

The Prevention of Plagiarism as a Prerequisite for Ethical Relationships in the Academic Community

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ABSTRACT

The present study is devoted to plagiarism and the possibilities for its prevention to build and maintain ethical relationships between people engaged in creative activity. A place is being devoted to define this concept in the context of business ethics. A questionnaire was developed and a pilot survey was conducted to determine the level of awareness regarding the forms of plagiarism.

Possibilities of how to minimize it through targeted preventive actions are discussed. Special attention is paid to the training process when assigning course assignments and diploma theses to outline the need for a creative approach, expression of personal opinion and expert evaluations generated on the basis of authentic information and the accumulated experience is studied and summarized most often in special section, by citing one of the established methodologies for this.

The expected outcome is increased personal awareness of everyone engaged in research activity in order to avoid the incorrect use of published foreign experience.

Keywords: plagiarism, business ethics, prevention, research, training.

INTRODUCTION

According to Ludmil Georgiev's opinion, the modern definition of ethics presents it as: "a system of values structuring individual behaviour around a morally or socially recognized standard" [1].

For both the society and the business, business ethics is of particular importance, and not so much ethics in interpersonal relationships. Ethics in politics is especially often in the spotlight of discussions, as it depends on politicians whether

public funds collected from taxes will be used in the interest of the state and its citizens, or else, for narrowly partisan, corporate or personal purposes.

As a rule, ethics in public administration makes part of the classes in the subject "Public Administration" in higher educational institutions. More importantly, this theme is also part of legal regulation documents concerning the work of the state administration [2]. Underlying the

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activity of the state administration according to these documents is: legality, loyalty, good faith, impartiality, equality, responsibility, political neutrality, integrity, confidentiality, accountability, collegiality and courtesy. The rights and duties of civil servants are quite clearly and precisely defined, but these regulatory instruments do not go into detail about the manifestations of integrity in individual organizations, departments or professional activities. These would usually be elements of the regulations of the individual departments in case such departments have not adopted their own codes of ethics. People engaged in generating new ideas, developing new methods, researching social and economic processes in order to derive managerial benefits for the whole society, who receive funding from public funds usually remain outside the focus of applying ethical standards, because if they do not occupy leading administrative positions, at first sight they could not harm society, and their ethical behavior could be reduced to interpersonal ethics, typical of everyday communication. However, this view is outdated and incorrect. The scientist or student might not misuse money, which stands out as the most important criterion of ethics in developed democracies like USA for example, but they could appropriate someone else's intellectual product, for the creation of which a lot of work and time was invested by some others. Significant discoveries and innovations filed in for registration as a patent or other type of copyright protection in Bulgaria are checked by the patent office, but books, dissertations, scientific projects, diploma theses, which to a certain extent claim to be authentic, are still not subjected to a thorough examination or checking. The need for this arises from the fact that it turns out to be too easy to copy information using electronic technology. In some cases, this unregulated use of foreign experience and achievements is due to ignorance of what and how to cite, in other cases, easy translation from a foreign language creates the illusion that foreign experience and

foreign ideas can be used and presented as one's own without significant risk that the abuse will be discovered. The insufficient linguistic culture of some people is also important; such people, faced with the need to take a position on a specific issue, would typically experience lack of knowledge and difficulties in expressing what they see, feel or have received in their own words and thoughts by way of processing empirical information. However, society is too sensitive when individuals educating the young generation in honesty and morality or people occupying leading posts in government allow themselves to abuse the writings of others, develop their careers on the basis of non-existent personal achievements and thus create prerequisites for devaluing the efforts of *bona fide* artists who take their work as a vocation and put into it the full capacity of their skills, knowledge, talent, time and diligence. The issue of copyright is not only in the field of science. This issue includes a large number of activities whereby an authentic product is created: literature and arts. Protection of copyright is duly covered by the Criminal Procedure Code of the Republic of Bulgaria [3]. As a working definition of plagiarism in the present study, we will adhere to the following: plagiarism consists in unregulated copying, imitation and use of someone else's work for the purpose of presenting it as one's own, thereby violating copyright [4].

The current research is aimed to the prevention of academic plagiarism rather than its detection and punishment. The main goal is to establish the degree of awareness of teachers and students about the essence and forms of plagiarism and to strengthen an attitude of intransigence towards this way of using information.

