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# Dealing with Students' Plagiarism Pre-Emptively Through Teaching Proper Information Exploitation

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## **Abstract**

The present contribution looks into the much discussed issue of student plagiarism, which is conjectured to stem from problems with information searching and exploitation, underdeveloped exposition skills and difficulty in using sources, especially concerning quotations and references. The aim of the study is to determine how effective pre-emptive measures can be if information exploitation and writing from sources are approached as skills that need to be taught. The results show that addressing source use as a skill tends to gradually if slowly reduce the number of plagiarized assignments submitted by students.

## **Keywords**

student plagiarism, pre-emptive measures, information exploitation, writing from sources skills, information literacy

## **Cover Page Footnote**

I would like to thank Irena Vassileva and two anonymous referees for their invaluable comments on earlier drafts of the manuscript.

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## Dealing with students' plagiarism pre-emptively through teaching proper information exploitation

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The present contribution looks into the much discussed issue of student plagiarism, which is conjectured to stem from problems with information searching and exploitation, underdeveloped exposition skills and difficulty in using sources, especially concerning quotations and references. The aim of the study is to determine how effective pre-emptive measures can be if information exploitation and writing from sources are approached as skills that need to be taught. The results show that addressing source use as a skill tends to gradually if slowly reduce the number of plagiarized assignments submitted by students.

### INTRODUCTION

#### Theoretical assumptions and literature overview

The present article investigates the way EFL and FFL students in Bulgaria exploit information as evidenced by submitted written assignments and probes how effective pre-emptive measures can be in deterring students from plagiarism practices. The study consists of a series of graduated interventions that target writing from sources skills in response to the author's growing frustration with blatant cases of 'casual' plagiarism committed by students in their day-to-day class contributions.

In the recent years, the topic of student plagiarism has been given a lot of attention (Pecorari, 2013; Sutherland-Smith, 2005a), especially in relation to the Internet providing virtually unlimited access to information (Sutherland-Smith, 2005b; Scanlon and Neumann, 2002). The practice of students to borrow texts without proper attribution for their class assignments appears to be quite wide-spread, regardless of whether the students write in their native language or in a foreign language. The Internet figures prominently in students' lives, gradually becoming not only a place where information is sought, but also a place where their very identity is (partially) constructed. The Internet is also used to search for academic information: for instance, Breuer et al. found that 56% of the Bulgarian students who took part in a study on students' information management reported that Internet search engines were their first choice when it came to collecting information for academic assignments and 32% reported using digital libraries, which suggests that the Internet is the main source of information used by students (Breuer et al., 2014). Despite a commonly held view that the "digital generation" is competent with technology, the tendency among young people is towards using a small number of simple applications and facilities (Rowlands et al., 2008, p.299) and have limited computer literacy skills which are far from being inherent to them (Lorenzo & Dzuiban, 2006; Helsper & Eynon, 2009). This is consistent with an emerging pattern of issues in the way young people use the Internet to look for information: Rowlands et al. (2008) note that access to technology has not led to better information literacy, that young people spend little time assessing the relevance or accuracy of the information found and that they have little understanding of their own information needs, which prevents them from developing successful search strategies. Thus:

Faced with a long list of search hits, young people find it difficult to assess the relevance of the materials presented and often print off pages with no more than a

perfunctory glance at them. (Rowlands et al., 2008, p.295)

Digital generation students have poor information literacy and are generally ill-equipped to critically assess information and the media (Selwyn, 2009; Buckingham, 2008)

The media used for information retrieval is not directly responsible for the plagiarism practices of students; however, because of the prominent position of the Internet in students' lives and the new affordances it offers, it appears to influence significantly the way young people understand complex concepts such as authorship, academic integrity and permissibility (Breuer et al., 2014). As Jones and Hafner (2012) rightly note, the medium that we use can influence the way we perform actions via that medium or our conception of these actions altogether.

In a study conducted in 2002, the number of students who reported that they borrowed texts online and used them without proper reference 'sometimes' to 'very frequently' was 24.5%, which, although alarming, did not point at an epidemic of Internet-related plagiarism (Scanlon and Neumann, 2002, p.381). A decade later, Blum (2011) reports on plagiarism scandals sweeping American colleges, with more than 75% of the students admitting that they cheat and with 68% admitting to using material from the Internet without proper attribution. Guibert & Michaut (2011/2) conducted a large study on plagiarism in a French university to report that nearly 35% of the respondents admit to copying and pasting content and around 16% would copy the work of another student. In this study plagiarism is described using Becker's and Sutherland & Cressey's words as a "deviant social practice" which "can be learned as any conventional behavior" (op. cit., p. 154, translation from French mine). The results of the study suggest that plagiarism stems from a deep clash between the students' expectations and actual university realities, along with incomprehension (and often ignorance) of university regulations. Breuer et al. (2014) found that 92% of the Bulgarian students admit to using texts improperly vs. 41% of the German students surveyed, concluding that while the Internet itself is not the sole culprit, using the Internet has an important influence on how information is sought and exploited. The time span between these studies allows for the speculation that the students enrolled in higher education in 2011 and 2014/15 are young people whose almost entire school life has passed under the influence of the participative Web 2.0, which has shaped the way they perceive everyday actions such as communicating with others and establishing and nurturing relationships

via the social networks and the ones they perform in the course of their professional/ scholarly duties (searching for information and preparing class assignments). It would then be too simple to claim that nowadays the reason for the increases or drops in Internet plagiarism should be blamed on the sheer presence of Internet access. Researchers tend to agree that there is no conclusive evidence of a dramatic increase in plagiarism (Pecorari, 2015). Rather, the reason for students' plagiarism appears to be partly the result of these Internet-molded perceptions, but also of a combination of other features which I will try and explore in the present paper. But first, the notion of plagiarism needs to be clarified.

