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Academic plagiarism prevalence among Spanish undergraduate students: an exploratory analysis

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Abstract

Introduction: The present research article is an exploratory study on academic plagiarism practices among Spanish university students.

Materials and methods: To answer the main research questions, we based our work on a cross-sectional survey of the targeted population. The sample consisted of a total of 560 students and the procedure was non-probability sampling.

Results and conclusions: The research findings show that the Internet has become the students' main source for the plagiarism of academic essays. Furthermore, there is also a substantial prevalence of self-plagiarism and peer-to-peer (p2p) plagiarism when elaborating essays.

Keywords: academic plagiarism; academic integrity; essays

Introduction

As suggested by Kibler [1], one of the main difficulties when addressing the issue of academic dishonesty[1] is the lack of a clear and unambiguous definition of the concept. As academic dishonesty is a social construct, moral and ethical principles associated with a particular historical period, culture, and economic conditions determine its changing nature. From the existing literature in the field [2-6], we can infer that there are three main problem areas in which the students participate: during examinations; during the elaboration and submission of course essays or practical course activities; and circumscribed to quotidian academic life (e.g., peer interrelationships, inappropriate use of the academic institution resources, acts of vandalism, etc.).

The existing research on academic dishonesty among college students concentrates primarily on the investigation of four major areas: analysis of the prevalence of the phenomenon, analysis of the causes, analysis focused on establishing the profile of offenders of academic standards and, finally, analysis focused on the academic strategies to reduce and detect academic deceit[2] [10].

When studying the prevalence of students' academic dishonesty practices, the basic attempt is to gauge practical aspects that threaten the principles of academic integrity (i.e., copying on exams, plagiarising course essays from the internet, other previously submitted works, and other print and electronic sources, data falsification, etc.). The

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[1] This paper analyses and describes activities or practices that may be defined as improper or dishonest in academic environments in which the active subject (by action, omission or facilitation) is the student, excluding the analysis or consideration of activities conducted by faculty and/or other academic staff that may be classified as dishonest or wrong in academic environments. Of the four areas described in the literature as areas of academic dishonesty, the current work focuses on the learning area. The other three areas, management, teaching and research [7], are not addressed.

[2] There is a nascent fifth area of analysis: the study of future consequences of the commission of academically dishonest practices in the professional world. This area has not been included among the four major areas described because it is an emerging research field with scant documented research; though it is relevant to cite Harding's research group work on this particular topic [8,9].

study of the causes associated with academic dishonesty has become, undoubtedly, the hot-topic in the existing literature and has yielded a considerable amount of research. When analysing the causes associated with the commission of academically dishonest actions, researchers typically focus on at least one of the following perspectives: a) philosophical-ethical-moral; b) sociological-cultural; c) pedagogical-educational; d) legal; e) technological; f) psychological. Research on the profile and personal characteristics of students with a major tendency to commit academically dishonest practices examines variables such as: gender, age and years of study, marital status, religion, cultural and ethnic characteristics, academic success, combination of work and study, etc. Investigations on prevention and detection strategies have attempted to examine the functionality of the policy implemented in the higher education institutions. There are three main areas investigated: the normative approach; the informative and formative strategy; and the detection strategy, which typically uses technological solutions specific to plagiarism cases (11).

There is little literature and research developed on academic integrity among Spanish university students. It is a subject that, until now, has been poorly treated, and there are few rigorous studies that can be referenced. First, the work of Rey-Abella *et al.* (12) focused on the analysis of various forms of academic dishonesty among students in the School of Nursing, Physiotherapy and Nutrition Blanquerna; this research presents findings that estimates the percentage of students that admitted the commission of academic plagiarism (during their undergraduate studies) in 20% of the surveyed sample and 68% of the participants in the study believed that their peers have incurred, at least once, in some form of academic dishonesty behaviour. The second in this list is a recent study, sponsored by the French company of plagiarism detection software *Six Degrees*, based on the administration of a questionnaire to 299 university students and 53 teachers from the universities of Barcelona and Za-

ragoza (13) with results that elevates to 93% the percentage of students of both universities that admitted the commission of academic plagiarism and 80% of the lecturers surveyed have confronted at least once a case of students' academic plagiarism. The third work, and the most complete, was conducted by examining a representative sample (N = 727) of undergraduate students from all scientific areas at the Balearic Islands University (14); the study suggests that cyber-plagiarism it is the most extended form of academic dishonesty amongst the surveyed sample with 76% of the participants admitting the commission of this practice, being the act of cheating during an exam the second most frequent dishonest practice with a declared prevalence of the 53%.

In the current paper, we analyse and describe the prevalence of academic integrity violations centred on the elaboration of course essays, and more concretely, the incidence of commission of plagiarism among university undergraduate Spanish students. A double analysis perspective is adopted by measuring: a) the self referred response and b) the perception of their peers as they relate to these important matters.