The object of research are professors from VU. The subject of research is plagiarism and the attitude towards it. To achieve the goal, a survey card was developed and with its help, a pilot survey was conducted with the participation of professors from VU.

INTRODUCTION

Achievements of other authors on this topic are: Arsenova writes that plagiarism is becoming an increasingly serious problem in academia, including the higher education institutions [5]. The seriousness of the problem is demonstrated by the conference held in Madrid on November 17 - 18, 2008, dedicated to the ethical problems of science, organized by the Research Integrity Forum at the European Science Foundation. At this conference, European scientists decided to consolidate their efforts to fight against fraud in science and, in particular, against plagiarism. In essence, plagiarism is the theft of someone else's intellectual, creative work. The infringer presents someone else's work as its own. However, the content of the concept is still vague and ambiguous. The most common form of plagiarism is presenting someone else's texts as one's own. The fight against plagiarism implies the knowledge of the types of plagiarism and the reasons for its existence and even development. On the other hand [6], there is no scientist nowadays who would have started without any preparation or specialized background, they always build and summarize the existing knowledge and establish the line of agreement or disagreement with any such knowledge. After all, the basic knowledge in any field is not in copying other people's ideas or

achievements, but in full and critical evaluation of the available knowledge, including elements of generalization and drawing conclusions in a specific direction. According to Atanasova [7], some of the necessary measures that should be taken in this direction include easing the proof of authorship, i.e., authors should not be burdened with proving their right. It would also be necessary to introduce methods for calculating fair compensation for the damages suffered, ensuring measures for the preservation of evidence, as well as increasing the sanctions, taking into account the amount of moral damage suffered.

EXPERIMENTAL

The survey covers all teaching staff from one functional unit in the administrative structure of a higher education institution. The aim is to have uniformity of information regarding the implemented anti-plagiarism policy and also on professional competences.

As a result of the conducted pilot survey, the following opinions of the participants were received:

From the answers to the first question (Fig. 1) "What is your work experience at a university or other scientific organization?" it is clear that the distribution of participants is relatively even among the individual groups.

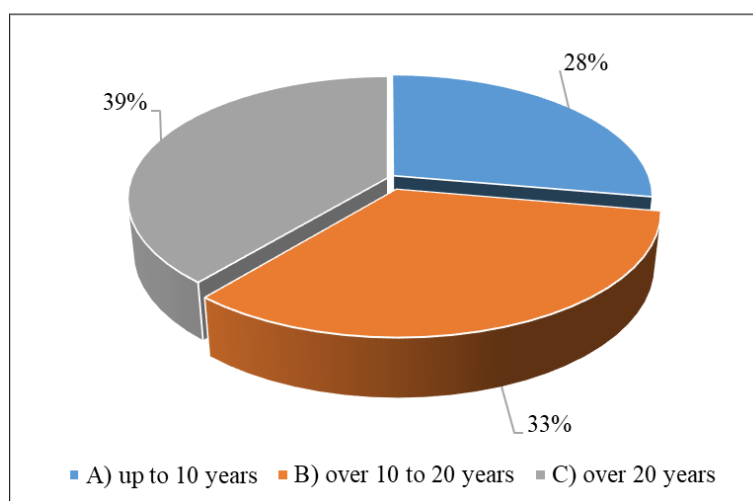


Fig. 1. What is your work experience at a university or other scientific organization?

From the answers to the second question (Fig. 2), which concerns the number of scientific publications, it can be found that most of the participants in the survey have extensive experience with more than 40 publications, which would imply that they should have a personal view of the problem and possibly encountering similar situations.

Fig. 3 demonstrates the answers to the question “What do you think plagiarism means?”

Most of the respondents answered that plagiarism can be defined mainly as the use of someone else’s text without citation. That is, they

have a correct idea about this phenomenon.

Regarding what is meant by auto-plagiarism, opinions differ, but priority is given to the use of text from another personal publication (Fig. 4). According to some of the respondents, such a concept does not even exist, which is a good reason for reflection and discussion, against the background of the topicality of the problem in recent years.

