply sophisticated reading, it was decided to utilize an online resource, the Deutsche Welle website (www.dw.de). The advantage of this website lies in its multilingual selection of articles; if an article is written in German, its
translation into English and many other languages can be easily found. This fact further
guaranteed the credibility of the results as the articles had the same content. One of the hot issues
in Fall 2015 was the fight against Ebola in the USA; therefore, this was a possible topic for the
study text. It was not beneficial for the study to have three articles on the same topic, so the
broader version of the topic selected for the research was determined as Diseases. Three texts
dealt with three different diseases, such as Ebola, Cancer, and AIDS (see list of appendices).
Though similar, the articles provided various details and insights due to the diverse nature of
each disease.

After reading the texts the students were presented with a series of reading comprehension
tasks. Three task types were given to the students: giving answers to text-related questions,
eliciting the word meaning from the context, and a cloze activity (see list of appendices). These
activities included one closed-ended and two open-ended tasks; as a rule, closed-ended tasks
appear on standardized tests more often, while open-ended activities have a high level of
cognitive demand, because “as teachers, we are asking students to “think outside the box”
(Varygiannes, 2013-2014, p. 278). For this reason, open-ended tasks ranked higher and got more
points per question than the closed-ended task.

Data collection was achieved in three stages:

Stage one

During the first stage of the study, the students of both experimental and control groups were
given an article titled Ebola in the USA: "We’re Afraid", and its German equivalent (see
Appendix A). No preparation for reading comprehension was necessary. The students read the
text and completed three follow-up tasks. The text was more than two pages long and contained
some specific terminology; therefore, it took students ten to fifteen minutes to read the text. The
text was followed by six open-ended text-based questions, five fill-in-the-gap sentences, and five multiple choice questions. The vocabulary for the last two activities was selected on the basis of its relevance to the topic and the overall idea of the text. Cumulatively, it took the students 40 minutes to complete the test.

Stage two

At the second stage of the study the students experienced the first intervention, the pre-teaching of key vocabulary items. Before the students read the text *Onus on You: Who Will Follow the WHO's New European Code Against Cancer?* and its German version (see Appendix B), the instructor pre-taught key vocabulary items that the students would encounter in the article. This was the first type of intervention that was analyzed in this research. The key vocabulary pre-teaching took place in both experimental group, ESL and German, but not in the control group. In this respect some of the key concepts were already familiar to the students before they read the second article. To check understanding of the pre-taught vocabulary, the students were asked to use those items in context, for example, to make sentences with them. The control group read the same text but they did not experience any type of intervention. After reading, the students completed the post-reading tasks that were the same in format and length as at the first stage. This was done to preserve uniformity of research materials. The time spent on the test during Stage two was the same as during Stage one.

Stage three

During the third stage of the experiment, the focus was on a different type of intervention, prior acquisition of the information relevant to the topic of the article. The text titled *AIDS Can Be Beat - With Education* and its German version (see Appendix C) dealt with the issue of AIDS. The information that the students acquired during prior reading was deemed to enhance their
involvement in the topic and allow for more vocabulary and knowledge to become familiar.

After the second test, the students were given five links to online sources that they were to use to research about AIDS. Two of them were links to the government portal on AIDS treatment and prevention, another was a link to a semi-scientific article, and one was a Wikipedia website (see Appendix D). Notably, all the resources were in English but the German language learners also had an opportunity to read the Wikipedia website in German. The links to the resources were provided by the instructor, and the students could also use extra resources and materials besides the assigned ones. As for the German language students, they were allowed to read extra materials in German and English to familiarize themselves with the topic. Upon coming to class, the learners read the article but the knowledge they had already acquired by that time added to their understanding and construction of meaning of the text. Then they completed the post-reading tasks which were of the same format as in the two previous stages. The third text was a little shorter than the previous ones, so the number of post-reading tasks was adjusted to match text length and totaled four reading comprehension questions, four fill-in-the-gaps sentences, and four multiple choice questions. Overall, it took the students about 30 minutes to complete this test.

For the quantitative data provided by three stages of the study there followed a careful process of grading the post-reading tasks to determine the number of correct answers. The results were analyzed with SPSS statistical analysis software. The percentage of correct answers per group per stage was calculated, and then the results for the three stages were compared. Firstly, the comparison was made within one language framework; secondly, there was an analysis across the two languages. These procedures were carried out to encompass a holistic perspective of instructional interventions and their influence on the improvement of second and foreign
language reading comprehension. The control groups served as standards, according to which possible effects of interventions were evaluated.
IV. DATA ANALYSIS

A nonequivalent control groups study was conducted to explore the type and influence of interventions on L2/FL reading comprehension of college-level students. Three tests were conducted in both experimental groups (ESL and German) and the control group, and each consisted of an article and follow-up comprehension tasks. Additionally, each group completed a preliminary survey focusing on students' language background and possible reasons for learning the language.

When examining the results of the tests, attention was given to meaning, credibility, importance, generalizability, and future implications of each result as well as to the limitations of the data collected. The comprehensive analysis of results which follows is organized to correspond with each group studied; further, the comparative analysis of three groups is carried out and presented in a descriptive form. All the test scores are given in percentage.

To answer Research Question #1 results of the three tasks were compared across groups. One of the experimental groups that participated in the study consisted of the Intensive English Program Advanced Reading students. Table 2 gives a descriptive statistical account of the results of this group.
The number of participants in this group amounted to 15 students, out of which 11 (73.3%) were regular IEP and 4 (26.7%) were exchange students present at the university for one semester only. The average this group scored on Test 1 was 49.67%, while Tests 2 and 3 demonstrated higher group average results, 70.27% and 60.6% respectively. In this group, the mode value can be identified for Test 1 only and is 46. The median amounted to 46 on Test 1, 63 on Test 2, and 58 on Test 3. The score range for this group accounted for 33-80 for Test 1, 45-100 for Test 2, and 45-88 for Test 3. The standard deviation, a measure used to quantify the variation (dispersion) of a set of data values, was 16.71 for Test 1, 19.7 for Test 2, and 13.4 for Test 3.

The second experimental group included nine Advanced German language learners. All of them were regular university students enrolled in academic programs, though two were non-native English speakers. Table 3 demonstrates a descriptive statistical account of the results of this group.
Table 3. *Experimental German group statistics.*

<table>
<thead>
<tr>
<th>Test</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test1 out of 100</td>
<td>9</td>
<td>18</td>
<td>80</td>
<td>54.00</td>
<td>20.652</td>
</tr>
<tr>
<td>Test2 out of 100</td>
<td>9</td>
<td>40</td>
<td>94</td>
<td>66.56</td>
<td>17.205</td>
</tr>
<tr>
<td>Test3 out of 100</td>
<td>9</td>
<td>34</td>
<td>76</td>
<td>59.33</td>
<td>14.133</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>9</td>
<td>18</td>
<td>80</td>
<td>54.00</td>
<td>20.652</td>
</tr>
</tbody>
</table>

The average of this group on the first test was 54%, on the second - 66.56%, and they scored an average of 59.33% on Test 3. The mode value of 80 could be identified for Test 1 only. The median value was identified for each test and amounted to 50 on Test 1, 67 - on Test 2, and 63 on Test 3. The range score for the German language learners is 18-80 for Test 1, 40-94 for Test 2, and 34-76 for Test 3. The standard deviation was 20.65 for Test 1, 17.2 for Test 2, and 14.1 for Test 3.

The third group was the control group, against which the results of two experimental groups were measured. This was the Intensive English Program Advanced Reading group, and it consisted of 15 students, out of which 4 (26.7%) students were exchange students and 11 (73.3%) were regular IEP students. Table 4 demonstrates the statistical description of this group's results.

