Original Paper

A Study of University Students' Cognitive Competence in Performing the Learning Assignments:

Interdisciplinary and Intercultural Approach

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Abstract

One of the major tasks of today's higher education schools—raising cognitively competent specialists—is still far from completion. Two University professors, a journalist and a psychologist, with different cultural backgrounds, united their pedagogical experience and the results of their long-term studies of the students' cognitive functioning in performing learning assignments. These assignments were analogues of the problems which journalists and school teachers will have to solve eventually in their everyday professional practice. The results showed that most students in each investigated population had poor cognitive skills for working with textual information. Their mistakes in performing course work were systematic and similar. They were caused by an inability to identify key-words which most accurately point to the main ideas of the texts. Such students had no full-fledged understanding of what they read. To denote this phenomenon, the authors used the term "fuzzy thinking". The authors concluded that today's educators' efforts should be aimed at teaching university students to work with textual information professionally. The necessary analytic and semantic skills should be instilled in students in every course, every semester, and throughout all years of university study.

Keywords

university students, cognitive competence, textual information, analytical skills, informational infantilism, semantic thinking, fuzzy thinking

1. Introduction

One of the challenges that higher education schools faces in the epoch of rapid development of information technologies is the formation of cognitively competent specialists. It is expected that such specialists, when dealing with large flows of information, will productively solve scientific and practical problems in various areas of knowledge. At present, the task of raising such specialists is still far from completion. One of the causes for this is insufficient skills in understanding textual information among university students.

Visual computer culture does not supplant the culture of writing and reading. On the contrary, graphic information as well as digital information coexist with texts. As before, texts remain the main type of information which today's students work with. More advanced skills in operating with textual information will be needed for future professionals. Thus, developing these skills is an ultimate requirement for modern university graduates.

This task, if unsolved, can turn into serious social problems preventing progress. These problems can already be found today in representatives of different specialties and in different cultures, even technologically advanced ones. In our work, we discuss how these problems are manifested in students specializing in social sciences and humanities in some universities of USA and Russia.

2. Theoretical Frame

Cognitive Competence (*CC*) is a cumulative and integrative concept. Some authors define *CC* as an ability to adequately perform a task "essential for living on one's own in the society" (Willis, 1996). Other authors add that "it also includes understanding the perspective of others, understanding behavioral norms, and self-awareness" (The W.T. Grant Consortium, 1992). A social aspect of *CC* is reflected in these points of view.

An individual aspect of CC is usually studied by the specialists in context of academic and intellectual achievement, and in their definitions, *CC* is the ability to use logic, analytic skills, and abstract reasoning (Catalano et al., 2002). Some authors add to the latter definition the skills of argument (Yanklowitz, 2013). Yet other authors understand *CC* as "drawing correct inferences from information" (Moshman, 1998).

In psychological works, scholars connect *CC* to thinking. According to Rachel C. F. Sun and co-authors, *CC* includes three types of thinking: rational, critical, and creative. In their opinion, decision making should also be considered a component of *CC* (Sun & Hui, 2012). In other specialists' point of view, an evident proof of *CC* is the development of metathinking (Geiwitz, 1996).

For some Russian authors, *CC* is an ability for and readiness to cognitive growth. They believe that one's ability for self-education displays *CC*. They see reflection of *CC* in such traits of personality as independent acquiring of new knowledge and actualization of one's psychosocial potentials (Lipatnikova & Parshina, 2012).

As we see from definitions presented above, *CC* is usually viewed as a combination of different types of cognitive activity—both simple and complex. With all the variety of these definitions, what remains unchanged, is their direct connection to the phenomenon of problem solving. *CC* manifests itself in the form of developed problem-solving skills.

According to the authors' vision, *CC* is, first, a formal-logical phenomenon. It is necessary to consider such cognitive functions as analysis and synthesis, basic components of formal-logical thinking. They are in a reciprocal relationship: analysis is the deconstructing of information into separate elements, and synthesis is a unification of elements into the whole. However, in practice analysis and synthesis coexist and are even mutually necessary. In their opposition and unity, they are the important cognitive mechanisms underlying *CC*.