The exact definition of plagiarism is quite difficult to outline, as the practice is very complex and has multiple facets. Pecorari (2013) gives the following guidelines for the notion: this is text that is taken and used without appropriate attribution to its original source. Using text without proper attribution with the intention to deceive is called prototypical plagiarism, whereas in cases where such an intention is irrelevant – textual plagiarism. Textual plagiarism is also used as an umbrella term, covering both prototypical plagiarism and patchwriting (the term is by Howard, 1995). It should be noted that recognizing plagiarized texts is no simple matter. Pecorari (2008) cites a set of four criteria that must obtain in order to identify a piece of written production as having been plagiarized: first, there must be similarities between words or ideas in the text under consideration and earlier texts; second, these similarities should be due to the later text repeating the earlier one; and third, the earlier text should not be appropriately referred to in the new text. The practice which the present study targets is much more straightforward; the cases which prompted the study were large chunks of copy-pasted text, which clashed with the language proficiency level of the students and thus stood out. The fourth criterion is the intention to deceive. As Pecorari (2008, p.166) rightly notes, distinguishing between cases of intended vs. non-intended plagiarism is quite difficult, one reason being that there is no commonly accepted view on which practices should be regarded as good, bad or in between. Moreover, intention or the absence thereof is difficult to prove.

It should be noted that French language research generally produces a thorough inventory of cheating practices. Canadian universities also list a plagiarism instance that has not been widely researched yet, that of translated plagiarism, which consists in translating portions of text and omitting to reference the original source (Guibert & Michaut, 2011/2). Recurrence to paper mills (greatly facilitated by the Internet, which guarantees anonymity), even in Bulgaria, tends to suggest that the students are aware of the deed's dishonesty.

The term patchwriting was introduced by Howard (1995) to denote ideas that are appropriated not verbatim from another text, but after some linguistic transformation – substituting synonyms and paraphrasing – are incorporated into one's own written production. She argues that the student does not necessarily have the intention to cheat and concedes that patchwriting can be useful as a stage in the learning process, helping understand words and concepts the students may be unfamiliar with (Howard, 1995, p.799). I will remark here that this does not definitively exclude the intention

to cheat and sometimes students can even mistake this practice for the proper mechanism to avoid plagiarism in academic assignments. Imitation as a learning technique (also see Pecorari, 2008) makes perfect sense especially in cultures that practice rote learning and put emphasis on the memorization of a large quantity of information (as Bulgarian schools still do, to a large extent). Note that patchwriting differs from paraphrasing in that patchwriting is more closely related to the language of the source, where the original text is transformed by erasing words, changing grammatical structures and using synonyms; whereas paraphrasing would be conveying the message from the source in new language, keeping some keywords in (based on Howard et al., 2010, p.181). Patchwriting can sometimes be the result of poor source understanding and unsatisfactory critical reading skills (Howard et al., 2010), leading to the hypothesis that inappropriate practices may well be the result of unsatisfactory writing (or language) skills. EFL/ FFL students in Bulgaria may primarily have problems due to their language proficiency level and writing skills. However, it should be mentioned that most written assignments they submit in the course of their studies require the use of English/ French respectively for academic purposes, something they are not necessarily taught, so that repeating ready-made words and phrases in order to master natural collocations in a foreign language should not be conflated with taking portions of text to substitute for lack of ideas or lack of training in writing academic texts. At the same time, even though the Internet figures prominently in the young users' lives, Internet-based instruction does not figure as prominently in their classes as one would have hoped: according to the results of the latest Survey of Schools: ICT in Education, ICT-tools-based instruction in the schools is insufficient, ranking Bulgaria at the bottom five countries in the EU (Country chapters of the report, 2013, p.9-10). This may well be the reason why the way the "digital generation" handles information on the Internet seldom goes beyond the intuitive.

