

## Prevalence and factors associated with academic plagiarism in freshmen students of Social Work and Social Education: an empirical analysis

*Prevalencia y factores asociados al plagio académico en estudiantes de nuevo ingreso de Trabajo Social y Educación Social: un análisis empírico*

*Prevalência e fatores associados ao plágio académico em novos estudantes de Serviço Social e Educação Social: uma análise empírica*

*对社会工作及社会教育新生在学术作弊流行率和因素方面的经验分析*

تجريبي تحليل: الاجتماعية والتربوية الاجتماعي العمل في الجدد الطلاب لدى الأكاديمية بالسرقة المرتبطة والعوامل الانتشار

**Comas-Forgas, Ruben** <sup>(1)</sup> ; **Cerdá-Navarro, Antoni** <sup>(1)</sup> ; **Touza-Garma, Carmen** <sup>(1)</sup> ; **Moreno-Herrera, Lázaro** <sup>(2)</sup> 

<sup>(1)</sup> Balearic Islands University, Spain

<sup>(2)</sup> Stockholm University, Sweden

### Abstract

This article focuses on the study of academic plagiarism among freshmen university students enrolled in the degrees of Social Work and Social Education. Through a questionnaire applied to 913 students from 6 cohorts, the prevalence of plagiarism and some of the main factors associated with this phenomenon are analysed. The main results indicate that the students with the greatest tendency to plagiarize are associated with being male, younger, consider themselves to be worse students, value plagiarism less seriously, are poorly motivated by their studies and face academic tasks with a propensity to procrastinate. Finally, the students who plagiarize the most in their assignments are also the ones with the greatest propensity toward dishonest behaviour in other evaluation activities and the ones who attach the least seriousness to this fraud. The conclusions of the study indicate and provide areas for interventions aimed at promoting academic integrity and reducing fraudulent practices in higher education based on evidence.

**Keywords:** academic plagiarism, academic integrity, fraud in evaluation tests, higher education.

### Resumen

Este artículo se centra en el estudio del plagio académico entre el alumnado universitario de nuevo ingreso en los grados de Trabajo Social y Educación Social. Mediante un cuestionario aplicado a 913 alumnos de 6 promociones se analiza la prevalencia del plagio y algunos de los principales factores asociados a este fenómeno. Los principales resultados señalan que el alumnado con mayor tendencia a plagiar se asocia a ser hombre, de menor edad, se considera peor estudiante, valora el plagio con menor gravedad, está poco motivado por sus estudios y afronta las tareas académicas con propensión a la procrastinación. Finalmente, el alumnado que más plagia en los trabajos es también el que presenta mayor propensión hacia conductas deshonestas en otras actividades de evaluación y el que menos gravedad le otorga a este fraude. Las conclusiones del trabajo señalan espacios para las intervenciones dirigidas a promover la integridad académica y reducir las prácticas fraudulentas en la educación superior basadas en evidencias.

**Palabras clave:** plagio académico, integridad académica, fraude en pruebas de evaluación, educación superior.

|                   |              |                    |              |                     |              |
|-------------------|--------------|--------------------|--------------|---------------------|--------------|
| Received/Recibido | Sep 19, 2023 | Approved /Aprobado | Nov 29, 2023 | Published/Publicado | Dec 11, 2023 |
|-------------------|--------------|--------------------|--------------|---------------------|--------------|

## Resumo

Este artigo centra-se no estudo do plágio académico entre os novos estudantes universitários dos cursos de Serviço Social e Educação Social. A prevalência do plágio e alguns dos principais fatores associados a este fenómeno são analisados através de um questionário aplicado a 913 alunos de 6 cursos concluídos. Os principais resultados indicam que os estudantes com maior tendência para plagiar estão associados ao facto de serem do sexo masculino, mais jovens, considerarem que são piores alunos, considerarem o plágio menos grave, estarem poucos motivados para os estudos e abordarem as tarefas académicas com propensão para a procrastinação. Por último, os estudantes que mais plagam nos trabalhos são também os mais propensos a adotar comportamentos desonestos noutras atividades de avaliação e os menos propensos a considerar esta fraude como grave. As conclusões do trabalho assinalam oportunidades para as intervenções destinadas a promover a integridade académica e reduzir as práticas fraudulentas no ensino superior com base em evidências.

**Palavras-chave:** plágio académico, integridade académica, fraude em provas de avaliação, ensino superior.

## 摘要

这篇文章是主要聚焦于社会工作及社会教育大学本科新生学术作弊方面的研究。我们对六个年级的913名学生进行了问卷调查，并对与学术作弊相关的流行率和一些主要因素进行了分析。分析的主要结果显示最有作弊倾向的学生关联因素是男性、较低年龄、自认为差生、低估作弊的严重程度、学业热情不高、对学业任务有拖延倾向。最终抄袭行为最多的也是在其他评估活动中最有不诚实行为倾向的、最低估这种欺诈行为严重性的学生。在实证的基础上该研究指明了干预方向，以此不断推进高等教育阶段的学术诚信来减少学术欺诈。

**关键词:** 学术作弊、学术诚信、评估测验欺诈、高等教育

## ملخص

يركز هذا المقال على دراسة الانتحال الأكاديمي لدى طلاب الجامعة الجدد في درجات الخدمة الاجتماعية والتربية الاجتماعية. ومن خلال استبيان تم تطبيقه على 913 طالبًا من 6 فصول دراسية، تم تحليل مدى انتشار السرقة الأدبية وبعض العوامل الرئيسية المرتبطة بهذه الظاهرة. تشير النتائج الرئيسية إلى أن الطلاب الذين لديهم ميل أكبر للسرقة الأدبية يرتبطون بكونهم ذكورًا، وأصغر سنًا، ويعتبرون أنفسهم طلابًا أسوأ، ويقدرون السرقة الأدبية بشكل أقل جدية، ولديهم دافع ضعيف لدراساتهم ويواجهون مهام أكاديمية مع ميل إلى المماثلة وأخيرًا، فإن الطلاب الذين يقومون بالسرقة الأدبية أكثر من غيرهم في واجباتهم هم أيضًا أولئك الذين لديهم ميل أكبر نحو السلوك غير النزاهة في أنشطة التقييم الأخرى والذين يعلقون أقل جدية على هذا الاحتيال. تشير استنتاجات العمل إلى مساحات للتدخلات التي تهدف إلى تعزيز النزاهة الأكاديمية والحد من الممارسات الاحتيالية في التعليم العالي بناءً على الأدلة.

**الكلمات الدالة:** الانتحال الأكاديمي، النزاهة الأكاديمية، الغش في اختبارات التقييم، التعليم العالي

## Introduction

Around the world, higher education institutions use exams, tests, and academic activities to assess the levels of competence, skill, and knowledge that students have achieved (Fontaine et al., 2020; Stiggins, 2009). There is considerable evidence that accentuates the need to understand learning and assessment as "a single formative process" (Turra Marín et al., 2022). Thus, students' academic achievements reflect their success and can have significant repercussions on

various aspects of their lives, such as the successful completion of a course, entry into prestigious university programs, the award of scholarships, the acquisition of academic degrees, and, in the long term, they can influence their employment opportunities (Amrein & Berliner, 2002).

Academic life is founded on central principles such as respectability, honesty and integrity (Comas, 2009). However, there is considerable evidence that inappropriate practices and dishonest behaviour are notably

present in higher education entities (Cerdà-Navarro et al., 2022; Cerdà-Navarro et al., 2023; Denisova-Schmidt, 2016; De Maio and Dickson, 2022; Sureda-Negre et al., 2020).

Research on the subject highlights that academic integrity, which is characterized by the promotion and respect of crucial values in all academic facets, is based on three pillars: a) academic administration, b) teaching and research, and c) learning and study (Comas, 2009). In the third pillar, several acts and behaviours that violate the principles of academic integrity are recognized (Cerdà-Navarro et al., 2023). These acts not only include malpractices and misconduct during exam evaluations and the handing out of assignments and essays, such as plagiarism, falsification of data or purchasing assignments and essays from third parties, but also inappropriate behaviours in interpersonal interactions, such as damaging institutional or personal property and disrespecting classmates or academic and administrative staff (Gallent-Torres & Comas-Forgas, 2023).

