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# BOOK OF ABSTRACTS

**“Ethics and integrity  
in the changing world”**

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# Keynote Speeches

# RESEARCH INTEGRITY IN A COMPLEX WORLD

Daniele Fanelli<sup>1</sup>

<sup>1</sup>*London School of Economics and Political Science, United Kingdom*

This talk will look from multiple angles at the relation between complexity and research integrity. Research on research misconduct and questionable research practices (QRPs), and interventions to prevent and correct them, still tend to operate under a “unitarian” model of science, according to which the same fundamental causes and solutions apply everywhere. Differences between disciplines, fields and countries, whilst acknowledged in principle, still seem to play a marginal role in how we think about research integrity. I will overview evidence and theory from recent research that

suggests that this “unitarian” approach, whilst not entirely incorrect, can be misleading and counterproductive. The way we define, measure and study QRP and misconduct in a particular research field may depend in a fundamental way on the complexity of the subject matter of and the methodology that characterises that field. Interventions to prevent and correct research malpractice may need to be radically different depending on the country and the institution in which the research is conducted.

# CHALLENGES IN PUBLISHING ETHICS AND INTEGRITY

Ana Marušić<sup>1</sup>

<sup>1</sup>*School of Medicine of the University of Split, Croatia*

A published article is considered to be the most complete public documentation on someone's research work. This is the reason why most cases of research misconduct, which is a form of academic misconduct, are discovered when articles are published in scientific journals. In medicine, the COVID-19 pandemic has revealed the challenges in scientific publishing, which led to redefinition of some editorial policies, more extensive sharing of research data, acceleration of peer review and editorial decision-making process, as well as increased importance of rapid and open communication of research results via preprints, before a formal peer review. Scientific publishing has also moved into a digital world, which enables rapid communication of large

volume of research data. While these changes brought significant benefit to scientific communication and translation of research into practices, they also opened many concerns about the integrity of the published record and misuse of the current publication process. This keynote will address the benefits and challenges of the new developments in research publishing and actions that need to be taken by all stakeholders in scientific publishing: researchers and their research/academic organizations, funding agencies, policy makers, journal editors and publishers, as well as bibliographical databases and other service providers in publishing.

# THE DARK SIDE OF SCIENCE: MISCONDUCT IN BIOMEDICAL RESEARCH

Elisabeth Bik<sup>1</sup>

<sup>1</sup>*Science Consultant on the Microbiome and Science Integrity, United States of America*

Science builds upon science. Even after peer-review and publication, science papers could still contain images or other data of concern. If not addressed post-publication, papers containing incorrect or even falsified data could lead to wasted time and money spent by other researchers trying to reproduce those results. Several high-profile science misconduct cases have been described, but many more cases remain undetected. Elisabeth Bik is an image forensics detective who left her paid job in

industry to search for and report biomedical articles that contain errors or data of concern. She has done a systematic scan of 20,000 papers in 40 journals and found that about 4% of these contained inappropriately duplicated images. In her talk she will present her work and show several types of inappropriately duplicated images and other examples of research misconduct. In addition, she will show how to report scientific papers of concern, and how journals and institutions handle such allegations.

# HOW DO WE SUCCEED? GOALS, METRICS, AND SUCCESSES FOR ACADEMIC INTEGRITY INITIATIVES IN A POST-COVID, "POST-TRUTH" WORLD

Teddi Fishman<sup>1</sup>

<sup>1</sup>*Consultant on Academic Integrity, United States of America*

The COVID-19 pandemic has changed the world in countless ways, but one of its rare positive effects has been to force us to reconsider previously under-examined practices, requirements, and assumptions. This

talk focuses on the ways in which we might recalibrate how we identify and communicate our aims and also how we understand the roles we play and the positive difference we (can!) make within academic discourse communities.

# Concurrent Sessions

# HOW MUCH OVERLAP MEANS PLAGIARISM? A CONTROLLED TEST CORPUS

Patrick Juola<sup>1</sup>

<sup>1</sup>*Duquesne University, United States of America*

### Abstract

The easiest way to find plagiarism is to see if two people used the same words to describe the same thing. But there are only so many ways to talk about something. How much word overlap must we see before we assume we found plagiarism?

In this paper, we analyze a newly developed corpus, the MapLemon corpus (Manning, et al., 2022). This corpus contains 91 pairs of English language essays written by experimental online participants in late 2021. Participants were asked to write and submit essays on very specific topics. In the first topic, participants were presented with an illustrated map and asked to give directions from one specific point to another. In the second, participants were asked to provide instructions for making lemonade. All writers were asked to be as explicit as possible to allow for collecting a larger number of tokens. On average, each participant wrote 63.40 words on the map subtask and 86.84 words on the lemonade subtask.

Within each subcorpus, we preprocessed all responses by converting data to lower case, stripping out all punctuation, and tokenizing by breaking at whitespace. We then analyzed all essay on the same topic in pairs, calculating the Jaccard similarity coefficient (the number of word types appearing in both essays divided by the number of word types that appear in either essay) for each pair. With 91 participants, this created 4095 essay pairs under each condition. The Jaccard coefficient varies between a maximum of 1.0 (when every word that appears in the first essay also appears in the

second, and vice versa) and a minimum of 0.0 (when there are no words in common between either essay) and thus can be read as a proportion of word types that overlap. Our expectation is that this provides a reasonable estimate of the degree of lexical overlap that will be created when two people write brief passages [in English] on the same topic under the same conditions.

On the map corpus, the Jaccard coefficient ranged from 0.52 to 0.03, with a mean of 0.2100 +/- 0.0694. On the lemon subcorpus, the Jaccard coefficient ranged from 0.57 to 0.00 [exactly], with a similar mean but slightly greater variance (0.1906 +/- 0.0702). The 0.00 indicates that a small set of lemonade recipe essay pairs had literally no words in common, a surprising finding easily explained by observing that a typical essay in such a pair was extremely short and atypical in content. For example, one "recipe" simply said "Go to this supermarket" (presumably to buy prepared commercial lemonade), contained only four words, and notably did not mention any of the typical ingredients, processes, or even common function words like "the," "a," "and," and so forth. The median similarities are very close to the mean similarities (map: 0.2105; lemon: 0.1944) suggesting that these outliers did not have a significant effect on the overall averages. Finally, the correlation between the Jaccard coefficients of the map and lemon pairs by the same writers was 0.2892, indicating that there appears to be a strong effect of individual writing styles, and that people who use similar

vocabularies in giving map directions also use similar vocabularies when writing recipes (likewise for dissimilar vocabularies).

This paper thus provides an empirical and quantitative confirmation of the heuristic that too much lexical overlap indicates non-independent writing. Some overlap is expected due to topic similarity, and some will arise from the structure of English itself, but a student whose recipe or instructions overlapped with 60% of another person's lemonade recipe would

be noteworthy and probably involve some sort of academic integrity violation.

We hope to extend this analysis both to investigate longer phrases and to investigate the expected degree of overlap between cross-topic essays to determine comparative effect sizes. We are also interested in replicating this study in other languages or other varieties of English.

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# INVESTIGATING THE PERCEPTIONS TOWARDS ACADEMIC INTEGRITY OF INSTRUCTORS OF ENGLISH AS A FOREIGN LANGUAGE

Tutku Budak Ozalp<sup>1</sup>

<sup>1</sup>*Çanakkale Onsekiz Mart University, Turkey*

## Abstract

All stakeholders who are invested in the welfare of higher educational institutions, namely academia as the key actors, are all to have a crystal-clear picture of what defines academic integrity (AI) in education and have a definite understanding of their roles individually and collectively. Yet, to have a common understanding of AI policies and procedures, a preliminary exploration of stakeholders' awareness and perceptions of AI and their roles in AI-related issues is of the utmost importance. Morris and Carroll (2016) in the same vein underline the crucial importance of meeting on the common framework of AI in equal strands. Bretag et al. (2014) correspondingly emphasize the involvement of all entities in higher education in integrating AI policies and practices into their knowledge, practices, attitudes, and skills. Therefore, considerable research has been carried out in the literature to investigate students' and faculty's, in multiple disciplines and at varying levels, perceptions of AI and their understanding of AI elements in a territorial manner globally.

The extant literature has focused more on comparatively investigating students' views or students' and faculty's views. Limited attention has been paid to merely instructors' perspectives, who are the first-hand practitioners of AI and its classroom misconduct. Despite being conducted in different contexts and cultures, common points in the findings pointed out that (1) the more knowledgeable and aware instructors are of AI, the more progressive and proactive measures they can take while dealing with academically dishonest behaviors, (2) instructors from institutions with

honor code faculties better identify AI components and develop an in-depth understanding of AI-related issues, and (3) instructors have important roles in promoting and cultivating AI by designing courses accordingly "to build firm yet compassionate systems for promoting honesty in coursework" (Brunelle & Hott, 2020, p. 1402). Albeit the key role of instructors in promoting AI and preventing academic misconduct, even little attention has been devoted to exploring instructors' perceptions and practices of AI in the English as a Foreign Language (EFL) context. Therefore, this study aimed to reveal the EFL instructors' perceptions of, perceived challenges to, and suggested solutions for AI relating to the following research questions:

1. What are the perspectives of EFL instructors on academic integrity?
2. What are their perceived challenges and suggested solutions for academic integrity?

In this respect, this study addressed a timely and widespread issue of AI intending to gather preliminary data on the EFL instructors' perspectives to contribute to the holistic approach to AI, which involves promoting AI thoroughly from top to bottom in academia. Besides, this study is of representative significance for being a pioneering investigation into EFL instructors' perceptions of AI in Turkey, and the findings of this study may establish a foundation for the development of systematic institutional approaches and contribute to the development of common AI policies and honor codes within the universities.

A sequential explanatory mixed methods research design was employed in this study for the collection of both qualitative and quantitative data. First, as for the quantitative step of the study, an online quantitative survey ( $\alpha=.80$ ) was carried out through an adapted version of the ENAI's Academic Integrity Self-Evaluation Tool for Teachers (AISETT) with 25 Turkish EFL instructors to reveal their perceptions of AI. Apart from the demographic information part, the questionnaire consisted of 39 items under 5 categories including: (1) approach to teaching and student motivation, (2) interaction with students and guidance about integrity, (3) awareness of institutional policies, (4) dealing with student dishonesty, and (5) knowledge and skills about plagiarism and academic writing. The collected data were descriptively analyzed. Then, the qualitative data were collected through a semi-structured individual interview protocol involving the phases of introduction, review of consent, biographic questions, and 15 open-ended questions prepared in line with the content of the questionnaire to find out extensive, thick, and in-depth interpretations of their perceptions of, perceived challenges to, and suggested solutions for academic integrity. The qualitative data were analyzed following Braun and Clarke's (2006) six-phase framework for doing a thematic analysis.

The results shared similar conclusions with the existing literature (i.e., Brunelle & Hott, 2020; Lancaster, 2018; McCabe et al., 2003) and revealed that (1) the introduction of the syllabus, including detailed information on course content, course requirements, learning objectives, assessment methods at the beginning of a new term positively contributed towards the growth of AI, (2) introducing students to the principles of AI and broaching

issues of AI with students from the beginning helped to prevent academic misconduct, (3) instructors' awareness, knowledge, and skills related to AI contributed to the promotion of academic integrity by understanding their roles and influence in academia and taking proactive measures to prevent academic misconduct, (4) providing guidance to students on avoiding plagiarism and proper referencing through feed-forward and feedback deter them from potential academic misbehaviors, (5) common tendency to follow disciplinary regulations and reporting it to a superior in case of academic misconduct indicated a fair consensus among instructors as to AI matters, (6) however, lack of a visible presence of concise academic integrity policies, straightforward procedures, and guidelines led to disunity among instructors and resulted in students' academic misbehaviors, and (7) the development of institutional policy, procedures, guidelines on AI was suggested as a solution to help instructors educate students on the standards of AI by referring to the institutional policy on AI and sanctions for academic misconduct and thereof contribute to the promotion of AI.

The findings of this study showed that the EFL instructors as knowledgeable and competent practitioners of academic integrity in their classrooms had a cohesive understanding of what makes up academic integrity and how to contribute toward its promotion through teaching practices by being a model, providing feedback, introducing the principles of AI, and broaching issues of AI with students. The results of the study could serve as an impetus for the adoption or development of AI policies, procedures, and guidelines at higher education institutions, especially in the EFL departments in Turkey.

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# BELIEFS AND PRACTICES ABOUT ACADEMIC INTEGRITY IN ONLINE TEACHING AT THE UNIVERSITY OF OTTAWA.

Elaine Beaulieu<sup>1</sup>

<sup>1</sup>*University of Ottawa, Canada*

## Abstract

Remote teaching has challenged both students and instructors since March 2020 when, unexpectedly, we all had to move classes and evaluations online. Much time, sleepless nights and anxiety has been spent adapting to this new teaching and learning environment, by both students and instructors. Much of that anxiety revolved around evaluations, the length, formats, content, and tech that evolved around planning, creating, studying for, and taking online evaluations. A new experience to most, we all had to adjust to an online world that worryingly, seemed offer that much more possibility for academic fraud.

Many of us were already aware that for decades now, studies on the prevalence of fraud, the types of academic fraud committed, and the culture around academic integrity indicated some increase in academic fraud year after year. Donald McCabe's research group on academic integrity is particularly notable, with several seminal studies conducted over several years, including one on the state of academic integrity in American and Canadian colleges and universities (McCabe, 2005). We therefore modified and adapted Donald McCabe's survey to determine students' and instructors' beliefs and knowledge about academic integrity when courses are delivered remotely and to determine how remote learning may have affected students' beliefs and behaviours and instructors' beliefs and practices.

These surveys were created in SurveyMonkey and participants were recruited at the University of Ottawa, Canada, in June 2021. The University of Ottawa is a French and English bilingual university, and the participants could choose

their language of preference, but the French and English data were pooled for analysis. Overall, 389 students and 225 instructors consented to participate, which were demographically representative of the students' and instructors' population at the University of Ottawa, except for part-time or contracted instructors, which were less represented than regular faculty.

## Comparing in person and online learning behavior and beliefs regarding academic fraud.

Most students (55%) and instructors (75%) believed there were more incidence of academic fraud in online courses, and 25% of instructors worried that their course grades were compromised. However, most instructors (83%) used 'traditional' type exams in their online course, even if these were considered the least effective in mitigating academic fraud. A study by Hughes and McCabe (2006) had shown that 18% of Canadian students, in 2006, thought that academic fraud was a problem at their university (Hughes & McCabe, 2006). In our study, 46% of the students thought academic was a problem at the university, a major increase from 2006. Nearly 80% of students self-reported having committed at least one act of academic fraud in one course, be it during an exam or other types of evaluations, which is comparable to other studies conducted by McCabe ((McCabe & Trevino, 1993)(McCabe et al., 1999)(McCabe, 2005).

**Students' and instructors' opinion differs on academic fraud deterrents.** Whilst both instructors and students believe fair evaluations and open-book exam or the use of a cheat sheet are a good deterrent against academic fraud,

they mostly disagree on what they consider effective deterrents. Students (80-90%) believe having the choice for the type of exam, having the opportunity to retake an evaluation, or having a take-home exam are good deterrents. Instructors (70-80%) believe students are deterred when they know the instructor is actively monitoring and pursuing cases of academic fraud, when students know the penalty, they could incur and having online timed exams, randomly ordered questions, or preventing the students from going back.

**Promoting academic integrity on campus will require support for students and instructors.**

Although most students (>80%) self-report knowing about academic integrity, there is doubt whether they actually do and much more to be done to instill a culture of academic integrity. Many students do not believe that academic integrity is all that immoral and wrong; 35% do not believe it is morally wrong to work together on an individual assignment, 37.5% do not think it is wrong to download course

material or evaluations from unauthorized sources (Chegg, CourseHero), and nearly half of the students (49.2%) believe students do not take cheating seriously. Importantly, 85% of instructors find the process of pursuing academic fraud emotionally draining and laborious, which will require thinking about the process and administrative support instructors could benefit from to help them uphold high standards of academic integrity.

If we wish to make the most of our newly found remote learning skills, digital learning tech, and better design evaluations that test learning in the most flexible way with the confidence that our students can be accountable for their learning and their integrity, we will need to further understand and regularly take stock of student and instructor beliefs locally and more widely. These types of study can also set a baseline by which programs for promoting academic integrity on campus can measure their effectiveness.