Table 4. *Control group statistics.*

<table>
<thead>
<tr>
<th>Test</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test1 out of 100</td>
<td>15</td>
<td>8</td>
<td>66</td>
<td>41.80</td>
<td>14.944</td>
</tr>
<tr>
<td>Test2 out of 100</td>
<td>15</td>
<td>31</td>
<td>68</td>
<td>50.20</td>
<td>12.090</td>
</tr>
<tr>
<td>Test3 out of 100</td>
<td>15</td>
<td>25</td>
<td>89</td>
<td>53.27</td>
<td>19.557</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>15</td>
<td>18</td>
<td>80</td>
<td>54.00</td>
<td>20.652</td>
</tr>
</tbody>
</table>
The control group had the same texts and completed the same tasks as the target groups but the students experienced no interventions. Their average score was 41.8% on Test 1, 50.2% on Test 2, and 53.27% on Test 3. The mode was identified for Tests 1 and 2 only, and it amounted to 50 and 54 respectively. The median was identified for all three tests: 45 on Test 1, 54 on Test 2, and 55 on Test 3. The range for the control group totaled 8-66 for Test 1, 31-68 for Test 2, and 25-89 for Test 3. The standard deviation was in the range between 12 and 19.5 for three tests.

From the quantitative point of view, the results analysis measured each participant's experience with reading comprehension and post-reading test completion and the extent of influence of pedagogical interventions on each participant's performance. This study tried to determine whether there is a significant difference in the performance outcome upon application of two interventions. An independent samples *t*-test was used as part of the analysis to determine the effectiveness of interventions in the instruction process. The table below demonstrates the results of the independent samples *t*-test for ESL experimental and control groups, given the determining significance value is 0.05 for all *t*-tests.

Table 5. ESL experimental and control groups independent samples *t*-test.

<table>
<thead>
<tr>
<th></th>
<th>Levene's Test for Equality of Variances</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
</tr>
<tr>
<td>Test1 out of 100</td>
<td></td>
</tr>
<tr>
<td>Equal variances</td>
<td>.619</td>
</tr>
<tr>
<td>Not assumed</td>
<td></td>
</tr>
<tr>
<td>Test2 out of 100</td>
<td>5.099</td>
</tr>
<tr>
<td>Equal variances</td>
<td></td>
</tr>
<tr>
<td>Not assumed</td>
<td></td>
</tr>
<tr>
<td>Test3 out of 100</td>
<td>1.953</td>
</tr>
<tr>
<td>Equal variances</td>
<td></td>
</tr>
<tr>
<td>Not assumed</td>
<td></td>
</tr>
</tbody>
</table>
The second test yielded the 0.032 significance value, which confirms the proposed hypothesis that student performance in the experimental ESL group has improved after the application of the first pedagogical intervention. The third test did not confirm the hypothesis that the second pedagogical intervention could improve students' reading comprehension skills as the $t$-test significance value was greater than 0.05.

In order to answer the second subquestion of Research Question #1, an independent samples $t$-test was conducted that compared the test results of German experimental and ESL control groups. Table 6 demonstrates the results of $t$-test for these two groups.

Table 6. German experimental and ESL control groups independent samples $t$-test.

<table>
<thead>
<tr>
<th>Test</th>
<th>Levene's Test for Equality of Variances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test1outof100</td>
<td>Equal variances assumed: 1.072, Sig. = .312</td>
</tr>
<tr>
<td></td>
<td>Equal variances not assumed: .440, Sig. = .514</td>
</tr>
<tr>
<td>Test2outof100</td>
<td>Equal variances assumed: .918, Sig. = .349</td>
</tr>
<tr>
<td></td>
<td>Equal variances not assumed: .440, Sig. = .514</td>
</tr>
<tr>
<td>Test3outof100</td>
<td>Equal variances assumed: 1.072, Sig. = .312</td>
</tr>
<tr>
<td></td>
<td>Equal variances not assumed: .440, Sig. = .514</td>
</tr>
</tbody>
</table>

As can be seen from the table above, none of the tests in these two groups yielded any statistically significant results, as the significance value for each of the tests was greater than the needed one. Therefore, the interventions utilized for instruction in the German experimental group did not make any changes in the reading comprehension skills of the students. There are equal chances that these pedagogical interventions will improve or have no effect on the development of reading comprehension skills.
To answer Research Question #2, an independent samples t-test was run that compared the test scores of two experimental groups. Table 7 demonstrates t-test results for these groups.

Table 7. Two experimental groups independent samples t-test.

<table>
<thead>
<tr>
<th></th>
<th>Levene's Test for Equality of Variances</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
</tr>
<tr>
<td>Test1outof100</td>
<td>.231</td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td></td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td></td>
</tr>
<tr>
<td>Test2outof100</td>
<td>1.019</td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td></td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td></td>
</tr>
<tr>
<td>Test3outof100</td>
<td>.075</td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td></td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td></td>
</tr>
</tbody>
</table>

The comparison of test scores of two experimental groups demonstrated no significance of pedagogical interventions in the process of reading comprehension. Compared against each other, the results of both groups yielded no dependence of reading skills improvement on the presence or absence of instructional interventions as the p-value after both interventions is greater than 0.05.

Figures 1-3 below graphically demonstrate the statistical data presented above.
Figure 1. *Test 1 results in two experimental and one control groups*

![Box plot of Test 1 results]

Figure 2. *Test 2 results in two experimental and one control groups*

![Box plot of Test 2 results]
Figure 3. Test 3 results in two experimental and one control groups
V. DISCUSSION

This chapter presents an interpretation of the results discussed in the previous chapter. First, the results of this study are compared with the results of related research; next, some recommendations for L2/FL classroom instructors are proposed. Limitations of the study and suggestions for further research are also presented.

Reading comprehension is one of the skills associated with academic performance and personal development. Successful comprehension of academic texts leads to increased classroom performance, better grades, and achievement of personal and professional goals. The structure, style, syntax, vocabulary, clarity of presentation and other structural aspects affect reader's comprehension of texts and can add to its enhancement. The research agenda for the present study focused on two non-structural aspects that can have a potential effect on reading comprehension of college-level students. Two pedagogical strategies, the pre-teaching of key vocabulary and prior acquisition of information pertaining to the topic of the text, were implemented in two experimental and one control groups, and their results were statistically analyzed. At the beginning of the study, two research questions were raised. The discussion section presented below attempts to answer those research questions drawing on the results yielded from the collected data.

1. Research Question 1

The first research question that the study attempted to answer dealt with the type of interventions implemented in the classroom and their effectiveness. Two subquestions were posed:
a) Does pre-teaching key vocabulary affect reading comprehension?

b) Does background knowledge of the reading topic affect reading comprehension?

Two pedagogical interventions took place during the second and the third stages of the study, both in the experimental and control groups. The first intervention relied on the pre-teaching of key vocabulary items taken from the text to enhance reading comprehension. The data analysis and the conclusions drawn from examining the influence of this intervention offer additional support to the previous findings in the L1 and L2 field of reading comprehension research by Stahl (1990), Anderson and Freebody (1987), Chall (1987), Laufer (1997), Carlo et al. (2004).

Further evidence of the impact of key vocabulary pre-teaching on improved performance and development of reading comprehension skills of students may be drawn from the results of the participants' completion of post-reading tasks. The ESL experimental group generally performed 20% better on the test after being subject to the pre-teaching intervention, as compared with the control group. The German experimental group showed a 16.5% improvement in reading comprehension, which further confirms the efficacy of this pedagogical intervention. Another idea that these findings confirmed was expressed by Nation and Kyongho (1995), who emphasized the importance of specific vocabulary knowledge. The current study presented the students with selected vocabulary items related to the topic of the articles they read afterwards. The high results shown on this test added to the above-cited findings.