It is essential, in this scenario, to focus efforts towards mitigating dishonest practices and promoting academic integrity in the university environment, in order to ensure the development of individuals and future professionals with high ethical standards. As highlighted by Macfarlane et al. (2014), the foundations of academic integrity lie in virtues such as sincerity, trust, justice, integrity, respect, truthfulness, and responsibility. By cultivating these virtues and raising awareness among students about the adverse repercussions of dishonest actions, it is possible to reduce the prevalence of these unethical behaviours and promote an environment of academic integrity in higher education centres (Comas, 2009).

Dishonest behaviours by students significantly harms and damages the academic sphere in several aspects. Firstly, they deteriorate the reputation of higher education and lower the value of the degrees obtained (Denisova-Schmidt, 2016). Furthermore, they introduce elements of inequality towards

students who have achieved their results through genuine effort and dedication (Montalbán, 2015). In turn, they place teachers under constant surveillance during any evaluation process, thus reducing their availability and ability to engage in other essential teaching responsibilities (Brimble & Stevenson-Clarke, 2006; Sattler et al., 2017).

Additionally, these practices constitute a "fraud", given that those who resort to dishonest practices to achieve academic qualifications with a professional nature are incorporating a way of behaving that, with a high probability, they will replicate in their future working life. This fact is supported by recent research indicating that unethical behaviours during educational training, whether in high school or college, can be precursors to unethical actions in later phases of life, including acts of corruption and dishonesty in the professional and social sphere (Guerrero-Dib et al., 2020). We consider it essential to highlight this intimate connection, which is often not adequately recognized, especially in fields such as Social Work and Social Education. As Collins and Amodeo (2005) pointed out, it is necessary to clarify and explicitly relate to students the connection between professional ethics and ethical conduct during their academic training.

### ***Typology of dishonest behaviours***

In the higher education academic environment, the incidence of dishonest conduct represents a significant concern, undermining, as has already been highlighted, the integrity of educational institutions and compromising the quality of higher education. Over the years, various studies have identified various types of deviant practices in the assessment processes that students can engage in (De Maio & Dixon, 2022).

One of the most prevalent types of dishonest behaviours is plagiarism, which includes copying the work of others, without providing the corresponding credit to the original authors (Perry, 2010). Plagiarism is a multifaceted issue that comprehends a spectrum of diverse behaviours, ranging from the verbatim

replication of texts to the utilization of improper paraphrasing techniques. The advent and widespread penetration of digital technologies have significantly facilitated such acts of academic dishonesty. These technologies offer students with large access to a plethora of online materials, thereby allowing the effortless appropriation and modification of information for their own use (Espiñeira-Bellón et al., 2021).

In addition to plagiarism, other dishonest behaviours include falsification of data and manipulation of results in academic assignments and activities, which not only discredits the findings of a study, but can also have significant repercussions on the scientific and academic community at large (Titus et al., 2008). Students, when conducting research activities, may be tempted to alter data to obtain favourable results in their research (for instance that would prove initial hypothesis of the study), a practice that is clearly against and detrimental to the research ethics.

Another common form of dishonesty is unauthorized collaboration on assignments and exams (Miller et al., 2007). This type of collaboration may include sharing answers during an exam or dividing and assigned tasks between diverse students on individual assignments and evaluation activities.

In a similar vein, there is the practice of purchasing academic essays from third parties (known as contract cheating), a serious form of dishonesty that not only violates ethical principles, but also calls into question the validity of the qualifications and degrees awarded by educational institutions (Newton et al. al., 2016).

Furthermore, identity theft or impersonation in exams is worrying (a situation that significantly increased during the pandemic caused by COVID-19), where an individual performs an evaluation on behalf of another, a practice that corrupts the evaluation process and goes against the principles of equity and justice (Comas-Forgas et al., 2021).

### ***Factors associated with dishonest behaviours***

There are several factors associated with the commission of these dishonest behaviours by university students. Next, we present and describe some of the main factors that are related, according to the existing body of evidence, to the probability of dishonest behaviours on the part of students (Comas-Forgas & Sureda-Negre, 2010; Sureda et al., 2009).

*Time pressure and stress:* Time pressure and stress are factors that can lead students to resort to dishonest behaviours to meet deadlines and the expectations of their teachers. The limited time and demands of academic assessment activities can increase the likelihood that students will resort to plagiarism or copying essays (Fatima et al., 2020; Santoso & Cahaya, 2019).

*Low level of motivation:* Lack of motivation is another factor that can increase the likelihood of dishonest behaviours. When students are not interested in a particular topic, they may be tempted to resort to cheating or plagiarism to complete prescribed tasks quickly and effortlessly (Krou et al., 2021).

*Lack of knowledge and misunderstanding of academic integrity:* This one is a key factor that can potentially contribute to misconduct and deviated behaviours by students. Being unsure about what constitutes academic dishonesty and what the potential consequences of it, are causes associated to such behaviours (Mukasa et al., 2023).

*Mistaken beliefs about academic culture:* Another factor contributing to academic dishonesty is the mistaken belief that cheating, or plagiarism is acceptable. The students may think this behaviour is necessary to succeed in college (Bertram Gallant, 2017). In this regard, faculty and educational institutions must foster a culture of academic integrity that promotes honesty and ethics in learning and research.

*Lack of skills and knowledge:* These variables can also contribute to academic dishonesty. Those who have difficulty understanding a topic or completing a task may

commit dishonest behaviours to avoid failure (Amigud & Lancaster, 2019).

*Procrastination:* Procrastination, that can be defined as postponing due activities, can also contribute to academic dishonesty. Those who leave tasks until the last minute may be tempted to fall back on dishonest behaviours to complete them quickly (Sureda-Negre, et al., 2015).

*The pressure of expectations:* This element can also increase the likelihood that students will conduct dishonest behaviours. Students may feel overwhelmed by the high expectations of their teachers and classmates, which may lead them to cheat to meet those expectations (Chiang & Wenhao Yu, 2021).

*Lack of clear consequences:* The lack of clear consequences for academic dishonesty also contributes to these behaviours. Students may think that there will be no serious consequences if they are caught cheating (Harper et al., 2019).

*The culture of cheating and peer pressure:* The culture of cheating or deception is another factor that can contribute to academic dishonesty. Students may feel that other students are cheating and that, therefore, they also have the right to do so (Zhao et al., 2022).

### ***Approach and objectives***

The study described in the present paper has a double purpose: on the one hand, it seeks to better understand and provide an *ad-hoc* vision of the phenomenon of academic plagiarism among first-year students enrolled in social science degrees; on the other hand, the aim is to provide empirical evidence that helps designing more precise strategies when promoting academic integrity and reducing fraudulent practices such as plagiarism.

To do this, first, evidence is provided on academic plagiarism and its prevalence among undergraduate newcomer students with data obtained during 6 academic years. Secondly, the relationship between plagiarism and different personal factors is studied, such as: a) sociodemographic characteristics; b) self-perception of academic competence; c)

motivation and engagement towards academic activities; d) time management/planning and the propensity for procrastination; e) knowledge and opinions on copyright; g) perception of the seriousness of plagiarism; h) prevalence of fraud in other evaluation activities; i) perception of the severity of the fraud in other evaluation activities and tasks.

Finally, the analysis of the relationship between the prevalence of plagiarism and these factors provides a profile of the students with the greatest predisposition to plagiarism and their differential characteristics with the rest of students, which is useful to combat this fraudulent and reprehensible behaviour.

The analysis carried out was based on the following starting hypotheses:

- H1. The students who plagiarize the most would have a lower perception of their academic competences and would perceive themselves as worse students.
- H2. The students who plagiarize the most would have less motivation when elaborating academic activities and tasks and a worse understanding of them.
- H3. The students who plagiarize the most would have a greater propensity to procrastinate and a lower predisposition to planning accordingly the preparation of their assignments and essays.
- H4. The students who plagiarize the most would be the ones who would show the least respect for copyright and would see the fact of committing plagiarism as more acceptable.
- H5. The students who plagiarize the most would rate the plagiarism as less serious.
- H6. The students with the greatest propensity to commit fraud in academic activities would also be the ones who most frequently carry out plagiaristic behaviours.
- H7. The students who plagiarize the most would rate the fact of committing fraud and cheating in other evaluation activities (such as exams or tests) as less serious.