It turns out that most authors actually have no information about whether their own works have been plagiarized. The reason for this is the absence of a mandatory regulation to test

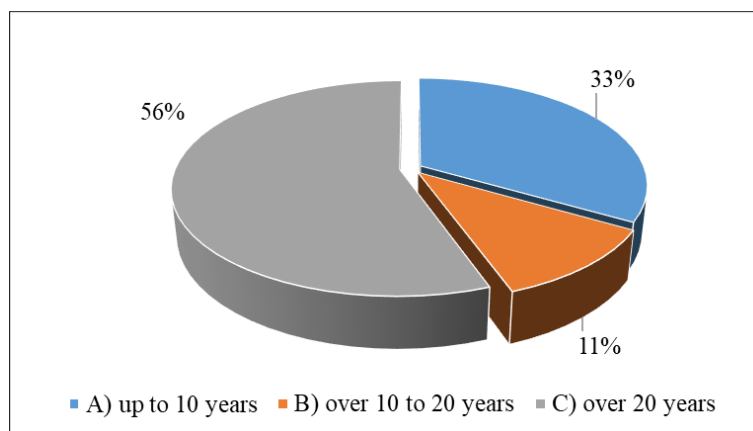


Fig. 2. What is the approximate number of your scientific publications (independent and co-authored in total)?

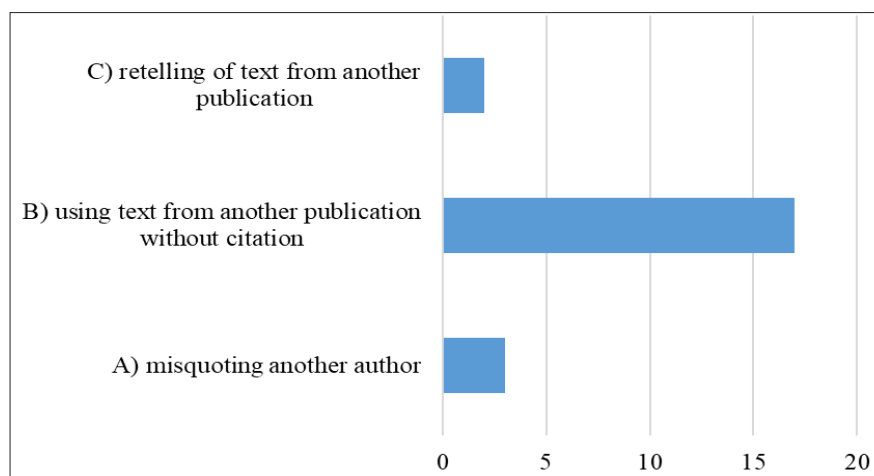


Fig. 3. What do you think plagiarism means?

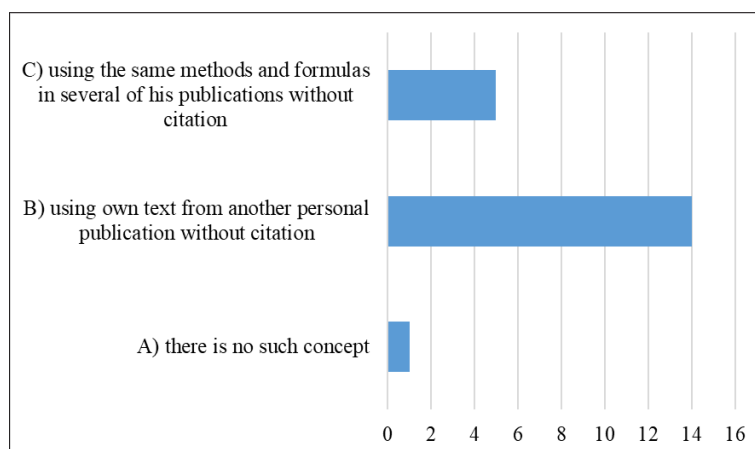


Fig. 4. What do you think auto-plagiarism means?

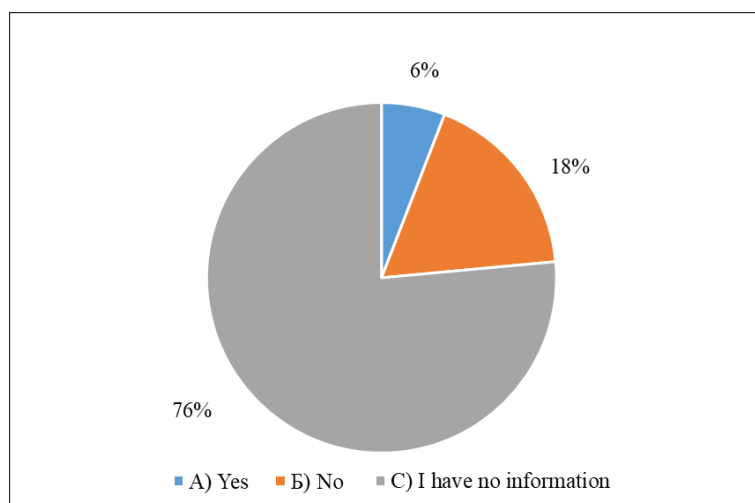


Fig. 5. Have your works been plagiarized by other authors?

