

The Technology to Increase the Level of Education at the University in the Context of the Development of Society Informatization



Tatiana Vladimirovna Borzova

Abstract: *The article presents the problem of eliminating the writing blocks as a process of finding ways, means, and conditions for success in teaching students. The study involved 852 students (of which 84 students of the faculty of oriental studies and history of Pacific State University participated in the formative experiment; while 83 students of the faculty of philology, translation studies and intercultural communication, and faculty of psychology, social and humanitarian technologies made up the control group). The authors propose to unlock the potential of student learning psychology by using qualitative methods of teaching students to understand the phenomenon of writing blocks to reduce them in order to increase the motivation for success in writing a scientific text.*

Keywords: *the motivation of success, the psychology of learning, reflexivity, students, writing blocks, writing a scientific text.*

I. INTRODUCTION

One serious difficulty in teaching students at the university is a problem associated with the writing activity of students when writing a significant number of various scientific texts [1]-[4]. The problem of writing blocks or difficulties in writing is presented in foreign psychology in the studies of G. Keseling [5] and a number of other authors [6]-[20]. The authors' task was to assess the presence and nature of writing blocks or difficulties in writing on a sample of domestic students.

Objectives of the article were as follows: 1. Attracting the attention of the scientific community, first of all, the academic staff of universities to the problem of writing blocks among students involved in the written activity in order to optimize this type of work in the educational process of higher education institutions. 2. Implementing joint search for ways allowing mitigating or eliminating writing blocks in students' learning activity by specialists of various disciplines invoked to organize educational processes at higher education institutions.

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II. PROPOSED METHODOLOGY

A. General Description

The most frequent form of violations (distortions) in the course of creating the text is the problem of **forming the concept of the text at an early (premature) start.**

The stage of working on a concept of the entire work or chapter is an important and mandatory component of any written activity. If the student does not pay enough attention to this stage, he exposes himself to the danger of gathering a significant amount of information, which in the future will be quite difficult to structure. However, it may be quite an acceptable option if the student is inspired by the activities performed, accumulates ideas during writing, and generates absolutely naturally new ideas and conclusions in the course of writing activities. In this situation, it is important for him to wish for continuing working for a significant period of time. At that, the student must have some serious groundwork to perform writing activities. Here it is important internal readiness, even a state of pleasure from the activities performed. Nevertheless, it is at this stage that the most important component is not only the desire, but also a very serious knowledge of the requirements for written scientific activity, the object area of science in which there are problems that require the involvement of a person who is thinking and has the potential to solve these problems and to obtain a certain result for contemporary science and practice. At this stage, it is important for the student to realize the significance of his own discovery, making sure that the studied issue is at the peak of the interests of contemporary science in general, and in a specific scientific field, in particular. It is important to take into account their own occupational needs associated with the necessity, on the one hand, to perform in the future or the current time responsibilities, such as a teacher or psychologist, etc., and, on the other hand, to solve personal problems related to providing the assistance or giving recommendation to a particular social group of people [21]-[23].

B. Algorithm

1. Problem definition

The most important aspect when working on the organization of students' written activity is the **problem definition** as the key to a successful scientific search in order to compartmentalize the main from the secondary.

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Premature start often fixes the lack of substantiation of the relevance of the chosen topic, which should be formulated clearly and consistently. To do this, it is necessary to formulate the problem and show that it has not received sufficient development in the scientific literature on a particular discipline. In general, "...the problem is the subject's awareness of the impossibility to solve the difficulties and contradictions arising in a particular situation by means of available knowledge and experience. The essence of the problem is the contradiction between the established facts and their theoretical understanding; between the need for scientifically grounded information to implement in practice and the lack of its coverage in the scientific and methodological literature; between classical approaches to understanding phenomena and changing social reality" [24, p.8]. This type of work leads the student to write a theoretical basis for future work. A thorough search for the literature on the research topic (articles, books, conference proceedings, etc.) is intended to show what is known about the studied problem, and what should be studied in more detail in comparison, perhaps, with other phenomena. In the course of this work, the student studies research aspects of other authors, available in reference books, monographs, textbooks, and abstract journals. The primary sources allow fixing the essence of the studied problem very clearly and vividly using a special scientific language. Leading experts in a particular field quite often use capacious, metaphorical expressions that deeply reflect the essence of the problem. The student should have in his mind the structure of such a capacious statement, and even correlate with it the search for literature. Attention should be paid to the research goal, which determines the way to solve the problem under study. This can be an observation, description, as well as historical review of the problem, the organization of the experiment, or the preparation of an abstract or presentation.