Another important type of thinking that is needed for problem solving is semantic thinking. In fact, at all stages of problem solving, an individual must operate with the meanings (Semanticheskiy Analysis, 2018). Adequate operating with the meanings contained in the information is another cognitive mechanism underlying *CC*.

In this paper, authors study *CC* of the university students specializing in social sciences and humanities. *CC* is viewed here as a complex of both logical and semantic skills. Such skills are required for dealing with textual information to perform daily learning assignments either with the use of technological tools or without them.

3. Methodology

The arsenal of tools which any teacher may use for study is small. Not every research method works in the classroom. In fact, the goals of teaching and studying the act of learning are different, often they are opposite. The instructor's function is to model, explain, find mistakes, help to analyze them, and form students' skills in solving various subject problems. However, the researcher must delineate the student's learning activity with all the mistakes and shortcomings without any influence (unless this influence itself is not the subject of the study). The instructor as a pedagogue strives to maximize his/her influence on the students' activities, while the instructor as a researcher minimizes it to exclude artifacts.

The present work is based on methods which allow one to combine the roles of the teacher and the researcher in a learning situation. The professor's conversations with the students during classes and analysis of their homework assignments were the basic techniques for collecting empirical data in the study conducted in a traditional classroom of Lomonosov Moscow State University.

In Touro College & University System, the courses were delivered in the Internet. The same research techniques were used in a virtual classroom. An analysis of the students' assignments was carried out with the use of a simplified version of the content analysis (Content Analysis, 2018).

4. Studies

4.1 Titling a Note

In the modern world, which is overwhelmed with information, people, when looking at a title, want to understand what a publication is about and whether it makes sense to read it. Of course, the publications must meet the needs of the audience (Gilyarevsky, 2003). The titles should be informative that is, it should provide the fullest possible reflection of the publication's content (Inshakova, 2017). Informative titles for printed and electronic issues are important for all areas of mass communication: education, religion, culture, and even advertising, in which the accuracy of the commercial proposal determines the response of a future consumer.

Dr. Natalia Inshakova, professor of philology, proposed these sorts of assignments to the students when she was teaching the topic "Work on the title" in her course *Basics of Editing Media Texts* in the Journalism Department of Moscow University.

4.1.1 Goal

Testing whether students could apply knowledge gained in lectures into practice. Namely, how well they learned the strategy of creating titles for newspaper or magazine notes.

4.1.2 Task

    A.   Classification of students' answers

    B.   Determining possible causes of students' failure in solving the task.

4.1.3 Participants

There were 198 senior undergraduate students (4th year), who participated in this research. They attended the same course in different semesters of 2013-2018.

4.1.4 Procedure

Dr. Inshakova specified features and values of the informative titles in her lectures and demonstrated informative titles on numerous examples during practicums. The students were familiarized with the strategy for analyzing titles and the algorithm for constructing meaningful adequate titles (Gendina, 2013). After that, students received a small newspaper's note for their homework. Its title did not adequately reflect its content. The text of the note is present in Figure 1. Students were instructed to determine whether the title was informative and, if not, propose their own, more informative option.

4.1.5 Correct Solution

To formulate the title, it is necessary, first, to determine the topic of the note because they are very closely connected. To determine the topic, the three main concepts should be found in the note: the subject of activity, the object of activity, and the event. These main concepts have their indicators in the text. Identifying the textual indicators is a key to solving this kind of problem, because the informative title is based on textual indicators of the topic's main concepts. The note, the main concepts, and their textual indicators (highlighted in colors) are illustrated in Figure 1.
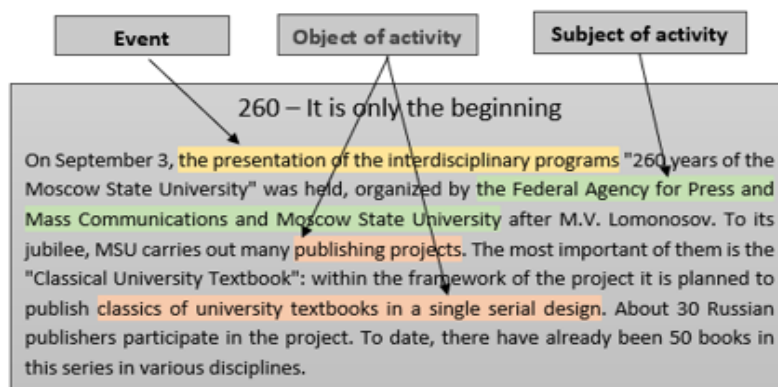
Figure 1. The Note and a Sample of Its Correct Analysis