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## Concurrent Session 1 | Room 2

# WRITING IN PLAIN SIGHT: PROFILING EMPLOYEES OF A UK-BASED ESSAY MILL ON LINKEDIN

Olumide Popoola<sup>1</sup>

<sup>1</sup>*Queen Mary University of London, United Kingdom*

### Background

The commercial contract cheating industry runs in a spectrum from individual entrepreneurs through freelancers to essay mills established as registered companies (Amigud & Lancaster, 2020a; Draper, Lancaster, Dann, Crockett & Glendinning, 2021). Research has identified contract writers at the individual end of this spectrum as writers from the global south offering cheap services motivated by unemployment to work in the gig economy or in an entrepreneurial fashion (Sivasubramaniam, S., Kostelidou, K. & Ramachandran, S., 2016. Lancaster, 2019; Lancaster, 2020;) Research on essay mills has highlighted their unscrupulous and sophisticated business practices (Medway, Roper & Gilooly, 2017; Rowland, Slade, Wong & Whiting, 2018; Lancaster 2020b) but so far has not considered the background and motivation of the writers themselves. This research

addresses that gap by profiling contract writers working for a leading UK-based essay mill.

Because essay mills are legal in the UK means, the companies, their workers and their vacancies are openly listed on public professional networking websites. At the same time, the contested ethics of academic contract writing may impact the way this information is presented. This research analysed 50 contract writer LinkedIn profiles to answer the following questions:

- Who are the contract writers in terms of demographic and educational background?
- What is their employment status and situation?
- How do they present themselves? Is the presentation deceptive?

### Method

The LinkedIn employee profiles of a leading UK-based essay mill were qualitatively analysed along with 52 employee profiles and a selection of job adverts. The information below was coded and used to identify a typology of writers.

- Location (country)
- Education qualification level (4-8)

- University group (e.g. Russell)
- Subject discipline
- Employment status
- Self-presentation (free writing in About section)
- Job description (vacancy presentation vs. self-presentation)

### Key Findings

Two-thirds of the contract writer profiles described education to Masters level, from research-intensive 'Russell Group' universities

(see <https://russellgroup.ac.uk/about/our-universities/> for list) or other established universities (i.e. over 50 years old). The vast

majority of the writers (75%+) were from the UK. Unlike the freelancers and gig economy workers identified in previous research, these writers tended to be moonlighting i.e. doing the writing as a second job or side job, with most employed by the essay mill for the past 2+ years.

There are obvious signs of enhancement in the profile presentation. In general, writers position themselves as subject experts and their writing as relevant experience for their preferred job. In addition, there are features of self-presentation that are arguably misleading:

- Despite job adverts describing the position as 'academic writer', the profiles preferred to describe themselves as 'researchers'.
- Writers describe their outputs as documents or projects rather than essays or assignments.
- Writers refer to their audience as clients, customers or academics rather than students.

## Discussion

At the business end of the contract cheating spectrum, essay mills are employing educated graduates with career aspirations who feel that commercial essay writing is valid and relevant work experience. The range of the typology – blogger, translator, researcher, consultant – indicates that commercial essay writing is a

flexible employment option that appeals to a wide range of writing talent. However, despite this regular appearance, there are misleading elements (such as not mentioning students and obscuring of the higher education focus of their writing) which go beyond CV embellishments to borderline deceptive practices.

Writer Type 1: Content creator

- Digital marketing/Entrepreneur
- Aspiring Blogger
- Good bachelor's degree
- Still looking for work in their field

Writer Type 2: Researcher

- Technical/Professional writing
- Specialism
- Client-focused
- Analytical

Writer Type 3: Academic consultant

- Contract writing is primary job
- Work for multiple companies and open about their work
- Professional attitude
- Lifelong learner

Writer Type 4: The linguist

- Multilingual
- Translator
- Postgraduate
- Current affairs

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# ASSESSMENT AND ACADEMIC INTEGRITY – AN IRISH PERSPECTIVE

Edith O'Leary<sup>1</sup>, Noelle O'Connor<sup>1</sup>

<sup>1</sup>*Technical University of the Shannon, Ireland*

## Abstract

Assessment is deemed a vital part of all university studies and is thought to be the '*single biggest influence on how students approach their learning*' (Rust et al., 2005). Assessment 'of, for and as' (O'Neill, 2019) learning certainly demonstrates how assessment should support active 'student-centred' approaches to assessment that engage students. The Trinity Education Project referred to *transformational changes occurring in education, some are the effect of developments in technology and globalisation and others are a result of the changing needs and expectations of students, employers and society at large* (Trinity Education Project, 2016). Such change, points to the institutional approach and response required to embrace this "*seismic shift in thinking*" (Bovill, 2019), the National Forum Enhancement Theme 2016-2018 referred to Ireland adopting and promoting "*innovative, engaging, collaborative, learner-oriented and integrated*" (O'Neill, 2019: 18-123) approaches to assessment. Such challenges and changes have been identified by the European Commission. "*We must prepare students to cope with the unknown and build their capacity to learn when the props of a course – curriculum, assignments, teachers, academic resources – are withdrawn. What, then, does that imply for what and how we assess?*" (Boud et al., 2020). Why has academic integrity come under attack in the way we assess? Since the outset of the pandemic the transformational move to online and blended learning has seen an increase in recourse to contract cheating services and opportunities by students. The response by the Irish Government to this growing industry known as 'Essay Mills' was the enactment of the Qualifications and Quality Assurance (Education and Training)

(Amendment) Act 2019. This legislation provides a statutory basis for the prosecution of those who facilitate learner cheating. Quality and Qualifications Ireland (QQI) is the body responsible for bringing prosecutions under this section 43a of the Act. Those convicted of an offence under s.43a may receive a fine of up to €100,000 and/or imprisonment for a term of up to five years. The National Academic Integrity Network is a peer driven organisation established in November 2019 by QQI. It actively supports higher education institutions to effectively engage with the challenges presented by academic misconduct, embed a culture of academic integrity among providers and develop national resources and tools for providers to address the challenges presented by academic misconduct. It was established in response to a threat to academic integrity and reputational damage to the Irish educational system. Kohlberg's (1972) writings are of particular interest to the author as a lawyer and adult educator in law and in the application of the cognitive developmental thinking in legal professional development and 'to development in domains other than justice reasoning, across the life-span, and at the workplace' (Commons et al., 1989). As educators, we have a duty of care to guide students as they move through a series of assessments. A practical example is formative low stake assessment, each more successively sophisticated and structured to make sense of experience and embrace deep learning that incorporate patterns of thinking of previous assessments into the newly acquired one of maturation for and as learning to build skills for high stake summative assessment. The National Professional Development Framework (National Forum, 2016) is underpinned by core

values. By embracing these values that contribute to teaching, learning and scholarship in higher education academics can create an awareness and embed such values in assessment to shield and protect academic integrity rather than embarking on costly litigation with no ultimate winners. A vision for student success in Ireland (National Forum,

2019) aims to provide students in higher education with the opportunity to fulfill their potential and realise their aspirations and become creators of and contributors to new knowledge while becoming community engaged, ethically and morally conscious, professional, competent and equipped to flourish in a global world.

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# CONTRACT CHEATING IN ISRAEL DURING THE COVID-19 PANDEMIC

Yovav Eshet<sup>1</sup>

<sup>1</sup>*Zefat Academic College, Israel*

## Keywords

Academic integrity; Contract cheating; Internet-based plagiarism detection service; Covid-19

## Abstract

Academic integrity is an essential pillar of any educational system. It is defined as acting in a manner consistent with the values and accepted standards of ethical practices in teaching, learning, and scholarship (Fishman, 2015). Contract cheating, or ghostwriting, is currently one of the most severe violations of academic integrity. It involves students engaging a third-party, usually an online essay writing service, to complete their academic works on their behalf (Draper et al., 2021). Some of these services offer pre-written essays, whereas others offer bespoke custom-written essays. According to the academic literature, the advent of the internet and digital technologies underlay this rapid deterioration of academic integrity (Ison, 2020; Lancaster & Clarke, 2014).

Different learning environments, such as face-to-face (i.e., a learning environment involving the physical presence of both instructor and students) and online web-based (i.e., teaching mode that takes place partially or entirely over the internet), have been shown to affect academic integrity in different ways (Eshet et al., 2021). While contract cheating is common in both conventional face-to-face (F2F) and online settings, it is more likely to take place in the latter (Lancaster & Clarke, 2014; Slade et al., 2018). There are several possible explanations for why online students engage in contract cheating more often than F2F students. In particular, this includes the problem issue of psychological distance, which adversely affects interpersonal relationships; and the problem issue of moral distancing, because the internet

can obscure the line between academically honest and dishonest behavior (Sharma & Maleyeff, 2003).

These issues were further exacerbated by the sudden shift from F2F to emergency remote teaching (ERT) in response to the COVID-19 pandemic (Ahsan et al., 2021; Bjelobaba, 2021). Indeed, contract cheating had become a significant COVID-19 side effect for higher education institutions. In contrast to the well-planned F2F or online learning courses, ERT-based courses are not originally designed to be delivered virtually (Fatonja et al., 2020). The chaos brought by the abrupt campus closure and related unexpected transition to ERT provided both the opportunity and the incentive for contract cheating (Hill et al., 2021). Through social media students have very quickly become fully aware of the possibilities of a wide variety of options to carry out Plagiarism (Bautista et al., 2022). There has been an increase in ways to try to bypass text-matching or text-reuse (i.e., plagiarism) detection systems, for example using micro-spaces, white ink, punctuation, and typos (Abdelhamid et al., 2022). Even though ghostwriters, especially commercial ones, claim their essays are original and therefore cannot be detected using text-matching software, third-party assignments may still contain recycled text (Aitken et al., 2017; Newton & Lang, 2015). Text-matching detection software could use these breaches to identify outsourced academic work (Lancaster & Clarke, 2016; Wang & Xu, 2021).

This study compared about four thousand term papers written in the languages Hebrew, Arabic

and English that were submitted using the Moodle system a year before the outbreak of the COVID-19 epidemic, with about four thousand term papers submitted at the time of the closure of the first wave of COVID-19 outbreaks. The inspection was done using text matching software. Academic integrity was defined as papers submitted with at least 70% original content, according to the software. The findings show that there is a significant decline in the level of academic integrity. While the software was able to easily detect ready-made papers and copying from previous years, it had difficulty locating custom-made papers. Thus, it seems that ghostwriters do deliver their promise of writing custom academic work. The results demonstrate that even when using state-of-the-art automated detection methods, contract cheating remains difficult to detect (Johnson & Davies, 2020; Lancaster & Clarke, 2016; Sivasubramaniam et al., 2016). This provides

alarming evidence for higher education institutions and constitute a serious threat to academic integrity. Accordingly, a new approach is needed to detect more subtle potential indicators of contract cheating.

Following these findings, a novel algorithm was developed designed to track students' progress throughout their studies and identify deviations from writing patterns. This presentation will reveal the decline in the level of academic integrity that occurred during the distance learning emergency, in cross-sections of scientific disciplines, institutional rankings and comparisons between universities and colleges. An operational idea will be presented on how to reduce the use made of Contract Cheating by students.

Further studies will examine whether the algorithm is able to identify ghostwriting in languages other than Hebrew.

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# UNDERSTANDING ACADEMIC IMPOVERISHMENT AS IT RELATES TO ACADEMIC INTEGRITY AND QUALITY ASSURANCE IN HIGHER EDUCATION

Sarah Elaine Eaton<sup>1</sup>

<sup>1</sup>*University of Calgary, Canada*

### Abstract

The reasons students engage in academic misconduct have been classified broadly into two categories: personal and contextual (see Bowers, 1964; Bertram Gallant et al., 2015; Genereux & McLeod, 1995; McCabe, 1992; Perry et al., 1990; Tremayne & Curtis, 2020). Personal factors that can affect academic misconduct include, but are not limited to year of standing (e.g, freshman versus senior-year students); students' proficiency levels in the language of instruction; self-regulation and time-management skills; and stress levels. Contextual (also described by McCabe (1992) as "situational") factors include, but are not limited to: parental or familial pressure to perform academically; an excessively competitive learning environment; unclear instructional expectations; and peer perceptions.

The notion of "academic impoverishment" has been proposed as an important additional factor to consider, particularly in Ireland. In early 2022, the Higher Education Colleges Association (HECA) and the National Forum for the Enhancement of Teaching and Learning in Higher Education in Ireland offered a joint professional development session on the topic of academic impoverishment and its

connection to academic integrity (Eaton, 2022).

It was found the term "academic impoverishment" is not used widely outside of Ireland. A paper by Nagasawa & Wong (1999) from the United States and Hong Kong refers to "academic impoverishment" (p. 81, p. 83), without ever defining it or referring to other literature that defines it. From an Irish perspective, academic impoverishment has been a topic of scholarly inquiry for over five decades (see, for example, McClelland (1970). Connections between academic impoverishment and academic integrity have been made loosely for about a decade (see, Farrell, 2010). More recent references to the term can be found in the Dublin School of Business (2019) *Quality assurance handbook*, but again, the term is not defined. Overall, references to this term remain scant in the literature, though there is increasing interest in understanding what it is and why it might be important for academic integrity and quality assurance in higher education.

One possible definition of academic impoverishment has been proposed as, "Academic impoverishment is the poor academic preparation of a student that is not a result of the student's own study efforts.

Academic impoverishment happens when a student's educational experiences have not provided them with sufficient opportunity to gain the necessary academic skills and development as they ought to have had. Academic impoverishment happens when students have had low quality educational experiences that leave them ill-prepared for study or work abroad upon completion of their program." (Eaton, 2022).

In this presentation, I explore the concept of academic impoverishment in greater depth, considering implications for academic

integrity. In particular, considerations for international student mobility, pressures on Anglo/European higher education institutions to increase international student enrollment as mandated by governments and/or the institutions themselves. Considerations of academic impoverishment as a social justice issue will be considered. If such impoverishment is not the fault of the individual student, then one question that arises is: whose responsibility is it? The answer to this may not be simple, but merits consideration.

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# BEING AND BECOMING: ADDRESSING CULTURAL DIFFERENCES THROUGH A PROACTIVE LEARNER-DRIVEN AND INSTRUCTOR-FACILITATED SOCIALIZATION PROCESS

Elaine Khoo<sup>1</sup>

<sup>1</sup>*University of Toronto Scarborough, Canada*

## Keywords

Cultural differences, international students, academic language, learner empowerment

## Abstract

International students are greatly disadvantaged when there is a huge cultural difference between the academic integrity culture of their new academic environment and that of their previous educational system. Often overlooked in the cultural difference is the underlying linguistic factors and habitus for communication that impact how international students perceive expectations about communication of knowledge. Lack of English language skills among some international students were noted to be of concern as obstacles that prevented students from functioning effectively to meet their course needs, and thus more likely to engage in academic dishonesty (MacLeod & Eaton, 2020). Trauma of academic integrity proceedings, with risk of suicide (Gunnell et al., 2020; Pitt et al., 2021; Robinson & Openo, 2021) necessitates developing a more positive, compassionate and supportive means of addressing cultural differences and empowering English language learners to overcome their initial barriers. However, there is a scarcity of empirical research on such an approach.

This paper explores a proactive intervention using a learner-driven and instructor-facilitated socialization process aimed at helping students from diverse cultural backgrounds and low English Language proficiency to (a) gain a personally meaningful understanding of the institutional academic integrity expectations

that they can put into practice; (b) accelerate their linguistic competence to cope with the paraphrasing and summarizing skills needed in their course texts; and (c) develop their confidence to communicate their disciplinary knowledge to an instructor. To support English Language Learners who were in globally distributed locations and continued to be immersed in their respective cultures during the pandemic, this program was offered students a combination of asynchronous and synchronous connections with assigned writing instructors. Students engaged in asynchronous writing practice almost every day and received personalized written responses that addressed their unique learning needs related to academic integrity practices and discussion of their ideas two to three times per week from their instructors. During the one-month intervention, students had two 30-minute synchronous virtual meetings with their instructor. Quantitative data of learner engagement was downloaded from the learning management system and triangulated with (a) qualitative data sampled from students' journal reflections and (b) post-program anonymous survey data. Quantitative analysis suggest that this intervention may be a cost-effective model for supporting students with low English proficiency as the high volume of written output they produced during the one month helped them achieve positive experiences

communicating about course topics and engaging in Academic English usage, thereby giving them the opportunity of **being** an emergent language user capable of expressing their ideas in their own words instead of having to plagiarize. The stimulating and supportive exchange of ideas with their instructor helped socialize students to **becoming** the junior

scholar they are expected to be in higher education. Pedagogical insights gained about creating the conducive risk-free conditions for students' engagement and subsequent transformation will be shared, along with suggestions for applicability in a wider range of teaching contexts.

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# STUDENTS ON THE FRONTLINES OF ACADEMIC INTEGRITY- WHO ARE THEY AND (WHY) DO WE NEED THEM?