It is also necessary to determine the object and subject of the future scientific text. An object is a phenomenon that generates a problem chosen for the study. The subject is something that is within the boundaries of an object. It is the subject that determines the topic of future scientific text and is directly related to the problem of a particular study. The research goal and tasks of scientific work should be stated clearly. A mandatory element to avoid a premature start is the methods of work, whose choice and use determines the effectiveness of achieving the goals and objectives set in the work. If it is, for example, a final qualifying work, which is an independent research, the result of research activities of the student, then to overcome the premature start, it is necessary to perform the following activities: to consider the scientific novelty of the study; its practical significance; and correspondence of the content to the research purpose and objectives. The work should be characterized by logic, reasonableness; compliance of conclusions after each chapter to the theme and tasks; correct use of primary sources, terms, and concepts; optimal presentation of the material (tables, graphs, figures, and drawings); reliance on the knowledge gained; and reliability of the results.

It is necessary to pay attention to observance of the following psychological and pedagogical conditions to

remove the writing blocks in training of the student of a higher education institution.

1. When preparing to perform writing activities in the course of learning, the student must think what about he needs to write in the coming time. This problem should be told to a reputable person who is familiar with the problem under study. This gives the advantage that the other person can ask questions, and the student will thus notice that something is wrong with his thoughts. Phone calls to each other or meetings to discuss the text that should be written proved to be useful as well.

The exercise described by Keseling [5, p.207] proved to be quite good in such practice. Keseling suggests to write a small coherent text, starting it with the sentence: "I could write now that...". From the authors' viewpoint, this approach protects the student against sudden (thoughtless) writing. It is important for the student to try to set himself up to maintain this approach for a long time. This approach can become a habit, and without the above method with the appropriate reflections, the student will no longer begin to write.

2. The next requirement is not writing without thinking. This requirement is aimed at a positive attitude towards making changes. As a rule, new ideas coming to the mind of a person during writing are included in the text. In these cases, the following danger should be kept in mind: the lack of conformity of new ideas to the original concept. In order to uncover the resulting logical inconsistencies as soon as possible, it is necessary from time to time to read what has been written, and if necessary, to make changes or rewrite small parts immediately. In addition, it is necessary to re-read and check the written text from time to time in the course of writing, making sure that the text is consistent and individual parts are correlated with each other.

Thus, in order to overcome the first type of writing block, it is necessary to make frequent changes in the text. At that, this should be done as soon as an omission in the coherence of the text is found. By reading the text frequently, the student should try to find such omissions. At the same time, the person involved in writing is performing temporarily the role of the recipient; he "repairs" his utterances similarly to that being practiced by the interlocutors. Although the writing of the text itself remains a monologic process, the process of its creation contains dialogical elements.

2. Problems at the generalization

The information generalization technique is formed and improved yet at school. Nevertheless, many students experience difficulties with this process. Instead of following the fundamental statements of the text when reading, they do not read carefully, make extracts indiscriminately, and do not concentrate on the important aspects when writing. This often results in a simple set of citations.

The reason for this behavior is the temptation to convey parts of the text verbatim, and not in their own words. As long as essential aspects are cited, such as for example, basic sentences or definitions, this is permissible.

But if quotations are given because certain statements or passages have not been understood, or because there are not enough words to convey the author's idea, this shows that the task of generalization has not been accomplished.