The most complete and correct version of the title is: "Presentation of Publishing Programs for the 260th Jubilee of Moscow State University: Project *Classical Textbook for the University*".

4.1.6 Results

The students' answers belonged to 4 types: correct, incomplete, incorrect, and unspecified. Answers were considered correct if the students proposed informative titles which reflected the essence of the note to the greatest degree. Answers were considered incomplete if students, although determined the specific aspects of the topic, proposed non-informative titles. Answers were wrong, when students did not manage the task and offered rather an advertising title. The "No answer" category was connected to students who refused to perform the task.

These research results are present in the Table 1. Percentage scores for all types of answers are shown in the A column, and examples of the titles created by the students—in the B column.

Table 1. The Types of Answers with Percentage Scores and Examples

	A	B
Correct	5%	"Federal agency presents a new publishing project for the University jubilee"
Incomplete	25%	"Textbooks for the University jubilee"; "Moscow University: publishing projects"
Incorrect	30%	"In the jubilee with a new textbook"; "Age of maturity"; "Learn, learn and learn!"
No answer	40%	–

The students, which provided no answers, called the title given for the analysis in their homework assignment "quite informative", "good enough" and believed that "in general, nothing is wrong with unclear and vague titles". "If the people need, they will read the note and understand what it is about", —these students declared. Many of them were also convinced that "to attract attention of the

readers is more important than anything else". "You want, they were saying to their professor, us to come up with boring titles, but titles must not be boring!"

4.1.7 Discussion

Not all students were able to apply the knowledge gained in lectures to the solution of a practical problem. Almost two thirds of the investigated population did not master the thinking strategy needed to accomplish the task and did not find text indicators of the three main aspects of the topic: the object of action, the subject of the action, and the events.

A quarter of the investigated population, although they managed to find some textual indicators, admitted that it was very difficult for them to analyze the note and find main concepts of the topic. Identifying the event described in the text turned out to be especially hard. When discussing with the students the results of their homework, the instructor asked, "What is the note's main event?", the most common answers were "publishing projects", "publications for jubilee", and "Moscow University jubilee". From semester to semester, most students were losing sight of the main event—they missed "the presentation".

A special attention is drawn to the fact that 40% of students refused to admit that the original title "260 is only the beginning" was uninformative and inadequately presented the content of the note. The students' subjective criteria of informativeness were wrong. This is very strong evidence that these students lacked the developed skills of logic and semantic thinking. That is their cognitive incompetence prevented them from a successful performance of the task "Titling a note".

4.2 Drawing up an Annotation

The annotation serves for informing the readers about the publication. Annotation is derived from the Latin word *annotatio* (note). It is a brief description of a publication's content and form: it contains the publication's main characteristics. In fact, any book or article in mass media, art, or science, may be accompanied by an annotation; in the English-language, in scientific journals, it is usually called the *abstract*. For some majors, including journalism, an annotation is an obligatory element for the qualification works.

Dr. Natalia Inshakova proposed this sort of assignments to the students in her course *Basics of Editing Media Texts* at Journalist Department of Moscow University.

4.2.1 Goal

Testing the students' knowledge of the theoretical approach and requirements for creating annotations.

4.2.2 Task

    A. Determining possible causes of students' failure in:

        a) analyzing another's annotation provided by their instructor

        b) creating one's own annotations

4.2.3 Participants

192 undergraduate students, seniors (the 4th year), participated in this research. They attended the same course *Basics of Editing Media Texts* in different semesters of 2013-2018.