## Methodology

### Participants

Participants in the study were 913 first-year students enrolled in the degrees of Social Education (EDS) (43.1%) and Social Work (SW) (56.9%) at the University of the Balearic Islands (Spain) from the academic years 2016-17, 2017-18, 2018-19, 2019-20, 2020-21 and 2021-22. Regarding their sociodemographic characteristics, 80% (730) were women and the average age was 21.43 years (median = 19; mode = 18; SD = 6).

### Procedure

Participants self-completed a questionnaire through an online platform during the first day of class at the university and with the presence of a member of the research team who explained the purpose of the questionnaire and provided support in completing it. The questionnaire was anonymous and to complete it, participants had to indicate, on the application used, their informed consent to participate in the study.

### Instrument

The questionnaire used in this study is based on the validated instrument Questionnaire on academic plagiarism among ESO students (Morey et al., 2013), expressly designed and based on: a) the analysis of existing literature on the subject and b) the adaptation of various items from the questionnaires of De Lambert et al. (2003), Finn and Frone (2004) and Comas-Forgas (2009). The questionnaire was composed of 3 blocks of queries: 1) characteristics of the students such as self-perception of their academic competence, motivation towards academic activities and tasks, predisposition towards procrastination and planning, perception of copyright and plagiarism, etc.; 2) prevalence of various actions related to plagiarism and assessment and the perception of their severity; and 3) fraudulent actions in evaluation tests and assessment and the perception of their severity. The variables measured were the following:

- a) *Prevalence of plagiarism*: participants were asked about the frequency with which they committed 8 actions related to plagiarism during the previous course (see Table 1) (0=Never; 1=1-2 times; 2=3-5 times; 3=6-10 times; 4=+10 times). With the scores obtained, a Plagiarism Prevalence Index was constructed.
- b) *Sociodemographic characteristics*: 1) sex (man/woman); 2) age; 3) studies in which are enrolled (Education/Social Work); 4) access to university; 5) university access qualification. See Table 2.
- c) *Self-perception of academic competence and motivation towards academic work*: self-perception of competence (see Table 3) was measured through the item "I am a good student", and motivation towards academic activities and tasks was measured through three items (see Table 3). All of them had to be responded based on an agreement/disagreement scale (values between 0-10).
- d) *Tendency towards planning /procrastination*: the tendency towards planning was measured through a scale of the degree of planning when carrying out academic work (values between 0-4). The tendency to procrastinate was measured based on 2 items (see Table 4) based on an agreement/disagreement scale (values between 0-10).
- e) *Perception of copyright and plagiarism*: 4 items from the questionnaire were considered (see Table 5) which had to be answered on an agreement/disagreement scale (values between 0-10).
- f) *Severity given to plagiarism*: participants were asked about 5 actions of plagiarism (see Table 6) to which they had to respond on a severity scale (values between 0-10). With the scores of the 5 actions, a Plagiarism Severity Index was constructed.
- g) *Prevalence of fraud in evaluation tests or exams*: participants were asked about 8 fraudulent actions (see Table 7) to which they had to respond according to the number

of times they committed them during the previous course (0=Never; 1=1-2 times; 2 =3-5 times; 3=6-10 times; 4=+10 times). With the scores of these 8 actions, a Fraud Prevalence Index was calculated.

- h) *Severity of fraud in other evaluation activities*: participants were asked about 3 fraudulent actions (see Table 8) to which they had to respond on a severity scale (values between 0-10). With the scores of these 3 actions, a Fraud Severity Index was constructed.

### ***Data processing and analysis***

Firstly, the prevalence of the 8 actions related to plagiarism was analysed using frequency tables for all participants. Secondly, with the scores obtained, a Plagiarism Prevalence Index was calculated. Based on the percentiles of this index, the sample was divided into three groups of similar size: a) Low Prevalence Group (GPB) (scores between 0-2), b) Medium Prevalence Group (GPM) (scores between 3 -5), and c) High Prevalence Group (GPA) (scores between 6-16).

Finally, we proceeded to analyse the differences between the three groups with respect to the rest of the variables explained in the previous section. To analyse the differences between groups with respect to the different categorical variables, contingency tables were used where the  $\chi^2$  statistics were calculated as a measure of association between variables and the typed residuals as a measure of the association between categories of variables. To analyse the differences between

the groups with respect to the different metric variables, one-way ANOVA and the non-parametric Kruskal-Wallis test were used in cases in which normality was not met in the distribution of the variables. variables.

## **Results**

### ***Prevalence of academic plagiarism***

Table 1 shows the prevalence rate of the 8 actions related to plagiarism for the total number of participants and for the groups examined. All the variables present statistically significant differences between the three groups analysed (with  $p < 0.01$ ), and, consequently, also the prevalence rate of plagiarism, built with these variables to configure the analysed groups.

### ***Sociodemographic characteristics***

Table 2 shows the sociodemographic characteristics of the sample and the groups analysed. Regarding sex, the GPA has a higher percentage of men and the GPM a higher percentage of women ( $p = 0.049$ ). The GPA is associated with access to university through higher education, while the GPB is associated with access for those over 25 or 45 years of age ( $p = 0.000$ ). Regarding age, the GPB (23.31) has a higher mean than the GPM (20.52) ( $p = 0.000$ ) and the GPA (20.18) ( $p = 0.000$ ), which do not present differences between them ( $p = 0.688$ ). That is, the students who plagiarize the least are older than the rest, which could be related to the use of information technologies. No differences were found regarding the university entrance grade ( $p = 0.150$ ).

Table 1. Prevalence of academic plagiarism by groups

| <b>Dishonest conduct</b>   |         | <b>GPB</b>          | <b>GPM</b>         | <b>GPA</b>         | <b>% Total</b> |
|--|---------|---------------------|--------------------|--------------------|----------------|
| Copy fragments of text from web pages - without citing them - add them to a document where there is a part of text written by you and submit it as a course assignment** | Never   | 50,0% <sub>a</sub>  | 8,8% <sub>b</sub>  | 1,5% <sub>c</sub>  | 21,6%          |
|  | >1 time | 50,0% <sub>a</sub>  | 91,2% <sub>b</sub> | 98,5% <sub>c</sub> | 78,4%          |
| Copy fragments from printed sources (books, encyclopaedias, newspapers, magazine articles, etc.) and use them—without citing—for an assignment**                         | Never   | 61,8% <sub>a</sub>  | 17,9% <sub>b</sub> | 3,0% <sub>c</sub>  | 29,5%          |
|  | >1 time | 38,2% <sub>a</sub>  | 82,1% <sub>b</sub> | 97,0% <sub>c</sub> | 70,5%          |
| Copy parts of an assignment or essay submitted in previous years and use them as parts of a new one**  | Never   | 88,2% <sub>a</sub>  | 63,5% <sub>b</sub> | 42,6% <sub>c</sub> | 66,4%          |
|  | >1 time | 11,8% <sub>a</sub>  | 36,5% <sub>b</sub> | 57,4% <sub>c</sub> | 33,6%          |
| Write an assignment or essay entirely from fragments copied verbatim from web pages (without any part of the work written by you)**                                      | Never   | 98,2% <sub>a</sub>  | 73,3% <sub>b</sub> | 40,4% <sub>c</sub> | 72,7%          |
|  | >1 time | 1,8% <sub>a</sub>   | 26,7% <sub>b</sub> | 59,6% <sub>c</sub> | 27,3%          |
| Submit an assignment or essay elaborated by another student that had already been submitted in previous courses (for the same subject or for another)**                  | Never   | 98,2% <sub>a</sub>  | 84,3% <sub>b</sub> | 63,8% <sub>c</sub> | 83,4%          |
|  | >1 time | 1,8% <sub>a</sub>   | 15,7% <sub>b</sub> | 36,2% <sub>c</sub> | 16,6%          |
| Submit your own assignment or essay that had already been submitted in previous courses (for the same subject or for others)**   | Never   | 94,5% <sub>a</sub>  | 86,2% <sub>b</sub> | 77,4% <sub>c</sub> | 86,6%          |
|  | >1 time | 5,5% <sub>a</sub>   | 13,8% <sub>b</sub> | 22,6% <sub>c</sub> | 13,4%          |
| Download a complete essay from the internet and submit it, without changes, as your own**  | Never   | 100,0% <sup>1</sup> | 99,4% <sub>a</sub> | 92,5% <sub>b</sub> | 97,6%          |
|  | >1 time | 0,0% <sup>1</sup>   | 0,6% <sub>a</sub>  | 7,5% <sub>b</sub>  | 2,4%           |
| Pay someone to elaborate an academic essay or assignment for you or buy it (for example, over the internet)**  | Never   | 100,0% <sup>1</sup> | 99,7% <sub>a</sub> | 97,4% <sub>b</sub> | 99,1%          |
|  | >1 time | 0,0% <sup>1</sup>   | 0,3% <sub>a</sub>  | 2,6% <sub>b</sub>  | 0,9%           |
| Plagiarism Prevalence Index**  |         | 1,17 <sub>a</sub>   | 3,84 <sub>b</sub>  | 8,05 <sub>c</sub>  | 4,10           |
|  | n       | 330                 | 318                | 265                | 913            |

Note: Values in the same row and sub-table that do not share the same subscript (a,b,c) are significantly different in  $p < ,05$ . (\*= $p < 0,05$ ; \*\*= $p < 0,01$ ).