The second type of intervention, prior knowledge of information related to the topic of the text, also contributed to the existing scholarship on strategies that facilitate reading comprehension. The studies of several researchers, such as Palincsar and Brown (1984), Anderson (1999), Mehrpour and Rahimi (2010), illustrate the importance of prior or background knowledge in improving reading comprehension. The present research results indicated that there
was certain improvement after the second intervention was implemented, although its effect was not as significant as the influence of vocabulary pre-teaching. Compared to the control group, the ESL experimental group showed a 7% improvement in reading comprehension, while the German experimental group demonstrated a 6% improved performance. Both these results cannot be considered significant measure of improvement, although they confirm the hypothesis that this intervention has a positive effect on task completion and understanding of texts.

As discussed above, key vocabulary pre-teaching yielded better results than prior acquisition of information relevant to the text. Possible reasons for such difference may lie in the different level of control over the implementation of the interventions on the part of the researcher. In case of vocabulary pre-teaching, the researcher was present in the classroom with the participants, took part in the explanation of vocabulary items, and checked their understanding. That being sad, the researcher was confident that the intervention had actually been implemented. In case of prior information acquisition, it was the participants' responsibility to read the assigned resources and learn the information on the topic from them. The researcher cannot be completely sure that this intervention was entirely implemented due to lack of researcher's control over its implementation. This is one of the methodological limitations of the present research that will be discussed further in the chapter.

2. Research Question 2

The second research question investigated the data collected from the experimental groups. It was attempted to determine whether second (L2) or foreign language (FL) group did better with interventions present. Also, the researcher sought to find out the reasons for better performance of that group.
As the study results suggested, originally both groups performed almost at the same level, with 4% difference, which for the purpose of the research is considered insignificant. This stage did not include any pedagogical interventions, so a conclusion could be drawn that the level of proficiency in both groups, regardless of the language, is the same or very similar. This conclusion can further be supported by the data retrieved from the preliminary survey that indicated the average number of years the students of both groups spent studying a language. There was only a one-year difference between L2 and FL learners in favor of the former.

Upon implementation of the first type of intervention, the performance of both groups has improved. What was surprising enough was the fact that the average results of both groups have increased by 4%, the same value that could be observed after the first test. The difference of the lowest test scores of L2 and FL groups between the first and the second test was 5 points; the same difference could be observed between the highest scores of the indicated groups on the same tests. Such result could be credited to the influence of the first intervention that positively affected both group regardless of the language.

Knowledge of background information and its implementation in reading comprehension and post-reading task completion did not have the desired effect on skills improvement. The results of both groups had deteriorated; the ESL participants showed the decrease by 10% while FL learners' results dropped by 7%. Overall, this intervention proved to be less beneficial for both learners, though German students' decrease in results was slightly smaller than the other group's. This fact can be accounted for by the nature of the sources that the students were assigned to read. All the websites contained the information in English, therefore it may have affected the learners' comprehension of the material. All German group participants were native English speakers, so reading in their native language was easier than reading in the second language,
which all ESL participants faced. This is a possible reason for the difference in the percentage by which the results decreased. The declined overall performance on the third test as compared to the second one may be explained by the presence or absence of researcher control over the implementation of this intervention. Another possible reason for such deterioration may lie in the fact that, while the participants got background knowledge about the topic of the article, they did not become familiar with particular vocabulary items. In this respect their understanding of the text was not completely due to the gap in vocabulary comprehension, which led to decrease in performance.

3. Methodological Limitations

As with any research or study, there are inevitable limitations arising as the research is planned and conducted. The limitations of the study are those characteristics of methodology or design that may impact the application or interpretation of the results of the study. They are those constraints on generalizability and utility of findings that are the result of the ways in which the study is designed and/or the method used to establish internal and external validity.

One important limitation is the role of the researcher as teacher versus as non-teacher. The researcher taught the Advanced Reading experimental group, therefore the students were used to the researcher as instructor and their affective filters were low, which could contribute to the positive response to the instruction-based intervention. In case of FL and control groups, on the opposite, the researcher was introduced to the participants during the time the study was conducted. The researcher taught the ESL control group and the German experimental group only three times a semester when the experiment was conducted. Therefore, these participants' affective filters may be raised due to the new person playing the role of an instructor. This limitation may have affected the overall performance of the students and the results of the study.
As was discussed above, another limitation lay in the absence of researcher's control over the participants' acquisition of information prior to completing Test 3. Partly this limitation stems from the motivation of ESL and German language learners. The majority of ESL students enroll into the IEP program to improve their knowledge of academic as well as general English, with the ultimate goal of entering the university as full-time students. This fact alone can boost motivation of ESL learners making them show incredible results. The primary motivation of German language learners comes from the necessity to complete the program requirements. Most of the undergraduate programs at the university require their participants to take a certain number of language classes. A number of students enroll in German language classes to fulfill that requirement. Their primary motivator is the necessity to make it through the semester and get a decent grade. In general, both ESL and German groups have a similar motivational factor, i.e. the educational purposes of learning a second/foreign language, but the ESL learners are more interested in mastering academic vocabulary since that will be the primary means of communication for them as full-time freshman students. The German students are eager to get a good grade but the language is not the primary means of communication in an academic environment, therefore the motivation level was expected to be generally lower.

Lastly, the participants represented a convenience sample, so there was no German control group. Moreover, the sample used for the present study consisted of total of 39 students, which is a relatively small number to provide very accurate results. More accuracy could be achieved if a larger number of participants were available. However, it was attempted in the present study to give an objective view of the influence of two different interventions with consideration for the participants' native and learned languages as well as the educational setting.
BIBLIOGRAPHY


LIST OF APPENDICES
# EBOLA IN THE USA: 'WE'RE AFRAID'

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<table>
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<tr>
<td>1</td>
<td>There is no more pressing issue in the United States currently than Ebola. Many are</td>
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<td>skeptical of assurances from President Obama and health authorities that they can</td>
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<td>manage the deadly disease.</td>
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<td>2</td>
<td>Her fear is great as well as her outrage: Jowita Lynn has worked as an emergency room</td>
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<td>nurse for ten years and knows the harsh business of emergency medical care. Yet never</td>
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<td>has she felt more vulnerable than now since the unexpected infection of two colleagues in</td>
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<td>Dallas with the Ebola virus: &quot;We are lacking critical equipment; we are lacking training</td>
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<td>and practice to treat these patients,&quot; she told Deutsche Welle.</td>
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<td>3</td>
<td>One senses that she is not only reflecting on the harsh criticism leveled at her union</td>
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<td>and the rising discontent Americans have expressed in polls with the crisis management,</td>
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<td>health authorities and hospital directors. It is personally very serious for her. With</td>
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<td>big eyes and a firm voice she said, &quot;We are afraid, we are not prepared.&quot;</td>
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<td>4</td>
<td>Lynn works for the Catholic Providence Hospital in Washington, DC. In the hospital's</td>
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<td>mission statement, it indicates that &quot;it wants to provide its patients with the best</td>
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<td></td>
<td>possible care.&quot; But Lynn is not so sure. First and foremost she sees little respect and</td>
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<td>concern of the hospital leadership for the employees. &quot;Honestly, I don't believe that</td>
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<td>management is taking the whole Ebola thing seriously,&quot; she said.</td>
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<td>5</td>
<td>About a hundred kilometers away in Baltimore, Hugh Hill has been working for many years</td>
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<td>as the head emergency physician at Johns Hopkins Bayview Medical Center. He believes</td>
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<td>some of the nurses' complaints are justified. It is quite possible that there are no</td>
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<td>appropriate protective clothes and safety devices at some hospitals, he admitted to</td>
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<td></td>
<td>Deutsche Welle. &quot;That will be quickly resolved,&quot; he assured. For Hill and his own</td>
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<td></td>
<td>hospital, he assures that they are prepared for a possible first Ebola patient. &quot;When the</td>
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<td>news of the outbreak came, we reacted with screenings and asked the people about their</td>
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<td></td>
<td>travels. After the case in Dallas we quickly checked our safety measures, made further</td>
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<td>plans and began last week to train our employees.&quot;</td>
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</table>
Training began too late