Pegi Pavletić<sup>1</sup>, Megan O' Connor<sup>2</sup>, Sue Hackett<sup>3</sup>, Borna Nemet<sup>4</sup>

<sup>1</sup>*European Students' Union, Brussels, Belgium*

<sup>2</sup>*Union of Students in Ireland, Dublin, Ireland*

<sup>3</sup>*Quality and Qualifications Ireland, Dublin, Ireland*

<sup>4</sup>*European Students' Union, Brussels, Belgium*

## Abstract

The European Students' Union (ESU) is an umbrella organisation representing over 20 million students across Europe, with the goal to provide a unified student voice on different topics of students' interest. ESU is a member of the European Network for Academic Integrity since 2020, and during this time, the topic of academic integrity, as well as students' position from a stakeholder perspective in its promotion, has been debated. Many National Unions of Students (NUSs) claim that their national systems do not include active student participation in the development of policies and procedures in relation to academic integrity, and in particular when the academic misconduct has been identified.

Student participation in policy-making adds a dimension to the implementation of that particular policy, which cannot be substituted by any other stakeholder group, and failure to involve students can lead to a failure in the efficiency of its implementation. Students are also unable to develop an understanding or capacity to assess, criticise or provide input on the development of appropriate measures which are both robust and rigorous, and also fit for purpose, recognising that the student is not the key perpetrator but rather a victim. This non-involvement in the communal development of knowledge and capacity, means that the student is effectively excluded from the development and decision-making processes. Students could assess the effectiveness of policy

in practice, suggest new and innovative ways to assure academic integrity within the curricula, but they could also warn other stakeholders of new ways of misconduct and how to manage it, if they were included in the work of expert bodies on academic integrity.

Due to the lack of policy involving students, there are not many practices to involve them either, and the students sometimes lack the initiative to engage in the topic themselves. This lack of student interest can result in lack in general understanding and implementation of academic values in students' work and education, allowing the students to leave higher education institutions without the basis for their future work either in industry or in academia. Additionally, students are missing a key link between themselves and the experts working on the topic and upkeeping institutional integrity, that would broaden their ability to independently investigate and participate in spreading the academic integrity values among peers.

However, some countries, such as Croatia (Zakon o Studentskom Zboru i Drugim Studentskim Organizacijama, 2007) and Ireland (National College of Ireland, 2020) readily involve students in discussions about academic integrity, prevention of misconduct, and implementation of different methods to preserve academic values within the curricula. An example of student engagement and positive promotion of academic integrity involves the

work of The National Academic Integrity Network (NAIN) in Ireland, established in 2019 by Quality and Qualifications Ireland. It functions as a peer-driven group of higher education stakeholders and experts, including students, who work on the topics of common interest in academic integrity (National Academic Integrity Network, 2021).

In this paper, we aim to define the role students should have in the scope of academic integrity in the European Higher Education Area (EHEA) and assess how the students can achieve their full potential through their role as “guardians” of the academic integrity- students’ ombudspersons. The methodology of our paper includes qualitative research on the role of students’ ombudspersons in Croatia and students collaborating with ombudspersons in higher education in Ireland, and compares the effectiveness of these two systems in practice. Our information sources stem from the National Coordinator of the Students’ Ombudspersons in Croatia- an elected representative of the Croatian Students’ Council (CSC), and the Union of Students in Ireland (USI). The results are based on consultations held with the students involved in academic integrity from these two organizations, and the evaluation of their workload and the need other students express for these positions, as well as the legal aspects of the establishment of their positions. Both of these national unions collaborate on the issues

of academic integrity at the institutional level, but also the national one. We aim to show that the students have an invaluable and core role in addressing academic dishonesty and promoting academic integrity among peers and that they must be involved in all levels of governance, regardless of their expertise (providing that the proper training is provided to them once they take up the position) to enable the optimal equitable outcomes for students.

The recommendations presented in the paper could help in redefining the role of students in academic integrity. Furthermore, our research stresses that the students’ involvement in academic integrity is necessary in spreading awareness of academic misconduct and promoting academic values among the student population.

This paper and the entirety of its research shall be used as a starting point for ESU’s work on enhancing the capacity on students’ rights to academic freedom through the reimagined role of students’ ombudspersons, according to ESU’s Plan of Work (European Students’ Union, 2021). Furthermore, we wish to support and encourage capacity building activities on the topic on an international level, where students would have the same opportunities to participate in academic integrity bodies and initiatives across all member countries of the European Higher Education Area.

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# A YEAR IN THE LIFE OF ACADEMIC INTEGRITY CONTINUING PROFESSIONAL DEVELOPMENT

Michelle Tooher<sup>1</sup>, Mairead Greene<sup>1</sup>

<sup>1</sup>National University of Ireland, Galway, Ireland

### Abstract

The Covid-19 pandemic and resultant changes to academic practices revealed forms of academic misconduct that while almost certainly were already occurring amongst our student community, were predominantly hidden from us. Spring 2020 saw the majority of our teaching and assessments move rapidly to an online format. With this rapid pivot we were also rapidly exposed to many more instances of misconduct through the use of file sharing websites, ghost writing services and other forms of contract cheating than we were previously aware of, echoing similar experiences reported in the literature and media (Lancaster & Cotarlan (2021), Sforza (2021)).

For university staff this was a challenge, a new vocabulary and many were underprepared to deal with it. For the authors, attending the 2020 ENAI conference was eye opening and daunting. It was not just academic misconduct that shocked us, but the threat to student welfare as a result of engaging in certain forms of academic misconduct. We knew that action was needed to educate both staff and students to the dangers of engaging with contract cheating, with regards both academic integrity and student welfare.

Prior to 2020, continuing professional development (CPD) in relation to academic integrity in our university tended to focus on plagiarism, text matching tools and how to use those tools to improve students' academic

literacies rather than using them only to *catch* students plagiarising. Supporting university policy also took a very narrow view of academic integrity, focussing on plagiarism, and the penalties of such. While CPD in assessment and assessment design as part of curriculum design was current and available to staff, CPD in the area of academic integrity was lagging behind the advances in digital communication, the ways in which students study and the sophisticated methods used by third parties to recruit students into academic misconduct. A renewed effort was needed to refresh the university's view of academic integrity.

We wanted to promote a culture of academic integrity, in tandem with our existing work on promoting good curriculum and assessment design. Academics had unfortunately learned during the pandemic that assessment design alone was not *the* solution to academic integrity challenges (Bretag et al (2019); Ellis et al (2020)) and to assume so was damaging to staff morale and confidence. Our aim was to first and foremost quickly educate staff and students with respect to contract cheating and the dangers of engaging in such. We also wanted to ignite conversation between staff and students on what Academic Integrity means to each of us, and allow both staff and students see the issue from each other's point of view ultimately working towards a collaborative approach to academic integrity education, as identified in

Efcik et al (2019). We wanted to promote the message that academic integrity is everyone's business. This would complement work elsewhere in our university focussed on defining a new Academic Integrity policy.

This conference presentation will outline one year of a journey in Academic Integrity Continuing Professional Development. We will outline the events, workshops and self-paced

lessons developed (and shared widely by our National Academic Integrity Network (NAIN) in Ireland), what we learned as we developed the lessons, consulting with staff and students, and how the CPD workshops often resulted in learning for both the attendees and the facilitators. Finally, we will share our plans for the coming year and beyond.

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# ETHICS AND IT: EXPERIENCE WITH A NEW COURSE

Tomáš Foltýnek<sup>1</sup>

<sup>1</sup>*Masaryk University, Czechia*

## Abstract

Data is the new gold; data is the new oil. The richest world companies make their profit mostly from gathering, processing and subsequent monetization of an enormous amount of data, which raises many ethical questions. Similar questions are related to artificial intelligence, decision making and decision-supporting algorithms, social media, or anonymity in the virtual world.

The author of this presentation, who already has experience in academic integrity, namely plagiarism detection, recently joined the academic community of the Faculty of Informatics (FI), Masaryk University (MU), Czechia. MU is the second largest and second-ranked university in Czechia. Its faculty of informatics was founded as the first purely informatics faculty in Czechia. MU emphasizes interdisciplinarity and encourages students to take courses from other faculties. Every year, there is a call for new courses that become part of the “common university core”. Until now, the courses related to ethics were only at the faculties of medicine, pharmaceutical sciences, arts, social sciences, law, sports and economics. Even though information technologies influence

everyday life in all areas of human activity, a course of IT ethics was missing.

The course “Ethics and IT” aims to fill this gap. It takes inspiration from a course “Ethics and Information Technology” taught at the School of Information, the University of Michigan (UMich, n.d.), but both the contents and teaching methods were adjusted for the Czech audience. At the end of 2021, the proposal for this course was selected in a bid, included in the common university core (MUNI, n.d.) and got funding for the course preparation.

Informal discussions with colleagues at the Faculty of informatics, as well as the discussion with the head of the Ethical committee for research indicates that this course not only fills the gap in the IT course offer, but is also beneficial in other ways. It reinforces the discussions about the ethical issues related to information technology, and it contributes a piece of a puzzle of the culture of academic integrity at the whole university. There are plans for a closer cooperation between teachers of professional ethics in various fields of study and ethical committees of the university. This cooperation may be further institutionalized as an academic integrity (advisory) centre.

## Course Parameters

The course is offered to students of any field and any degree. The intensity of the course is one 2 hour period of direct teaching per week plus a reading exercise for homework. The course is – in compliance with the common university core courses – completed by colloquium and awarded 2 ECTS credits.

The objective of the course is to acquaint students with ethical problems associated with information technology, ethical dilemmas, and ways to solve them. The course deals with ethical issues related to the collection, storage, processing, and presentation of data and

information, algorithms to support decision-making, and their social overlap.

Learning outcomes of the course include:

- The ability to identify problems related to information technology ethics and the ability to analyze these problems in a structured way.

- The ability to solve moral dilemmas related to information technology, including a thorough argumentation of the chosen solution.
- The ability to debate moral dilemmas, understand opponents' opinions, and be able to accept them, or deal with them in an argument.

## Contents of the course

1. Introduction to ethics
  - a. Basic concepts: Ethics, morality, values, virtues
  - b. Moral dilemma
  - c. Discussion of moral dilemmas: Debate and dialogue
1. Ethical data handling
  - a. How to produce and collect data ethically?
  - b. Who owns the data?
  - c. Surveillance capitalism
1. Bias in algorithms
  - a. Ethical aspects of data transformation into information and knowledge
  - b. Ethical aspects of data presentation
1. Media manipulation and misinformation on the Internet
  - a. Consequences of poor quality, misleading and hateful content on the Internet
  - b. How can information technology prevent or limit the spread of misinformation?
1. Information filtering and censorship
  - a. When can information filtering be considered ethical?
  - b. New Great Wall of China
  - c. The right to be forgotten in the EU
1. Ethical aspects of social media and news servers
  - a. Positive and negative content and its attractiveness
  - b. Pay-per-click and social responsibility
2. Crowdsourcing of knowledge; Wikipedia
  - a. Why to trust and why not to trust Wikipedia?
3. Internet and copyright
  - a. "Remix" culture
  - b. Public domain and Creative commons licence
  - c. Plagiarism issues
4. Access to scientific results and their use
  - a. Open access and open data
  - b. Predatory journals, their connection with open access and implications for science
  - c. Possible consequences of the use of scientific results by lay people
5. Anonymity online
  - a. Anonymity, pseudonymity
  - b. Abuse of anonymity for harassment
  - c. Anonymous payments
6. Information technologies for prevention and detection of unethical behaviour
  - a. Plagiarism detection
  - b. Proctoring systems
  - c. Blockchain
7. Professional ethics in IT
  - a. What does "being a good IT professional" mean?
  - b. Ethical issues in IT design and development

## Teaching methods

Each week, students are given an article to read and/or a video to watch. There is a quick quiz at the beginning of each lecture to verify that students fulfilled their task. Then, the lecturer presents key issues and initiates the discussion among the students. Students are encouraged

to vote, share their views, and listen to the others. Students can get points for quizzes, active participation in the discussion, presentation of a specific topic, final essay, or critical feedback to someone else's essay.

## Results

This is the first time the course is being taught, with 14 students enrolled. Most of them are from Faculty of informatics, but there are also students from the Faculty of Arts, Faculty of Medicine and Faculty of Science. This variety enables rich discussion and various viewpoints. A preliminary feedback from the students indicates that students like the course; it meets their expectations. The students value the discussions and opportunity to confront their opinions with the views from their peers with another background.

The presentation will summarize experience with this course. This abstract is being submitted at the beginning of week 3, thus too early for any evaluation. The conference takes place almost at the end of the semester and allows summarizing of strengths and weaknesses of the course organization, will share inspiration to conference participants and gain new ideas from people having experience with similar courses.

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### BRIDGING ACADEMIC AND RESEARCH INTEGRITY IN A GAME ON FABRICATION

Inga Gaižauskaitė<sup>1</sup>, Sandra Krutulienė<sup>1</sup>, Sonata Vyšniauskienė<sup>1</sup>, Volodymyr Sherstjuk<sup>2</sup>, Maryna Zharikova<sup>2</sup>

<sup>1</sup>*Lithuanian Centre for Social Sciences, Lithuania*

<sup>2</sup>*Kherson National Technical University, Ukraine*

#### Keywords

Academic integrity, research misconduct, games, gamification, fabrication

#### Abstract

The workshop is a part of Erasmus+ project *Bridging Integrity in Higher Education, Business and Society* (BRIDGE). The project aims to create a bridge between academic integrity, research integrity, integrity in business, and society in order to reach a broader understanding and transparency of integrity between these fields, as well as interrelated skills and qualifications needed to act in accordance with academic integrity values (<https://www.academicintegrity.eu/wp/bridge/>). Our target groups are master students, PhD students, and supervisors. To increase student motivation and engagement, we are developing open innovative educational resources addressing various ethical issues that can be transferred from the academic integrity field to the ethical aspects of the research, business, and citizen science fields. The educational resources will include gamified cases of real-life situations. Kapp (2012, p. 10) defines gamification as “using game-based mechanics, aesthetics and game thinking to engage people, motivate action, promote learning, and solve problems”. According to Kapp (2012), game elements in traditional learning environments

are conducive not only to engagement but also to imagination and creative thinking, at the same time retaining a sense of control, possibility to explore or fail in a safe environment. Corresponding to different learning styles of the current young generation, gamification is an appealing way to transform the learning experience to keep students motivated and active (Furdu, Tomozei & Köse, 2017). Therefore, our gamified cases will accompany other (more traditional) educational suboutputs (i.e., checklists and guidelines) and it will be possible to adapt them in varied educational modules for academic integrity education in different disciplines or subject areas.

We have chosen multiple-choice storytelling computer-based games as the most suitable form of creating gamified cases for our aim. All our games will follow the same model which includes dialogues, illustrations, and branching storytelling. At the end of a game, each player reaches a concluding narrative customised for the story branch (s)he followed. A game is further accompanied by suggested educational material and resources.

The workshop will introduce one of the gamified cases, focused on fabrication, a major misconduct in research (along with falsification and plagiarism) (Tauginienė et al., 2018). The game is at its final development stage and we aim to pilot it with diverse potential users, either students, educators, or stakeholders. We will invite workshop participants to play the game and provide their first-impression feedback on any elements of the game.

The main story of the game was based on real-life situations thus the players (master and PhD students) should be able to easily relate to the actors, events and/or circumstances in the development of story branches. Our main actor, PhD student Alex, encounters a potential case of data fabrication. As Alex, a player has to make her/his first choice from three available alternatives. Each alternative then leads to a continuation of the story line and shifts the story in a different direction. The player is not only faced with a dilemma of choice because he has to choose how to proceed, but also with the consequences of her/his choice – the potential events that could happen as a result of making one or the other choice.

The game has three stages, after each the player is given a choice of three alternatives. Each stage tells a short story (continuation of the story) through illustrations and simple dialogues. There are several characters who are part of the story and can influence the player's choices. In addition to the player (PhD student), there is a supervisor, a friend and a company director. Following the developing story line, the player needs to decide how to behave in a particular situation. Each choice provides new experience

to the player. In total the game has 29 choices and 15 ending scenarios.

The game also builds a bridge between academic integrity (AI), research integrity (RI), and business ethics (BE) in order to promote understanding of AI, RI, and BE and to raise awareness of the potential risks of breaching integrity.

The development of the game took place in stages, initially searching for real life examples and information about fabrication cases in scientific literature, and creating a potential game story. The first version of the game was developed by a single consortium partner. Once the initial game scenario was developed, three rounds of discussions were organised with the partners to discuss the content and visualisation of the game. After each discussion round, the game was adjusted according to the comments and suggestions from the partners for improvement of the game. Once the final version of the game was agreed with the project partners, the game was reviewed by an editor and handed over to a partner who will transfer the game to a player-friendly computer-mediated format which will be presented during the workshop.

Workshop will be organised as follows:

1. A short introduction to the idea and the logic of the game.
2. Playing the game.
3. Participant feedback and concluding discussion.

With the consent of workshop participants, the authors of the workshop will take notes on the feedback and later use it to improve the game to best correspond to the needs of future players.