Materials and methods

The exploratory and descriptive nature of the research problem and the objectives, along with the literature review, recommended the design of a national research study based on a cross-sectional survey addressed to the target population: undergraduate university students registered at the university portal UNIVERSIA[3] (http://www.universia.es). Following the classification of academic integrity studies established by Comas (unpublished research thesis), the research carried out can be described as: developed in one country at various universities (national and multi-campus), based on the data from undergraduate students from different courses and degrees and utilising face-to-face course modality.

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[3] The portal UNIVERSIA offers several restricted services to the university community of all Spanish speaking countries amongst others: news lists, job vacancies information, scholarships, etc. In order to use these services it is necessary the registration in the system. The sample used in the present study is part of all the undergraduate students registered in the portal from Spanish universities. ,

The study sample consisted of 560 registered undergraduate students with an average age of 21.7 years (ranging from 18 to 38), all of whom were members of UNIVERSIA portal, with an average of 4.95 (SD: 2.69) years of study in higher education institutions. Regarding the distribution of the sample by gender: 59% of respondents were female and 40% male. By year of study, the sample included: 15% freshmen, 36% sophomores, 24% third-year students, 17% fourth-year students and 5.6% fifth-year students[4].

The procedure designed was based on non-probability sampling of the volunteers. Although this design limits generalisation, it covers the exploratory finality of the study. The sampling error calculated for the entire sample is ± 4.11%, adjusted to a confidence level of 95% and under the assumption of simple random sampling.

The validation of the questionnaire used to obtain the data was conducted through the following steps: a) the structure and first draft of the tool was created based on the existing literature; b) the questionnaire was sent to eight international experts for validation; c) the questionnaire was completed by a sample of 52 undergraduate students of the Balearic Islands University. The final instrument contained a total of 19 questions: open questions, scale questions, dichotomous and polytomous multiple-response questions. The data that shapes the content of this paper are based on two of the questions of the questionnaire: the presentation of diverse scenarios that constitute academically dishonest practices (data falsification in essays, plagiarism from digital sources, cheating during exams, etc.). Respondents declared the frequency with which (if at all) they committed these practices during their studies at the university and the attributed frequency for their classmates. In the present article, we only describe the data obtained on academic plagiarism practices. The questionnaire was submitted and responded individually online using the UNIVERSIA means and restricted area. The estimated average time to complete the questionnaire was 8 to 10 minutes.

Results

The presentation of results is organised by: a) frequency of academic cyber-plagiarism and b) frequency of plagiarism using non-digital sources. Both are divided into "self-referred response" and "attributed response".

Academic cyber-plagiarism

As described in Table 1, the cases of cyber-plagiarism in which the students compose academic essays by combining personal content with fragments of texts extracted from the Internet had the highest incidence (self-reported and attributed): 42% of the participants in the survey stated doing it "*Few times*" and nearly 20% of the sample admitted a frequent commission of this academic misconduct. It is relevant that a wide majority of the sample (62%) considers that this is a frequent practice amongst the rest of the university students' population. In general terms, the prevalence of plagiarism varies according to the subject of the response: more acts of academic dishonesty are attributed to other students than the ones that are admitted personally. Furthermore, the admitted and perceived prevalence of obtaining an essay on the internet, for instance through essay mill sites, and submitting it as one's own is lower than the other practices that can be defined under the umbrella of "collage plagiarism".

Academic plagiarism using non-digital sources

Regarding the academic plagiarism actions based on print content, the main source of academic plagiarism, as illustrated in Table 2, was previously submitted personal essays with percentages of prevalence that ranges between 24% of the sample admitted doing so "*Few times*" and 4.6% declared the commission of this action "*Frequently*". When answering the question in relation to the other students conducts, a solid percentage of 31% consider that this is a frequent habit. This practice has been defined as self-plagiarism when referring to cases in which academics "recycle" material for

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[4] All courses considered part of the undergraduate curriculum in Spain.

TABLE 1. Prevalence of academic cyber-plagiarism actions (self-reported and attributed).

Scenario	Self-referred response			Attributed response		
	Never	Few times	Frequently	Never	Few times	Frequently
Download from the Internet a whole essay and present it as a course essay without changes	93.3%	6%	0.7%	31.9%	37%	31.1%
Compose an essay by copying fragments of diverse sources on the Internet and present it without any personal content	65.3%	28.3%	6.4%	21.1%	31.4%	47.5%
Compose an essay by copying fragments of diverse sources on the Internet and present it alongside some parts of personal content	38.9%	42.2%	18.9%	13.5%	24.2%	62.3%

diverse professional activities and seems to be quite extended amongst undergraduate students. Cases in which the submission of essays that were previously presented by other students, *p2p plagiarism*[5], were also prevalent with more than four out of ten participants (44%) considering that this is a frequent conduct amongst university undergraduate students.