Hill admitted, however, that his hospital began too late with the training in protective measures. Relatively late after the infection of the first nurse in Dallas they realized that they had to do more. "We really thought that the protective measures already in place would be enough," Hill said, trying to explain the delays. "We had to learn that this virus is highly infectious and patients have an incredibly large amount of the virus in the body, especially shortly before their death."

According to Hill, the Johns Hopkins hospital practices the so-called "buddy system" with its medical personnel, in which three employees are involved when the health worker puts on his or her protective clothes. "One who reads the rules and ensures that the protective clothes are put on and taken off in the prescribed way. A second, who is also wearing protective clothes and does nothing else but ensure that no one is contaminated." The third is finally the only caregiver who comes into contact with the patient.

Harsh criticism of US disease control authorities

Hill's hospital had "unfortunately until now not practiced" this and still needs time in order to train the entire staff.

Hill feels adequately supported by the Centers for Disease Control and Protection (CDC) in Atlanta, as well as the hospitals and local healthcare authorities which have provided recommendations.

Jowita Lynn sees it differently. The ability to implement the CDC recommendations is not guaranteed. "The CDC changes its views constantly. And my hospital hasn't even managed to implement the original rules, let alone the following ones." Lynn comes to a harsh judgement. "We have nothing which we can work with."

Furthermore, her hospital in Washington was only given the CDC recommendations as a printout with no guidance or training on how to implement them.
'We are learning as we go along'

In contrast, Hill understands the changing recommendations of the US disease control authorities. "We are learning about this virus as we go along. And I think all experts in the US say that we need to readjust our attitude to the disease after what we have experienced in Dallas."

Only four hospitals in the US have the highest possible safety standards, including those in Atlanta and Washington, to which now both Ebola patients have been moved. Other large hospitals also have good but "not perfect" capabilities to isolate patients, according to Hill. Since the four highly-specialized hospitals only have a limited number of beds available, hospitals such as Hill's are challenged to prepare as best as possible. According to Hill, there is no unified approach in the United States and every hospital is working alone to prepare for the emergency.

Failures are always possible

"It will never be perfect," Hill points out. "We can only approach perfection," he said. He understands fully that people in the US are concerned, but notes that he and his co-workers will continue coming to work, even if they now are even more aware of the danger. "This is my work, this is my life, this is what makes me who I am," Hill said.

Exercises:

1. After reading the text, answer the following questions:

a) According to the article, what are the main reasons that people fear Ebola in the USA?

b) Why are the two medical workers interviewed afraid of the virus?

c) In your own words, explain the meaning of the phrase "buddy system"?

d) Do the US disease control authorities do a lot to prevent spreading the disease? Why (not)?

e) Explain the meaning of the phrase "We are learning as we go along"?

f) What is the medical personnel's reaction to the threat of Ebola? Are they ready to face it? Justify your response.
2. Complete the sentences below with the most suitable words or phrases from the article. Don't forget to use the correct tense form:

a) Once fully ________________, the Microsoft CRM system will be linked to booking and management applications in each of the facilities. (paragraph 10)

b) This sense of public ________________ is due to the movement into greater light of what was formerly hidden. (paragraph 2)

c) Further evidence has emerged that it was ________________ climate, and not human habitation of the continent. (paragraph 10)

d) It is simply a 'look after your lawyer mates' ________________ that ignores the child's rights and welfare. (paragraph 7)

e) The deal, funded by cash and new debt, comes as Unilever ________________ its priorities to beauty and health goods from food products. (paragraph 12)

3. To complete this task, you need to understand the meaning of the word as it is used in the passage. Which words or phrases given are closest in meaning to the following words:

a) According to Hill, there is no unified approach in the United States and every hospital is working alone to prepare for the emergency.

- consolidated
- divided
- uncertain
- unique

b) One senses that she is not only reflecting on the harsh criticism leveled at her union and the rising discontent Americans have expressed in polls with the crisis management, health authorities and hospital directors.

- happiness
- restlessness
- trust
c) "We are learning about this virus as we go along. And I think all experts in the US say that we need to readjust our attitude to the disease after what we have experienced in Dallas."

- disorganize
- adapt
- accept
- unfit

d) One who reads the rules and ensures that the protective clothes are put on and taken off in the prescribed way. A second, who is also wearing protective clothes and does nothing else but ensure that no one is contaminated.

- healthy
- infected
- pure
- corrupted

e) Yet never has she felt more vulnerable than now since the unexpected infection of two colleagues in Dallas with the Ebola virus: "We are lacking critical equipment; we are lacking training and practice to treat these patients," she told Deutsche Welle.

- safe
- protected
- ready
- exposed
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<tr>
<td>2</td>
<td>Ihre Angst ist groß und ihre Empörung ist es auch: Jowita Lynn hat 10 Jahre als Krankenschwester in der Notaufnahme gearbeitet und kennt das harte Geschäft der Notfallmedizin.</td>
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<td>4</td>
<td>Jowita Lynn arbeitet für das katholische Providence Hospital in Washington, mit mehr als 400 Betten eines der größeren Krankenhäuser in der US-Hauptstadt. In seiner Selbstverpflichtung verweist es darauf, dass es seinen Patienten die bestmögliche Versorgung angedeihen lassen will, und das im Geiste von christlicher &quot;Freude, Sorgfalt und Respekt&quot;. Lynn ist sich da nicht so sicher. Vor allem sieht sie wenig Respekt und Fürsorge der Krankenhausleitung für die Mitarbeiter:&quot;Ehrlich gesagt glaube ich nicht, dass das Management die ganze Ebola-Sache ernst nimmt&quot;.</td>
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haben wir mit Screenings reagiert und die Leute nach ihren Reisen gefragt. Seit dem Fall in Dallas haben wir sehr schnell unsere Schutzmaßnahmen überprüft, weitere Pläne gemacht und letzte Woche damit begonnen, mit unseren Mitarbeitern den Umgang mit Schutzkleidung und die Reinigung von Räumen zu üben."