all creative products in a certain way for the presence of plagiarism. For example, when submitting a new article for publication, the editorial board may include as an element of the reviewer’s evaluation an opinion on the presence of plagiarism based on a check with a specific software product. The same requirement would be useful for creative products that necessarily claim contributing moments, such as dissertations. However, in order this to be feasible, such works should be published on the Internet in the same way that abstracts are published. At a later stage, this approach can also be used to test theses to accustom students to the idea that a personal text, however amateurish

it may be, is better than one that has been borrowed illegally. The introduction of stricter monitoring for the presence of plagiarism, in our opinion, would have a favorable effect on the psychological climate in the creative units, and the presented results will be predominantly original in their nature.

Fig. 5 shows the responses to the question “Have your works been plagiarized by other authors?”.

The results obtained for the question “What should plagiarism prevention include?” are shown on Fig. 6.

The majority of survey respondents indicated more than one answer, which clearly shows the need to take comprehensive measures to prevent

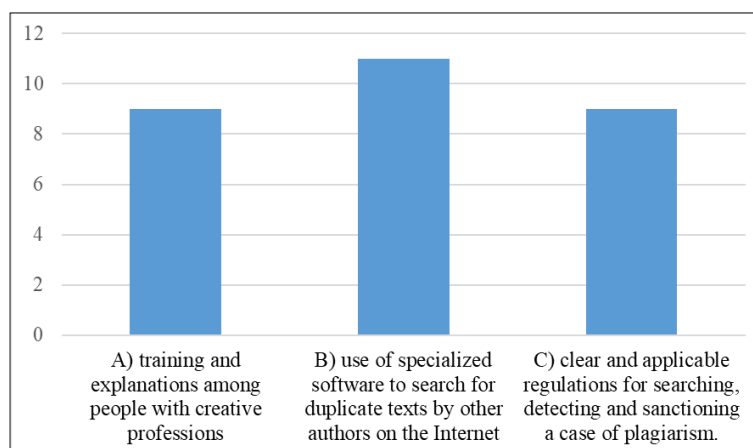


Fig. 6. What should plagiarism prevention include?

plagiarism. It is necessary both to conduct trainings and clarifications among people with creative professions, and to use specialized software to detect duplicate texts by other authors. It is necessary to have clear regulations and sanctions applicable to violations of author's ethics, graded according to the severity of the violation, which would be a step forward towards the prevention of this phenomenon. It is necessary to strengthen the understanding that plagiarism is a form of theft, equivalent to the misuse of a trademark or the production of consumer products that do not meet accepted standards. In our opinion, the prevention of plagiarism would not only have a positive psychological effect in creative community, but also an economic and social effect. Economically, fewer scientists will receive undeserved scientific degrees and academic positions for which they do not have the necessary qualities, with this compromising the educational system and scientific units and discouraging true creators. If the social aspect is considered, creative professions will choose people with asserted and verified assets and therefore such people will enjoy personal satisfaction, instead of being convinced after many years of hard work that they made an unsuccessful choice of profession, attracted by

financial or other momentary and volatile reasons. The prevention of plagiarism in all possible forms of implementation could be expected to have a positive effect on the formation of the quality structure of persons engaged in creative activities, which benefits the entire society.

To the question "Do you think students are aware with the problems of plagiarism?", the participants answered as illustrated on Fig. 7.

53 % answered that, according to them, students are familiar, but do not always apply this knowledge in practice. According to 41 % of the survey participants, students are not aware of the essence of the problem and its importance, and only 6 % consider that they are aware and strive to avoid plagiarism. The answers to this question clearly and unequivocally show the need to practice educational measures for the prevention of plagiarism, and this question can be included as a compulsory topic in the curricula of the academic subject "Fundamentals of Scientific Research".