Discussion

The presented work suffers from two main limitations: first, the inherent limitations of the methodological approach used and, second, a lack of completeness since, due to space limitations, we could not include all the data obtained in our investigation.

The data suggest that Spanish university undergraduate students' dishonest behaviours when elaborating written essays are similar in frequency, trends and dynamics to those observed by previous studies in other countries (15-24) and in Spanish universities (12-14).

When elaborating academic activities, the Internet has become the university students' main source (almost monopolistic) of access to academic literature (25). It seems logical, then, that the Internet (and its associated resources) is the major source of

TABLE 2. Prevalence of academic plagiarism actions using non-digital sources (self-reported and attributed).

Scenario	Self-referred response			Attributed response		
	Never	Few times	Frequently	Never	Few times	Frequently
Compose an essay by copying fragments of diverse print sources (books, articles, encyclopedias, etc.) and present it without any personal content	86.2%	10.9%	2.9%	42.4%	36.6%	21%
Compose an essay by copying fragments of diverse print sources (books, articles, encyclopedias, etc.) and present it alongside some parts of personal content	71.2%	25.4%	3.4%	40.1%	42.9%	17%
Deliver an essay elaborated by you that has already been submitted as an original one	74.1%	24.2%	4.6%	23.1%	45.6%	31.3%
Deliver an essay elaborated by someone else that has already been submitted as an original one	71.4%	25.5%	3.1%	19.3%	36.2%	44.5%

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5   Peer-to-peer plagiarism that occurs when students interchange essays and plagiarize one from other/s.

academic plagiarism. Although there is a substantial prevalence of acts of self-plagiarism and p2p plagiarism, cyber-plagiarism is more prevalent than other types of academic plagiarism among university students in Spain. This is due to the ease and convenience of accessing opportunities that provide Information and Communication Technologies (ICT), user anonymity, the changing concept of authorship and intellectual property that has flourished from these technologies and the ease of copying, pasting and editing a large number of documents with word processors. The higher prevalence of cyber-plagiarism is also evident in most developing countries of similar characteristics. The data from studies (4,21,26) on dishonest practices linked with written exams and tests show that ICTs have not significantly changed the *"traditional"* practices as have done with the elaboration and submission of written essays and practical course activities.

Future potential development and research in the field should focus on: a) combining quantitative and qualitative approaches to the phenomenon and the analysis of the causes associated with it, and b) the need for the academic authorities to confront and propose solutions to academic dishonesty. Spanish universities must meet the challenge posed by the information provided. The values of honesty, trust, responsibility, respect and fairness cannot be excluded from the educational objectives of higher education in the Information and Knowledge Society.

It should be noted that the main strategies adopted to cope with academic plagiarism (especially in contexts with a long tradition in this field such as the USA, Canada, UK and Australia) have been:

actions to detect plagiarism by the use of software, setting and implementing standards and codes of conduct and, finally, academic training interventions aimed, almost exclusively, at the students. Despite these efforts, differences between the data from environments that have "advanced" in dealing with academic plagiarism and the data obtained from environments that have not developed an explicit strategy to reduce this phenomenon (as is the case of Spain) are quite insignificant, raising the question of why this is the case.

To describe the situation concerning plagiarism in our classrooms and an attempt to find reasons and causes for academic dishonesty, social aspects and conditions must be considered. The effects of the environment on our students' attitudes, values and behaviours must be addressed in order to remedy the situation. Furthermore, it is necessary to recapture the principles of ethics, commitment and effort that appear to have been banished from academia and other areas of life. However, little can be accomplished if our work is not accompanied by changes across society and the cultural values that shape it. As stated by the French sociologist Lipovetsky (27): *"The XXI century will be ethical or won't be"*.

Acknowledgement

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Učestalost akademskog plagiranja među studentima u Španjolskoj: presječno istraživanje

Sažetak

Uvod: Članak prikazuje rezultate istraživanja pojavnosti akademskog plagiranja među studentima španjolskih sveučilišta.

Materijali i metode: Odgovor na pitanje o učestalosti akademskog plagiranja temeljen je na presječnom istraživanju ciljne populacije studenata s pomoću anketnog upitnika. Uzorak od 560 studenata dobiven je neprobalilistički (dobrovoljno sudjelovanje u istraživanju).

Rezultati i zaključak: Rezultati istraživanja pokazuju kako je internet postao glavni izvor studentskog prepisivanja u pisanju akademskih radova. Prilikom pisanja eseja, među studentima postoji velika učestalost samoplagiranja te prepisivanja od kolega (engl. peer-to-peer plagiarism)

Ključne riječi: akademsko plagiranje; akademska čestitost; eseji