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### STRENGTHS AND WEAKNESSES OF PEER REVIEW: ENHANCING INTEGRITY AND PROFESSIONAL STANDARDS IN PUBLICATIONS

Irene Glendinning<sup>1</sup>, Sonja Bjelobaba<sup>2</sup>, Salim Razi<sup>3</sup>, Shivadas Sivasubramaniam<sup>4</sup>, Sumayyia Dawood Marar<sup>5</sup>, Muaawia Ahmed Hamza<sup>5</sup>, Laura Ribeiro<sup>6,7</sup>, Robin Crockett<sup>8</sup>, Burcu Özge Razi<sup>3</sup>, Ghazaleh Gholami<sup>9</sup>

<sup>1</sup>*Coventry University, United Kingdom*

<sup>2</sup>*Uppsala University, Sweden*

<sup>3</sup>*Çanakkale Onsekiz Mart University, Turkey*

<sup>4</sup>*University of Derby, United Kingdom*

<sup>5</sup>*King Fahad Medical City, Saudi Arabia*

<sup>6</sup>*Department of Public Health and Forensic Sciences and Medical Education, Faculty of Medicine, University of Porto, Portugal*

<sup>7</sup>*I3S-Instituto de Investigação e Inovação em Saúde, University of Porto, Portugal*

<sup>8</sup>*University of Northampton, United Kingdom*

<sup>9</sup>*University of Wollongong in Dubai, United Arab Emirates*

#### Keywords

Academic publishing, peer review, predatory publishing, ECR training

#### Abstract

The peer review process is central to academic publishing and dissemination. Without peer reviewers, the quality, standard, readability and relevance of all academic publications would have to be checked by the editors, which would be an enormous task. In the case of disreputable or predatory journals, there is pretence that peer review happens, but in reality, there is little or no checking or feedback to the author (Eaton, 2018). Typically, a predatory journal or publisher will publish any submitted paper with minimal or zero editing and review, as long as the author has paid the article processing charge (Fenske, 2021).

The most common types of peer review processes are (a) double blind, where both reviewers and authors are anonymous, (b) single blind, reviewers' names are hidden from the authors, and (c) open peer review, where names of reviewers and authors are visible. Each of these methods of review have flaws. Fully anonymised reviews should allow impartial acceptance/rejection decisions, but authors may indirectly identify themselves via self-referencing within their article. Single blinded review provides anonymity to the reviewer to critique without concerns, and, since the reviewers can see the authors' names and

affiliations, there is potential for professional, gender, racial, geographic and other biases. Open peer review is entirely dependent on professionalism by both parties. **Subject-specific** competitiveness between reviewers and authors may trigger hostile comments, counter arguments, unsubstantiated criticisms and delays in responses. Therefore, when it works well, peer review of academic work benefits the author, the editor and publisher and the readership. However, when the peer review process or editorial process is weak or corrupted, it is possible for pseudo- junk-science, plagiarised or poor-quality academic papers to be published, even by reputable journals (Bohannon, 2013; Retraction Watch, 2014). Publishing unfounded, unsupported or inaccurate claims can have serious consequences, especially in fields such as healthcare, medicine and engineering (Moher et al., 2017).

Early career researchers (ECRs) can be daunted by the peer review process. A rude peer reviewer who is unethical or incompetent can convince an inexperienced author that their work is worthless, potentially leading to abandonment of an otherwise promising academic career (Mavrogenis et al., 2020). Clearly, all ECRs need to be well prepared for publishing and peer review before they encounter any harsh realities. Understanding how to benefit from constructive feedback and having confidence to provide a measured response to unfair or unevdenced criticism, can make a great difference to the process of academic writing, for all authors.

The role and duties of a peer reviewer need to be clearly articulated by the publisher or editor, otherwise great disparities can arise in the

quality and nature of feedback received by an author. Editors and peer reviewers are not always ethical in declaring conflicts of interest and some may unjustifiably criticise work by researchers in the same field (Fanelli, 2010). Even when there is anonymity through blinding, it has been known for editors and peer reviewers to take advantage of access to draft papers to boost their own profile, by publishing a plagiarised copy before the author's work can be published (Oransky, 2022).

It is not uncommon for a journal to ask an author to nominate their own peer reviewers. This can work well if the authors and reviewers can be trusted to behave ethically. However, if not appropriately managed, this open approach can lead to corruption and academic misconduct. For example, there could be reciprocity between author and reviewer – if you give me an easy time, I will do the same for your next paper (Birukou et al., 2011). The resulting light-touch reviews that lack objectivity, do not adequately contribute to improving the quality of either papers or the journal.

If a manuscript is assigned to an inappropriate reviewer, then this could be a mistake by the editor, or the reviewer's limitations may not be fully understood. It is the responsibility of the reviewer to refuse to review a manuscript that is outside their subject area or level of competency or to notify the editor when there is a clear conflict of interest, such as knowing who the author is, or being involved in the research, when the process is supposed to be blinded. If a peer review is conducted by someone who does not understand the subject of the manuscript, then the feedback is likely to be unhelpful, misleading or unjustified.

## The workshop

This workshop will be used to highlight positive and negative aspects of the peer review process. The following research questions will direct the focus of the workshop.

Research questions for workshop participants

- What positive and negative experiences have you had as a PhD student / ECR relating to peer review?
- Based on the experience of participants serving as peer reviewers, what factors

make peer review useful and successful and what could be done to make it work better?

- What types of unfair practices have you encountered that relate to peer review in publishing and dissemination? How did you respond to unfair practices?
- Should peer reviewers who conduct reviews for profitable publishers receive payment or some form of compensation?

As views and experiences from participants will be collected during the workshop, the Ethics Committee of the University of Porto, have agreed to check the methodology for compliance with their ethical requirements and ensure it meets their standards. The ethical approval will be completed before the conference.

At the start of the workshop, the participants will be asked to sign an informed consent form, which will contain an explanation of the purpose of the research and methods to be followed. The form will be made available online for use by both in-person and remote attendees of the workshop, and paper copies will be available.

The working group members intend to include some of the feedback from participants in a future paper submitted for publication. However, no participants will be identified in the paper.

The experiences of participants will be explored, looking at the peer review process through different lenses. Using the research questions, workshop participants will be asked to suggest what more can be done to improve the operation of the peer review process for all stakeholders. In addition, the workshop participants will be asked to consider alternatives to peer review, such as continuous incremental review throughout the lifecycle of the research (Bishop, 2022) and the effectiveness of pre-print servers (Birukou et al., 2011; Packer, 2018; Puebla et al., 2022).

An app such as Padlet or Mentimeter will be used to collect anonymous contributions from participants, during and after the workshop, particularly those connecting remotely.

This workshop is of relevance to anyone interested in maintaining quality and standards in academic and scientific publishing and research.

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### WHAT IS THE EUROPEAN NETWORK FOR ACADEMIC INTEGRITY AND WHAT CAN IT DO FOR YOU?

Dita Henek Dlabolová<sup>1</sup>, Rita Santos<sup>1</sup>, Sonja Bjelobaba<sup>2</sup>, Tomáš Foltýnek<sup>3</sup>, Salim Razi<sup>4</sup>

<sup>1</sup>*European Network for Academic Integrity, Czechia*

<sup>2</sup>*Uppsala University, Sweden*

<sup>3</sup>*Masaryk University, Czechia*

<sup>4</sup>*Çanakkale Onsekiz Mart University, Turkey*

#### Abstract

The aim of this workshop is to introduce the mission, core values, projects, and activities of the European Network for Academic Integrity (ENAI). The workshop is primarily designed for individuals who are not much familiar with ENAI and, therefore, want to acquire an in-depth understanding of ENAI's activities, actions and ways to get involved. Nonetheless, present members are also welcomed and invited to share their experiences within the network, as well as their views and ideas for expanding ENAI's activities and missions, with the aim to offer an opportunity for networking with the participants and to establish potential future collaborations or just to find out about the latest news.

The European Network for Academic Integrity is a non-governmental organization that aims to support higher education institutions and individuals to work together in the field of academic integrity. ENAI's mission focus on the promotion of academic integrity values through the development and free availability of educational resources about academic integrity. ENAI's aims to provide education, support, and a space for the establishment of collaborations. ENAI is built upon a network of members. There are currently 44 Institutional members (i.e.

memberships from higher education institutions) and over 30 Individual Supporters (i.e. memberships from individuals). Any educational institution (no matter its geographic location) can become a member, and anyone can join ENAI as an individual supporter. Importantly,

The workshop will start with a brief introduction to ENAI's mission, core values, activities, and current members. The workshop will then inform how the organization works and how members can be part of and influence it, and we will sum up the benefits of the membership. ENAI members (institutional and individual) benefit from being involved in a community that aims to foster and strengthen a culture of academic integrity in educational settings. Moreover, members play an active role, by voting on ENAI's Board, suggesting ENAI's activities and taking an active role in its implementation, participating in joint educational and training activities, establishing new partnerships, and highlighting the Institution's (for Institutional memberships) mission in the promotion of academic integrity core values. Members also benefit from discount rates in organized conferences, access to key resources and training materials, and are

entitled to receive support in academic integrity issues (e.g. support to victims of misconduct actions, guidance in the development of academic integrity policies and documentation). The ENAI resources, activities, projects involved, and our vision will then be presented to our participants. This workshop aims to be interactive and dynamic, where participants will be encouraged to participate highly during the session.

The most popular ENAI resources are guidelines on academic integrity ([www.academicintegrity.eu/wp/guidelines](http://www.academicintegrity.eu/wp/guidelines)), glossary of terms related to academic integrity ([www.academicintegrity.eu/wp/glossary](http://www.academicintegrity.eu/wp/glossary)) and a database of educational materials on academic integrity ([www.academicintegrity.eu/wp/all-materials](http://www.academicintegrity.eu/wp/all-materials)). We will look at these resources, and try them in practice. All resources are available in multiple languages. The educational materials are tailored to various target groups – such as university students, their teachers, and supervisors, as well as pupils from primary and secondary schools. The materials also cover various topics such as plagiarism prevention, good citation practice, or prevention of contract cheating.

The heart of ENAI's activities is its working groups ([www.academicintegrity.eu/wp/all-materials](http://www.academicintegrity.eu/wp/all-materials)). Currently, there are 14 working groups with various focus areas. For example, we have a working group on gamification of academic integrity, on academic integrity policies, and on academic integrity surveys. We will briefly introduce the working groups, their activities, and how participants can be involved in them. There will be representatives of a few working groups, who will share their experiences and activities from their working groups. Informal discussions between the participants and the representatives will also be encouraged after the workshop.

We will also introduce how ENAI is supporting victims of academic misconduct. We will take a

look at our portal, where victims of academic misconduct can find tips on what to do, share their stories, or ask for help ([www.academicintegrity.eu/victims](http://www.academicintegrity.eu/victims)).

ENAI's educational events such as regular open free webinars, tailored webinars for member institutions, and the ENAI PhD Summer School are going to be presented. The nearest upcoming events after the conference are monthly webinars as well as the 2<sup>nd</sup> ENAI Academic Integrity PhD Summer School which will take place from 20<sup>th</sup> to 28<sup>th</sup> August in Canakkale, Turkey. The summer school programme will be made public in this workshop session and PhD students will be invited to apply for it.

Recently, ENAI introduced the position of executive manager. We will present experience from the first three months of having a full-time employee, as well as ideas on long-term sustainability. Sustainability relies to some extent on the projects prepared jointly by ENAI and its members. Within the workshop, we will introduce the recent projects ENAI applied for and gather ideas for future projects. We will also summarise the service that the executive manager can provide towards ENAI member institutions and supporters.

To sum up, participants from this workshop will benefit from a close look into ENAI's mission and activities, and learn about the benefits of becoming an ENAI member. Participants will also benefit from taking a close look into ENAI's educational resources, materials, and support tools, and the activities undertaken by the different working groups, with invitations extended for participants to get involved in one or more working groups. To finish, by participating in this workshop, participants will get acquainted with the projects in which ENAI is currently involved, the events planned, and how they may be involved, and meet our new executive manager and the support you may receive from her!

# USING THE IEPAR FRAMEWORK - A WORKSHOP TO BUILD A CULTURE OF INTEGRITY IN HIGHER EDUCATION

Zeenath Reza Khan<sup>1</sup>, Sreejith Balasubramanian<sup>2</sup>, Ajrina Hysaj<sup>1</sup>

<sup>1</sup>*University of Wollongong in Dubai, United Arab Emirates*

<sup>2</sup>*Middlesex University, Dubai, United Arab Emirates*

### Abstract

Academic misconduct in higher education has risen globally during remote teaching and assessing since the beginning of the COVID19 pandemic, particularly due to use of online assessments (Erguvan, 2021; Janke et al., 2021; Clark, et al., 2020; Kapardis and Spanoudis, 2022). However, it is not a unidimensional issue; it is important that all stakeholders understand the underlying concerns that are pivotal to the incidents among students as they manifest. Lancaster and Cotarlan (2021) posited a 200% increase in student use and access to assignment sites such as Chegg. Moreover, Curtis et al. (2021) have shown that perhaps as high as 95% of students are never caught. However, many scholars have also pointed to faculty inexperience in setting assessments, unpreparedness of using technology and teaching remotely as some of the possible proponents of such misconduct (Khan et al., 2021; Dendir and Maxwell, 2020; Reedy et al., 2021).

Proactively addressing these scenarios is critical for universities as such behaviours have a negative impact on the institutions, their reputations, devalue their degrees and can have a ripple effect on careers of graduates and society (Weale, 2021; Hobbs, 2021). As the pandemic hit, teachers realised they no longer had the privilege of eye contact, reading body

language and connecting with their students at a level that goes beyond textbooks and classrooms, a connection that is central to helping ensure values of integrity are upheld in teaching, learning and assessing (Khan et al., 2021).

The values of fairness, courage, honesty, respect, trustworthiness, and responsibility are vital to ensuring the quality of education (ICAI, 2021). While studies have shown significant rise in student cheating behaviours during the pandemic, the numbers are reflective of a larger question - how do we build a culture of integrity in our classrooms that helps instill the values of academic integrity in students irrespective of when, where and how learning occurs?

Through this proposed workshop we aim to address these concerns by presenting a holistic approach based on IEPAR framework (inspiration, education, pedagogical considerations, assessment design, response and restorative practice) that was first introduced by Hill and Khan (2021), wherein participants will have an opportunity to reflect, discuss and debate on pillars of the framework and come up with their own IEPAR model customized to their own institutions. The 60-minute workshop will begin with a short presentation on challenges and barriers faced by institutions with relation to academic

integrity and misconduct, with particular focus on the COVID19 and emergency distance learning. The participants will then be split into small groups to engage in interactive discussions and exercises on each of the pillars of the model through practice immersion. Each group will then summarize their discussion points and present these to everyone for further feedback and reflection.

Key take-aways of the workshop for practitioners, academics, staff and policymakers are as follows:

- Developing an understanding of the depth and breadth of issues related to academic integrity, and instilling its values
- Recognizing key stakeholders of a student's learning journey and their roles in combating academic misconducts
- Developing an understanding of the holistic framework - IEPAR model and its pillars
- Incorporating the IEPAR model to attendees' own institutions to help build a culture of integrity

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## Concurrent Session 3 | Room 1

### WHY DO WE NEED AN INTERNATIONAL RESEARCH PARTNERSHIP ON PLAGIARISM PREVENTION?

Martine Peters<sup>1</sup>, Joseph Atoyebi<sup>2</sup>, Nicole Boubée<sup>3</sup>, Irene Glendinning<sup>4</sup>, Jim Hu<sup>5</sup>, Alyson King<sup>6</sup>, Kathleen O'Reilly<sup>7</sup>, Ceceilia Parnther<sup>8</sup>, Martine Pellerin<sup>9</sup>, Salim Razi<sup>10</sup>, Monica Soto<sup>11</sup>, Angelina Weenie<sup>12</sup>

<sup>1</sup>*Université du Québec en Outaouais, Canada*

<sup>2</sup>*University College of the North, Canada*

<sup>3</sup>*Université Toulouse - Jean Jaurès, France*

<sup>4</sup>*Coventry University, United Kingdom*

<sup>5</sup>*Thompson Rivers University, Canada*

<sup>6</sup>*University of Ontario Institute of Technology, Canada*

<sup>7</sup>*First Nations University of Canada*

<sup>8</sup>*St-John University, Canada*

<sup>9</sup>*University of Alberta, Canada*

<sup>10</sup>*Çanakkale Onsekiz Mart University, Turkey*

<sup>11</sup>*Université du Québec à Montréal, Canada*

<sup>12</sup>*First Nations University of Canada*

#### Keywords

Academic integrity, Partnership, International, Digital scrapbooking strategies

#### Abstract

In 2021, an international research initiative was financed by the Canadian government to examine how to prevent plagiarism in universities. This presentation will present 1) the research project and its theoretical foundations and 2) how 63 researchers work collaboratively to achieve their goals.