My observation is that unsatisfactory written assignments have to do with poor writing habits; however, it may be difficult to incorporate writing skills instruction which can address the complexity of the problem to every class. Another experiment with 4-year students at a Bulgarian university demonstrated that even in the absence of blatant cases of plagiarism, the percentage of personal reflections on the subject matter the respondents included in their written production was negligible (Chankova, 2016). These results confirm the hypothesis that major problems exist with students' internalizing information and its subsequent use in their own production. Also, a major gap in pre-university (and university education, for that matter) seems to be the fact that plagiarism is not addressed in a comprehensive manner and students do not learn 'good' practices to avoid the offense. At high school level, the exposure to scientific literature takes the form of school books which are usually written by a team of scholars but are seldom perceived as authored books at all: school books typically present a bulk of knowledge in a scientific domain, which is already explained and analyzed in the book, focusing on the content rather than on attribution of authorship. These we may call pre-packed volumes of information do very little in instilling an idea of authorship in students when it comes to scientific

knowledge. Any course work completed in high school will also be focused on the content and rarely are instructions given on proper source use and referencing. On the other hand, it may be less about understanding the idea of authorship and intellectual property than about instilling in students the notion of academic integrity. High-school cheating practices prepare the way for university students' plagiarism, as Guibert & Michaut found; further, as a university instructor, I feel that the university curriculum is ill-equipped to address the problem of information exploitation on the entire spectrum (understanding, critical evaluation and further utilization in own production). Paradoxically, the Internet may act as a further enabler of the information opacity by limiting in various ways exposure to different information types, further limiting critical thinking skills (social networks have recently come under fire for personalized news feeds that cater to the user's point of view, limiting exposure to adverse aspects or topics).

A rather wide-spread explanation for plagiarism practices of EFL (and ESL) students appears to be the one that emphasizes cultural differences as being the reason for the bad practices. It is important to comment on this aspect in view of the present study. Presenting a linguistic analysis of plagiarism, Pecorari (2008) reviews a culture-specific perspective on plagiarism practices in foreign students, suggesting that different cultures may have quite a different perspective on the notion of plagiarism. A volume of research is dedicated to different attitudes to plagiarism in Asian societies, for instance with Chinese or Japanese students (Pennycook, 1996; Sowden, 2005). Cultural conditioning, while playing a role in the way students of different cultural backgrounds approach learning, is not the main reason for plagiarism and can give rise to negative stereotyping and downright misconceptions (Liu, 2005). Besides, the spread of the phenomenon of student plagiarism across the globe and across different groups of students tends to suggest that cultural conditioning may have little to do with the issue. Rather, as a socially unacceptable and inherently fraudulent practice, plagiarism has been positively linked to the probability of students to commit other fraudulent acts, such as riding the bus without a ticket, submitting an untruthful administrative document etc. (Guibert & Michaut, 2011/2). Audet (2011) provides a rich inventory of fraudulent and cheating acts related to student dishonesty in the context of their studies, a large portion of which are committed online (for example, unlawful downloading of copyrighted material). Interestingly, even though both French and Canadian societies are to a large extent multicultural, the authors cited did not seek to explain the said behavior by cultural conditioning.

The popularity of the idea of cultural conditioning is due to the predominance of the Western perspective on the notion: Sutherland-Smith (2005b) questions the Western idea of plagiarism by investigating students' perceptions of plagiarism practices, finding that students generally did not perceive the Internet to be the kind of source they had to cite, as they thought it was a "free zone" that could be exploited as needed. She concludes that teachers and students have conflicting views on authorship and proper source attribution and suggests that the Western approach is ethnocentric when it comes to defining the notion of plagiarism, which she suggests should probably be reconsidered in the context

of a globalised world. What I find significant is that differences exist between the students' and the teachers' perspectives on plagiarism and on originality and credit and the evidence that the students' understanding of these notions comes from Internet use practices such as downloading music or taking text for their own (see Blum, 2011, p.2). The differences may go farther than that: Breuer et al. (2014) found that even ideas Google generation students have about information, bias, reading and traditional hard-copy books, and note-taking differ significantly from the understanding of their teachers.

Teachers themselves have various perceptions as far as student plagiarism is concerned: Sutherland-Smith (2005a) found that there was no uniform enforcing of common university policies on plagiarism and members of staff reported unwillingness to proceed with plagiarism investigations due to worries about the university image or lack of confidence in the existing structures. It is common practice that university teachers approach the issue individually in their classes, having to evaluate the gravity of the offense in order to decide what course of action would be the most appropriate. It might seem too harsh having to engage in a formal investigation in order to punish the wrongdoer; however, failing to inflict any kind of punishment, be it setting a penalty assignment or failing the course, may well create the perception in students that cheaters get away with it (recall that Scanlon and Neumann, 2002, found this could tempt other students into doing the same). However, punishment can only have a deterring effect if the students understand the reprehensibility of the deed: colleagues report that often students take the offensive and cannot understand what exactly they are accused of when exposed as plagiarists (personal communications; also personal observations).

There is one important observation that is worth considering in this respect: the issue of plagiarism is often stigmatized and students are expected to conform to university anti-plagiarism policies when often they are not provided with the guidance and/or instruction necessary to teach them how to do that (Pecorari, 2008, p.2). Guibert & Michaut (2011/2) reported that 85% of the respondents stated not to have read university regulations concerning plagiarism sanctions. Bulgarian students are not alerted to the problem of plagiarism as no high-profile cases have circulated in the Bulgarian media (quite contrary to the French or German societies, for that matter, which have exposed a wide variety of different plagiarism-related cases, involving writers, journalists and even ministers). Knowledge of the sanctions alone does not translate automatically as knowledge of the 'good' practices and additional careful instruction needs to be implemented to supply the mechanism needed to follow university regulations. Despite the fact that Bulgarian universities strive to adopt anti-plagiarism policies and plagiarism-detecting software has been widely applied for written submissions in many universities, very often university regulations do not include a procedure to follow in case of suspected plagiarism. Some university regulations list sanctions, but no procedure or special institutional body to deal with the offense, confirming the suspicion that plagiarism cases are not dealt with in practice. For comparison, French and Canadian universities refer the student suspected in committing plagiarism to a

disciplinary board (Audet, 2011), English-speaking universities also cite a procedure (albeit judged as heavy or imperfect, Pecorari, 2015; Sutherland-Smith, 2005a) which usually treats the matter as a disciplinary offense. Many German universities make use of a signed affidavit from students submitting a thesis which can even result in legal pursuits in case of plagiarism.