The second reason associated with the problem of generalization of information is based on the fact that in scientific works generalizations are built into significant (far-reaching) tasks, from which the author's idea is to be isolated and comprehended. This type of activity also presents difficulties for the student.

It should not be forgotten that usually, the scientific literature used was read by the student long ago and at the same time extracts or copies were made by the author based on his own understanding of their importance. But the more time passes from this point, the more difficult it is when planning and writing one's own text again to find exactly the details that were important for the work. In this case, one may need to read or view the source again. Students like to rely on their extracts and often overlook the fact that the notes were made at a time when they did not know yet what would be important for *their particular text*.

It happens that a person even while quoting the text realizes this complexity. In order not to face the danger of later forgetting what has been read, students usually write out a considerable number of quotations. Thus, reading progresses very slowly, and this creates significant problems that students cannot solve on their own. The main difficulty lies in the fact that the students suffer from too much respect for the wording of another's text and too low confidence in their own abilities to perceive and comprehend texts written by other people. In order to understand the text and then talk or write about it, it is necessary moving away from the literal text and particulars and focusing on its meaning. The meaning of the text, as a rule, though is expressed in text passages, but is not associated with its verbatim formulation. The same meaning of the text can in most cases be conveyed in a different way. The author of the work can convey the meaning without passing the text verbatim that is, having actual understanding and transforming the language code into a mental code.

If the author is too attached to the text, which he must generalize, and constantly reads parts of the original source when writing a generalization and decides to quote statements or consequences of these statements completely, the certain dangers are possible, which are that the meaning of the text is lost, not taken into account at all, or is decomposed into separate meanings.

These difficulties can be overcome if one can reduce reverence for verbatim wording and build confidence in own ability to perceive and understand the text. This can be achieved by training, which is successfully applied in the practice of students' training. A student is asked to work with a small text, read it thoroughly, preferably twice. At that, it is necessary to make notes. Then the student is asked to set aside the text and summarize it from memory. If a person cannot remember individual details, he should put omission points and supplement this part later getting back to the original text.

If this exercise is used often enough, it almost always leads to success. Gradually statements at generalization become more qualitative, and the person finds forces to depart from a

sample (primary source) towards the writing manner peculiar to him.

It is a little harder to solve the problems of citing literature based on statements. The standard exercise consisting in generalizing from memory can be applied, but it is not always so easy to convince a person to refuse to write off and instead convey the content of information in his own words.

When one does this standard exercise alone, it is important to remain patient and be consistent. The exercise will not help the student if he relies on the primary source for generalization. At that, it is necessary to thoroughly read the text several times. One should start with short, simple texts, increasing the degree of complexity gradually. At that, better not be tempted to start with texts that need to be summarized for one's qualification work.

3. Inconsistent (contradictory) text concepts caused by the late start

Students face difficulties in finding a suitable concept for the text. First and second-year students often do not understand that for a well-detailed plan they need to define the *subject of the writing*. They read and make extracts of everything related to their subject. But they can neither organize their material nor distinguish the important from the unimportant. They are unfamiliar with a requirement such as a limitation of the topic.

Along with the option of "many competing plans", there is another type of violation: by the time when students are going to write text on paper, they stop their activities, the reason for which they cannot explain. When they are asked to present what they intend to write, it turns out that at the end of the planning phase, the authors of the text had a clear concept, but with the direct writing of the text, the concept has changed greatly, not only with regard to individual points but also in the *definition of the subject of writing*.

In terms of the effect (logical inconsistencies, etc.), these problems are similar to those of premature start. But they differ from this problem by the fact that the authors spent a lot of effort before writing the concept, while those who started prematurely, developed their concept only during the writing.

Students can choose the wrong form (style) of the text. In the report on the practice, it is necessary, for example, to use one own word when describing own experience. What processes are at the heart of these violations? Planning a text is based on processes of shaping a form (style): the text that the author imagines consists of single components that must fit each other; this is necessary to produce the text. Inappropriate parts of the text can lead to writing blocks. Only when the *subject of the writing is clarified*, a good whole text can be obtained, in which the planned chapters (parts) are correlated into a single whole.