Table 1. Sociodemographic characteristics of the sample

|                                    | <b>GPB</b>           | <b>GPM</b>           | <b>GPA</b>         | <b>% Total</b> |
|------------------------------------|----------------------|----------------------|--------------------|----------------|
| <b>Gender*</b>                     |                      |                      |                    |                |
| Male                               | 20,6% <sub>a,b</sub> | 16,0% <sub>b</sub>   | 24,2% <sub>a</sub> | 20,0%          |
| Female                             | 79,4% <sub>a,b</sub> | 84,0% <sub>b</sub>   | 75,8% <sub>a</sub> | 80,0%          |
| <b>Degree**</b>                    |                      |                      |                    |                |
| SW                                 | 50,9% <sub>a</sub>   | 56,6% <sub>a,b</sub> | 64,5% <sub>b</sub> | 56,8%          |
| EDS                                | 49,1% <sub>a</sub>   | 43,4% <sub>a,b</sub> | 35,5% <sub>b</sub> | 43,2%          |
| <b>University access**</b>         |                      |                      |                    |                |
| High school                        | 62,7% <sub>a</sub>   | 71,1% <sub>a,b</sub> | 74,0% <sub>b</sub> | 68,9%          |
| Access exams to over +25/+45 years | 9,1% <sub>a</sub>    | 3,8% <sub>b</sub>    | 1,9% <sub>b</sub>  | 5,1%           |
| VET                                | 21,5% <sub>a</sub>   | 22,3% <sub>a</sub>   | 21,5% <sub>a</sub> | 21,8%          |
| Others                             | 6,7% <sub>a</sub>    | 2,8% <sub>a</sub>    | 2,6% <sub>a</sub>  | 4,2%           |
| <b>Access qualification</b>        | 10,03 <sub>a</sub>   | 9,17 <sub>a</sub>    | 9,49 <sub>a</sub>  | 9,58           |
| <b>Age**</b>                       | 23,31 <sub>a</sub>   | 20,52 <sub>b</sub>   | 20,18 <sub>b</sub> | 21,43          |
| n                                  | 330                  | 318                  | 265                | 913            |

***Self-perception of academic competence and motivation towards academic activities***

The four items used to measure self-perception of academic competence and motivation towards academic activities (Table 3) presented significant differences between the groups analysed (all with  $p < 0.01$ ). Regarding the self-perception of academic competence, the GPA (6.19) is considered a worse student than the GPB (6.56) ( $p = 0.002$ ), however, the GPM (6.44) did not present differences with respect to the GPB (6.56) ( $p = 0.152$ ) or GPA (6.19) ( $p = 0.91$ ). In summary, students who plagiarize more are self-considered worse students than students who plagiarize less.

Regarding motivation towards writing assignments, the GPB (6.78) “likes doing assignments for the subjects” more than the

GPM (6.08) ( $p = 0.000$ ) and the GPA (5.93) ( $p = 0.000$ ), which did not present differences between them ( $p = 0.496$ ). On the other hand, the GPA (5.68) indicates to a greater extent “there are many assignments that I don't know why they ask me” than the GPB (4.64) ( $p = 0.000$ ) and the GPM (5.04) (0.000), without differences between them ( $p = 0.59$ ). That is interpreted as that students who have the greatest tendency to plagiarize are those who, to a greater extent, are unaware of the objective pursued with the assigned work. Finally, the GPB (2.37) indicates “learning more with academic assignments” than the GPM (2.83) ( $p = 0.002$ ) and the GPA (3.11) ( $p = 0.000$ ), which did not present differences between them ( $p = 0.515$ ). That is, the students who plagiarize the least report learning more by producing academic work than the rest of the groups.

Table 2. Characteristics of the students by groups

|   | <b>GPB</b>        | <b>GPM</b>          | <b>GPA</b>        | <b>Total</b> |
|---|-------------------|---------------------|-------------------|--------------|
| "I am a good student"***  | 6,56 <sub>a</sub> | 6,44 <sub>a,b</sub> | 6,19 <sub>b</sub> | 6,41         |
| "I like writing assignments for my subjects" **                       | 6,78 <sub>a</sub> | 6,08 <sub>b</sub>   | 5,93 <sub>b</sub> | 6,29         |
| "There are many assignments that I don't know why I am doing them" ** | 4,64 <sub>a</sub> | 5,04 <sub>a</sub>   | 5,68 <sub>b</sub> | 5,08         |
| "Generally I do not learn anything with the assignments" **           | 2,37 <sub>a</sub> | 2,83 <sub>b</sub>   | 3,11 <sub>b</sub> | 2,75         |
|   | n 330             | 318                 | 265               | 913          |

Note: Values in the same row and sub-table that do not share the same subscript (a,b,c) are significantly different in  $p < 0,05$ . (\*= $p < 0.05$ ; \*\*= $p < 0.01$ ).

***Time management: planning and procrastination***

The three items used to measure the propensity to plan/procrastinate (Table 4) presented statistically significant differences between groups (all with  $p < 0.01$ ). Regarding the degree of planning of academic activities, the GPA (1.89) plans less than the GPM (2.16) ( $p = 0.000$ ) and the GPB (2.21) ( $p = 0.000$ ), which did not present differences between them ( $p = 0.541$ ). In summary, the students who

plagiarize the most plan less when doing academic activities than the rest.

On the other hand, GPA tends to procrastinate more than GPB ( $p = 0.000$ ) and GPM ( $p = 0.000$ ), which do not present differences between them ( $p = 0.147$ ). Finally, the GPB starts assignments before the GPM ( $p = 0.00$ ), and the GPM starts them before the GPA ( $p = 0.000$ ). In short, as procrastination increases, there is a greater likelihood of plagiarism.

Table 4. Tendency to plan and procrastinate in groups

|  | GPB               | GPM               | GPA               | Total |
|--|-------------------|-------------------|-------------------|-------|
| "I follow good planning in academic activities" **                                 | 2,21 <sub>a</sub> | 2,16 <sub>a</sub> | 1,89 <sub>b</sub> | 2,10  |
| "When I have to write an assignment or essay, I always wait until the last day" ** | 2,22 <sub>a</sub> | 2,45 <sub>a</sub> | 3,43 <sub>b</sub> | 2,65  |
| "When I have to write an assignment or essay I always start immediately" **        | 4,95 <sub>a</sub> | 4,44 <sub>b</sub> | 3,51 <sub>c</sub> | 4,35  |
| n  | 330               | 318               | 265               | 913   |

Note: Values in the same row and sub-table that do not share the same subscript (a,b,c) are significantly different in  $p < 0,05$ . (\*= $p < 0,05$ ; \*\*= $p < 0,01$ ).