The language proficiency-related reasons for students' turning to copying and passing text as their own may be quite numerous: the assignment is too difficult for them to understand and they take the easy way out rather than taking the time to try and understand what is required of them; they wish to get a good grade without spending the effort needed for it; prominently, lack of language proficiency and the writing skills necessary to complete the task (Liu, 2005, p.240); they feel overwhelmed by the volume of information on a particular subject matter and copy pages of text without taking the time to choose relevant passages (Rowlands et al., 2008). This is how the idea of the present experiment was born: trying to find out how effective pre-emptive measures against plagiarism can be. Researchers have already addressed the question of preventing students from plagiarizing by utilizing other means than simply making them aware of existing penalties. Many studies promote the idea that better assignment design, namely one that limits the possibility of the student's finding the answer needed readily written in a reference book, is an effective method in student plagiarism prevention (e.g. Kumar, 1998; Guiliano, 2000; Zobel & Hamilton, 2002; Wiedemeier, 2002; and Heckler et al., 2013). Others report on the deterring effects of improving the students' authorial identity (Elander et al., 2013) or paraphrasing training (Walker, 2008). I am unaware of similar studies involving Bulgarian students. For the present experiment I have applied one of Pecorari's practical suggestions, namely treating source use as a writing skill and teaching it (Pecorari, 2013). Teaching can intervene in various ways in preventing plagiarism addressing different facets of the problem: activities which are oriented to the transparent reports of the source such as extracting and relating content with accuracy and signaling orientation to content; referencing and language-oriented activities such as paraphrasing (Pecorari 2013, p.83-93). Also, draft-writing and assignment design are important pre-conditions in fleshing out problems with textual plagiarism.

Whereas careful assignment design is a very important element in preventing students from cheating, sometimes the students' language proficiency level or the field of study (as the humanities, for example) calls for more permissive tasks, giving the students more freedom over topics they wish to tackle, thus making it impossible to use assignment design as a plagiarism-deterring strategy. It is also important to lift the error or offense stigma in order to conduct a constructive dialogue with the students on their written production practices. Focusing on a collection of skills should take the focus off the offense and constructively address weaknesses while cultivating an understanding of how sources relate to build up the new text. Moreover, a wider perspective is sought in this study by addressing a collection of skills than by simply focusing on assignment design: while assignment design addresses immediately the problem of cheating students, skill-honing has the

potential of stretching over to the students' post-university professional lives, forming good habits in information exploitation and management.

From a social perspective, the Bulgarian context has some features that make it different from the one described in western studies. I wish to point out two here: first, the demographic crisis from the nineties and the early 2000 make it the case that for the past three to five years universities have been competing for high-school graduates, culminating in 2016/17 with universities having about 70 thousand free places, whereas the number of high-school graduates was around 50 thousand. Second, the introduction of a series of structural reforms in the secondary education, topped with the so-called delegated budgets (school principals receive funding in bulk, not allocated by package, leaving them free to distribute it according to the needs of the school; funding is also tied to the number of students enrolled in the school). Although the merits of the structural reform seem obvious, commentators and educators are yet reluctant to engage in a serious discussion of some of the consequences of that measure (widely discussed in the media), namely, that given the lower number of children enrolling in the secondary education, a significant drop in the quality of education might arise – a consequence some see realized in the results of the latest PISA reports and the results of the high-school graduate exams. These two features combined have led the students to regard education as a commodity that is owed to them and the general value of education has greatly decreased. This sentiment cannot lead to great engagement to one's studies; as Guibert & Michaut (2011/2) noted, (dis)engagement to one's studies is directly correlated with plagiarism practices.

### **Aim of the study**

The aim of the current study is twofold: first, from a broader perspective gain insight into the students' information exploitation practices, namely the practice of lifting (pieces of) text without acknowledgement to the source; and second, more particularly, determine how effective pre-emptive measures can be if we approach information exploitation and writing from sources as skills that need to be taught. Acquiring critical assessment skills can be regarded as a by-product of some of the exercises designed for the experiment. The importance of assessing the information the students encounter and understanding the source material is crucial for forming effective writing skills. To that aim, an experiment was designed in order to investigate the relationship between the amount of targeted instruction and the (non-) plagiarized output between three groups of students, each group receiving a different amount of practical exercises addressing the writing from sources skills, combined with trial search runs and analysis of various websites for reliable and non-reliable information. The comparison between the three groups of students who have received different instruction on the matters of plagiarism will serve as a ground for estimating the efficiency of pre-emptive measures against plagiarism. The hypothesis tested in the study is that these measures will be efficient in preventing cases of plagiarism; the prevention of textual plagiarism is expected to correlate with the amounts of detailed and in-depth instruction on a variety of writing skills. As a

corollary, I will attempt to spell out the reasons behind the practice of plagiarism.