Research on plagiarism is nothing new but it has mostly been centered on understanding how, why (Camara, Eng-Ziskin, Wimberley, Dabbour et Lee, 2017; Cleary, 2017; Eaton, 2020; Sarita, 2015; Strangfeld, 2019) and how many students plagiarize when writing their assignments (Pierce et Zilles, 2017), or on detecting

plagiarism (Amin et Mohammadkarimi, 2018; Keuskamp et Sliuzas, 2007) and punishing the culprits (Halasek, 2011; Hamann et Kerwin, 2018). The present research project concentrates on working with students and faculty on trying to solve the problem before it arises.

Many researchers have declared that plagiarism is often caused by lack of knowledge (Chen et Chou, 2017; Elander, Pittam, Lusher, Fox et Payne, 2010b; Gravett et Kinchin, 2018; Ison, 2018), skills (Elander, Pittam, Lusher, Fox et Payne, 2010a; Rosser-Majors et Anderson,

2018), and training (Glendinning, 2014; Heckler, Forde et Bryan, 2013).

Unfortunately, we know very little about these deficits because they are spread over a large combination of skills needed to write academic papers. These can range from not knowing how to search and document the information needed to referencing the sources used. Certain authors will talk about university literacy (Miller et Schulz, 2014), other about writing from sources (Howard, Serviss et Rodrigue, 2010), doing patchworking (Howard, 1999) or in our case digital scrapbooking (Peters, 2015).

We suggest that when students write an academic paper, they need three sets of skills: informational, writing and referencing skills. They also need knowledge about how to prevent plagiarism. These skills and knowledge

combined with digital scrapbooking strategies enable them to write their assignments. In order to do this without plagiarizing, they need to be trained and this training needs to be done progressively, from primary school to the Ph.D. level. Our presentation will address the skills, knowledge and strategies in details.

In the second part of our presentation, we will talk about the research project, the people behind it, how it came to be and what we aim to do. The seven-year project, with two phases and research done in 31 universities in Canada, Europe and the United States will be introduced by researches taking part in the project. The following aspects of the project will be discussed: the partnership agreement, the data management plan, the creation and validation of the research instruments and generally what we all hope will come out of this project.

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# INDIVIDUALISTIC VS. SOCIAL EXAM DISHONESTY: INTRODUCTION OF TWO-FACTOR MODEL

Maciej Koscielniak<sup>1</sup>, Jolanta Enko<sup>1</sup>, Agata Gąsiorowska<sup>1</sup>

<sup>1</sup>*SWPS University of Social Sciences and Humanities, Poland*

## Abstract

Exam dishonesty—defined as any dishonest act taken during or related to an exam (e.g., using cribs, stealing questions, impersonating, or even bribing the lecturer)—is one of the most prevalent types of academic misconduct worldwide (Hendy et al., 2021, Odongo, 2021). The negative consequences of these practices affect both students (formation of immoral habits) and organizations (massive losses of intellectual property) (Wu et al., 2020; Cizek, 2003, pp. 31-39).

Of most instruments measuring academic dishonesty in the broadest sense, only a few scales focus on the problem of exam dishonesty (Ossai et al., 2014; Roberts & Toombs, 1993). This is a particular niche in academic research, as exam dishonesty undoubtedly has a different background than, for example, plagiarism and therefore requires specific research assumptions.

Moreover, it may be questionable to view academic dishonesty a unidimensional

construct (as in the studies cited above). All academic misconduct is undoubtedly multidimensional in nature (Iyer, Eastman, 2006; Marsden et al., 2005), which should be considered in research. The purpose of this presentation, therefore, is to propose a new two-factor model of exam dishonesty, consisting of *individualistic dishonesty* (focused on the pursuit of one's own goals) and *social dishonesty* (collective participation in deception aimed at achieving common goals) (Cicognani, 2019). We present the Examination Dishonesty Intention Scale (EDIS): a new, brief tool to measure propensity for both types of exam cheating. Preliminary results highlight the distinct nomological networks of individual and social dishonesty by examining their relationships with Dark Triad traits (Jonason & Webster, 2010), human values (Schwartz, 2003), and interest orientation (Gerbası & Prentice, 2013).

## Method

We collected data from 398 students from Poland (studying at many different universities). They answered 26 questions about their willingness to behave unethically in hypothetical situations during exams and completed a series

of psychological questionnaires. Confirmatory factor analysis revealed that eight items among the scenarios used formed a two-factor model that fit the data well and accounted for two distinct dimensions: individualistic vs. social.

## Results

Correlational analyzes revealed that the general measure of prior involvement in academic dishonesty (Sanecka & Baran, 2015) was strongly related to both EDIS factors. However, we found distinct patterns of relationships of the EDIS subscales with other measured variables. The individualistic factor correlated positively with all traits in the Dark Triad model (most strongly with Machiavellianism) and with self-interest focus, whereas the social facet of EDIS correlated positively with other-interest Focus, self-interest focus, and (weakly) with Machiavellianism.

The most interesting results were obtained when analyzing the relationship between

academic dishonesty and human values in Shalom Schwartz's model. Individualistic dishonesty correlates positively with the values of Self-Enhancement and Openness to Change and negatively with Conservation and Self-Transcendence - while socially motivated deception correlates only with Openness to Change (positively) and with Conservation (negatively). The nature of the Benevolence lower-order value most clearly shows the differences between the two EDIS factors: it is negatively correlated with the individualistic EDIS dimension and positively correlated with a social dimension.

## Discussion

Our results confirm that the students' exam dishonesty is not a completely homogenous phenomenon. At least two types of dishonesty can be distinguished: individualistic and social. Although these two factors are strongly correlated, a thorough analysis reveals that they differ in their psychological determinants. The individualistic dimension has its roots in "dark" personality traits (Machiavellianism, narcissism, psychopathy), self-interest orientation, and values such as hedonism or power. The social dimension, on the other hand, has a weak connection with the Dark Triad, but it is linked to a focus on the interest of others and high scores on the value of Benevolence.

Another interesting finding is the positive correlation between the focus on self-interest focus and the social dimension of academic dishonesty. It suggests the reciprocal nature of student cheating: individuals who "help" others with academic dishonesty may be motivated by

personal benefits, such as the chance to receive equivalent help in the future.

Among the limitations of the study, is its self-descriptive nature. All data collected in this manner are subject to errors resulting from social desirability bias (the reluctance to admit to behaviors that do not conform to social ethical norms). Moreover, the proposed questionnaire items refer to hypothetical and imagined behaviors, which are not always good predictors of actual behaviors.

Despite the previously mentioned shortcomings of the present study, the practical applicability of the proposed instrument should be emphasized. It is the first scale based on a two-factor model of academic dishonesty that allows examining students' tendency to engage in different types of dishonest behaviors. In addition, it looks at the propensity to dishonesty *here and now* – what makes it useful in experimental manipulations (as opposed to tools based on the declaration of past behavior).

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# PUBLICATION AND COLLABORATION ANOMALIES IN ACADEMIC PAPERS ORIGINATING FROM A PAPER MILL: EVIDENCE FROM A RUSSIA-BASED PAPER MILL

Anna Abalkina<sup>1</sup>

<sup>1</sup>*Freie Universität Berlin, Germany*

## Abstract

Paper mills represent an offer or on-demand writing of fraudulent academic manuscripts for sale. Recent investigations by research integrity experts have shown the infiltration of the academic literature with paper-mill production (Bik 2020, Schneider 2020, Schneider 2021). To date, paper mills have been detected due to suspicious submission process (COPE Council 2021, Grove 2021, Day 2022) or due to anomalies in the paper, falsification/fabrications in images and data (Christopher 2018, Else & Van Noorden 2021, van der Heyden 2021), and similarities between texts, f.e. the usage of common templates (Byrne & Christopher 2020, Cabanac et al. 2021, Else & Van Noorden 2021, Heck et al. 2021, RSC 2021).

Paper mills offering co-authorship slots in papers submitted to international journals is a rather new phenomenon in Russia. They appeared as a response to the new regulatory framework of 2011-2012, setting new criteria for research evaluation, including publications and citations in international journals indexed in Web of Science and Scopus and setting nationwide indicators. Among these companies, “International Publisher” LLC offers co-authorship for sale on the website. The goal of our present study was to identify papers originating from the paper mill “International Publisher” LLC and analyse the predictors of fraudulent papers.

The data were obtained from two main sources. First, since 2019, we collected the offers of “International Publisher” LLC published on the 123mi.ru/1 website. Second, the titles of papers were also provided in the contracts published on the website. A total of 1009 paper and their

titles offered during 2019-2021 on the 123mi.ru website were analysed to detect auctioned papers published in journals. Each title from an offer was manually searched in Google, Google Scholar or Scopus. Some of the titles were found in Russian, so they were translated with Google Translate before the search.

The study allowed us to identify at least 434 papers (including one preprint, one duplication paper and 15 republications of papers erroneously published in hijacked journals) that are potentially linked to the paper mill. Further evidence of suspicious provenance from the paper mill is provided: matches in number of co-authorship slots, year of publication, country of the journal, country of a co-authorship slot and similarities of abstracts. These problematic papers are co-authored by scholars associated with at least 39 countries and submitted both to predatory and reputable journals.

The success of the paper mill “International publisher” LLC is connected with the collaboration strategy with journals. The study allowed to detect dishonest collaboration with journals or editors, submissions to low-quality or predatory journals for which the rate of acceptance is rather high. This paper mill also applied “one paper-one journal” principle, e.g., submission of a problematic paper to an individual legitimate journal only once. It doesn’t allow to detect a fraudulent paper by an individual journal.

This study also demonstrates collaboration anomalies and the phenomenon of suspicious collaboration in questionable papers and examines the predictors of the Russian paper mill. The analysis showed irregularities between

the sample and common organization of science in Russia, providing further evidence of questionable provenance of the sample papers: a) suspicious collaboration between scholars affiliated with different organizations; b) topics of paper not corresponding to the specialization of the co-authors and their previous work; and c) the average number of co-authors in the sample being larger than it is typical in Russia,

and vice versa, the number of solo papers being significantly smaller.

The value of co-authorship slots offered by “International Publisher” LLC in 2019-2021 is estimated at \$6.5 million US dollars. Since the study analysed a particular paper mill, it is likely that the number of papers with forged authorship is much higher.

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# EFFECT OF EDUCATIONAL INTERVENTION ON PHYSICIANS AND RESEARCHERS' KNOWLEDGE, PRACTICES AND PERCEPTIONS TOWARDS PREDATORY JOURNALS (PJs)

Sumayyia Marar<sup>1</sup>, Muaawia A. Hamza<sup>1</sup>, Alaa Ashraf AlQurashi<sup>1</sup>, Amani Abu-Shaheen<sup>1</sup>

<sup>1</sup>King Fahad Medical City, Saudi Arabia

### Keywords

Illegitimate journal, questionable journals, predatory journals, educational intervention, tertiary care hospital

### Background

In the current scholarly landscape, predatory journals (PJs) increasingly emerged along with open access journals (OAJ). These PJs have rapidly increased the volume of their publications over time, from approximately 53,000 articles in 2010 to approximately 420,000 articles in 2014 (Shen and Bjork, 2015). The primary aim of PJs is for profit rather than to disseminate quality and peer-reviewed research and thus hurt accurate and good scientific research. Although several efforts have

been put in place to expose PJs, which have compromised the integrity of scientific research by exploiting the open-access publication model, some authors are still not aware of these journals. Many prospective authors and researchers are unaware of these PJs. In the Middle Eastern countries, there was a large body of literature shows that prospective authors are commonly invited to publish in PJs (Mouton & Valentine, 2017; Watson, 2017).

### Objectives

The main purpose of the current study is to assess the impact of an educational intervention on the physicians' and researchers' knowledge,

practices, and perceptions towards PJs at a tertiary care hospital.

### Methodology

This is a quasi-experiment randomized pretest-posttest control group design. The study

population consisted of physicians and researchers at a tertiary care hospital. and all

researchers identified in the database of the institutional review board (IRB) were eligible to participate in this study. The study participants were randomly assigned either to an intervention group or a control group. The intervention was performed in a way that participants in the intervention group received educational training regarding PJs and those in the control group did not. The educational training included video lectures and written materials that cover issues related to predatory journals, available lists, organizations that tackle PJs, ways and suggested features to identify potential PJs, criteria for identification of PJs, and how to avoid them. The participants were recruited into the study voluntarily, and invited to participate in this study by a trained research coordinator after they have read, understood, and signed written informed consent.

A structured questionnaire for assessing knowledge, practices, and perceptions towards PJs was developed based on previously published studies (Christopher & Young, 2015; Shen & Bjork, 2015; Beshyah SA. et al, 2018), and the face and content validity was checked by a group of ten academic and clinical researchers from different countries with expertise in research integrity and publication ethics. Then, a pilot study was carried out on 40 participants to ensure the clarity and readability of the questionnaire and it was modified according to the participants' comments.

The questionnaire consisted of four parts (i.e., demographic, knowledge, practices, and perceptions). The demographic parts consisted of age, gender, years of experience, professional occupation, workplace, prior training, training location, and the number of published articles either as co-author or corresponding author. The knowledge part consisted of 16 items. The responses for knowledge questions were assessed using (yes, no, not sure) choices. The

knowledge questions are: have you ever heard of PJs; what is PJs; have you ever heard of the lists that tackle PJs; have you ever heard of the lists that provide a list of the legitimate journal; what are the ways to identify potential PJs; and what suggested features would you look for to identify PJs. The total knowledge score was calculated for those who correctly answered each item (i.e., yes) summed to possible maximum and minimum scores of 16 and 0 points, respectively. The practices part consisted of 19 items (17 items graded on a 4-points Likert scale and 2 items for multiple answers). The questions are; have you ever submitted articles to suspected PJs; do you have publications in suspected PJs; have you ever accepted the invitation as a reviewer or editorial board member for what sounds to you like a PJ; and have you ever checked the details of a target journal before submitting your manuscript?. Also, the part of the practice consisted of 2 multiple choice questions; why do you publish in PJ? and what do you personally do when you get invited to publish, review or serve on the editorial board for what sounds to you like a PJ. The total practices score was calculated by adding all the 17 items responses with possible minimum and maximum scores of 17 to 68 points, respectively. The perception part consisted of 10 items measured using a 5-points Likert scale of "strongly disagree" to "strongly agree". The total perception score was calculated by adding all items with possible minimum and maximum scores of 10 and 50 points, respectively. The research team distributed the questionnaire to potential participants before and after intervention commenced. The analysis of covariance (ANCOVA) was performed to assess the effect of the intervention program on participants' knowledge, practices, and perceptions.

## Results

A total of 304 participants enrolled in the study at baseline and were distributed equally in intervention and control groups (152 per each). After the intervention, the intervention group lost 67 participants and did not complete the questionnaire, leaving 85 participants for the

post-intervention final analysis. The control group lost 54 participants after the intervention. Of all participants, 153 (50.3%) were males, 111 had Bachelor degrees (36.5%), 81 senior consultants (26.6%), 93 worked in the main hospital (30.6%), 42 received prior training

(13.8%) and 24 (57.7%) of them were in Arab institutions. The majority of them had published at least 5 manuscripts either as co-author (274; 90%) or corresponding authors (290; 95.4%). The distributions of baseline characteristics were similar in both groups ( $p > .05$ ). Furthermore, pre-test intervention means total scores of knowledge ( $5.32 \pm 3.8$  versus  $5.42 \pm 3.9$ ,  $p > .05$ ), practices ( $39.48 \pm 11.0$  versus  $38.73 \pm 12.4$ ,  $p > .05$ ), and perceptions ( $32.36 \pm 5.1$  versus  $32.74 \pm 4.8$ ,  $p > .05$ ) were not statistically different in both groups. The most important result to emerge from this study is that

## Conclusions

This study showed that the educational intervention program had significantly improved participants' knowledge but neither their practices nor perceptions. However, despite the significant increase in post-intervention total knowledge score is still somewhat moderate. Therefore, the threat of PJs needs to be further discussed and illustrated for many researchers. This can be done, for example, by the development of new educational or training

participants' knowledge of PJs was significantly improved and increased in both groups such that the intervention group exhibited higher post-intervention scores ( $9.41 \pm 3.6$ ) as compared to the control group ( $7.53 \pm 3.7$ ;  $p < .001$ ) after adjusting for pre-intervention total knowledge scores. However, the intervention program did not significantly contribute to improving the post-intervention mean total scores of participants' practices ( $43.18 \pm 11.1$  versus  $41.39 \pm 11.0$ ,  $p > .05$ ) and perceptions ( $32.71 \pm 4.5$  versus  $33.41 \pm 3.8$ ,  $p > .05$ ).

programs and strategies to differentiate between scientifically accurate and PJs. Awareness camping must be taken into consideration to increase the authors' and researchers' awareness about the negative consequences of these journals on the credibility of science and evidence-based practice. Furthermore, long-term follow-up studies are needed to disseminate and stimulate better results.