### Perception of copyright and plagiarism

The four items to measure the perception of copyright and plagiarism (Table 5) presented statistically significant differences between groups (all with  $p < 0,01$ ). The perception of copyright was measured with two items. Regarding the first, the GPB (5.18) tends to "download fewer movies, series and music from the Internet" than the GPM (5.92) ( $p = 0,008$ ) and the GPA (6.01) ( $p = 0,001$ ), which do not present differences between them ( $p = 0,508$ ). That is, the group that plagiarizes the least downloads fewer things from the Internet illegally. Regarding "everything on the Internet can be copied and/or downloaded", the GPB (2.08) disagrees more with this statement than the GPM (2.65) ( $p = 0,000$ ) and the GPA (3.10) ( $p = 0,000$ ), with no differences between them ( $p = 0,053$ ). That is to say, the students who plagiarize the most have a laxer perception about the possibility of downloading content on the Internet.

The perception of plagiarism was measured with two items. Regarding "If when you have to an assignment you look for information on the Internet, copy it and paste it into a document and hand in, you have not done anything wrong", the GPB (0.82) disagrees more with the statement than the GPM (1.53) ( $p = 0,000$ ) and then GPA (2.03) ( $p = 0,000$ ), while GPM (1.53) disagrees more than GPA (2.03) ( $p = 0,000$ ). That is, as the prevalence of plagiarism increases, the feeling of not doing anything wrong by plagiarizing also increases. Regarding "I think everyone has copied an assignment or parts of it at some point", the GPB (6.62) agrees less with the statement than the GPM (7.66) ( $p = 0,000$ ) and the GPA (8.40) ( $p = 0,000$ ), and GPM (7.66) disagree more than GPA (8.40) ( $p = 0,000$ ). That is, as the prevalence of plagiarism increases, it is seen more normally, and it is believed that everyone does it.

Table 5. Perception of copyright and plagiarism by groups

|  | GPB               | GPM               | GPA               | Total |
|--|-------------------|-------------------|-------------------|-------|
| " I download a lot of movies, series and music from the internet"***   | 5,18 <sub>a</sub> | 5,92 <sub>b</sub> | 6,01 <sub>b</sub> | 5,68  |
| "Everything on the Internet can be copied and/or downloaded"***  | 2,08 <sub>a</sub> | 2,65 <sub>b</sub> | 3,10 <sub>b</sub> | 2,57  |
| " If when you have to an assignment you look for information on the Internet, copy it and paste it into a document and hand in, you have not done anything wrong"*** | 0,82 <sub>a</sub> | 1,53 <sub>b</sub> | 2,03 <sub>c</sub> | 1,42  |
| " I think everyone has copied an assignment or parts of it at some point"***   | 6,62 <sub>a</sub> | 7,66 <sub>b</sub> | 8,40 <sub>c</sub> | 7,50  |
| n  | 330               | 318               | 265               | 913   |

Nota: Values in the same row and sub-table that do not share the same subscript (a,b,c) are significantly different in  $p < 0,05$ . (\*= $p < 0,05$ ; \*\*= $p < 0,01$ ).

### Severity given to plagiarism

The four items to measure the severity given to plagiarism (Table 6) presented statistically significant differences between groups (all with  $p < 0.01$ ). Consequently, the Plagiarism Severity Index presents the same differences between groups ( $p = 0.000$ ) and the same trend in the data. Thus, the GPA (34.03) gives less

seriousness to plagiarism than the GPM (37.26) ( $p = 0.000$ ), and this group gives it less seriousness than the GPB (40.36) ( $p = 0.000$ ), and the highest difference is between the GPA (34.03) and the GPB (40.36) ( $p = 0.000$ ). In summary, the greater the prevalence of plagiarism, the less seriousness is given to the different actions of plagiarism.

Table 6. Severity given to plagiarism by groups

|   | GPB                | GPM                | GPA                | Total |
|---|--------------------|--------------------|--------------------|-------|
| Copy an entire assignment from the internet**                       | 8,97 <sub>a</sub>  | 8,84 <sub>a</sub>  | 8,29 <sub>b</sub>  | 8,73  |
| Copy a colleague's assignment**                                     | 8,65 <sub>a</sub>  | 8,35 <sub>a</sub>  | 7,86 <sub>b</sub>  | 8,31  |
| Copy an entire assignment from books and encyclopaedias**           | 8,70 <sub>a</sub>  | 8,28 <sub>a</sub>  | 7,59 <sub>b</sub>  | 8,23  |
| Copy some parts of an assignment (less than half) of the internet** | 7,16 <sub>a</sub>  | 6,20 <sub>b</sub>  | 5,52 <sub>c</sub>  | 6,35  |
| Copy parts of an assignment from books and encyclopaedias**         | 6,88 <sub>a</sub>  | 5,58 <sub>b</sub>  | 4,77 <sub>c</sub>  | 5,82  |
| Plagiarism Severity Index   | 40,36 <sub>a</sub> | 37,26 <sub>b</sub> | 34,03 <sub>c</sub> | 37,44 |
| n   | 330                | 318                | 265                | 913   |

Nota: Values in the same row and sub-table that do not share the same subscript (a,b,c) are significantly different in  $p < 0,05$ . (\*= $p < 0,05$ ; \*\*= $p < 0,01$ ).

### Prevalence of fraud in evaluation activities

The 8 fraudulent actions in other evaluation tests (Table 7) presented statistically significant differences between groups (all with  $p < 0.01$ ). Thus, as the prevalence of plagiarism increases, so does the prevalence of other fraudulent actions such as: letting another student copy in exams (72.5%), copying from another student in exams (55.2%), using cheat sheets to cheat on exams (52.4%), obtain exam questions illicitly (33.4%), include bibliography not consulted in academic works (28%), use technological devices to cheat on exams (22.6%), falsify or

invent data in an academic work (10.8%), take an exam for another person (1%).

Finally, the Fraud Prevalence Index, constructed with the previous scores, presents the same differences between groups ( $p = 0.000$ ). Thus, the GPB (2.36) has a lower score than the GPM (4.38) ( $p = 0.000$ ) and the GPA (7.33) ( $p = 0.000$ ), and the GPM (4.38) has a lower score than GPA (7.33) ( $p = 0.000$ ). In short, as the prevalence of plagiarism increases, the prevalence of fraud in other assessment tests also increases. That is, the students who plagiarize the most would be the ones who commit the most fraud in other evaluation tests.

Table 7. Prevalence of fraud in group evaluation activities

|   |       | GPB                 | GPM                | GPA                | Total |
|---|-------|---------------------|--------------------|--------------------|-------|
| Let another student copy your exam or written test**  | Never | 44,5% <sub>a</sub>  | 22,6% <sub>b</sub> | 12,1% <sub>c</sub> | 27,5% |
|   | Ever  | 55,5% <sub>a</sub>  | 77,4% <sub>b</sub> | 87,9% <sub>c</sub> | 72,5% |
| Copying from another student during an exam or written test**                                 | Never | 65,8% <sub>a</sub>  | 39,6% <sub>b</sub> | 24,9% <sub>c</sub> | 44,8% |
|   | Ever  | 34,2% <sub>a</sub>  | 60,4% <sub>b</sub> | 75,1% <sub>c</sub> | 55,2% |
| Using “cheats sheets” to cheat on an exam or written test**                                   | Never | 64,8% <sub>a</sub>  | 44,7% <sub>b</sub> | 29,8% <sub>c</sub> | 47,6% |
|   | Ever  | 35,2% <sub>a</sub>  | 55,3% <sub>b</sub> | 70,2% <sub>c</sub> | 52,4% |
| Illegally obtaining exam questions before taking it**   | Never | 80,6% <sub>a</sub>  | 62,9% <sub>b</sub> | 53,6% <sub>b</sub> | 66,6% |
|   | Ever  | 19,4% <sub>a</sub>  | 37,1% <sub>b</sub> | 46,4% <sub>b</sub> | 33,4% |
| Include in the bibliography of an assignment resources that you have not consulted**          | Never | 82,7% <sub>a</sub>  | 67,9% <sub>b</sub> | 63,4% <sub>b</sub> | 72,0% |
|   | Ever  | 17,3% <sub>a</sub>  | 32,1% <sub>b</sub> | 36,6% <sub>b</sub> | 28,0% |
| Using technological devices (cell phones, tablets, headphones, etc.) to copy during an exam** | Never | 90,3% <sub>a</sub>  | 78,6% <sub>b</sub> | 60,0% <sub>c</sub> | 77,4% |
|   | Ever  | 9,7% <sub>a</sub>   | 21,4% <sub>b</sub> | 40,0% <sub>c</sub> | 22,6% |
| Falsify and invent data and/or information in an academic assignment**                        | Never | 97,9% <sub>a</sub>  | 89,9% <sub>b</sub> | 77,4% <sub>c</sub> | 89,2% |
|   | Ever  | 2,1% <sub>a</sub>   | 10,1% <sub>b</sub> | 22,6% <sub>c</sub> | 10,8% |
| Take an exam pretending to be someone else*   | Never | 100,0% <sup>1</sup> | 99,7% <sub>a</sub> | 97,0% <sub>b</sub> | 99,0% |
|   | Ever  | 0,0% <sup>1</sup>   | 0,3% <sub>a</sub>  | 3,0% <sub>b</sub>  | 1,0%  |
| Fraud Prevalence Index**  |       | 2,36 <sub>a</sub>   | 4,38 <sub>b</sub>  | 7,33 <sub>c</sub>  | 4,51  |
|   | n     | 330                 | 318                | 265                | 913   |

Nota: Values in the same row and sub-table that do not share the same subscript (a,b,c) are significantly different in  $p < 0,05$ . (\*= $p < 0,05$ ; \*\*= $p < 0,01$ ).