4.2.4 Procedure

Dr. Inshakova familiarized her research participants with requirements for writing an annotation. First, in her lecture, she discussed with the students aspects of the text which are mandatory for inclusion into annotation: author (compiler, translator), genre, content, year of publishing, the composition of a reference apparatus, specifics of publishing and printing form, the reader's address (Basic Standards for Publishing, 2010). Second, she informed the students about methodology of composing annotations (Suminova, 2001; Baryakina, 2018; Nikitenkova, 2018). Third, students found out the requirements for the literary format of annotation (Methodology of Composing Annotation, 2006). Additionally, restrictions were explained to the students that it is a necessity to avoid stamps, citations of the annotated work, and exceeding the normative volume (600 characters).

After all this, students were offered an annotation to a published novel with a bibliographic description of the book: "*Till We Have Faces* is a philosophical parable, a "retold myth", by the author's own definition. The eternal story of Amur and Psyche raises eternal questions about the fate of man and the nature of love and gives answers to them. 220 characters." Lewis C. (2010). *Till we have faces*. Translated from English by I. Kormiltsev. Moscow: Foreign Literature; B.S.G. PRESS. 304 p.

Students were asked to find errors in the annotation given and propose one's own, more informative options. Acquaintance with the book was not a prerequisite. The use of the Internet electronic libraries for getting more information about the book and its author and translator was recommended.

4.2.5 Results

The analysis of the data showed the following:

    A. 63% of investigated population managed the task assigned;

    B. 37% of investigated population did not complete the task at all or did it wrong;

    C. 30% of students were able to detect errors in someone else's annotations, but they could not compose their own;

    D. 33% of students drew up informative annotations which met most formal requirements;

    E. The most common mistakes in students' annotations were a/an:

        a) absence of the main book's characteristics (for example, on the account of its content);

        b) excessive amount of insignificant details and/or mandatory data (about the author, the circumstances of the creation of the work, etc.);

        c) lack of language discipline (verbosity, repetitions, many words with undefined meaning).

4.2.6 Discussion

The short annotation given to students for their homework followed only two formal requirements: it had the textual indicators of the book genre ("philosophical parable") and its content ("eternal story of Amur and Psyche"). That's why almost the two third of the investigated population completed the first

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part of the assignment. What is more, almost all these students noticed that in the proposed sample there were no names of the author and translator, and no year of the novel's publication. Many students found that such a characteristic as a nominative volume is also absent in the annotation. Very few students paid attention to the absence of the readers' address, what can be easily interpreted: the readers' address is considered one of the most complicated concepts.

However, most of those who completed the first part of the assignment still failed with the second part of it. Only 33% of the investigated population was able to compose an informative annotation which met from 6 to 9 formal requirements. The matter is that the task of finding the textual indicators in the annotation provided is easier than the task of searching of such textual indicators in a huge array of Internet data. The first task is ordinary, the second is creative. To solve the first one, analytical thinking skills are needed. To solve the second—the entire wide range of cognitive skills including informational competence is required. The fact that most students did not manage the task of compiling their own annotations on the given topic indicates their cognitive unpreparedness for solving such problems and their informational infantilism.

One of the best samples of created annotation by the students-journalists is shown in Figure 3. The textual indicators of the main concepts of the topic are highlighted. Its text reflects 7 concepts and can be considered informative.
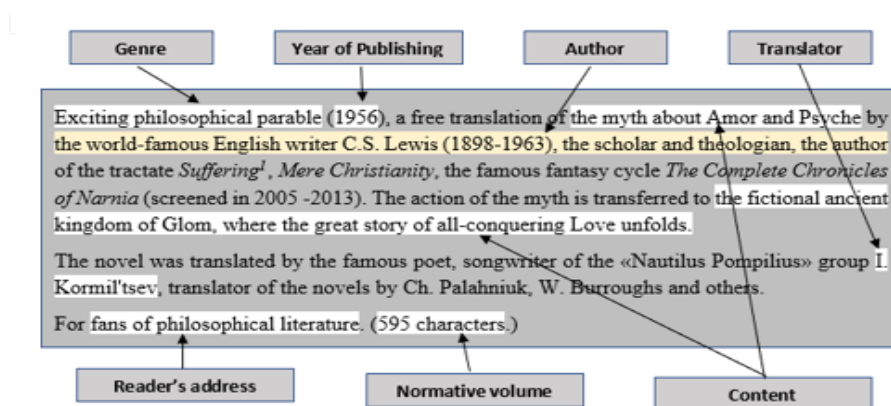