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# DO REPUTABLE JOURNALS PRIORITIZE CITATION CREDIBILITY? AN INVESTIGATION INTO ELT JOURNAL

Burcu Ozge Razi<sup>1</sup>, Salim Razi<sup>1</sup>

<sup>1</sup>*Çanakkale Onsekiz Mart University, Turkey*

Predatory journals value financial issues rather than ethics (Beall, 2017) and annoying researchers with spam invitations for publication, lack of quality in publication process especially in peer review processes, which is claimed to be highly qualified, and article processing and/or publishing charges are among their common characteristics (Butler, 2013). Predatory journals are considered as a threat mainly for those who do not have enough expertise in publishing such as early career researchers and practitioners, mostly from developing countries (Demir, 2018). Any legitimate journal is expected to be careful about the credibility of the cited sources; yet, considering the aforementioned concerns, practitioner-oriented journals should be meticulous about not giving any room to citations by illegitimate publishers as their readership may not question the credibility of the sources cited (Ferris & Winker, 2017; Lalu et al., 2017). Tracking a source from a predatory publisher cited in a reputable journal might give the wrong impression about the legitimacy of publishers to those readers and may encourage them to collaborate with predatory publishers. In this vein, in an unexplored researched area of illegitimate journals, with an original methodology, this study aimed to examine the cited sources in the articles published in ELT Journal (Volume 75, Issues 1, 2, 3 and 4) in 2021. Volume 75 covered 70 articles with a total number of 790 reference entries. ELT Journal was chosen for this study since it is one of the most prominent journals in the field of English Language Teaching with its focus on daily issues of practitioners mostly from practitioners' points of view. Thus, ELT Journal, which has been published by Oxford University Press for over 75 years, appeals to a wide range of readership from practitioners to experienced

scholars for the exchange of information and is indexed by reputable databases such as 'Social Sciences Citation Index' (SSCI) and 'Arts & Humanities Citation Index' (AHCI), which paves the way for a broader audience. For this purpose, each reference entry in the target volume was first categorized according to the type of the publication (e.g., journal article, book, chapter in edited collections), and then was checked against the legitimacy of the publisher by using master lists of databases (e.g., Clarivate and Scopus). Considering the existence of possibly predatory journals in reputable databases, additional precautions were taken. Any suspicious source was subject to Beall's (2015) criteria for determining predatory open-access publishers.

As a result, eight categories and 11 indexes, 148 other resources such as webpages and daily newspapers were detected. Journal articles ( $f=359$ ) made up 45.44% of the cited sources whereas books and edited chapters in edited collections ( $f=360$ ) made up 45.57% of them. Considering the journal articles, 27.11% of them were indexed by SSCI and/or AHCI. Regarding the books and chapters, 18.42% of them were published by prominent publishers such as Oxford University Press ( $f=27$ ), Routledge ( $f=60$ ), Cambridge University Press ( $f=28$ ), and Palgrave Macmillan ( $f=25$ ).

The two researchers of this study detected two possibly predatory journals (PPJ1 and PPJ2). PPJ1, as a journal non-indexed by prominent indexes, met 30 of the criteria for poor journal and poor publisher standards. Furthermore, the publisher of the journal is listed in Beall's List of Potential Predatory Journals and Publishers. PPJ1 did not provide any information about their reviewers. The publisher stated that the publishing process was a 6-week-schedule; however, there is a fast-track option offering 1-

week-process costing \$750, increasing concerns regarding its legitimacy. PPJ2, again as a journal non-indexed by prominent indexes, and its publisher met 13 of the criteria for poor journal and poor publisher standards. Although the journal met relatively fewer criteria, its publisher is listed in Beall's List of Potential Predatory Journals and Publishers. The editorial board of the journal listed 75 scholars in addition to an associate editor. It was interesting to note that almost all board members were from developing countries. However, there were members claimed to be affiliated to the UK and US universities; yet a quick check of their Google Scholar profiles revealed that they were indeed affiliated to universities in developing countries. PPJ2 insufficiently explained their peer review process only with two sentences claiming double-blind peer-review was implemented. Several articles published in the journal were investigated and inconsistent and

improper referencing, punctuation mistakes, untidy paper format, and reference lists full of mistakes were observed as evidence of the illegitimacy of the journal.

Considering the existence of only two possibly predatory publishers in a total number of 790 reference entries, it is clear that ELT Journal is following good strategies to eliminate illegitimate publishers being cited in their articles. The results of the present study provide implications for the importance of having well-developed review policies for academic publishers, especially those who are targeting early career researchers and practitioners among their readerships. Authors are responsible for the credibility of the sources they are citing; thus, they should be selective and inquisitive concerning their citations. However, publishers are also expected to guide their prospective authors to ensure the credibility of sources.

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# AWARENESS MENTALITY AND STRATEGIC BEHAVIOUR IN SCIENTIFIC PUBLISHING AND DISSEMINATION

Rafael Ball<sup>1</sup>

<sup>1</sup>ETH Zürich, ETH-Library, Switzerland

## Keywords

Scholarly communication, scientometrics, awareness mentality, academic publishing, strategic behaviour

## Abstract

Acknowledgement of scientific achievements was and is essentially achieved through the citation of a publication. The more often a publication is cited by other authors, the more weighty the content seems to be. For scientists, this citation rate can thus be seen as an indicator of the quality of his work and therefore is crucial.

Increasingly, however, it is no longer just the publication itself that plays an important role, but also the degree of attention that scientists achieve with their very publication. Thus, the importance of strategic behaviour in science is progressing and an awareness mentality is spreading. In this presentation, the causes and backgrounds of this development are discussed:

- The use of quantitative systems in science management and research funding – mostly applied through bibliometric indicators as for example citation rates.
- The loss of critical judgment and technocratic dominance.
- Quantitative assessments used for decision making in scientists' career development.
- Altmetrics and the like as alternative views, where for example click rates, likes or tweets as a reaction to a publication are measured.

- The use of perception scores in reference databases and universities as indicators for the “quality” of scientists.
- Ambitions of journals to be highly cited.

Besides, different forms of strategic behaviour in science and the resulting consequences and impacts are being highlighted.

The increase of scientific publications leads to a situation, in which no single person is able to percept all scientific content which is being published. Between 2015 and 2020 the growth rate of publications has increased by 5%-6.5% per year on average. Dimensions counts over 4.5 million new publications in 2020 (International Association of Scientific, Technical and Medical Publishers, 2021). The amount exceeds what can be read, or even be processed by man. The need for attracting attention for one's own publication and scientific results becomes inevitable. On the other hand, it is crucial - especially for young scientists - to gain attention if a career still needs to be shaped and funding is to be acquired.

A shift towards strategic behaviour can be observed, where scientists increasingly are guided by internal or external goals and - since we are talking about scientific behaviour - subordinates content, questions, research design, methods, and communication of results to these goals. This does not correspond to the idea and principles of academic science. Scientists, in the self-referential system of

science, which defines goals and questions from within itself, should not be guided by external goals that are not meant to be self-referential in the sense of science (Rheinberger, 2018). The reason for this shift is the aim of scientists to achieve high rankings in altmetric scores, on academic research platforms and thereby to attain attention for their scientific content. These scores have been pushed during the past few years and are used in vocation processes as well as indicators in scientific funding and various other areas (Krull, 2017).

Furthermore, this increasing pressure to attract attention may also encourage scientific misconduct and plagiarism in the worst case as it is caused by publication pressure (Paruzel-Czachura et al., 2021). The boundary between strategic behaviour and for example plagiarism are blurred here. Is the translation of an already published article to be seen as self-plagiarism or is it simply a strategic move to broaden attention? Is the re-publishing of a paper with

just a slight shift in focus already an unnecessary second publication? How much new knowledge justifies a publication? These questions alone show that a broad-based discourse on ethical behaviour in the publication and dissemination of scientific findings is increasingly necessary - or at least desirable.

Thus, there is a tension between, on the one hand, meaningful indicators that can help researchers measure the impact of their research output. On the other hand, these same indicators put even more pressure on researchers to design their work in such a way that they achieve satisfactory values. It even may lead to misbehaviour in the worst case.

Besides these observations, the presentation casts an eye on the history of science communication, the original basic functions of a publication, and how these are no longer fully sufficient for the development of a scientific career due to changing strategic behaviour and the development of an awareness mentality.

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### CONTRACT CHEATING MARKETING IN THAILAND

Thomas Lancaster<sup>1</sup>, Pundao Lertratkosum<sup>1</sup>

<sup>1</sup>*Imperial College London, United Kingdom*

#### Abstract

Contract cheating was originally defined in 2006 (Clarke and Lancaster, 2006), but despite its long history, contract cheating in the non-English language speaking world is not a topic that has been widely considered in the academic integrity literature. This research presentation (and associated paper), developed alongside an undergraduate student partner with personal experience of Thailand, examines how contract cheating occurs from the Thailand perspective. Academic misconduct appears to be more of a culturally accepted practice in Thailand than in many other countries. The problem of plagiarism and cheating was largely brought to the attention of Thai audiences in 2017 through the release of the successful film 'Bad Genius', which showed an elaborate cheating scheme used in standardised exams. A 2013 conference panel discussing the use of ghost writers to produce college applications for Thai students was covered in the local media (Thepbamrung & Arterbury, 2014). Studies conducted by Khathayut et al (2020) and Puengpipattrakul (2016) agree that there is a shortfall in Thai undergraduates' understanding of what plagiarism encompasses and they lack the tools to avoid it. But contract cheating, as a specific method of academic misconduct, has not been previously studied in the Thai context.

This session will explore how the contract cheating industry in Thailand operates, where investigation shows that companies mainly provide assignments in the Thai language, but many also provide assignments in English and some provide these in Mandarin. Like many other countries, the contract cheating industry

markets its services through websites, but also through social media, with many transactions brokered through messaging apps. Illustrative examples of the marketing used in Thailand will be shown at the conference. These share many trends with contract cheating provider marketing used elsewhere in the world, including social media promotion through Instagram, Twitter and Facebook.

The investigation sees a range of assignment types available for purchase by Thai students, with essays, reports, proposals and dissertations amongst the services popularly advertised. High school and secondary school students are catered for through the offering of homework services. A 1,000 word Thai essay required in 7 days is typically priced at between \$80 and \$140 (United States Dollars), a higher price point than has been found in many studies looking at pricing for English language essays.

As well as discussing the range of contract cheating activity happening in Thailand, the presentation will also explore how students are encouraged to buy from them, applying a modified version of the persuasiveness framework developed by Rowland et al (2018). This framework had previously been applied to consider contract cheating in English. Due to the prolific use of social media in contract cheating marketing in Thailand, the framework is also applied in this context. The results show websites in Thailand surpassing social media for informativeness, but Facebook in particular scoring highly for both credibility and involvement compared to other social media and web platforms. Contract cheating providers

in Thailand appear well placed to persuade students to buy from them.

This session will provide further insights into contract cheating in Thailand. It will also

demonstrate the need for awareness raising relating to contract cheating to continue outside the English speaking world.

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# CONTRACT CHEATING IN LITHUANIA

Simona Vaškevičiūtė<sup>1</sup>, Eglė Ozolinčiūtė<sup>1</sup>

<sup>1</sup>*Office of the Ombudsperson for Academic Ethics and Procedures, Lithuania*

## Abstract

*Contract Cheating in Lithuania* (Vaškevičiūtė & Ozolinčiūtė, 2021), a study carried out by the Office of the Ombudsperson for Academic Ethics and Procedures in Lithuania, revealed the number of advertisements of contract cheating services among most popular websites of free ads. The study aimed to find out to what extent and by what features the supply of contract cheating services existed in Lithuania. The survey made attempts to answer the following questions: What is the supply of contract cheating services? Is it possible to identify a certain “typical” communication about the suggested contract cheating services?

We selected four most popular Lithuanian websites where ads offering preparation of study works and consultations appeared. The period of which the ads were taken was from 2 August 2021 until 1 September 2021. Our sample consisted of 196 ads that the service suppliers posted within the period. After revising all the advertisements, using the quantitative content analysis we structured the information in categories, such as: declaration of the contract cheating services in the title of the ad, service type indicated in the advertisement, visual materials, visibility of the service provider, assurance of confidentiality, quality assurance, estimated length of the service, guarantee that the service will be performed on due time, contacts, several ways of communicating with service provider, price of service, field of studies.

When evaluating the number of ads in each website throughout the investigation period, we noticed that while approaching the study year (autumn semester starts from September on in Lithuania) the number of advertisements

tended to increase (in one of the cases almost doubled). Although a relatively small proportion of advertisements (one-fifth) already revealed the provision of contract cheating services in the title of the ad, advertisements which offer contract cheating services were present in two-thirds of all advertisements. Most of the ads were illustrated with some visuals, i. e. associative photographs showing pictures of successful higher education completion (e.g., a student dressed up with mantle holding a certificate in his/her hands). In many of the ads, service providers identified themselves with nicknames or used descriptive wording about the service. Then, more than half of the ads provided at least two possible ways to communicate with a service provider assuring high quality, extensive experience, professionalism, compliance of writing works with methodological requirements. Over a fifth of ads communicated about confidentiality. Most advertisements of contract cheating services were offered in various fields of studies. Almost a third of the ads did not refer to the field of studies at all, one quarter of advertisements were offered in the social sciences.

After the study, our Office initiated a meeting with representatives from the websites we used the ads for our study. The survey results were presented, and we further discussed possible actions to tackle the problem. Afterwards, some changes were introduced in each of the national website involved. Furthermore, we communicated the issue on contract cheating services in Lithuania to the online social media and social networking platform Facebook/Meta, and it has already given the first outcomes.

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Akademinės etikos ir procedūrų kontrolieriaus tarnyba, Vilnius.

# HOW MANY ESSAY MILLS ARE TARGETING OUR STUDENTS? AN EXPLORATORY STUDY TO COUNT SUCH SERVICES IN THE UAE

Zeenath Reza Khan<sup>1</sup>

<sup>1</sup>University of Wollongong in Dubai, United Arab Emirates

## Abstract

Essay mills and ghost/contract writers have existed long before the pandemic. This global menace suddenly caught world's attention after 16 universities had to investigate nearly 1000-students for using one essay mill (Visentin, 2015). This led to subsequent law making such services illegal in Australia (TEQSA, 2021).

This phenomenon, known as contract cheating where students submit work done by someone else, as their own for assessment, is hard to detect and whole lot more sinister, brings disrepute to the universities, and makes it near-impossible to assess student capacity and knowledge.

Internationally, on average 15.7% of students admitted to paying someone to undertake their work (Newton, 2018). In Australia, this figure was 2 – 4% through self-reporting; however, a recent study has shown that 1 in 10 students may contract cheat (Curtis et al., 2021). In 2018, an interview-based-study in the UAE showed 86% of the students were aware of a friend or classmate who had requested someone to complete their assignment, positing such levels of awareness due to focus group technique that led to high level of confidence from participants (Khan et al., 2019). It shed light on why students contract cheated and how they were approached, eg. *"companies seem to know exactly who we are, where we study, and contact us on a regular basis"* (Khan et al., 2019).

Unfortunately, as universities moved to adopt emergency distance learning during COVID19, contract-cheating services also mushroomed creatively marketing and positioning themselves as services, targeting unsuspecting students

online, taking advantage of their vulnerability (McKie, 2020). These services went beyond academic misconduct to also blackmail students for more money after delivering services (Draper et al., 2021).

It is therefore important to understand the extent of existence and number of such websites that target students in the UAE. It is believed that the results, which have been presented as white paper talks to ADEK Higher Education Excellence forum in 2021 and at the QS Higher Ed Summit as a featured talk in 2022, will contribute as first steps to recognising contract cheating as a menace to usher in dialogue on policy and legislation on legitimacy of such services.

To address this question, the study used Boolean search technique along with two search engines, two browsers and terminologies "essay-writing", "ghost-writing" and "assignment-writing" were used to count unique and organic (U&O) websites that manifested. Shelton (2017) has suggested that optimization ranks all user searches on the first page for as high as 95% organic traffic clicks, so we counted results from the first page of each find. Another condition used to narrow down search was the word "UAE" in website SEOs. Coded analysis was used to collate the websites and count the total number of searches.

A total of 34 U&O websites, with the exception for five, showed a z score higher than the mean value 2.94, at standard deviation of 1.89, suggesting that the probability of appearance of these 29 websites across different search engines, different browsers and across separate

search keywords was significant (see table 1 and 2).

The data obtained from this study helps to highlight how a significant number of U&O websites exist within the first page of search. As posited by Shelton (2017), this indicates either aggressive marketing tactics or high clicks by users to these sites. We believe this is a position paper that highlights the significant existence of such services that are intentionally targeting higher education students in the UAE and we

use this study and its findings to call for proper in-service training of faculty to help them identify and detect contract cheating, redesign assessments to design out contract cheating and most importantly, following in the footsteps of countries such as Australia, Ireland, New Zealand, and many states in the USA (Hare, 2019), to look to delegitimise and censor website services that offer to write assignments for students with or without a fee in the UAE.