### Severity given to fraud in evaluation activities

The 4 items used to measure the severity given to fraud in other evaluation tests (Table 8) presented differences between groups (all with  $p < 0,01$ ). Regarding cheating on an exam, the GPB (2.94) sees it as more normal than the GPM (4.18) ( $p = 0,000$ ) and the GPA (4.81) ( $p = 0,000$ ), and the latter sees it more normal than GPM (4.18) ( $p = 0,29$ ). That is, as the prevalence of plagiarism increases, it becomes more normal to cheat on an exam, or to copy on an exam is more normal for students who plagiarize the most. Regarding using cheat sheets to cheat on exams, the GPB (7.61) believes that it is more serious than the GPM (7.23) ( $p = 0,002$ ) and the GPA (6.97) ( $p = 0,000$ ), which there are no differences between them ( $p = 0,199$ ). The students who plagiarize the least consider that using cheat sheets in exams is more serious than the rest. Regarding being copied by a classmate in an exam, the GPB (6.84) sees it as more serious than the GPM (6.27) ( $p = 0,000$ ) and the GPA

(5.88) ( $p = 0,000$ ), without differences between them ( $p = 0,74$ ). “Letting yourself be copied by a classmate” is more serious for students who plagiarize less than for the rest. Regarding copying from a classmate during an exam, the GPB (7.81) believes that the GPM (7.34) ( $p = 0,000$ ) and the GPA (7.13) ( $p = 0,000$ ) are more serious, without differences between them ( $p = 0,360$ ). That is, cheating from a classmate during an exam is more serious for students who plagiarize less than for the rest.

Finally, the Plagiarism Severity Index, constructed with the previous indicators, presents the same differences between groups ( $p = 0,000$ ) and trend: the GPB (22.25) has a higher score than the GPM (20.84) ( $p = 0,000$ ) and GPA (19.98) ( $p = 0,000$ ), which do not present differences between them ( $p = 0,125$ ). It is definitive, the students who plagiarize the least consider fraud in other evaluation tests to be more serious than the students of the other groups.

Table 8. Severity given to fraud in group evaluation tests

|  | GPB                | GPM                | GPA                | Total |
|--|--------------------|--------------------|--------------------|-------|
| It is normal to cheat sometimes on an exam** | 2,94 <sub>a</sub>  | 4,18 <sub>b</sub>  | 4,81 <sub>c</sub>  | 3,91  |
| Copying from a classmate on an exam**        | 7,81 <sub>a</sub>  | 7,34 <sub>b</sub>  | 7,13 <sub>b</sub>  | 7,45  |
| Copying from a "cheat sheet" in an exam**    | 7,61 <sub>a</sub>  | 7,23 <sub>b</sub>  | 6,97 <sub>b</sub>  | 7,29  |
| Being copied by a classmate during an exam** | 6,84 <sub>a</sub>  | 6,27 <sub>b</sub>  | 5,88 <sub>b</sub>  | 6,36  |
| Fraud Severity Index                         | 22,25 <sub>a</sub> | 20,84 <sub>b</sub> | 19,98 <sub>b</sub> | 25,01 |
| n  | 330                | 318                | 265                | 913   |

Note: Values in the same row and sub-table that do not share the same subscript (a,b,c) are significantly different in  $p < 0,05$ . (\*= $p < 0,05$ ; \*\*= $p < 0,01$ ).

## Discussion and conclusions

If we focus on the authors' assessment of the assignments carried out, we note that the results obtained provide, first of all, a clear vision of the prevalence of plagiarism in the students of the first year of EDS and SW, although they could be extrapolated to other social science degrees. Of the 8 fraudulent actions analysed, copying from web pages and printed sources are the most prevalent, while submitting work done by others (whether obtained for free or purchased) are the actions that are performed the least. In any case, it is notable that almost 1% of respondents claim to have paid for the completion of work, since the offer of these services is basically oriented towards final degree projects (Comas et al., 2022); which confirms the knowledge that newcomers students have of the possibilities of failing in evaluation tests.

Secondly, the 7 starting hypotheses are confirmed, with various qualifications indicated in the presentation of the results. Thus, the importance of the perception of competencies, motivation, procrastination, perception of copyright, awareness of academic dishonesty is proven.

Thirdly, the analysis of the differences between groups allows a strategic approach to the main factors that could be related to and explain the prevalence of plagiarism among university students. In this sense, the GPM presented similar results to the GPB or GPA depending on the factors, and in some others,

it presented differences with respect to both groups. However, GPB and GPA presented significant differences in most of the factors analysed. These differences allow a better approach to the factors most related to the prevalence of plagiarism and that would be useful to explain the phenomenon. In this sense, the profile of the students with the highest prevalence of plagiarism is associated with a series of characteristics:

Regarding sociodemographic characteristics, it is slightly associated with being a man and having accessed university in a greater proportion through high school and in a lesser proportion through entrance tests for those over 25/45. Consequently, students who plagiarize are also younger on average, an issue that could perhaps be related to the use of information technologies.

Regarding the characteristics of the student, the students who plagiarize the most consider themselves to be worse students, they like doing academic activities less, they understand its usefulness less and they indicate more frequently that they do not learn from them. At the same time, they approach academic tasks with a lower degree of planning and a greater propensity to procrastinate and complete it before the deadline.

The students who plagiarize the most are also the least respectful of copyright. Thus, they more often believe that everything on the Internet can be copied and downloaded without doing anything wrong. In fact, it is also

the one that most frequently downloads movies, series, and music from the internet. Regarding the perception of plagiarism, they more frequently believe that it is not a bad thing and, consequently, give it a less serious nature than the rest of the students.

Finally, one of the most interesting findings is that plagiarism seems to be related to fraud in evaluations. Thus, the students who plagiarize the most are also those who, most frequently, commit fraud in other evaluation tests (such as copying or being copied on an exam, using cheat sheets or other technological mechanisms to copy, etc.), and accept it as more normal. This type of fraud gives it less seriousness than the rest of the students.

### ***Limitations***

The work carried out presents several limitations about which the authors wish to warn the reader. Firstly, the sample selected for the study is focused exclusively on two specific degrees: Social Education and Social Work. This entails a sampling limitation since the findings cannot be generalized to other disciplines or fields of study, which may have different dynamics and academic cultures. Despite this, we consider that a considerable sample of 913 participants has been achieved, which means that the results of the study provide solid evidence and allow us to achieve the initially planned objectives.

Another limitation is the unequal gender distribution in the sample, with 80% female participants. This imbalance could potentially bias the results, given that several studies have indicated that there is variability in academic behaviours between genders. Additionally, the average age of the participants is relatively low, which may not adequately reflect the perspectives and behaviours of more mature or nontraditional students. Despite this, the distribution of the sample is closely related to the reality of EDS and WS studies and reflects their sociodemographic characteristics.

From a procedural point of view, although the presence of a member of the research team during the completion of the questionnaire can ensure some uniformity in administration, it

can also introduce a social desirability bias, where students could feel pressured to respond in a certain way. so that it is viewed favourably by researchers. The nature of self-reporting may lead to untruthful or exaggerated responses and may not accurately reflect the true prevalence of plagiarism and other dishonest behaviour. This is one of the main problems associated with the use of questionnaires in studies on academic integrity (Comas, 2009).