## METHODOLOGY

In the course of three language classes, third-year students were given academic assignments which they submitted after completing the preparations specific for each participant group of the experiment. The object of analysis was mainly the written production of the students collected over a period of 4 semesters. All of the students were given information sheets with written production requirements (length, structure, bibliography, citation method) and plagiarism definitions, as well as excerpts from the university plagiarism regulations. The topic and the exact genre of the written production varied with regards to the particular class of the students. The number of participants was 58 (28, 15 and 15 in each group of participants respectively), 43 were English Philology majors, 15 were Applied Linguistics majors (French). Third year students were chosen for two main reasons. First, they have satisfactory language proficiency - on average a comfortable B2 level of language proficiency, following the Common European Framework of Reference for Languages for English and French respectively – which reduces the impact of language proficiency-related reasons for plagiarizing assignments. And second, they are expected to have enough experience with academic texts to be able to understand, for example, principles of citation and notions of information reliability. Language classes were chosen for the greater room for variability in the subject matters that can be tackled therein; generally, language classes for third year students consist in practical/applied language studies such as translations, text analysis, essay writing, argumentation studies, academic writing, and discussion groups, depending on the specific group's needs and proficiency levels. Both the English and French language classes were taught by the author. The written production collected for the experiment was part of the course work. The students gave their consent to participate in the experiment and the written assignments were anonymised before conducting the analysis.

Pecorari's (2008) criteria for defining a text as having been plagiarized have been used (see the first section); the particular realizations of these criteria include (but are not limited to) the following: sentences, paragraphs or entire texts copied such as from a source without reference to the source; ideas or arguments borrowed from a source without reference to the source. Cases in which sentences, paragraphs or entire texts in which language has been partially altered or paraphrased without reference to the source are defined as examples of patchwriting. According to one view, if only language is borrowed but not content, this does not present evidence for deceptive intention (see for example Yilmaz, 2007). However, in the humanities, where language is of paramount importance for the argumentation and where language and content are sometimes difficult to distinguish, the issue of intention seems of little to no relevance and for the purposes of the present study, it was not addressed. Other features that were taken under account in the exercise design and in the analysis of the data include the presence or lack of citations, the presence or lack of in-text

references, the presence or lack of reference lists at the end of the assignments, the nature of the websites used as sources of information. The cases of plagiarism that I had to deal with in the course of the experiment are quite straightforward: either written assignments are word-for-word copied from a source, or assignments begin by an introduction written by the student and then continue with large portions of copied material (in the latter case, language proficiency improves dramatically over portions of text, giving instantly the plagiarist away).

The experiment was designed as a comparison between three groups of students subjected to a different amount of in-depth instruction so that the effects of teaching writing from sources as a skill could be assessed. Henceforth, these will be referred to as group 1, group 2 and group 3. The experiment stretched over four semesters, with group 1 completing the experiment first, followed by group 2 and then group 3, allowing for an adjustment and calibration of the practical sessions so as to remedy the instruction gaps based on the students' real needs. The first group of students received a basic instruction on plagiarism-related issues in the course of an oral communication English class. The students were advised on the methodology of making oral presentations and writing written reports in 2 sessions (classes usually consist of 15 sessions); a written document was compiled and distributed to students with explanations and examples of the research process, referencing, information selection and advice on the written report structure and a reminder of the university policy on plagiarism. Detailed directions on information search methodology were provided during the class; practical advice on how to monitor and reference sources was given in the course of a trial-run task in which all of the students took part. The written report had to be based on the 15-minute oral presentation. The notion of plagiarism was explained.

Group two took part in the experiment during French language classes. The written production collected for the experiment also involved a written report based on a 15-minute oral presentation. This time, in addition to group 1 setting, seven additional sessions were dedicated to exercises developing critical assessment skills, problem-solving skills and analytical skills, emphasizing written production (writing a summary, a critical review, writing argumentative texts, analyzing reviews and evaluating arguments). Extensive explanations on information selection and reliability were also offered.

Group three took part in the experiment in the course of an English language class, the aim of which was producing critical reviews in two steps – summary and critical review. The written production collected included class assignments in various stages of their completion. The class was almost entirely dedicated to practical exercises; in addition to group 2 settings, exercises in Internet-based search specificities were included (search for a specific piece of information and compare the results, evaluate the reliability of the information). Exercises in paraphrasing and citing were conducted, draft-writing was introduced and practiced, and, in order to raise awareness of one's own work and get peer feedback, students worked in teams. The exercises were graduated in the level of difficulty,

culminating in working on academic texts. 10 sessions in their entirety were dedicated to these issues. Although the tasks for the students targeted specific writing-from-sources skills, the entire approach to these matters does not differ significantly from what usually happens at tertiary level: the discussion on plagiarism is embedded in a larger context of information exploitation, without the stigmatizing effect of punishments cited in university regulations. The long-term aim for the students is to view proper information exploitation practices as part of their literacy (including digital literacies) skills.