Table 1 – Coded results

Essay Writing and UAE				
GOOGLE	Results found	Chrome	Actual U&O sites	Chrome
	6890000	6890000	9	9
			A1	A1
			A2	A2
			A3	A3
			A4	A4
			A5	A5
			A6	A6
			A7	A5
			A8	A8
			A9	A9

Assignment Writing and UAE				
GOOGLE	Results found	Chrome	Actual U&O sites	Chrome
	2940000	3250000	10	11
			A1	A1
			A2	A2
			A5	A5
			A7	A7
			B1	B1
			B2	B2
			B3	B3
			B4	B3
			B5	B4
			B6	B5
				B6

Ghostwriting and UAE				
GOOGLE	Results found	Chrome	Actual U&O sites	Chrome
	824000	1210000	12	14
			C1	C1
			C2	C2
			C3	C3
			C4	C4
			C5	C5
			A5	A5
			C6	C6
			C7	C7
			C8	C8
			C9	C9
			C10	C10
			C11	C11
				C12
				C13

Essay Writing and UAE				
BING	Results found	Chrome	Actual U&O sites	Chrome
	9390000	9410000	7	8
			A1	A1
			A10	A10
			A2	A11
			A3	A2
			A4	A3
			A5	A4
			A7	A5
				A7

Assignment Writing and UAE				
BING	Results found	Chrome	Actual U&O sites	Chrome
	6690000	6690000	5	5
			A7	A3
			B1	A7
			B3	B1
			B7	B7
			B8	B9

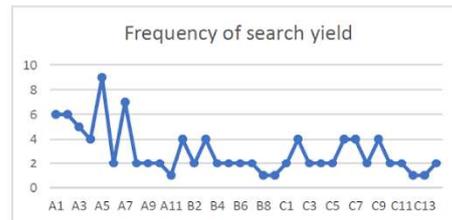
Ghostwriting and UAE				
BING	Results found	Chrome	Actual U&O sites	Chrome
	1190000	1190000	5	5
			C14	C14
			C2	C2
			C6	C6
			C7	C7
			C9	C9

Table 2 – Frequency of U&O sites with analysis

Sr#	U&O Website	frequency of search yield	%Frequency	Z Score
1	A1	6	17.65	4.44
2	A2	6	17.65	4.44
3	A3	5	14.71	3.44
4	A4	4	11.76	2.44
5	A5	9	26.47	7.44
6	A6	2	5.88	0.44
7	A7	7	20.59	5.44
8	A8	2	5.88	0.44
9	A9	2	5.88	0.44
10	A10	2	5.88	0.44
11	A11	1	2.94	-0.56
12	B1	4	11.76	2.44
13	B2	2	5.88	0.44
14	B3	4	11.76	2.44
15	B4	2	5.88	0.44
16	B5	2	5.88	0.44
17	B6	2	5.88	0.44
18	B7	2	5.88	0.44
19	B8	1	2.94	-0.56
20	B9	1	2.94	-0.56
21	C1	2	5.88	0.44
22	C2	4	11.76	2.44
23	C3	2	5.88	0.44
24	C4	2	5.88	0.44
25	C5	2	5.88	0.44
26	C6	4	11.76	2.44
27	C7	4	11.76	2.44
28	C8	2	5.88	0.44
29	C9	4	11.76	2.44
30	C10	2	5.88	0.44
31	C11	2	5.88	0.44
32	C12	1	2.94	-0.56
33	C13	1	2.94	-0.56
34	C14	2	5.88	0.44

MEAN of Frequency	Standard Deviaton
2.94	1.89

Average # U&O sites (Bing)	Average # U&O sites (Google)
5.83	10.83



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## Concurrent Session 3 | Room 4

# 'ADMIT IT, LEARN FROM IT AND DON'T REPEAT IT' – APPLYING PAUL BEAR BRYANT'S WISDOM TO ACADEMIC INTEGRITY BREACHES.

Sandie Dann<sup>1</sup>, Catherine Messinger<sup>2</sup>

<sup>1</sup>Loughborough University, United Kingdom

<sup>2</sup>De Montfort University, United Kingdom

### Background

Academic integrity breaches occur for a variety of reasons from ignorance, through desperation and delusion (Carroll & Appleton, 2005) to individuals who commit serial offences or facilitate the cheating of others for fee/favour (Clarke & Lancaster, 2006; Draper *et al*, 2021). Both staff and students need to admit that mistakes can be made in setting and taking assessments which can result in, or enable, academic malpractice and learn from what has happened to minimise the possibilities of further offences taking place. While many agree that academic integrity breaches affect the student experience and some argue that this is likely to impact their careers as well (Dawson & Overfield, 2006), most materials on academic

integrity focus on staff rather than students (Richards *et al*, 2017) and University policy documents are often not designed to be student accessible. Under these circumstances, the question is, how do you get both staff and students to sign up to change?

This presentation (and paper submission) brings together the experiences of academic staff and student representatives working in partnership to raise awareness of how things can and do go wrong. Interventions including co-produced (students and staff) student accessible materials to prevent/deter recurrences, analysing academic misconduct offences and building a community of practice for academic integrity will be discussed.

### Areas to be covered

- Creating academic staff-student representation partnerships in encouraging academic integrity and preventing academic misconduct. This section will cover areas where opportunities for academic staff/student representatives to reflect on their contrasting experiences of the same events can be helpful in facilitating change.
- Involving students in making academic integrity materials accessible. Here we will highlight some examples of recruiting students to review/revise materials piloted for promoting academic integrity. This will also include an example to learn from that was unsuccessful.
- Analysing annual academic misconduct case data to enable targeted

preventions. Here we will highlight the advantages of categorising academic misconduct data in various ways including students entering into postgraduate taught programmes from different routes.

- From errors of judgement to mistakes made in ignorance, learning from student responses in academic misconduct meetings and preparing student-friendly academic integrity materials. Sometimes the responses of students in academic misconduct cases, both in their letters and/or in their verbal responses can be an instrument to change the information provided at key points of the process e.g. entering the examination hall, preparing for the coursework deadline or preparing for an academic integrity hearing.
- Its good to talk – making a safe space to talk about academic integrity and directing vulnerable students to help. Making students aware of the penalties for academic misconduct through a penalty framework can be a good deterrent, but can equally scare them so much they are afraid to

ask. How do you get students to help when they need it?

- Targeting particular groups – examples of developing materials with identified foci. Analysing academic misconduct data can lead to areas being highlighted that suggest some students are more likely to make a particular mistake compared to others. How do you avoid making those students feel the victims but make sure those students are properly supported to remove the unfair effects? Some student friendly materials developed by students for students will be presented.
- Involving student representatives in academic integrity communities of practice, within and across institutions. Inevitably there is some element of mistrust between those who create academic misconduct cases and those who are doing their best to navigate the rules and regulations to rescue those students from their errors of judgement. Some examples are included to show opportunities to work together in prevention on a wide stage.

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# FACILITATING DEVELOPMENT OF RESEARCH ETHICS AND INTEGRITY LEADERSHIP COMPETENCIES

Anu Tammeleht<sup>1</sup>, Erika Löfström<sup>1</sup>, M J Rodríguez-Triana<sup>2</sup>

<sup>1</sup>*University of Helsinki, Finland*

<sup>2</sup>*Tallinn University, Estonia*

## Abstract

To build a culture of integrity in a higher education institution, innovative approaches are needed to enhance education of research ethics and integrity (REI). In addition to educating students, understanding is needed on how to facilitate, for those who lead others. The focus of the current study was on early-career researchers (ECRs) as future REI leaders, them being both learners and gradually becoming teachers and role-models of others. ECRs are often regarded as a vulnerable group in a junction of being learners, teachers and researchers, and are seldom recognised as future REI leaders. Consequently, not much is known on how to support this group as a piece in the ethics infrastructure and what the institutional infrastructure would need to facilitate this group.

REI leadership means leadership on departmental and organisational level in the HE context and is a combination of principles from ethical, authentic and transcendental leadership styles. A REI leader would coincide with phases 3-5 in the Vitae Researcher Development Framework (2011), where the person would not only act as an exemplar and someone who sets high expectations, but who would also advise others and shape institutional policies and practices. Educating REI leaders is becoming more important as HE institutions need people who would build the culture of integrity by creating an environment where everyone can and will make ethical decisions. Even though there are training materials that give guidance on research ethics and integrity at an institution (e.g. codes of conduct, guidelines, handbooks,

online banks of resources) there is limited information about how the learning process evolves and what kind of scaffolding supports this target group.

The study sheds light on how learning and REI leadership competencies evolve during scaffolded collaborative research ethics training for this target group. Case-based learning has been used in various disciplines where students engage in discussing life-like situations (Biggs & Tang, 2007). In particular, the use of moral dilemmas has been found to provide good results in ethics education (Fisher & Kuther, 1997; Zuccherro, 2008; Jordan et al, 2011; Rissanen & Löfström, 2014). Dealing with cases improves understanding of the concepts, shows how theory is connected with practice, facilitates understanding of the context by enhancing mental representations (Ericsson & Pool, 2016), and enables collaboration. Collaboration improves thinking critically and making decisions (Cavanagh, 2011; Larraz, Vazquez & Liesa, 2017). Working in groups improves understanding, and helps relate new ideas to prior knowledge and experiences (Biggs & Tang, 2007). Still, group activities require scaffolding: scaffolding as a teaching strategy originates from Vygotsky's sociocultural theory and is part of his concept of the ZPD (Vygotsky 1978). Originally, scaffolding was considered an interaction where the 'expert' - a parent, teacher or tutor (Wood et al. 1976) - or a peer (Vygotsky 1978) provided the help needed by the learner, for example, by reducing the complexity of the task, maintaining goal orientation, motivating or providing answers

(Wood et al. 1976), and then gradually fade support as expertise increases.

The study combines new instruments as part of design-based research (DBR). DBR is a systematic research approach focused on understanding and improving educational practices in real-life context through design, development, iterations and implementation, and leading to contextually-sensitive design principles and theory development (Barab, 2014). Data was collected from 3 groups of experienced researchers (two experienced PhD students/ECRs and one participant with leadership, e.g. supervisory or educational leadership experience) attending 3 training sessions in the form of written group reports and group discussion recordings. Qualitative deductive analysis was utilised for monitoring the learning process (based on *Ethical Case Assessment Grid* – an evaluation tool based on the SOLO taxonomy), scaffolding patterns (based on the scaffolding framework of theories by Chi et al, 2001; Reiser, 2004 and Quintana et al. 2004), and display of REI leadership principles (based on REI leadership framework based on ethical (Trevino et al, 2003), authentic (Avolio and Gardner, 2005) and transcendental (Cardona, 2000) leadership styles). Also, quantitative analysis (learning analytics) was applied to group discussion data, displaying the nature of collaboration. The group discussions were recorded with *CoTrack* device, a digital solution devoted to assess participation in

collaborative learning situations (Chejara et al, 2021).

Results imply that collaborative case-based role play format is effective in training future REI leaders. All groups displayed high levels of understanding. Combining ECRs and researchers with leadership experience supported knowledge building in the groups by bringing in various perspectives. Even though groups required different amounts of scaffolding, the nature was similar: maintaining goal orientation, highlighting critical features and redirecting learners. Learning analytics of collaboration indicated that the person with leadership experience was not necessarily the most active participant nor took the role of a 'group leader'. Still, it was mostly that person who displayed leadership competencies thus supporting other group members to develop leadership aspects. Thus, it could be concluded that to support development of future generation of researchers it might be beneficial to combine ECRs and more experienced academics (including leaders) to work in the same group - this provides an opportunity for everyone to see different perspectives, build trust and culture of integrity. Still, care should be taken not to force people into groups that may cause discomfort for them.

The online Leadership Level training resource can be found here: <https://www.researchethicstraining.net/leadershiplevel>

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# WIDENING THE SCOPE OF ETHICS IN SOCIAL RESEARCH

Bibek Dahal<sup>1</sup>

<sup>1</sup>*Kathmandu University School of Education, Nepal*

## Abstract

Social scientists have experienced the different phenomena of their research from different perspectives including methodological, ethical, contextual, and positional considerations. Each phenomenon that they experienced as researchers can be assessed from the perspective of interpersonal conduct because social science research is all about relational processes. Social scientists as researchers have greater responsibilities, to be honest, fair, and ethically responsible in such relational processes to ensure optimum beneficence of their research.

However, due to the existing socio-culturally, linguistically and educationally diverse social settings and human practices, the social scientists have uniquely experienced their honesty, fairness, and responsibilities in each action that they took as researchers, which could be insightful for those who are newcomers. To interpret such unique experiences and make the newcomers well aware of them, I take the question of how do social scientists experience research ethics as a researcher in different context.

Positioning myself as a relativist social practitioner, I hybridize my theoretical understanding and consider the local cosmology (Awasthi, 2004) to interpret lived experiences of the social scientists by contextualizing their responsibilities towards reality, actions towards

knowledge, and considerations towards value. To have this, I apply hermeneutic phenomenological inquiry as a roadmap of accomplishment. Due to the time of social distancing, I use a multilayered approach for interviews and protocol writing to generate the text of lived experience (van Manen, 1990). The five social scientists who accomplished ample social research in different contexts including cultural and cross-cultural are considered as means of the lived experience for this study. The interpretation of the text follows the notion of textual analogy and the thematic meaning-making process.

The study reveals the widening scopes of ethics for social research, which includes thematically the genesis of the research issue, informed interpersonal conducts, conscious actions for the state of automacy, and viability for interpersonal comfort. This study further interprets that ethics in social research is contextually contested practices (rather than practicing the set of principles) of the social scientists, which should be taken as means to make research optimum beneficial for both researchers and research participants.

Therefore, there is no 'one size fits all' (see e.g., Msoroka & Amundsen, 2017) approach to research ethics exists in the case of social research.

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# EUROPEAN INSTITUTIONS COLLABORATE IN FACING ACADEMIC INTEGRITY THREATS (FAITH)

Salim Razi<sup>1</sup>, Ece Zehir Topkaya<sup>1</sup>, Oliver Trevisiol<sup>2</sup>, Rita Santos<sup>3</sup>

<sup>1</sup>*Çanakkale Onsekiz Mart University, Turkey*

<sup>2</sup>*University of Konstanz, Germany*

<sup>3</sup>*European Network for Academic Integrity, Czechia*

### Keywords

Academic integrity policies, academic misconduct, restorative justice

### Abstract

Academic integrity (AI) is fundamental to teaching, learning, and research (Bretag, 2016). Promoting AI boosts the quality of an institution's educational provision by maintaining six fundamental values: honesty, trust, fairness, respect, responsibility, and courage, according to the International Center for Academic Integrity (ICAI, 2021). The European Network for Academic Integrity (ENAI) "Academic Integrity Policies" working group believes that such an approach helps to prepare individuals to contribute to society in an ethical manner (Academic Integrity Policies, n.d.). A culture of academic integrity and sustainable change are achieved by designing and implementing effective policies (Morris, 2016). Relevant to this, the goal of this presentation is to announce the ongoing FAITH project to the academic integrity community and to invite conference participants to provide feedback, express their needs with respect to the project outputs and invite them to share their ideas which might be useful for the project team.

Attachment to ethical values in lifelong learning will be enhanced if individuals familiarise themselves with the principles of academic

integrity during their student journey. HE brings together students from across the globe to study. Mobility of students is encouraged to enrich learning, facilitate the exchange of culture and ideas, and develop second/foreign language skills (L2/FL). Yet, avoiding plagiarism is difficult for students writing in a second/foreign language, especially when they face new educational expectations and institutional culture. International students arrive in host institutions with a wide range of preconceptions about academic conduct, largely based on their previous educational experiences, some of which may not align with the host institution's values and expectations. Even students studying in their own country struggle during the transition from school to HE. It is incumbent on every HE institution to exercise their duty of care to all students through the provision of suitable guidance and support, to ensure students maximise their opportunities and potential for success. Institutions should also ensure that in a diverse student population, no student is disadvantaged through discrimination on any grounds.

Policies should be carefully developed and implemented with the collaboration of all stakeholders. However, previous research by some ENAI members revealed serious problems with policies in many European HE institutions (e.g., Glendinning et al., 2022). The deficiencies in these policies can be seen as a threat to the realisation of AI and accordingly, to the quality of educational outcomes. AI policies should have three fundamental dimensions, namely detecting breaches of AI, reacting to unacceptable academic conduct, and promoting academic integrity values. Many policies focus on the detection and reaction dimensions. However, we believe that policies should prioritise education and deterrence, for creating and maintaining a sustainable culture of AI. The most frequent type of academic integrity breach in HE is plagiarism, but contract cheating is a growing threat. Student conduct can be influenced sustainably by raising the awareness level of all stakeholders in HE institutions. Therefore, policies should prioritise the deterrence dimension and formulate detection and reaction dimensions in a way that promotes academic integrity.