Figure 2. An Informative Annotation and a Sample of Its Correct Analysis

4.3 Identifying Key-Words

The tradition to ask the questions on a topic that is being studied and thus check mastering knowledge by the students is the most popular in the global teaching practice. In modern pedagogy, the evaluation of the quality of students' answers, oral as well as written, remains among the most effective. Today's distant Internet-based courses with their written and mostly asynchronous communication productively develop this method through visualization. The student has an opportunity to reflect and better comprehend one's response messages, and the teacher—to see the style of the student's thinking on the computer screen.

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Dr. Anna Toom, a professor of psychology, proposed this sort of assignment to her students when she was teaching the online course *Child Development and Learning in Cultural Contexts* in Graduate School of Education at Touro College & University System.

4.3.1 Goals

    A. Developing instructional methodology for detecting how well students understand and assimilate the scientific and educational texts proposed as readings in the course.

    B. Applying a traditional pedagogical method of "Ask a question—receive an answer" to a new learning environment, i.e., in online courses.

    C. Introducing a concept of "textual key-components" for analysis by students of their own answers.

4.3.2 Tasks

    A. Classifying errors in students' answers

    B. Explanation of causes of these errors

    C. Testing reliability of the results

4.3.3 Participants

Fifty-six students who took Dr. Toom's online course *Child Development and Learning in Cultural Context* in the spring semester of 2016 participated in the study. There were two sections of the same course, 28 students in each.

4.3.4 Procedure

We studied the topic "Applying Behaviorism in Today's Classroom". Students had read assigned articles, chapters of the books, and/or watched educational video clips. Then, they answered the following question in writing: "How are scientific findings of behaviorists reflected in your own teaching practice?" Finally, in accordance to the professor's instruction, they bolded or highlighted words, phrases, or sentences in their answers which most accurately pointed to the correct (from their point of view) answer.

4.3.5 Results

There is a set of key elements which stipulated the correct answer for this question: Skinner, operant conditioning, reward, punishment, reinforcement, learning, new skills. Subsequently, the conclusion about the correctness of the students' answers was made based on their comparison with this data.

4.3.5.1 Categories of Answers

Four categories of students' answers can be distinguished by the nature of keyword extraction. In the students' answers, key-elements were: a) highlighted mostly correctly (A category), b) highlighted mostly incorrectly (B category), c) were not highlighted at all, even if they were present (C category), d) whole paragraphs of more than 40 words were highlighted as key-elements (D category). These results are illustrated in Figure 3. KCT is an abbreviation of the concept "key components of the text".
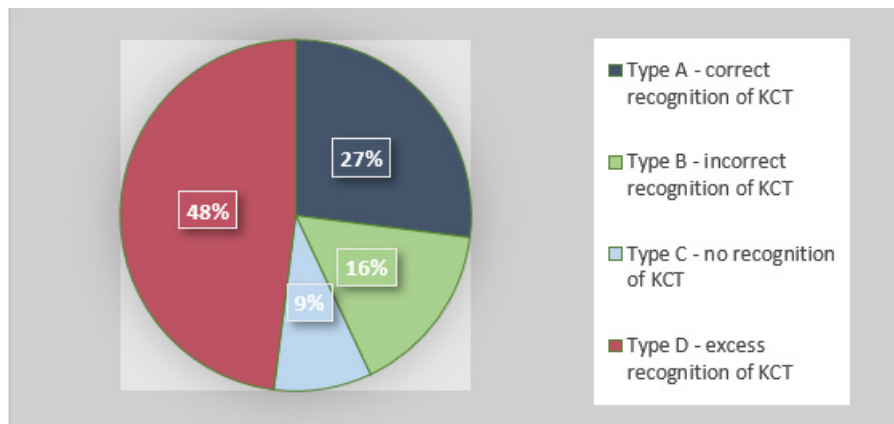
Figure 3. Distribution of Students between Categories of Answers in the Learning Task for Identifying Key-Components of the Text; Spring of 2016

4.3.5.2 Types and Causes of Errors

Only the A category students found key-components in their written answers. This indicated their developed skills to analyze and synthesize the textual information and operate with its meanings. They had in-depth understanding and comprehension of the readings provided for the task. These students were cognitively competent.