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<th>6</th>
<th><strong>Zu spät mit Trainings begonnen</strong></th>
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<td>Hill gesteht allerdings ein, dass sein Krankenhaus zu spät mit den Trainings der Schutzmaßnahmen begonnen hat. Erst relativ spät, nach der Infektion der ersten Krankenschwester in Dallas, habe man erkannt, dass man &quot;mehr&quot; machen müsse. &quot;Wir dachten wirklich, dass die bereits eingeführten Schutzmaßnahmen angemessen wären&quot;, versucht er den zeitlichen Verzug zu erklären. &quot;Wir mussten lernen, dass dieses Virus hochinfektiös ist und Patienten besonders kurz vor ihrem Tod einen unglaublich hohen Anteil an Viren in sich tragen.&quot;</td>
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| 7 | **Das Johns Hopkins-Krankenhaus übt laut Hill mit seinem medizinischen Personal das sogenannte "Buddy-System", bei dem drei Mitarbeiter involviert sind, wenn der Krankenpfleger seine Schutzkleidung anzieht: "Einer, der die Vorschriften vorliest und sicherstellt, dass die Schutzkleidung vorschriftsmäßig an- und ausgezogen wird. Ein Zweiter, der auch Schutzkleidung anhat und nichts anderes macht, als aufzupassen, dass es zu keiner Kontaminierung kommt". Der Dritte ist schließlich der eigentliche Pfleger, der mit dem Patienten in Kontakt kommt.** |

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<th><strong>Harte Kritik an der US-Seuchenschutzbehörde</strong></th>
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Von der zentralen US-Seuchenschutzbehörde CDC in Atlanta, die Krankenhäuser und lokale Gesundheitsämter mit Empfehlungen versorgt, fühlt sich Hill kompetent unterstützt.

Anders sieht das Jowita Lynn. Die Umsetzbarkeit der CDC-Empfehlungen sieht sie nicht gewährleistet: "Das CDC ändert dauernd seine Ansichten. Und mein Krankenhaus hat es noch nicht einmal geschafft, die ursprünglichen Regeln umzusetzen, geschweige denn die nachfolgenden." Lynn kommt zu einem harten Urteil: "Wir haben nichts, womit wir arbeiten können."

Zudem habe man in ihrem Krankenhaus in Washington die CDC-Empfehlungen nur als Ausdrucke in die Hand bekommen, ohne dass es eine Unterweisung, geschweige denn ein Training gegeben hätte.

"Wir lernen laufend hinzu"

Hugh Hill hat hingegen Verständnis für die sich ändernden Handreichungen der US-Seuchenschutzbehörde. "Wir lernen über diesen Virus laufend hinzu. Und ich denke, alle Experten in den USA sagen, dass wir unsere Reaktion auf die Krankheit nachjustieren müssen, nach dem, was wir in Dallas erlebt haben."

Nur vier Krankenhäuser in den USA haben die höchstmöglichen Sicherheitsstandards, darunter die in Atlanta und Washington, in die jetzt die beiden Ebola-Patienten verlegt wurden. Andere große Krankenhäuser hätten auch gute, aber "nicht perfekte" Möglichkeiten, Patienten zu isolieren, meint Hill. Da die vier hochspezialisierten Krankenhäuser nur eine begrenzte Bettenzahl zur Verfügung hätten, seien weiterhin auch Krankenhäuser wie das seinige in Baltimore gefordert, sich bestmöglich zu rüsten. Dabei gibt es laut Hill kein einheitliches Vorgehen in den USA, sondern jedes Krankenhaus arbeitet individuell an der Vorbereitung für den Notfall.

Fehler sind immer möglich

Man werde aber niemals perfekt sein, gibt Hill zu bedenken. "Wir können uns nur an Perfektion annähern“. Er versteht sehr gut, dass die Menschen in den USA besorgt sind, aber seine Mitarbeiter und er würden weiterhin zur Arbeit kommen, auch wenn sie sich jetzt noch mehr der Gefahr bewusst seien.
"Das ist meine Arbeit, das ist mein Leben, das ist was mich ausmacht," sagt er. Vor einigen Jahren habe er seiner Familie bei einer ähnlichen Situation erklärt, "dass Dad für einige Tage nicht nach Hause kommt. Und im extremsten Fall kann es auch sein, dass er gar nicht mehr nach Hause kommt."

Übungen:

1. Nachdem Sie den Text gelesen haben, beantworten Sie die folgenden Fragen:
   a) Laut dem Artikel, was sind die wichtigsten Gründe dafür, dass die Menschen in den USA Ebola befürchten?
   b) Warum haben die Krankenschwester und der Arzt Angst vor dem Virus?
   c) In eigenen Wörtern erklären Sie die Bedeutung des Ausdrucks "Buddy-System"?
   d) Ergreift die US-Seuchenschutzbehörde viele Massnahmen, um die Ausbreitung der Krankheit zu verhindern? Warum (nicht)?
   e) Erklären Sie die Bedeutung des Ausdrucks "Wir lernen laufend hinzu"?
   f) Was ist die Reaktion der Pflegekräfte auf die Ebolaandrohung? Sind sie bereit, sie zu begegnen? Begründen Sie Ihre Antwort.

2. Ergänzen Sie die Sätze mit dem am besten geeigneten Wort oder Satz aus dem Artikel. Vergessen Sie nicht, die richtige Zeitform zu verwenden:
   a) Nun heisst es, die praktische _______________ der Ideen zu prüfen. (Paragraph 9)
   b) Im US-Bundesstaat Missouri hat die Polizei einen unbewaffneten Jugendlichen erschossen. In der US-Bevölkerung rollt nun eine Welle der _______________ los. (Paragraph 2)
   c) Die Navajo Indianer wohnen hier schon seit vielen Jahrhunderten, dem _______________ Klima und der Trockenheit zum Trotz. (Paragraph 9)
   d) Das Checkout-Prinzip am Ende jedes Tages in Verbindung mit dem _______________ war eine Hauptmotivation für die Seminarteilnehmer. (Paragraph 7)
   e) Das _______________ des TracSwitch Arena erfolgt erst nach dem Einbau. (Paragraph 11)
3. Um diese Aufgabe zu schaffen, müssen Sie die Bedeutung des Wortes verstehen, wie es in dem Absatz verwendet wird. Welche Wörter oder Sätze sind am nächsten in der Bedeutung zu den Wörtern im gelben:

a) Da die vier hochspezialisierten Krankenhäuser nur eine begrenzte Bettenzahl zur Verfügung hätten, seien weiterhin auch Krankenhäuser wie das seinige in Baltimore gefordert, sich bestmöglich zu rüsten. Dabei gibt es laut Hill kein einheitliches Vorgehen in den USA, sondern jedes Krankenhaus arbeitet individuell an der Vorbereitung für den Notfall.

- gleichartig
- abgeteilt
- unsicher
- einzeln

b) "Uns fehlt es an entscheidender Ausrüstung, es fehlt an Training und Übung, um diese Patienten zu behandeln", sagt sie der Deutschen Welle und man spürt, dass sie damit nicht nur die harte Kritik ihrer Gewerkschaft und die in Umfragen steigende Unzufriedenheit der Amerikaner mit dem Krisenmanagement der Gesundheitsbehörden und Krankenhausleitungen wiedergibt.

- Freude
- Unruhe
- Vertrauen
- Vergnügen

c) "Und ich denke, alle Experten in den USA sagen, dass wir unsere Reaktion auf die Krankheit nachjustieren müssen, nach dem, was wir in Dallas erlebt haben."

- in Unordnung bringen
- angleichen
- annehmen
- nicht passen
d) Ein Zweiter, der auch Schutzkleidung anhat und nichts anderes macht, als aufzupassen, dass es zu keiner **Kontaminierung** kommt.

- Gesundheit
- Infizierung
- Reinheit
- Bestechung

e) Doch noch nie hat sie sich so **schutzlos** gefühlt wie jetzt seit der unerwarteten Ansteckung zweier Kolleginnen in Dallas mit dem Ebola-Virus.

- sicher
- geschützt
- fertig
- ausgesetzt (exponiert)
### ONUS ON YOU: WHO WILL FOLLOW THE WHO'S NEW EUROPEAN CODE AGAINST CANCER?