## RESULTS

The data collected is distributed as follows:

In group one, 28 written reports in English were collected. Out of those, 26 were copy-paste printouts from the Internet, 18 of which were too long to fit into a 15-minute presentation slot, suggesting that even a basic selective process was not conducted by the students; 1 was genuine research notes; 1 was a plan only.

In group two, 15 written reports in French were collected. 5 were copy-paste printouts from the Internet (lifted from various websites, sometimes with a list of references attached), 4 were cases of patchwriting (a mixture of paragraphs taken directly from a source without proper citation and paragraphs written by the students), and 6 were proper research reports.

In group three, 20 texts were collected in English, 8 summaries and 12 reviews. 4 were heavily plagiarized, 6 were cases of patchwriting, 3 contained the occasional occluded citation, and 7 were proper productions. The difference between the number of written assignments and the number of students participating in this experimental group is due to the fact that some of them submitted two written assignments.

In the context of the present study, patchwriting seems to be a huge step forward in using sources and producing text autonomously for the participants of the study. It should be clarified that the written production classified as patchwriting is also a variation of incorrect information use and as such will fall under the university sanctions for plagiarism. Nonetheless, in order to ensure proper source material understanding, exercises on writing summaries and reviews were included. Proper productions are defined as displaying an identifiable argument (or opinion stance) through the entire piece, the complete lack of copy-pasted content, and at least some identification of the sources used in production. In-text references lack there, too (direct quotations notwithstanding).

## DISCUSSION

In the context of the present study, one of the main culprits of the students' bad practices is conjectured to be their insufficient information exploitation and management skills. This is corroborated by the lengthy

reports printed off the Internet, suggesting that even for gathering non-academic information (which is supposedly less demanding to process) the students had relied on a very basic selection process after their information search. The production of proper reports steadily increased in correlation with the amount of in-depth instruction, as can be seen on Fig.1. The importance of raising awareness of their own writing process transpires in the results displayed by groups 2 and 3; the emergence of patchwriting in these groups is also considered to be a sign of improvement. The results are thus strongly suggestive of the causal relation between the amount of in-depth instruction and the (non-)plagiarized outcome. However, it should be noted that group two showed a clear improvement of the content and structure of the texts, with clear argument-lines and well-articulated opinions, whereas group three showed a distinctive improvement in their language skills, but still did not find their authorial voices and relied on external sources for ideas. The inconsistent use of in-text referencing (except for direct quotations) and patchy bibliographies is still a sign that students do not understand the mechanism of how the different sources they consult interact together in order to build up the new text.

Based on the data collected, it seems that the reasons behind the copy-paste practice are a mixture of the students' perception of set assignments at university level, their feeling being that "homework" belongs to high school (based on class discussions), and their poor information management and exploitation skills, shaped and influenced by their frequent online presence. The experiment does not carry over problems of personal learning discipline. Instructions on the written reports distributed to group 1 were largely ignored, while students frequently justified this behavior by not wanting to be bothered with style and format. Formal requirements over methods and structure were thus taken to concern the form and not the content. Locating the information they needed for their purposes seemed to be the main preoccupation of the students. Another important point was time constraints: apparently students did not start working on the assignment until their own presentation was due, thus being constrained to rush through much of the process.

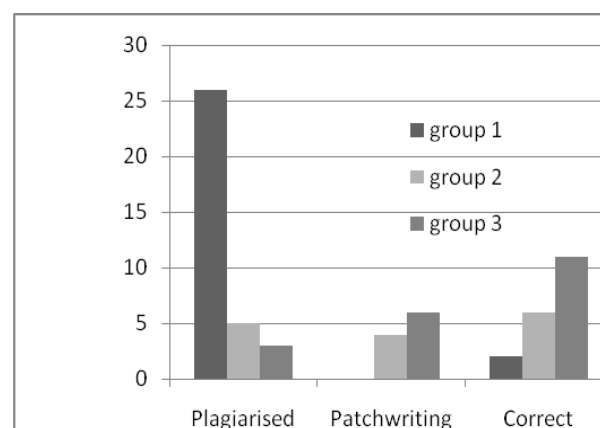


Fig.1. A comparative graph on the three groups of participants in absolute numbers.

For group one, only two sessions of the class were dedicated to explanations about the written



report, the information management and proper information use. Although the students received information sheets in order to facilitate their preparation, in their mind the written report was merely a trace of their oral presentation assignment, which they regarded as primary. This observation is corroborated by the number of reports which do not follow the instructions the students were provided with. The topics chosen were not necessarily ones in which the students had extensive knowledge (for the purposes of broadening the active vocabulary of the students, a vast array of topics related to politics, environmental protection, human rights, society and culture were selected, with a particular problem or question for them to prepare, present and discuss in class), so the Internet search the students conducted was not very thorough or detailed.