The study participants which highlighted non-key units of the texts instead of key-components belonged to the B category; they showed weak skills in analyzing and synthesizing information. We can state that they had poor understanding of the texts. These students were rather cognitively incompetent for solving the task.

Those who did not highlight anything in their answers belonged to the C category; they either didn't find or ignored the instructions for completing the task or didn't understand the task, which, apparently, was outside of their "zone of proximal development" (Vygotsky, 1978, p. 86). It was determined that they had poor discipline of mind, which indicated their cognitive incompetence.

The D category participants whose answers contained large arrays of the texts (in other words, were excessive) could not actually separate the key words from non-key words. We can state that they had insufficient skills to analyze and synthesize the textual information and operate with meanings. Their understanding of the texts was superficial. They were also cognitively incompetent for solving the task.

4.3.5.3 Reliability of Results

Distribution of the students between the categories of answers is illustrated in Figure 4. Results are represented for each section of the course separately and shown in percentages. It appeared to be consistent in both sections of the course. Such a similarity of graphic composition for different groups of students indicates the reliability of the results.
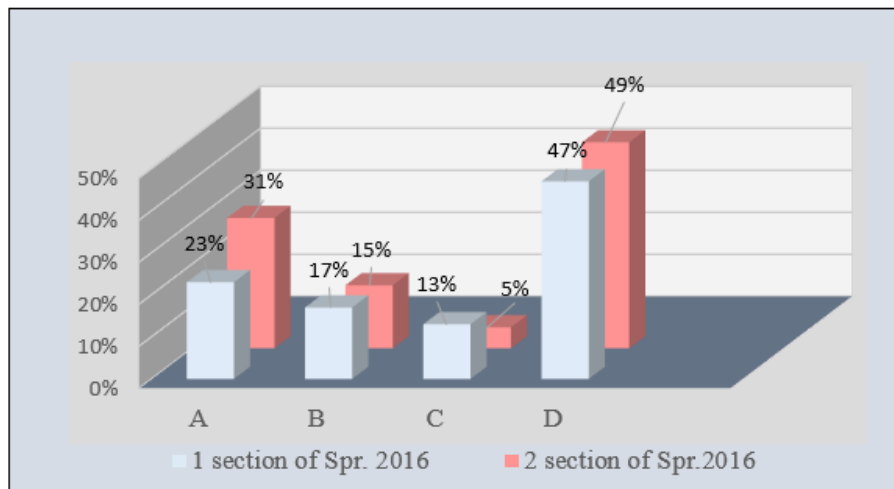
Figure 4. Distribution of the Students between Categories of Answers across the Two Sections; Spring of 2016

4.3.6 Discussion

Trying to find keywords in the text to correlate to their own answer, less than one third of students (27%) solved the problem correctly. The majority of students either saw irrelevant words/phrases as keywords, or did not see keywords at all, or saw too much of them. Seventy three percent (73%) of investigated population did not manage the task at all. This is an alarming fact. The phenomenon requires serious attention and continuing investigation.

Let's consider students' excessive answers. This category of students is the most numerous and made up almost half (48%) of the investigated population. According to the author of the study, many of these students were non-self-confident and believed that the more words they singled out the better because the quantity might somehow turn into quality, and their answer would be considered correct. However, there were others who purposely or involuntary tried to hide their ignorance behind the abundance of words.