<table>
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<th>Prevention is everything in the fight against cancer. Now health experts have published a list for European individuals: These 12 life-style choices can prolong your life.</th>
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<td>Smoking can increase your risk of developing lung cancer. We have known that for a while now. So it's not exactly rocket science to say that staying away from cigarettes and second-hand smoke is healthy.</td>
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<td>And as far as advice goes, it's top of the list. Not just any list - but a new 12-step European Code Against Cancer launched by the International Agency for Research on Cancer (IARC) on Tuesday. Compiled in collaboration with the European Commission, the authors of the code say they want to share the latest information about how to prevent cancer, and they want to promote healthy lifestyles across Europe.</td>
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<td>4</td>
<td>In an interview with DW, IARC director Dr. Christopher Wild said the number of cancer cases in the EU was rising. &quot;We are not going to be able to just treat our way out of this,&quot; Wild stated. He said the European Code Against Cancer is an attempt to explain to people in the EU how to prevent cancer. &quot;It is based on science but in a language which is clear and direct.&quot;</td>
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<td>5</td>
<td>The twelve rules are indeed easy to understand. Number one and two on the list are: &quot;Do not smoke&quot; and &quot;Make your home smoke free.&quot; The advice to maintain a &quot;healthy body weight&quot; through regular exercise, and to eat healthily with whole grains, vegetables and fruits, follows close behind.</td>
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<td>6</td>
<td>Next on the list is alcohol: &quot;If you drink alcohol of any type, limit your intake.&quot; Then we're told to avoid too much sun (and &quot;do not use sunbeds&quot;), and to protect ourselves against cancer-causing substances in the workplace.</td>
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<td>7</td>
<td>But it's only further down, at number 10, that we come to less commonly-known advice. Under the heading &quot;for women,&quot; the code says that &quot;breastfeeding reduces the mother's cancer risk.&quot;</td>
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<td>8</td>
<td>At number 11, the code urges parents to &quot;ensure your children take part in vaccination programs for hepatitis B,&quot; a virus that attacks the liver and can cause liver cancer. The code also says girls should receive vaccination against the human papillomavirus (HPV), but it does not say the same for boys, even though they are also at risk.</td>
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"We've focused on girls because that's where the biggest impact can be had," said Wild. "And we should remember that in some of the newer EU countries, like Romania and Bulgaria, we've got cervical cancer rates which are similar in scale to those in sub-Saharan Africa."

Experts say a guide such as this can give the public a tool to deal with its fear of cancer. In Britain, for example, a 2010 survey by the charity Cancer Research UK found cancer to be the number one fear among adults aged 16 and older. Twenty percent of the population feared cancer more than debt, knife crime, Alzheimer's Disease and unemployment.

Not smoking is the best way to decrease the risk of lung cancer. The German Cancer Research Center in Heidelberg (DKFZ) says not smoking decreases the risk of lung cancer by 90 to 95 percent. Other risk-factors may be considered statistically less important, but they include working with asbestos or inhaling certain kinds of dusts.

The code clearly places the responsibility for healthy living on the individual, but Wild said it's for health professionals and governments as well. "There is a question about how the code will have any impact," the researcher said, "and we've tried to address that by making it a one-stop-shop, where people can come for reliable evidence based on science."

But if, as the code says, smoking and sunbeds are dangerous and can cause cancer, shouldn't we aim to close these businesses down? "You're pushing from the science into what would be a government-level action and what we wanted to say with the code was, 'how far does the scientific evidence take us,' and then it is up to governments to take action to protect their populations," Wild said. "I certainly would not be satisfied if the code is simply aimed at individuals," he continued. "We want it to lead to a groundswell of opinion about the need to tackle cancer, and in particular prevention because, I think, that's been neglected."

Exercises:

1. After reading the text, answer the following questions:
   a) According to the article, what is the aim of the new 12-step European Code Against Cancer?
   b) Name at least three pieces of advice given in the Code.
c) According to the article, who is responsible for the health of individuals?
d) Explain the correlation between the science and the government action using the example of the Code?
e) Explain the meaning of the phrase "This (the Code) can give the public a tool to deal with its fear of cancer".
f) What is the ultimate goal of this Code?

2. Complete the sentences below with the most suitable words or phrases from the article. Don't forget to use the correct tense form:
a) She hid the phone as Dylan glanced over his shoulder again to ____________________ she followed. (paragraph 8)
b) In government laboratories and elsewhere, scientists are seeking a drug to be able to ________________ life and youthful vigor. (paragraph 1)
c) These far-reaching effects illustrate the profound ________________ air pollution can have on the land. (paragraph 9)
d) According to the widespread belief, females are underrepresented at the local ________________ ________________. (paragraph 13)
e) Automation of production poses a threat of ________________ for many unskilled workers. (paragraph 10)

3. To complete this task, you need to understand the meaning of the word as it is used in the passage. Which words or phrases given are closest in meaning to the following words:
a) Smoking can increase your risk of developing lung cancer. We have known that for a while now. So it's not exactly rocket science to say that staying away from cigarettes and second-hand smoke is healthy.
- new
- passive
- direct
- unique
b) "There is a question about how the code will have any impact," the researcher said, "and we've tried to address that by making it a one-stop-shop, where people can come for reliable evidence based on science."
- providing interesting information
- providing information in different locations
- providing trustworthy information
- providing information in one location

c) Not smoking is the best way to decrease the risk of lung cancer. Other risk-factors may be considered statistically less important, but they include working with asbestos or inhaling certain kinds of dusts.
- breathing in
- adapting to
- breathing out
- accepting

d) "You're pushing from the science into what would be a government-level action and what we wanted to say with the code was, 'how far does the scientific evidence take us,' and then it is up to governments to take action to protect their populations," Wild said.
- remain passive
- to get infected
- to become involved
- to abandon

e) "I certainly would not be satisfied if the code is simply aimed at individuals," he continued. "We want it to lead to a groundswell of opinion about the need to tackle cancer, and in particular prevention because, I think, that's been neglected."
- a minority
- a rapid decrease
- a number
- a rapid spontaneous growth
### WIE SIE KREBS VORBEUGEN KÖNNEN

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<tr>
<th>1</th>
<th>Wenn es um Krebs geht, ist Vorbeugung alles. Gesundheitsexperten der WHO haben jetzt eine Liste herausgegeben: Diese zwölf Verhaltensregeln können Ihr Leben verlängern.</th>
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<tr>
<td>2</td>
<td>Rauchen erhöht das Risiko, an Lungenkrebs zu erkranken, enorm. Kein Wunder also, dass der Verzicht auf Zigaretten und alle andere Tabakprodukte eine gute Wahl ist. Aber das ist nicht der einzige gesunde Ratschlag.</td>
</tr>
<tr>
<td>3</td>
<td>Die Internationale Agentur für Krebsforschung (IARC), eine Einrichtung der Weltgesundheitsorganisation in Lyon, hat in Zusammenarbeit mit der EU-Kommission eine &quot;europäische Vorschrift gegen Krebs&quot; herausgegeben. Der Ratgeber stellt Informationen bereit, wie Menschen in Europa durch einen gesunden Lebensstil Krebs vorbeugen können.</td>
</tr>
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<td>6</td>
<td>Erst dann folgen Ratschläge, die noch nicht jedem bekannt sind, beispielsweise, dass Stillen das Krebsrisiko der Mutter senkt und dass Kinder gegen Hepatitis B geimpft werden sollten. Dieses Virus befällt die Leber und durch eine chronische Leberentzündung können Entartungen entstehen - Leberkrebs ist die Folge.</td>
</tr>
<tr>
<td>7</td>
<td>Der Ratgeber will der Bevölkerung ein Werkzeug an die Hand geben, mit dem sie sich mit dem gefürchteten, todbringenden Feind auseinandersetzen kann. In Großbritannien beispielsweise ist die Angst vor Krebs unter Erwachsenen ab 16 Jahren weit verbreitet. Laut einer Umfrage der Wohltätigkeitsorganisation Cancer Research UK aus dem Jahre 2010 steht die Angst vor Krebs mit 20 Prozent aller Befragten auf Platz eins. Die Briten...</td>
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fürchten sich laut Umfrage mehr vor Krebs als vor Schulden, Messerstechereien - in Großbritannien ein großes Kriminalitätsproblem - Alzheimer und Jobverlust.