### ***Implications and recommendations***

The results of the present study, which shed light on the prevalence of plagiarism and other dishonest behaviours among university students, suggest the need to implement educational strategies aimed at mitigating these behaviours. Below are some implications and recommendations based on the study findings:

*1. Academic Integrity Education:* Given the clear knowledge that new students have about the possibilities of cheating in evaluation assignments, it is imperative to establish educational programs that promote academic integrity from the beginning of their university studies. These programs must address misconceptions about plagiarism and copyright, especially in relation to the use of the Internet and information technologies.

*2. Teaching strategies aligned with student motivation:* It is evident that there is a correlation between low self-perception of academic competence and the prevalence of plagiarism. Therefore, it is vital that teachers design teaching strategies that increase students' motivation towards academic work, highlighting its usefulness and the value of autonomous learning.

*3. Promoting time management skills:* Given that students who plagiarize tend to procrastinate and have inadequate planning, it would be beneficial to implement workshops and counselling sessions that enable them to develop effective time management and planning skills.

4. *Strengthening copyright policies and consequences of plagiarism*: It is crucial that educational institutions strengthen and clearly communicate copyright policies and the consequences of engaging in dishonest behaviour, establishing a system of clear and consistent consequences to discourage these practices.

5. *Preventive strategies against fraud in evaluations*: The study also reveals a relationship between plagiarism and fraud in evaluations. Therefore, institutions must develop robust preventive strategies, such as the use of anti-plagiarism software and the implementation of evaluation methods that reduce opportunities for fraud.

6. *Future research and interdisciplinary collaborations*: We recommend that future research be conducted that involves a broader range of disciplines and explores differences in plagiarism tendencies across varied demographic groups. Additionally, fostering interdisciplinary collaborations can help develop effective strategies to combat plagiarism and promote academic integrity.

7. *Training and awareness for teachers*: It is important that teachers are trained and sensitized about the various forms of academic dishonesty and that they are provided with tools to detect and prevent plagiarism and other forms of fraud.

In conclusion, this study highlights the urgent need to address academic dishonesty in the university setting. Implementing the suggested recommendations can be a vital step toward promoting a culture of academic integrity that values honesty, ethics, and genuine learning.

## Acknowledgements

Author Rubén Comas Forgas, who during the period of writing the article was carrying out a research visit at the University of Stockholm (Sweden), thanks the Ministry of Universities of Spain and the Vice-Rector for

Research of the University of the Balearic Islands for the support received in the framework of the program “*Scholarships for the requalification of the Spanish university system for the period 2021-2023*”.

## References

- Amigud, A., & Lancaster, T. (2019). 246 reasons to cheat: An analysis of students' reasons for seeking to outsource academic work. *Computers & Education*, 134, 98-107. <https://doi.org/10.1016/j.compedu.2019.01.017>
- Amrein, A. L., & Berliner, D. C. (2002). High-stakes testing & student learning. *Education policy analysis archives*, 10, 18-38. <https://doi.org/10.14507/epaa.v10n18.2002>
- Bertram Gallant, T. (2017). Academic integrity as a teaching & learning issue: From theory to practice. *Theory Into Practice*, 56(2), 88-94. <https://doi.org/10.1080/00405841.2017.1308173>
- Brimble, M., y Stevenson-Clarke, P. (2006). Managing academic dishonesty in Australian universities: Implications for teaching, learning and scholarship. *Accounting, Accountability & Performance*, 12(1), 32-63. <https://acortar.link/uhjC0N>
- Cerdà-Navarro, A., Touza, C., Morey-López, M., y Curiel, E. (2022). Academic integrity policies against assessment fraud in postgraduate studies: An analysis of the situation in Spanish universities. *Helicon*, 8(3), 1-11. <https://doi.org/10.1016/j.helicon.2022.e09170>
- Cerdà-Navarro, A., Touza-Garma, C., Pozo-Llorente, T. y Comas-Forgas, R. (2023). Analysis of the prevalence, evolution, and severity of dishonest behaviors of Spanish graduate students: the vision of academic heads. *Praxis Educativa*, 18, 1-16. <https://doi.org/10.5212/PraxEduc.v.18.21027.009>

- Collins, M.E. y Amodeo, E. (2005). Responding to plagiarism in schools of social work: considerations and recommendations. *Journal of Social Work Education*, 41(3), 527-543. <https://doi.org/10.5175/JSWE.2005.200303131>.
- Comas Forgas, R. (2009). *El ciberplagio y otras formas de deshonestidad académica entre el alumnado universitario*. Tesis Doctoral, Universidad de las Islas Baleares.
- Comas-Forgas, R., & Sureda-Negre, J. (2010). Academic plagiarism: Explanatory factors from students' perspective. *Journal of Academic Ethics*, 8(3), 217-232. <https://doi.org/10.1007/s10805-010-9121-0>
- Comas-Forgas, R., Lancaster, T., Calvo-Sastre, A., & Sureda-Negre, J. (2021). Exam cheating and academic integrity breaches during the COVID-19 pandemic: An analysis of internet search activity in Spain. *Heliyon*, 7(10). <https://doi.org/10.1016/j.heliyon.2021.e08233>
- Chiang, F. K., Zhu, D., & Yu, W. (2022). A systematic review of academic dishonesty in online learning environments. *Journal of Computer Assisted Learning*, 38(4), 907-928. <https://doi.org/10.1111/jcal.12656>
- De Lambert, K., Ellen, N. & Taylor, L. (2003). Cheating – What is it and why do it: a study in New Zealand Tertiary Institutions of the Perceptions and Justifications for Academic Dishonesty. *Journal of American Academy of Business*, 3(1/2), 98-104.
- De Maio, C., & Dixon, K. (2022). Promoting academic integrity in institutions of higher learning: What 30 years of research (1990-2020) in Australasia has taught us. *Journal of College and Character*, 23(1), 6-20. <https://doi.org/10.1080/2194587X.2021.2017972>
- Denisova-Schmidt, E. (2016). Academic dishonesty or corrupt values: The case of Russia. En D. Torsello (Ed.), *Corruption in Public Administration: An Ethnographic Approach* (pp. 105–137). Edward Elgar. <https://doi.org/10.4337/9781785362590.00012>
- Espiñeira-Bellón, E. M., Muñoz-Cantero, J. M., Gerpe-Pérez, E. M., y Castro-Pais, M. D. (2021). Ciberplagio como soporte digital en la realización de trabajos académicos. *Comunicar: Revista Científica de Comunicación y Educación*, 68(29), 119-128. <https://doi.org/10.3916/C68-2021-10>
- Fatima, A., Sunguh, K. K., Abbas, A., Mannan, A., & Hosseini, S. (2020). Impact of pressure, self-efficacy, and self-competency on students' plagiarism in higher education. *Accountability in Research*, 27(1), 32-48. <https://doi.org/10.1080/08989621.2019.1699070>
- Fenster, J. (2016). Teaching Note. Evaluation of an avoiding Plagiarism Workshop for Social Work Students. *Journal of Social Work Education*, 52(2) 242-248 <https://doi.org/10.1080/10437797.2016.1151278>.
- Finn, K. V., & Frone, M. R. (2004). Academic performance and cheating: Moderating role of school identification and self-efficacy. *The journal of educational research*, 97(3), 115-121. <https://doi.org/10.3200/JOER.97.3.115-121>
- Fontaine, S., Frenette, E., & Hébert, M. H. (2020). Exam cheating among Quebec's preservice teachers: the influencing factors. *International Journal for Educational Integrity*, 16, 1-18. <https://doi.org/10.1007/s40979-020-00062-6>
- Gallent Torres, C. y Comas Forgas, R. (2023). Prévalence et évolution des conduites frauduleuses chez les étudiants de master et doctorat espagnols. En M. Bergadaa (Ed.) *Les nouvelles frontières de l'intégrité académique*. EMS Editions. <https://doi.org/10.56240/cmb9915>
- Guerrero-Dib, J. G., Portales, L., y Heredia-Escorza, Y. (2020). Impact of academic integrity on workplace ethical behaviour. *International Journal for Educational Integrity*, 16(2), 1-18. <https://doi.org/10.1007/s40979-020-0051-3>.