In order to avoid this writing block, one should first try to exclude the fact that the violation does not occur for other reasons. If a student, for example, is inclined to start writing a text quickly, then most likely the reason is a premature start. The next step is that it is necessary to accurately study the process of developing the concept of the text in the work. It is important to consider the initial plans for writing.

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It is necessary to stick to the original concept when writing or change it from time to time, but at the same time pay attention to the effect to which the changed plans in the letter led. These issues require a mandatory answer since it is during the development of the concept that the developer himself loses the overview. In a favorable situation, the student will be able to detect a gap or discrepancy in his reasoning and change his concept accordingly. Often such discoveries are associated with a sudden effect of insight, which will help to find the previously hidden qualitative hypothesis (formulation, idea, or plan).

If this effect is not fixed, only further searches will help: reading the text again, reconstructing the reasoning and checking the conformity of the general concept. The technique such as a visualization of the concept of the future scientific text often is quite helpful.

4. Problems with the internal addressee

The difficulties encountered in writing the text described so far, are mainly related to planning. The violations that will be discussed below are caused by a reason that manifests itself in the inconsistency between the author and his addressee.

When speaking, one does so with the intention of being understood by the interlocutor. He has a goal, he wants something, and expects that the interlocutor will answer. He asks the interlocutor for something and expects that interlocutor will fulfill or reject the request, etc. At the same time, expectations and the way in which one expresses his thoughts depend on the relationship with the other person. If one asks a friend for something, he does not make long introductions. If one wants a stranger to do him a favor, then he expresses himself differently. To a certain extent, written communication is carried out in a similar way. In a business letter or in a letter to an organization, people use a style different from that used in personal communications.

There are types of text in which the addressees are absent, i.e. the question is about addressing anonymous readers. The authors of scientific works face the same phenomenon.

Many authors, when writing, imagine specific people, although from their behavior, fixed in the course of writing the text, one can conclude that they have adopted the *image (picture)* of their future (desirable or fear-inducing) readers. When creating a written work, such readers are called "internal addressees".

The author may consider his potential readers interested or not, critical or not, benevolent or spiteful, intelligent or rustic, and thus this affects the attitude towards writing activity, which can be positive, but often also negative, up to severe writing blocks.

The situation of some fear or discomfort before the future reader of the student's written work is manifested in the following.

1. The student is dissatisfied because he thinks he writes slowly. He has found that others move forward faster when revealing similar topics.

2. The student gets the impression that he is prevented from concentrating by the large number of breaks he takes while writing, and because of this, a real flow of writing is not achieved.

3. While writing, he makes many changes in little things that could have been made later. Or, alternatively, he makes changes to the text not on paper or a monitor screen but hones the phrase in his mind long enough before writing it down.

4. The student often struggles for the right expression or the right word. In such cases, although he knows what he would like to write, he cannot find the right expression.

5. The student begins writing activity relatively late, perceiving writing as torment, and cannot imagine that it can give pleasure.

What is the reason for this caution in formulating text and fear of incorrect expression? One can "start prematurely" to write, rushing forward, and not caring about whether everything is all right. One can always make changes just in time. Perhaps, students are really afraid of the future reader.

Authors, who want to increase the pace of their writing, and who linger for a long time on corrections, are recommended to adhere to "automatic writing". To do this, before starting to write, it is necessary writing down everything that comes to mind without taking any breaks. Even very short pauses are not allowed. In about ten minutes, they must write something on the subject of their scientific work, still without pauses. In the next ten minutes they must continue the part of their homework or examination work they have begun.

If students are able to fully complete this exercise, they usually begin to write their scientific text much faster and come up with formulations that are unexpected even for themselves, which they consider qualitative.