In any case, these students failed to distinguish important from unimportant, major from minor, significant from insignificant. Their understanding of the text's content, no matter their own or someone else's, was flat, there was no depth to it. As Gestalt psychologists would say, there were no figures on the background for such individuals: everything was either a solid figure or a solid background (Hergenhahn, 2005). In such students' mentality, many different concepts merge into one undifferentiated, confused picture. No doubt, they were cognitively incompetent.

In Figure 5, a typical answer belonging to such a student (the D category) is shown. The key-components of the text (the theory's name, its author, its basic concepts, and its main application(s) in the classroom) are typed in red (in total 15). In addition, the student highlighted non-key-units in white; they subjectively are considered by this student to be key-components (in total 91).

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The ratio of objective key-components to subjective key-units is a measure of the response informativeness. The closer the ratio approaches "1", the more informative the answer is. The closer the ratio approaches "0", the less informative the answer is. In the example, the ratio is $15/91 = 0.16$, which is close to "0", i.e., the answer is uninformative.
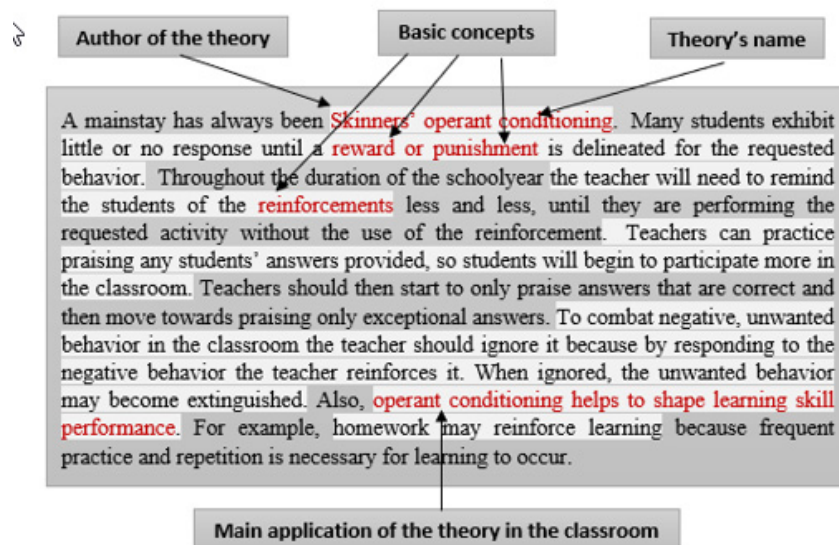

Figure 5. A typical Excessive Answer belonging to a D Category Student

If the number of subjective key-units (words/phrases) is very large in the student's response, then even the presence of objective key-components among them does not allow us to call the answer informative and to conclude that the student completely understood the text. Only the selective identification of objective key-components proves that the text is understood, and the student's answer based on this text is informative and meaningful. In other words, only selective identification of the entire set of objective key-components in the text indicates the student's cognitive competence.

5. General Discussion

The learning tasks offered to students for solution belonged to different fields of knowledge but were similar in their main requirement—to find keywords in the text. As results showed, most of our study participants did not manage this task—they were unable to find textual indicators of the studied key-concepts. This tendency obviously exhibits the students' cognitive incompetence.

This time, students had difficulties in understanding the semantic structure of the mass media, scientific, and educational texts. A few years earlier, in her other study Dr. Toom obtained a similar result concerning the students' poor understanding of a literary work—a short story by one of the masters of psychological prose (Toom, 2015). This means that the point is not in the features of the texts, but in the students' inability to perceive and analyze them.

Students' cognitive incompetence manifested itself in a specific character of thinking which we named *fuzzy thinking*. Such students are unable, when reading the texts, to discern primary from secondary, to distinguish essential from non-essential. They cannot set the priorities. Therefore, they have no full-fledged understanding of what they read. Their understanding of the texts' content is flat, there is no depth to it. As our study has shown, this quality of thinking has been demonstrated for many years by students of both prestigious and statistically average universities; it can be found today in both politically and economically advanced countries as well as in the countries undergoing major changes. The phenomenon occurred to be universal.