Despite unequivocal instructions on how to write the report, only in 13 of the cases were lists of references provided with the websites consulted (no books or articles or other documents figured among them). The kind of webpages the students had consulted ranges from educational pages (rarely) to commercial pages or infomercials, showing that students do not discriminate between different kinds of content in terms of the content's reliability or authority. User-generated content was also frequently among the sources used (e.g. *Wikipedia* in 7 cases, *answers.com* and *Youtube* videos). Granted, the information found was not intended to be used for a scholarly discussion on the particular topic, but this disparate assortment of sources was found in the bibliography lists provided by the participants of groups 2 and 3, where academic texts had to be produced. Overall, more than 50% of the students did not bother with reference lists in their written reports. During the discussion it became apparent that they did not think it was necessary because they were using the Internet as a source (this is consistent with Sutherland-Smith's above-mentioned findings on the perception of the Internet as a "free zone"). Curiously, the copy-paste practice found in the overwhelming majority of the reports was also qualified as using the Internet as a source, the motive of not ever changing the wording or trying to summarize or comment on or explain any of the information lifted was supposedly the fact that it was so obvious that they did not write / create the texts, they thought it would be better to leave them as they were. Another interesting observation is that the students did not mention the author of the information they used taken from websites featuring articles written by an identified author (2 cases of newspaper articles). The complete occlusion of the authorial figure and the claim that the Internet is an information source betrays a somewhat warped perception of information sources and information use, which can be sourced directly to the influence of the Internet and the new affordances it offers. It seems difficult for students to appreciate that the Internet is a medium, giving access to information created by (an) author(s). The absence of in-text references is symptomatic of the changed perceptions of proper information exploitation. The usual practices in the Web 2.0 of recycling or of "remixing" (the term is by Manovich, 2007) information makes it quite difficult for students to master the 'good' habit of providing reference to their source. The rationale behind the

students' exploitation of information found online is that the participative Web 2.0 allowances form the perception that if something is online, then the author (if any) would gladly share it (see also Bristol, 2011). However, it is to be noted in this respect that many Internet genres use citation (chat platforms, fora, email) and even in user-generated spheres like blogs and vlogs linking original content is the common practice, so it would be too simple to blame the Internet for this (mal)practice. Although after every presentation the students were given detailed feedback on what went wrong with both the presentation and the written report, it is safe to say that no amount of explanations and/or written information sheets provided to students influenced significantly their written production.

In group two (and three), the emergence of cases of patchwriting can be construed as a useful intermediate stage in the learning process. The aim of the class being an oral presentation on a variety of topics, the comparison between the results in groups one and two allows for a high degree of confidence in the conclusions drawn, as the students were faced with the same aims and constraints in their preparation. Also, both the proper reports and the patchwritten reports were noticeably shorter, starting from 800 words up to 2000 words, which also revealed a greater degree of information management (the students selected the information that suited their purposes); consequently, the presentations themselves were more focused. This is an indication that the exercises helped the students understand the basics of information management, at least as far as quantity is concerned. The whole process of preparing a class assignment was broken down into manageable tasks which were addressed separately, making the students aware of the skills needed to complete them. The structure and strength of arguments, assessing the arguments that support or disprove a point and evaluating a piece of writing are all targeted as being the building blocks the students would use later for their own text production. Yet, the majority of texts were produced in one draft, leading to the conclusion that the students think of their written assignments as of a result-oriented action ('I need to hand in something') rather than realize assignments should be more process-oriented ('I need to learn how to do that properly'). It turned out it was the awareness of writing as a process that was lacking. Noticeably, the portion of non-plagiarized reports display a clear stance on the problem addressed which was not borrowed from the Internet.

The following excerpt presents a sample of patchwriting produced by the respondents:

I must admit that Boris the Animal (Jemaine Clement), the bad guy, was really scary and leering with his voice and make up; yet he didn't appear much in the movie. The thing that I found interesting is that the young agent K and the older Agent K are portrayed by two different actors. The young Agent played by Josh Brolin made me think it is the old Agent K. They had the same voice and attitude. But still the young Agent K was interesting and funny guy. Men in Black 3 also adds a new endearing, funny alien character who seems to have a really big heart Griffin (played by Michael

Stuhbary). He is able to look into multiple probable future outcomes and scenarios. This character plays an important role in the movie's second half and its final resolution. After the first *Men in Black* movie, I wasn't particularly looking forward to this belated sequel. But I had fun. It has an ingenious plot, bizarre monsters and a closing scene that adds a new sort of touching dimension to the character of J and K.

The piece was crafted partially from Roger Ebert's review of the movie in question and [movieguide.org](http://movieguide.org) reviews and contains portions of altered text as well as copy-pasted portions. The product appears to be an intricate patchwork of (pieces of) sentences (often in different registers) to shape up a text which reflects the feelings and opinions of the student, but containing no trace of the voice of the student. It is the textual version of emoji communication, where some textual representation is carefully selected to match an internal idea, without the student ever attempting to articulate the idea in her own words. My reservations regarding patchwriting concerns the mechanisms needed to move beyond that to using one's own words to express ideas and opinions. Given the intricate mixture of different sources that are patched together, one assumes that time economy is not the main reason for resorting to ready-made texts, as the time needed to select pieces and mash them up may be considerable.