To improve the student's attitude toward writing, it is necessary to repeat this exercise. When the author has difficulties with this exercise, this does not mean that the difficulty described above is not peculiar to him. Perhaps, illogical wording comes to author's mind, and it is because of the restriction to make pauses, that he must write down a lot. This just confirms the presence of the above difficulty and represents a typical example for the author, when self-control is not eliminated even in the course of automatic writing.

In these cases, some students found it helpful to pronounce everything in loud while writing a text. They were probably better able to concentrate on what they wanted to say and not be distracted by external factors such as, for example, spelling.

Authors, whose thoughts are focused around the situation that their supervisor already knows everything, and feel hindered because of this circumstance, are encouraged to write about their work to a friend.

In addition, the student is encouraged to imagine an ignorant reader, who is interested in a similar topic. This idea should be preserved as long as possible, trying to maintain the interest of the ignorant reader to the subject of writing. It is necessary to structure the text so that it sparks a certain intrigue. For example, at first the question can be posed, which is decomposed into several components, while actually the answer to the question is not given. It is necessary to feel in the role of the reader and try to trace how this reader will react to the presented information.

The ability that student has to show in his work is not just demonstrating certain knowledge. The student must also show that he can argue and present the material appropriately. The same game will be played by the critic – consciously or unconsciously.

5. Addressee, who is not available

Difficulties when trying to compose the beginning or to continue the already begun text in the framework of writing a scientific work, the lack of motivation to perform written activities characterize another writing block, which determines the lack of persistent interest in academic work on the part of the university student. The reluctance to carry out writing activities, on which the student expects to spend serious effort, can be explained by the lack of a future reader. The student has no one to address his text. The student believes that his text, his work, thoughts, ideas, and experiences are needed by no one. Before beginning to write the text, such authors can be oriented on written activity, but in reality do not start it, or begin a written activity, but it has no continuation.

Some senselessness of the performed activity turns the student away from its performance [4]. The student has an inner conviction that his work will not receive a proper evaluation, and even if it will be read by the teacher, this will result only in an assessment, in stating the fact that the work has been done by the student, and nothing more. This situation, wherein the course of performance of written activity, success will not be estimated, and the result will not be announced is characteristic for the writing blocks associated with absence of the internal listener. Presumably, this situation is based on deep experiences associated with unconscious elements of the psyche, namely, children's fears and experiences. Persistent lack of attention to the results of child labor, children's efforts in learning in primary school age, perhaps even in preschool-age, becomes the main obstacle when performing writing activities in adult years.

It is quite difficult to correct the writing block related to the absence of an internal addressee. To some extent, a teacher, who works with the student and understands his problem, can take on the role of an internal listener, often meeting with the student and discussing plans and ideas of the future text. Presentations at seminars, scientific conferences, as well as participation in student research society, etc. may be quite useful. Besides, asking for help from friends, regularly talking with them about the work can also be of some benefit. Thus, working with the essence of this writing block requires constant external training and support of the teacher in the student's educational and professional activities

III. RESULTS

Writing blocks described by Keseling [5] are peculiar to students of Russian universities.

Below are presented the test results on writing text by students of control and experimental groups, obtained in the course of a specially conducted experiment based on a modified version of the Keseling's method "Overcoming difficulties in writing" [25, p.98-117]. Thus, in the experimental group (N=84) (after special training aimed at reducing the writing blocks) no students having all three types

of writing blocks were revealed, while nine students had two blocks, and 20 people had just one block. The absence of writing blocks was noted in 55 students. In the control group (without special training aimed at reducing the writing blocks) amounting to 83 students, these indicators were significantly higher: three writing blocks were noted in 11 students, 13 students had two writing blocks, while 33 people had just one block. The absence of writing blocks was noted in 26 students [26]. Therefore, one can conclude that it is necessary to specifically train students to overcome difficulties in writing, called writing blocks.