How did it happen? What can possible be done about it? — It may be assumed that many of the participants of our study had insufficient reading skills. This phenomenon is also universal (Toom & Inshakova, 2018). Nowadays, the visual-audial culture replaces the culture of the printed materials. In the United States, a country of advanced information technology, children avoid reading. Even in Russia, which was considered to be the most reading country in the world, the percentage of children loving the books decreased tremendously in this century. However, the process began much earlier.

Back to the middle of the 20th century, school children were taught to analyze sentence structure, its grammar and syntax during their native language lessons. Because of that, they developed semantic thinking. Indeed, speech and thinking are closely linked (Vygotsky, 1986).

Teaching English in the US has undergone many changes within the last half century. These changes were not always beneficial (Fresh, 1986). It suffices to recall the "Whole Language" method which became "an alternative to any sort of linguistic analysis" (Ravich, 2000, p. 443). They stopped teaching children phonics, grammar and syntax systematically and seriously. Therefore, several generations of American children did not master the skills of syntactic analysis. The founders and adherents of the "Whole Language" reform hardly envisioned what consequences their methodology might lead to and what influence it might have on academic and general cognitive development.

However, the matter is not only in the possible consequences of that reform. Russian youth which participated in our research also had poor skills to analyze and understand texts, although the Russian schools were not affected by the "Whole Language" reform. The teaching of grammar and syntax has always been a necessary component of the school curriculum for the native language learner in Russia.

It is also possible that the quality of teaching changed and affected the quality of learning. According to specialists, the quality of teaching in Russia has deteriorated sharply over the past two to three decades (Ivanov, 2018; Kotova, 2018). The same tendency has been observed in the US (Di Carlo, 2011; Rothwell, 2016; Schneider, 2017; Rushe, 2018; Crawford, 2019; America's schools are crumbling, 2019). The ideology and quality of education in our global world has changed: it is increasingly turning from the institution of knowledge into the institution of bureaucracy.

Whatever the reasons, the fact remains—our university students lack the ability to understand texts deeply, comprehensively and meaningfully. What kind of specialists will they become in the society of rapidly developing information technology? How to prevent future generations from developing fuzzy

thinking (or at least to slow down this process)? The authors strongly believe in the following way to counter this dangerous tendency: it is necessary to teach children to read from an early age and read a lot, offering them the best samples of world literature. If we start teaching our kids literacy at the same time as all primary psychophysical skills, if letters and words, as with toys, become the subjects of their everyday life and play, if reading becomes for them as natural as breathing, walking and talking, and if we encourage them to be intelligent and productive readers at home and, what is especially important, in school, then, perhaps, we will conquer ignorance and fuzzy thinking in future generations.

6. Limitations

The logic and semantic errors found in the students' learning assignments for university courses are just the tip of the iceberg. Obviously, there exists a complex of physiological, psychological, social, and historical causes which may induce *fuzzy thinking* in contemporary youth, specifically, majoring in social sciences and humanities. Further in-depth studies of this phenomenon are needed.

7. Conclusions

This article presents the studies of authors belonging to different cultures and different fields of knowledge. One of the authors works in Russia, the other in USA. One is a philologist, the other is a psychologist. One works in the most prestigious Russian university, the other in a statistically average American educational institution. One teaches exclusively in the classroom, the other only online, and the tasks solved by their students in New York and Moscow were specific to their specialties. However, the results received by the authors turned out to be surprisingly similar.

Many university's students specializing in journalism and education in both undergraduate and graduate programs demonstrated weak skills in analyzing and synthesizing information as well as a lack of an ability to operate with its meanings. It is an indisputable indicator of students' cognitive incompetence.

One of the brightest manifestations of the cognitive incompetence is *fuzzy thinking*. It is invisible, but it affects cognitive functioning and, above all, learning. It makes learning less meaningful and effective. The phenomenon discovered in this study certainly deserves further and more in-depth study.

The authors concluded that the educators' efforts should be aimed at teaching our students how to work with texts academically and professionally. It makes sense to begin such training not in bachelor's or master's programs of the universities, but much earlier. In many ways, it depends on us, today's educators, whether the younger generations will become cognitively competent.

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