We believe that preventive measures are more useful than findings and punishments, as they allow preserving the dignity of scientists. For this purpose, it would be appropriate for each researcher to be able to apply certain testing regulations to their own works to protect

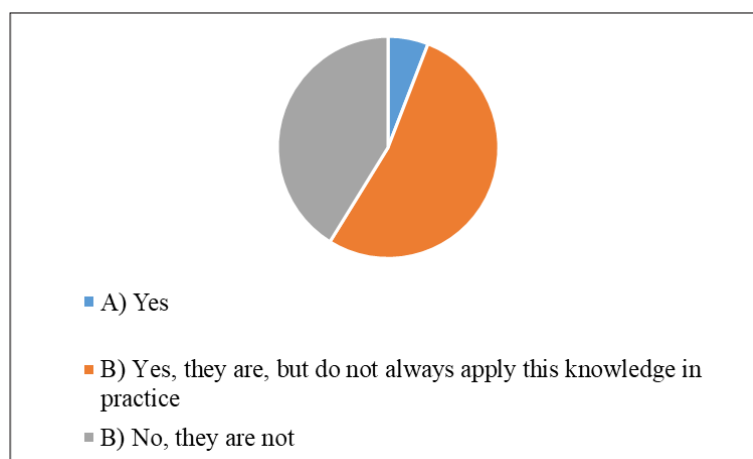


Fig. 7. Do you think students are aware with the problems of plagiarism?

themselves from elements of plagiarism that are inadvertently included in their creative products.

To study the strength of the relationship between the number of years of work experience of the respondents and the level of awareness regarding the nature of plagiarism, Pearson's coefficient of contingency was used [8]. This coefficient was chosen as it is appropriate for the way of presenting the information available. The analytical form of this coefficient is as below:

$$C = \sqrt{\frac{\chi^2}{n + \chi^2}} \quad (1)$$

where:

$$\chi^2 = \sum_{j=1}^w \sum_{i=1}^v \frac{(q_{ij} - q'_{ij})^2}{q'_{ij}} \quad (2)$$

where:

q_{ij} – empirical frequencies in the cells of the table;

q'_{ij} – theoretical expected frequencies in the cells of the table if there were no relationship between the studied traits.

The theoretical expected frequencies were derived as follows:

$$q'_{ij} = \frac{q_i \cdot Q_j}{n} \quad (3)$$

where:

q_i – sums of frequencies by rows of the table;

Q_j – sums of frequencies by columns of the table;

n – total number of frequencies in the sample;

$i = 1 \dots v$ – numbers of rows;

$j = 1 \dots w$ – numbers of columns;

v, w – number of varieties of one and of the other attribute.

The resulting contingency coefficient would theoretically take values between zero and one, but its possible maximum value will be different depending on the number of definitions of the studied characteristics. As the number of attribute varieties increases, it tends to +1. Therefore, rationing is required in each specific case. Through it, limit values are established $0 \leq C \leq 1$ and the precise interpretation of the obtained results becomes possible. Normalisation is performed using the formula:

$$C_{max} = \sqrt{\frac{w-1}{w}} \quad (4)$$

where w is the number of rows or columns for an equal number of varieties of the two features.

If the number of rows and columns in the table is different, that is, the number of varieties of the two features is different, then the arithmetic mean of

the two values for C_{max} , calculated for the number of rows and for the number of columns, is used.

In this specific case of our study, the number of varieties of signs is the same and is equal to three, and no such averaging is required.

The normalized value for Pearson's contingency coefficient is obtained as follows:

$$C_{norm} = \frac{C}{C_{max}} \quad (5)$$

When examining the strength of the relationship between the length of work experience and the degree of awareness about the nature of plagiarism in our study, the normalized Pearson's contingency coefficient will take a value of 0.405. This indicates a moderately strong relationship between these two variables. That is, the length of work experience will have a positive effect on the degree of awareness.

CONCLUSIONS

As a result of the analysis made on the basis of foreign experience and good practices and the conducted own pilot survey with the help of an authentic survey card, it can be concluded that the prevention of plagiarism is a valid approach in the effort to limit and gradually completely ignore this phenomenon in the work of people engaged in creative professions. It stands to reason that the knowledge/awareness of the nature of plagiarism is not sufficient among the respondents. It seems it is not rational to accumulate knowledge about plagiarism from personal experience and many years of research work. The correct approach would be an emphasis on educational and explanatory measures, combined with the necessary available specialised software to carry out self-monitoring.

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