Among the global problems of modernity, such as the ecological threat to human existence on Earth, the threat of human corporeality, etc., there is another threat, namely, the threat of war. The wars initiated against the person can be conducted using various types of weapons (biological, chemical, bacteriological, as well as using another type of weapons). Besides, there are psychological wars against man, as well as an information war. It is this latter kind of war that is directly related to the topic under discussion, namely, the problem of eliminating writing blocks in students [27], [28].

In the authors' viewpoint, the whole functioning of the contemporary university should be concentrated around social institutions such as library [25], [26]. The library should become the managerial center of all intellectual activity of students. Coming to the library, the student must be able to receive all the scientific information necessary for his research, which should be available from 10-15 web sites containing literature that has "passed through the sieve" of specialists (historians, psychologists, teachers, philosophers, methodologists, etc.). From the authors' perspective, a situation should go into oblivion, in which the teacher encourages students to look at information on the Internet, dreamily waving his hands up, hoping to see there somewhere far away a selection of high-quality scientific literature useful to the student. A miracle does not happen, a conscientious student "drowns" in huge information flow, he cannot even get close to the really high-quality selection of literature that he needs. As a rule, the qualification of authors of scientific articles or books available on the Internet is unknown to the student. In fact, the student performs a function not peculiar to him. Such function is performed in foreign universities by Ph.Ds. at a minimum. Do foreign experts limit the search capabilities of students with this approach? Not, of course. The information that is offered to him for scientific work, for conducting written activities, is really huge. This new literature, completely archived in the PDF files, is transferred by the student to his personal e-mail, printed out or downloaded to electronic media within the walls of the library. A student can "drown" in this flow of information, but all this information is of high quality, recommended by experts for the educational process. Indeed, it is better to swim in clear water than to drown in a swamp.

From the authors' viewpoint, contemporary Russian student is in a situation of information war. The contemporary student does not have access to scientific research conducted in the scientific world recently.

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It should be borne in mind that the half-life of scientific knowledge in history and psychology is from three to five years. Recent research has not been translated into Russian, while the Russian speaking students (for the most part) are not able to use English for scientific work since their level of proficiency in English as the international language of communication is quite low. During the twenty-year period of teaching at the university, university teachers constantly had to stimulate students to use new literature in their thesis papers, since the students work, as a rule, with sources that were published more than ten, or even twenty years ago. The historical perspective of problems is a remarkable phenomenon in scientific research, but the potential of young talented students should also be used, they should discover new things, make small discoveries under the guidance of their supervisors, rather than just rewrite information written by someone else.

Thus, another writing block of students, highlighted by the authors (on a sample of domestic students) is the lack of quality scientific sources on the studied problem. It is necessary to take very serious steps at the state level, requiring significant funding, to solve the problem of daily access of students to quality information [29], [30].

Six forms of writing blocks are not mutually exclusive. Although usually just one difficulty is dominated, it happens that the authors involved in writing activities face several forms of violations that occur simultaneously or sequentially [1], [2], [31].

Let make an attempt to rank the characteristic features of the difficulties when writing texts by Russian-speaking students (N=852), ranking the studied difficulties into four groups:

1) difficulties associated with the inability of students to perform basic operations when working with a scientific text (highlighting the main idea, predicting future events, drawing conclusions, etc.);

2) difficulties associated with the lack of needed information;

3) difficulties associated with individual and subjective characteristics of the student's personality;

4) absence of difficulties.

IV. CONCLUSION

As a result of the conducted survey of students, it has turned out that difficulties of the first group are leading with a significant margin (54%). The second place is taken by the absence of difficulties (25%), third place is occupied by the second group (14%), while the fourth place is occupied by individual and subjective features of the student's personality (7%). The first group of difficulties associated with the inability of students to perform basic operations when working with a scientific text should be especially distinguished. The study conducted with the involvement of domestic students has shown that the methods of doing research, and, accordingly, the methods of writing scientific texts are mastered by the students insufficiently effectively. Teaching methods of conducting research activities of

students, undergraduates, and graduate students should be given more serious attention.

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