- Jin, S.W., Warrener, C., Alhassan, M., y Jones, K.C. (2017) An empirical assessment of writing and research proficiency in HBCU social work students. *Journal of Human Behavior in the Social Environment*, 27(5) 463-473. <https://doi.org/10.1080/10911359.2016.1203385>.
- Krou, M. R., Fong, C. J., & Hoff, M. A. (2021). Achievement motivation and academic dishonesty: A meta-analytic investigation. *Educational Psychology Review*, 33, 427-458. <https://doi.org/10.1007/s10648-020-09557-7>
- Macfarlane, B., Zhang, J., & Pun, A. (2014). Academic integrity: a review of the literature. *Studies in higher education*, 39(2), 339-358. <https://doi.org/10.1080/03075079.2012.709495>
- Mehrens, W. A. (2002). Consequences of assessment: What is the evidence? En G. Tindal y T. M. Haladyna (Eds.), *Large-scale assessment programs for all students: Validity, technical adequacy, and implementation* (pp. 149–177). Lawrence Erlbaum Associates Publishers.
- Miller, A. D., Murdock, T. B., Anderman, E. M., & Poindexter, A. L. (2007). Who are all these cheaters? Characteristics of academically dishonest students. En *Psychology of academic cheating* (pp. 9-32). Academic Press. <https://doi.org/10.1016/B978-012372541-7/50003-6>
- Montalbán, M. (2015). Algunas reflexiones sobre la copia, plagio y fraude en la evaluación universitaria. *Rueda@. Revista Universidad, Ética y Derechos*, 1. <http://dx.doi.org/10.25267/Rueda.2015.06>
- Morey, M., Sureda, J., Oliver, M. F., & Comas, R. (2013). Plagio y rendimiento académico entre el alumnado de Educación Secundaria Obligatoria. *Estudios sobre Educación*, 24. <http://dx.doi.org/10.15581/004.24.2032>
- Mukasa, J., Stokes, L., & Mukona, D. M. (2023). Academic dishonesty by students of bioethics at a tertiary institution in Australia: An exploratory study. *International Journal for Educational Integrity*, 19(1), 1-15. <https://doi.org/10.1007/s40979-023-00124-5>
- Newton, P. M., Lang, C., & Newton, P. (2016). *Custom essay writers, freelancers, and other paid third parties*. Springer. [http://dx.doi.org/10.1007/978-981-287-098-8\\_38](http://dx.doi.org/10.1007/978-981-287-098-8_38)
- Perry, B. (2010). Exploring academic misconduct: Some insights into student behaviour. *Active Learning in Higher Education*, 11(2), 97-108. <https://doi.org/10.1177/1469787410365657>
- Santoso, A., & Cahaya, F. R. (2019). Factors influencing plagiarism by accounting lecturers. *Accounting Education*, 28(4), 401-425. <https://doi.org/10.1080/09639284.2018.1523736>
- Sattler, S., Wiegel, C., y Veen, F. V. (2017). The use frequency of 10 different methods for preventing and detecting academic dishonesty and the factors influencing their use. *Studies in Higher Education*, 42(6), 1126-1144. <https://doi.org/10.1080/03075079.2015.1085007>
- Stiggins, R. (2009). Assessment for learning in upper elementary grades. *Phi Delta Kappan*, 90(6), 419-421. <https://doi.org/10.1177/00317217090900060>
- Sureda-Negre, J., Comas, R., & Morey, M. (2009). Las causas del plagio académico entre el alumnado universitario según el profesorado. *Revista iberoamericana de educación*, 50, 197-220. <https://doi.org/10.35362/rie500669>
- Sureda-Negre, J., Cerdà-Navarro, A., Calvo-Sastre, A. y Comas-Forgas, R. (2020). Las conductas fraudulentas del alumnado universitario español en las evaluaciones: valoración de su gravedad y propuestas de sanciones a partir de un panel de expertos.

*Revista de Investigación Educativa*, 8(1), 201-219.

<https://doi.org/10.6018/rie.358781>

Sureda-Negre, J., Comas-Forgas, R., & Oliver-Trobat, M. F. (2015). Academic plagiarism among secondary and high school students: Differences in gender and procrastination. *Comunicar: Revista Científica de Comunicación y Educación*, 22(44), 103-111. <https://doi.org/10.3916/C44-2015-11>

Titus, S. L., Wells, J. A., & Rhoades, L. J. (2008). Repairing research integrity. *Nature*, 453(7198), 980-982. <https://doi.org/10.1038/453980a>

Turra Marín, Y., Villagra Bravo, C., Mellado Hernández, M., & Aravena Kenigs, O.

(2022). Diseño y validación de una escala de percepción de los estudiantes sobre la cultura de evaluación como aprendizaje. *RELIEVE - Revista Electrónica de Investigación y Evaluación Educativa*, 28(2).

<https://doi.org/10.30827/relieve.v28i2.25195>

Zhao, L., Mao, H., Compton, B. J., Peng, J., Fu, G., Fang, F., ... & Lee, K. (2022). Academic dishonesty and its relations to peer cheating and culture: A meta-analysis of the perceived peer cheating effect. *Educational Research Review*, 36, 100455. <https://doi.org/10.1016/j.edurev.2022.100455>

### Authors / Autores

**Comas-Forgas, Ruben** ([rubencomas@uib.es](mailto:rubencomas@uib.es))  0000-0002-8885-753X

European PhD. in Educational Sciences from the University of the Balearic Islands (2009). He has been a visiting researcher at several international centres, including: University of East Anglia (United Kingdom), Liverpool John Moores University (United Kingdom), Panteion University of Social and Political Sciences (Greece), Universidad Autónoma de Yucatán (Mexico) and Stockholm University (Sweden). He is coordinator of the Red-IA and directs various national and European projects (<https://www.uib.es/es/personal/ABTE1Nz11/>).

**Cerdá-Navarro, Antoni** ([antoni.cerda@uib.cat](mailto:antoni.cerda@uib.cat))  0000-0002-7970-5198

Degree in Sociology and Master in Sociology and Anthropology of Public Policy by the University of Valencia. Master in Applied Social Research and Data Analysis at the Sociological Research Center (CIS). PhD. by the University of the Balearic Islands (UIB) with the thesis 'Early educational dropout in mid-level professional training'. He is currently Ass. Professor and member of the Education and Citizenship Research Group (EiC), the Institute for Educational Research and Innovation (IRIE) and the Ibero-American Research Network for Academic Integrity. His main areas of study are the sociology of education and work, research methods and techniques, academic integrity, and honesty.

**Touza-Garma, Carmen** ([carmen.touza@uib.es](mailto:carmen.touza@uib.es))  0000-0001-9471-8221

PhD. in Psychology from the Complutense University of Madrid. She is currently Ass. Professor at the Department of Pedagogy and Specific Didactics of the University of the Balearic Islands and Vice-Rector for Students. She is also a member of the Education and Citizenship Research Group (EiC). Her research has focused on abuse in the family, the detection and prevention of abuse of the elderly, and on academic integrity.

**Moreno-Herrera, Lázaro** ([lazaro.moreno@edu.su.se](mailto:lazaro.moreno@edu.su.se))  0000-0003-1491-3700

PhD. in Pedagogy from Åkademi University, Finland (1998), currently Professor and scientific director of the Vocational Technical Teaching Research Group (ETP) at the Department of Education, Stockholm University, Sweden. His research interests include vocational education (VET), educational policies, didactics, and international comparative studies of the VET system. He is main editor of the Palgrave Series in "Technology and Vocational Education and training", member of the editorial board of prestigious research journals, lecturer at different universities and scientific advisor to similar research groups at universities in Europe and Asia.



**Revista ELectrónica de Investigación y EValuación Educativa**  
*E-Journal of Educational Research, Assessment and Evaluation*

[ISSN: 1134-4032]



Esta obra tiene [licencia de Creative Commons Reconocimiento-NoComercial 4.0 Internacional](https://creativecommons.org/licenses/by-nc/4.0/).

This work is under a [Creative Commons Attribution 4.0 International license](https://creativecommons.org/licenses/by-nc/4.0/).