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<td>9</td>
<td>Viele dieser Krebserkrankungen wären vermeidbar. Laut Deutschem Krebsforschungszentrum (DKFZ) in Heidelberg haben Nichtraucher ein etwa 90 bis 95 Prozent geringeres Lungenkrebsrisiko. Andere, statistisch weniger wichtige Risikofaktoren für Lungenkrebs seien Asbest- und weitere Stäube, die beispielsweise Steinmetze einatmen.</td>
</tr>
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<td>10</td>
<td>Der Ratgeber richtet sich nicht nur an Individuen, sagt Christopher Wild. &quot;Wir hoffen, dass Mediziner und Regierungen sich die Liste ebenfalls ansehen und sie als Basis nehmen, um Prioritäten bei Krebskontrollmaßnahmen zu setzen.&quot; Solche Maßnahmen seien beispielsweise strengere Nichtraucherschutzgesetze oder das Verbieten von Solarien.</td>
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<tr>
<td>11</td>
<td>In Deutschland liegt die Zahl der Krebsfälle im europäischen Durchschnitt. Lungen- und Dickdarmkrebs sind verantwortlich für die meisten Krebstode. Bei den Männern kommt noch der Prostatakrebs hinzu, bei Frauen führt der Brustkrebs die Liste an.</td>
</tr>
<tr>
<td>12</td>
<td>Auf sein Gewicht zu achten, ist eine gute Art, Krebs vorzubeugen, sagt Rudolf Kaaks, Epidemiologe am DKFZ. Denn Fettgewebe schüttet Hormone aus, die den Stoffwechsel anregen. Das führt zu mehr Zellteilungen - so können auch Krebszellen entstehen.</td>
</tr>
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</table>
Übungen:

1. Nachdem Sie den Text gelesen haben, beantworten Sie die folgenden Fragen:
   a) Laut des Artikels, was ist das Ziel des Ratgebers "Europäische Vorschrift gegen Krebs"?
   b) Nennen Sie mindestens drei Ratschläge aus der Vorschrift.
   c) Laut des Artikels, an wen richtet sich dieser Ratgeber? Warum?
   d) Erklären Sie die Bedeutung des Satzes "Eine geringe Risikozunahme bei vielen Menschen ist genauso schlimm wie eine starke Risikozunahme bei wenigen Menschen."?
   e) Erklären Sie die Bedeutung des Satzes "Der Ratgeber will der Bevölkerung ein Werkzeug an die Hand geben, mit dem sie sich mit dem gefürchteten, todbringenden Feind auseinandersetzen kann."?
   f) Was ist das Endziel des Ratgebers?

2. Ergänzen Sie die Sätze mit dem am besten geeigneten Wort oder Satz aus dem Artikel. Vergessen Sie nicht, die richtige Zeitform für die Verben zu verwenden:
   a) Denken wir nun an die Angst, die sowohl Einzelne als auch Bevölkerungsgruppen ___________________. (Paragraph 6)
   b) Ich nutze die G-Data Internet Security CBE von der Heft-CD/DVD und muss die Lizenz _________________. (Paragraph 1)
   c) Die beste Gesundheitsstrategie lautet "____________________ ist besser als Heilen." (Paragraph 3)
   d) Sowohl in Europa als auch in den USA ist die _______________________ ein großes Problem. (Paragraph 13)
   e) Innerhalb der ersten drei Monate nach einem _____________________ ist die Chance, einen neuen Arbeitsplatz zu finden (Paragraph 7)

3. Um diese Aufgabe zu lösen, müssen Sie die Bedeutung des Wortes verstehen, wie sie in dem Absatz verwendet wird. Welche Wörter oder Sätze stehen sinngemäß den gelben Wörtern am nächsten:
   a) Der Ratgeber sei ein Versuch, der Bevölkerung in Europa zu erklären, wie sie Krebs _______________________ können.
      - ignorieren
- entgehen
- nachfolgen
- ausüben

b) Sich ungesund zu ernähren und viel Fettgewebe mit sich herumzutragen, erhöht das Risiko für Dickdarm- und Brustkrebs - wenn auch niemals so stark wie Rauchen die Wahrscheinlichkeit hochtreibt, an Lungenkrebs zu erkranken.

- untergehen
- schwanken
- sich halten
- hochheben

c) Andere, statistisch weniger wichtige Risikofaktoren für Lungenkrebs seien Asbest- und weitere Stäube, die beispielsweise Steinmetze einatmen.

- verschneuften
- sich anpassen
- ausatmen
- annehmen

d) Solche Maßnahmen seien beispielsweise strengere Nichtraucherschutzgesetze oder das Verbot von Solarien.

- erlauben
- untersagen
- verlieren
- vermuten

e) Die Briten fürchten sich laut Umfrage mehr vor Krebs als vor Schulden, Messerstechereien - in Großbritannien ein großes Kriminalitätsproblem - Alzheimer und Jobverlust.

- Sicherheit
- Unsicherheit
- Verlust
- Zahlung
AIDS CAN BE BEAT - WITH EDUCATION

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<td>1</td>
<td>The AIDS-Conference in Melbourne has shown that from a medical standpoint, AIDS can be eradicated in less than 50 years. But it isn't possible without protecting and educating high-risk groups, writes Fabian Schmidt.</td>
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<tr>
<td>2</td>
<td>There's good news coming from the World AIDS Conference, which is ending in Melbourne today: experts have the hope that the illness can be eradicated by the middle of this century. But the goal of 2030, which had been set by the conference, seems a bit too ambitious, considering the political reality in many states.</td>
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<td>3</td>
<td>Sure, research has advanced enormously since the turn of the millennium. Today, an HIV-infection is not an automatic death sentence. With well-balanced anti-retroviral medication, the virus can be contained for a long time and patients can lead a relatively normal life - if they can afford it. AIDS medication is still very expensive.</td>
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<td>4</td>
<td>Even more encouraging are new ways - adapted from cancer research - to fight AIDS where it hides. For example, scientists have managed to &quot;lure out&quot; HIV from the cells, so it becomes more vulnerable.</td>
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<tr>
<td>5</td>
<td>But despite all these successes, HIV can only be beat if every human everywhere assumes responsibility for their own actions. Unfortunately, that's still not the case, starting with each individual's sex life. By now, every last person should know that condoms are the best prevention of sexual diseases. But authorities, governments and religious communities also have to create an atmosphere where this knowledge can grow - a space that's open politically, legally and socially.</td>
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<tr>
<td>6</td>
<td>One thing is clear: Treating the illness like a taboo, a lack of sex education, the discrimination of high-risk groups, and ostracizing those who are infected are the main reasons for the fast spread of AIDS, especially in African countries.</td>
</tr>
<tr>
<td>7</td>
<td>A responsible handling of the disease is only possible if everyone knows how the infection is passed on and what the dangers are and if AIDS tests are readily available. Populist governments hunting down risk groups present a grave danger, as do myths about healing AIDS with nature's remedies. Citizens of developing countries must have access to effective AIDS medication. The industrial nations should have no qualms about paying for that.</td>
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<tr>
<td>8</td>
<td>At the same time, it's just as important to use diplomatic and economic tools against</td>
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states that discriminate and persecute minorities and high-risk groups. The same goes for governments neglecting their duty to educate their people. Without respect for human rights and a good education for all citizens, not even the most advanced medical research stands a chance in the battle against AIDS.