Group three displayed a far greater awareness of the writing process in the course of the experiment for several reasons. First, all of the written production was uploaded and stored in a computer cloud system, where all of the students in the class had access to their own work as well as the work of their peers through the different drafts of its production, allowing them to keep track of their progress and compare their own production with that of others. Second, students worked in teams in class and on their assignments, thus having somebody else's input and feedback while planning and executing the tasks. And third, draft writing allowed students to get a taste of the writing process in progress, applying new techniques and new skills as those were acquired, which had the effect of shifting the focus onto the process itself rather than on merely producing content.

The paraphrasing and summarizing exercises that group three was subjected to put great emphasis on are in effect language exercises; they allowed the students to improve their language skills, to enrich their active vocabulary and to familiarize themselves with language-in-context patterns they could re-use later. They were also a reliable way of testing how well the source material was understood. During the Internet search trial runs in class, it became apparent that different Internet-based genres and the particularities of the information contained therein were not distinguished by the students. The occluded citations were due to their being uncertain if a particular practice counted as citation and how it should be phrased (for example, students did not know how to quote a slogan from a poster). The amount of targeted instruction of different ways to use citation in the text production seems to have been insufficient to have exerted any noticeable

influence over the use of in-text references other than direct quotations.

The occurrence of plagiarized assignments in groups two and three can be partially explained by the negative attitude towards the students' scholarly duties (they do not seem to take in-class production seriously) and their desire to follow the path of the least effort. For many of the participants the sanctions seemed to be too abstract to exert any disciplinary effect over potential offenders. The question related to the outcome of the study remains as to how deep the changes observed are.

## CONCLUSION

Students plagiarize for different reasons: in foreign language students, poor writing skills and poor writing from sources skills are among the more prominent ones. Generally, plagiarized course assignments are the visible part of a far more complex problem. The results of the present study revealed unsatisfactory information searching skills, poor information literacy, underdeveloped exposition skills, and poor writing from sources skills. My observation is that even philology and linguistics students have very little written output in the course of their studies, usually limited to set assignments, which partly reflects the effects of the "digital generation". The equivocal standing on plagiarism sanctions that are actually enforced at the university is another major reason for students to cheat; they feel they would not be really punished if they got caught (also, Pecorari, 2013). Undoubtedly, the Internet use has shaped the way students (mis)understand notions of authorship, originality and proper information use. It has also shaped up the way the students regard any information-related task: they have come to expect quick solutions. Translated into their scholarly duties, this expectation leads them to regard their assignments as goal-oriented activities, for which finding more or less relevant information quickly counts more than any other (pedagogical) purpose that might be sought in setting it. The combination of these three features – the influence of the Internet, the lack of structured instruction in writing from sources and low language proficiency levels – underlie the practices of information exploitation that are adopted by students, resulting in plagiarism. The setting of the present study was designed to reduce as much as possible within the average B2 level the impact of language proficiency levels as a significant variable for the students' plagiarism practices.

Although the question of student plagiarism prevention has been addressed by scholars before, rarely was the focus of these interventions placed on a collection of skills, aiming at lifting the stigma from the offense to forming good habits in proper information exploitation. The experiment reported in the present paper helped argue the case that focusing on a collection of skills related to writing from sources may successfully act as a preventive measure in deterring plagiarism practices.

The main findings of the present study can be summarized in the following way. First, plagiarized assignments betray the lack of structured, in-depth instruction on 'good' writing practices. Even with assignments that do not require special skills in producing academic texts, as in groups one and (partially) two of the present study, students display a

goal-oriented behavior and aim at submitting a paper rather than submitting the result of (and the evidence for undergoing) a certain learning process. Second, as far as the correlation between the amount of in-depth instruction and the number of plagiarized assignments is concerned, teaching source use as a writing skill can lead to a dramatic drop in plagiarized assignments; it may be even more beneficial if the practice is not identified as anti-plagiarism measures. Although the three groups of participants in the present study received copies of the university policy on plagiarism, the knowledge that there are administrative sanctions against plagiarists does not deter students from lifting paragraphs or entire texts from the Internet without proper citation. Third, even though patchwriting may be regarded as little better than outright plagiarism, this is a step in the right direction for students on their path to learning how to write autonomously. It does raise serious concerns about the mashing up/ remixing culture that seems to be propagated by the Internet use. And fourth, I find significant that the participants who submitted non-plagiarized assignments did not use in-text referencing. This shows a need to move beyond language skills onto questions of how intertextual relationships between texts are created in the writing process and how texts interact to help create the new text.

The results showed that plagiarism-related instruction appears to contain three distinct problematic areas which can hardly all be addressed in the framework of one experiment: first, understanding the principles of academic integrity and information exploitation; second, mechanisms and techniques of proper citation and mastery of academic writing style; third, implementing adequate school regulations that take into consideration the peculiarities of plagiarism practices in a Web-aided university environment. The complexity of the plagiarism reality cannot be addressed by tackling these problems separately. Student plagiarism practices appear to be a social phenomenon which does not only relate to information literacy or ethical understanding, but seems motivated by a series of features and societal shifts.

This research can be considered as adding to the current discussion on student plagiarism in that it emphasizes the fact that students do have various perceptions on authorship and academic honesty, which are at least partly shaped by their Internet use. Most of these findings are likely to apply not only to Bulgarian students, but also to students of various nationalities, thus circumventing the cultural conditioning explanations.

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