Exercises:
1. After reading the text, answer the following questions:
   a) According to the article, in what way has the AIDS research advanced since the turn of the millennium?
   b) What are the main reasons for the spread of AIDS?
   c) What can be done in the developing and developed countries to fight AIDS?
   d) Explain the meaning of the phrase "A responsible handling of the disease is only possible if everyone knows how the infection is passed on and what the dangers are and if AIDS tests are readily available"?

2. Complete the sentences below with the most suitable words or phrases from the article. Don't forget to use the correct tense form:
   a) If we want to _____________ the growing problem of cheating in schools, parents and communities must get behind teachers. (paragraph 1)
   b) Mr. Bryan decided to take the post of the chairman and ________________ the ________________. (paragraph 5)
   c) On the pages of this book are detailed accounts and illustrations of ________________ derived from plants and herbs. (paragraph 7)
   d) If you _____________ to study when you are young, what of your old age? You will be completely uneducated. (paragraph 8)

3. To complete this task, you need to understand the meaning of the word as it is used in the passage. Which words or phrases given are closest in meaning to the following words:
   a) The AIDS-Conference in Melbourne has shown that from a medical standpoint, AIDS can be ________________ in less than 50 years.
      - consolidated
b) One thing is clear: Treating the illness like a taboo, a lack of sex education, the **discrimination** of high-risk groups, and ostracizing those who are infected are the main reasons for the fast spread of AIDS, especially in African countries.

c) A responsible **handling** of the disease is only possible if everyone knows how the infection is passed on and what the dangers are and if AIDS tests are readily available.

d) Even more encouraging are new ways - adapted from cancer research - to fight AIDS where it hides. For example, scientists have managed to "lure out" HIV from the cells, so it becomes more vulnerable.
**AIDS IST BESIEGBAR - ABER NICHT DURCH INTOLERANTE POLITIK**

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<tr>
<td>1</td>
<td>Die AIDS-Konferenz in Melbourne hat gezeigt, dass AIDS medizinisch beherrschbar ist. Das geht aber nicht ohne Schutz und Beteiligung der Risikogruppen, meint Fabian Schmidt.</td>
</tr>
<tr>
<td>4</td>
<td>Vor allem Ansätze aus der Krebsmedizin zeigen neue Wege auf, AIDS bereits im Kern zu bekämpfen: Erstmals ist es geglückt, das HI-Virus medizinisch aus seinem Versteck in den Zellen zu locken und damit angreifbar zu machen.</td>
</tr>
<tr>
<td>7</td>
<td>Eins ist klar: Die Tabuisierung der Krankheit, unzureichende Aufklärung und Schulung, die Diskriminierung von Risikogruppen und die Ächtung von Infizierten sind vor allem in afrikanischen Ländern Hauptursachen für die Verbreitung von AIDS.</td>
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Und natürlich müssen auch die Menschen in Entwicklungsländern Zugang zu wirksamen AIDS-Medikamenten bekommen. Das könnten sich die Industrienationen ruhig etwas kosten lassen.

Aber genau so wichtig ist es, harte diplomatische und wirtschaftliche Hebel gegen Staaten einzusetzen, die Minderheiten und Risikogruppen diskriminieren und verfolgen und ihren Aufklärungspflichten nicht nachkommen. Ohne umfassende Menschenrechte und Bildung kann selbst die beste medizinische Forschung den Kampf gegen AIDS nicht gewinnen.

**Übungen:**

1. **Nachdem Sie den Text gelesen haben, beantworten Sie die folgenden Fragen:**
   a) Laut des Artikels, wie ist die AIDS-Forschung seit der Jahrtausendwende fortgeschritten?
   b) Wie sind die Hauptursachen für die Verbreitung von AIDS?
   c) Was kann man in Entwicklungs- und Industrieländern machen, um AIDS zu heilen?
   d) Erklären Sie die Bedeutung des Satzes "Nur durch genaue Kenntnis der Ansteckungswege und Gefahren und durch das Wissen, ob man selbst oder jemand anderes infiziert ist, wird ein verantwortungsvoller Umgang mit dem Virus überhaupt erst möglich."?

2. **Ergänzen Sie die Sätze mit dem am besten geeigneten Wort oder Satz aus dem Artikel. Vergessen Sie nicht, die richtige Zeitform für die Verben zu verwenden:**
   a) Meldungen über kontaminierte Lebensmittel in Japan verunsichern. Doch Panik ist unnötig, die Gesundheitsgefahr ist noch ___________________. (Paragraph 1)
   b) Wenn du erwachsen bist, musst du _________________ für dein Leben _______________. (Paragraph 6)
c) Die Arbeitgeber haben bei ihren Entscheidungen __________________ deren Auswirkungen auf die Beschäftigung der Arbeitnehmerinnen und Arbeitnehmer und von Arbeitslosen
(Paragraph 8)
d) Auch der ganz kleine Einzelhändler dieser Verpflichtung __________________ muss.
(Paragraph 10)

3. Um diese Aufgabe zu lösen, müssen Sie die Bedeutung des Wortes verstehen, wie sie in dem Absatz verwendet wird. Welche Wörter oder Sätze stehen sinngemäss den gelben Wörtern am nächsten:

a) Die gute Nachricht von der Welt-AIDS-Konferenz, die heute in Melbourne zu Ende geht: Es gibt eine echte Hoffnung, dass die Krankheit noch vor Mitte des Jahrhunderts ausgerottet werden kann.
- entkern
- ausmerzen
- ignorieren
- ausüben

b) Eins ist klar: Die Tabuisierung der Krankheit, unzureichende Aufklärung und Schulung, die Diskriminierung von Risikogruppen und die Ächtung von Infizierten sind vor allem in afrikanischen Ländern Hauptursachen für die Verbreitung von AIDS.
- die Abgrenzung
- die Bewunderung
- die Nachrede
- die Zurückhaltung

b) Nur durch genaue Kenntnis der Ansteckungswege und Gefahren und durch das Wissen, ob man selbst oder jemand anderes infiziert ist, wird ein verantwortungsvoller Umgang mit dem Virus überhaupt erst möglich.
- der Verein
- das passive Verhalten
- der Einfluss
- die Behandlung
d) Vor allem Ansätze aus der Krebsmedizin zeigen neue Wege auf, AIDS bereits im Kern zu bekämpfen: Erstmals ist es geglückt, das HI-Virus medizinisch aus seinem Versteck in den Zellen zu locken und damit angreifbar zu machen.
- anziehen
- erfüllen
- sich vereinen
- vermuten
APPENDIX D
http://www.aids.gov/hiv-aids-basics/hiv-aids-101/what-is-hiv-aids/


VITA

Anna Velezheva was born in Tver, Russian Federation. After completing her schoolwork at Gymnasium #6, Anna entered Tver State University in Tver, Russian Federation. During one semester in 2010 she was enrolled in an exchange program at the University of Mississippi. She received a combined Bachelor of Arts and Master of Arts degree with a major in Linguistics from Tver State University in 2011. During the following three years she was employed as an EFL instructor at a corporate language school in Moscow. In August 2013, she entered the graduate program at the University of Mississippi.