Considering the aforementioned issues, a consortium constituting of AI researchers from Canakkale Onsekiz Mart University (COMU), ENAI, University of Konstanz, University of Maribor, and University of Porto has been awarded project funding from the European Union for an Erasmus+ cooperation partnership in higher education entitled “Facing academic integrity threats (FAITH)”. The FAITH project is coordinated by the COMU Centre for Academic Integrity and within three years aims to reach three main goals relating to the project results, as described below.

The project result entitled “Policy for good practice” aims to establish a benchmark for minimum standards for AI policies in Europe and beyond based on good practice internationally. For this purpose, consortium members will collect higher education academic integrity (HEAI) policies across Europe to create an HEAI policy corpus. We will analyse each AI policy and decide how much of the policy is detective, reactive or preventive to create a framework based on emerging themes. We will develop evidence-based guidelines for HE institutions

that frame the detective, reactive, and deterrence perspectives of policies. Based on the guidelines, we will develop a webinar for HE policymakers on how to develop and benchmark effective AI policies.

The second project result, entitled “Proactive approach to deter academic misconduct”, aims at providing evidence-based guidance and training materials on how to detect and deter inappropriate academic conduct in education. To achieve this goal, we will develop educational materials based on the policy framework and guidelines from the first project result. Our educational materials will be based on detection, reaction, and deterrence of academic misconduct and address students, teachers, and administrative staff including librarians and managers in HE institutions.

The third project result entitled “Support for victims of academic misconduct” promises the development of an interactive portal and support network to aid victims of unethical practice. The restorative perspective of AI will be delivered through an online discussion portal and a network of qualified advisors. The first stage of the portal is an ENAI platform for connecting victims of academic or research misconduct to suitably qualified advisors, which will be launched during ECAIP 2022 in Porto.

The FAITH consortium aims to disseminate the aims of the project at the ECAIP 2022 in Porto and will present the results during ECAIP 2024 in Canakkale, Turkey. In addition, two “learning, teaching, training activities” will be organised during the project in Maribor, Slovenia and Konstanz, Germany.

To conclude, the FAITH project prioritises a preventive approach by teaching academic writing skills to deter plagiarism and contract cheating. In addition, the COVID-19 pandemic has led to changed instruction methods, with increased concerns about academic misconduct. We are also ‘promoting interconnected higher education systems’ as an additional priority in the FAITH project as it is easier for any institution or country to reduce academic misconduct by collaborating with others. Multi-disciplinary collaboration across institutions covering several countries with diverse cultural values is an effective way to

identify best practice models so that they can be adopted by others.

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# ACADEMIC INTEGRITY STRATEGIES – STUDENT INSIGHTS

Caroline Campbell<sup>1</sup>, Lorna Waddington<sup>1</sup>

<sup>1</sup>*University of Leeds, United Kingdom*

## Keywords

Academic integrity; contract cheating; student success; student attitudes; student surveys

## Abstract

Our presentation will report some key findings from our LITE Fellowship research project – namely two student surveys undertaken in 2020 and 2021.

The surveys were inspired by the Bretag and Harper (2018) student survey undertaken in Australia. We adapted the questions to our context – a Russell Group university in the UK – but included similar questions to enable a comparison and find out if there were common themes. The main aim of the surveys was to understand our students' awareness of what is meant by the term 'academic integrity' (AI). The responses provided an important insight into student (UG/PG) attitudes to academic integrity, their understanding of academic malpractice, and their awareness of the penalties for being found to have plagiarized, and found guilty of contract cheating (Medway et al, 2018; Morris 218; Harper et al, 2019).

The 2020 survey had over 200 responses from students in seven of the eight faculties, from all years of study and including home, EU and international students. Having established the broad picture from an initial analysis, we were able to analyse the findings in more depth and identify trends (especially during the Covid pandemic) according to specific faculties and schools. We then cross-referenced the responses according to gender, undergraduate or postgraduate, year of study, home/EU/international status, and first language. The results were then shared with individual schools and presented a useful snapshot of students' current understanding,

current practice and potential room for improvement. Key findings included the need to use student-friendly language in policies; a desire for greater opportunity to talk about AI, more resources and better guidance; students' lack of awareness of essay mills and the threat posed by these 'services'; broad agreement on the importance of academic integrity but confusion regarding group work and the point at which this can become collusion. The December 2021 survey obtained nearly 500 responses from all eight faculties. Initial findings have enabled us to draw parallels with the 2020 findings. We have been able to identify improvements that have been made and areas which require further work. A more in-depth analysis of the survey is continuing to take place. We aim to complete this work by the May conference where we will present all our findings.

The findings informed our recommendations in terms of teaching and learning at School/Faculty level and to policy at University level, to further support student success. With this in mind, we have been working very closely with various stakeholders, including our student Academic Integrity champions. Our paper will also discuss the initial perspectives of our AI champions and their contributions to our project. We are currently undertaking a staff survey and this will provide an insight into the support provided by teaching staff in helping students understand the requirements and whether this matches what students say about their experience. It will also indicate staff perceptions of students'

understanding of this area. Obviously, this is still work in progress, but the resultant findings will inform our conference paper. We will seek to identify the impact of Covid on student behaviour (Easton, 2020; Reedy et al, 2021). In the context of the key issues raised by the QAA Academic Integrity Charter (2020), we will

discuss examples of best practice currently undertaken at the University of Leeds, on-going discussions regarding developments, and our recommendations for further embedding a culture of academic integrity.

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# SPEAKING IN SOURCES: A PEDAGOGY OF RHETORICAL INTERTEXTUALITY

Sandra Jamieson<sup>1</sup>

<sup>1</sup>*Drew University, Madison, New Jersey, United States of America*

## Keywords

Pedagogy, plagiarism, patchwriting, ethics, rhetorical intertextuality

## Abstract

In the US, most institutions of higher education now make a distinction between “intentional” and “unintentional” plagiarism, between cheating and problematic use of sources that do not appear to be acts of deception. Yet while the term “plagiarize” simply refers to the act of using the words or ideas of others as if they were one’s own, the inclusion of “deliberate,” “purloin,” “theft,” and even “kidnap” in definitions of that act render the concept of unconscious plagiarism at best an oxymoron. Composition scholars in the US have been arguing for four decades that we should separate cheating (an intentional act) from what Hull and Rose (1989) described as a “bizarre word salad” and Howard (1993) named “patchwriting,” yet we seem unable to escape from the term “plagiarism.” This is further demonstrated by the almost exclusive use of the term “plagiarism detection software” in the US to describe what in most other educational sectors is referred to as “text-matching software.” The retention of the blanket term “plagiarism” with its attendant baggage keeps our attention squarely on the ethical, and our pedagogy heavily focused on plagiarism prevention and misuse of sources as a breach of ethics.

Lessons on the ethical use of sources, are very often framed by the six values of academic integrity offered by the ICAI (honesty, trust, fairness, respect, responsibility, and courage), values that extend beyond student writing to all

aspects of the social contract. But the students Hull and Rose (1989) and Howard (1993) describe did not lack these six values. They lacked the ability to paraphrase. Citation context coding by the Citation Project (Jamieson and Howard, 2013), speak-aloud research protocols collected by the LILAC Project (Walker and Brown, 2015), and speak-aloud source-based writing protocols (Canzonetta et al., 2019) all point to one thing: the creation of source-based writing is a lot more complicated than our intentional / unintentional binary suggests. Moreover, the challenge to make meaning is often in tension with the injunction to remain original.

Citation context coding of 1,911 citations in 174 papers collected from 16 US colleges and universities (Jamieson and Howard, 2013) reveals students switching back and forth between copying/patchwriting and paraphrasing/summarizing as they incorporated cited material into their papers. While some sections may appear at first glance to be an intent to deceive, the fact that in the same paragraph a student might execute effective paraphrase or summary and then slip into cited copying clearly suggests a lack of skill rather than ethics. The challenges students face as they work with sources is demonstrated in ongoing multi-site information literacy research using screen-capture and “Research-Along Protocols” (Walker and Brown, 2015) and source-based writing speak-aloud protocols

(Canzonetta et al., 2019). The latter two studies allow researchers to observe students as they select and incorporate source material and simultaneously explain their choices. Review of these materials reveals a more complex and also more generative *process* of textual production than the final paper -- the *product* -- may suggest. Yet it is on the basis of that product that we make ethical evaluations. If intentional misuse of sources reveals an ethical lack, this research clearly shows that the unintentional misuse of sources reveals a lack of information literacy and writing skills and a need to refocus our attention on the writing process.

Lessons on the process of effective engagement with sources need a different frame, one made up of a set of practices or “habits of mind” (Council of Writing Program Administrators, 2011) rather than a set of character traits. Such

practices, grounded in rhetoric, might run parallel to the list of ethical values but serve a very different purpose. Drawing on research, scholarship, and position statements from the field of composition and rhetoric, this paper makes the case for six practices of *rhetorical intertextuality*: curiosity, authority, critical engagement, connection, reflection, and conversation. These six process-based practices scaffold learning and build the expertise that empowers students to engage in a dialogue with ideas and sources. Samples of student writing and speak-aloud protocols demonstrate the six practices of rhetorical intertextuality and also the impact of their absence. Unlike ethical practices that must be nurtured, these are approaches to writing that can be taught, and thereby represent a more generative approach to teaching source-based writing and helping students avoid unintentional misuse of sources.

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# STUDENT'S PERSPECTIVES ON THE USE OF ANIMALS IN MEDICINE AND VETERINARY MEDICINE UNDERGRADUATE EDUCATION: AN EXPLORATORY STUDY

Cláudia S. Baptista<sup>1</sup>, Pedro Oliveira<sup>1,2</sup>, Laura Ribeiro<sup>3,4</sup>

<sup>1</sup>*Institute of Biomedical Sciences Abel Salazar, University of Porto, Portugal*

<sup>2</sup>*Institute of Public Health, University of Porto, Portugal*

<sup>3</sup>*Department of Public Health and Forensic Sciences and Medical Education, Faculty of Medicine, University of Porto, Portugal*

<sup>4</sup>*IS-Instituto de Investigação e Inovação em Saúde, University of Porto, Portugal*

### Background

In the educational context of life and health sciences, animals are often a teaching-learning tool, namely in the undergraduate training of Medicine and Veterinary Medicine students, which involves important ethical considerations (Baldelli et al., 2019). The use of animals in education ranges from benign observation in their natural habitats, to dissection of dead animals, to highly invasive procedures performed on living animals. In science pedagogy it is commonly accepted that reducing the total number of animals used in teaching is necessary and ethically justified, but opinions differ as to whether their use can/should, or may not, be completely eliminated (Carroll, 2005; Jukes & Martinsen, 2007; Vemulapalli et al.,

2017; da Graça Pereira et al., 2017). It is our perception that students acknowledge that animals have an important role in education for continued improvement of human and animal health. However, an increasingly number of undergraduates is challenging the system, refusing to dissect animals or to perform other invasive procedures, when these practices compromise their ethical values. Veterinary and medical professionals have an increased responsibility in the supervision and promotion of respect for animal life and welfare, so there is continuous need for a careful and consensual reflection regarding the use of animals in the educational programs that lead to the graduation of these life science professionals.

### Objectives

This research aims to characterize the use of animals in the undergraduate training of Integrated Master Degrees in Veterinary Medicine (MIMV) students from the Abel Salazar Institute of Biomedical Sciences - University of Porto (ICBAS-UP) and from the University of Trás-os-Montes e Alto Douro (UTAD) and of Integrated Master Degrees in

Medicine (MIM) students from ICBAS-UP and from the Faculty of Medicine of the University of Porto (FMUP). Additionally, we also aim to document the ethical, pedagogical and animal welfare perspectives of veterinary and medical undergraduate students regarding the use of animals exclusively for educational purposes

(excluding the clinical context in the case of MIMV).

## Methods

A survey was developed by the authors with open and closed questions (likert scale and yes/no). Six major groups of questions were included, namely: 1) Sample characterization (number of respondents, gender, age, degree, institution); 2) The grade of agreement with the use of animals and which animals, exclusively for pedagogical purposes; 3) The curricular units that use animals, which animals, and types of procedures performed; 4) The degree of usefulness of including animals in classes; 5) Students' knowledge of possible alternatives to

the use of animals and willingness, or not, to implement them; 6) Possible contributions from students to improve or aggravate the welfare of animals used in their training. After approval by the Ethics Committee of "Centro Hospitalar São João" / Faculty of Medicine of the University of Porto (nº120/19), the questionnaire was distributed on paper to 180 undergraduate students of ICBAS and FMUP MIM and of ICBAS and UTAD MIMV. Statistical analysis was performed using the IBM SPSS software, version 26. The significance level considered was 0.05.

## Results

The majority of questionnaires (139/180) were returned partially or fully completed, being the number of respondents determined for each question. At MIMV and MIM ICBAS and MIMV UTAD, 40 surveys were provided for each study cycle (90%, 35% and 90% response rate, respectively); in the MIM FMUP, a response rate of 88.3% was obtained after the dissemination of 60 questionnaires. Most students (n=86/131, 65.65%) agree to the establishment, maintenance and performance of animal procedures solely for educational purposes as a way of guaranteeing optimal acquisition of theoretical knowledge, attitudes and behaviors and technical skills (25.95% disagree and 8.4% has no opinion). Nevertheless, 64% of students (n=89/139) only agree to the use of some species (most protected animals are non-human primates and rodents, batrachians and fish are the most legitimated). Veterinary students are most in agreement with the use of animals for educational purposes compared to medical students ( $\chi^2=18.967$ ,  $p=0.001$ ; Mann-Whitney test  $Z=-2.074$ ,  $p=0.038$ ). A total of 65.5% of all

respondents (n=72/110) considered that the use of animals was useful for their learning outcomes but veterinary students found a greater usefulness in learning with animals than medical students (Fisher's exact test 29.690,  $p<0.001$ ). The majority (n=73/126, 57.9%) of the students do not know alternative methods that could replace the use of live animals, or animals sacrificed for teaching purposes, in the classes they attended. MIMV students are more aware about alternative methods to animal use than MIM students ( $\chi^2=18.855$ ,  $p<0.001$ ); they have mentioned videos of invasive procedures, computer-based or computer-assisted programs, dissection of animals ethically obtained (not sacrificed for the purpose), plastination techniques, three-dimension models, training of clinical procedures such as venipuncture, sutures, physical exam, or others, in clinical environment. Most students (n=92/137, 67.15%) find that alternative methods should be used if the learning process is not compromised (15.33% consider that they should always be used).

## Conclusions

Although further studies are required, the preliminary results here presented evidence

that most students assume a utilitarian and a relational ethical profile towards animals (only

18% agree with the use of all species for educational purposes), meaning that they consider animal use in pedagogical context ethically acceptable if the benefits outweigh the costs, provided that the refinement of animal procedures is ensured. It is the teachers'

responsibility to promote academic integrity in the use of animals, in order to contribute to the dissemination and implementation of equally efficient, but more ethical, humane and compassionate teaching methodologies in life sciences higher education.

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# ON THE INTEGRATION OF RESEARCH INTEGRITY ISSUES WITHIN SCIENCE TRAINING – THOUGHTS ON RESORTING TO VISUAL REPRESENTATIONS IN THE MOLECULAR BIOSCIENCES

Maria Strecht Almeida<sup>1</sup>, Maria do Rosário Almeida<sup>1</sup>

<sup>1</sup>*University of Porto, Portugal*

## Keywords

Research integrity; visual representations; science education

## Abstract

Resorting to images as decisive proof regarding some claim is a widely followed practice in the preparation of scientific articles (for a comprehensive analysis see for instance Cambrosio, Jacobi, & Keating 2008) and the fact ascribes to this kind of element a key role in peer communication. At the same time, problems with image manipulation underlie a significant number of article retractions happening in the broad field of the life sciences and biomedicine (Bik, Casadevall, & Fang 2016; Bik, Fang et al. 2018). This led to a so-called crisis of trust in scientific images and the introduction by journal editors of guidelines addressing integrity issues in image manipulation (Frow 2012), as well as the practice of forensic analysis of the images submitted (Frow 2012; Noorden 2015).

Fostering the awareness of the responsible conduct of research has been a growing concern in academia. The *European Code of Conduct for Research Integrity* (ALLEA – All European Academies 2017) focuses on four fundamental principles of research integrity – reliability, honesty, respect and accountability – and is intended as serving as framework for self-regulation within the research community. Looking, for instance, at both research procedures and publication and dissemination, two of the contexts explored in this code of conduct, it is clear that special care should be taken with visual representations. This also

refers to science education at the university level, where training should clearly emphasize good research practices.

Present thoughts emerge from the acknowledgement that undergraduate students undertaking laboratory course units should be confronted with integrity aspects in image use and manipulation, especially if the experimental procedures explored lead to visual representations usually included in research articles. Or, more closely, if the students should use these kinds of experimental results which they obtain in-class in their final reports. This acknowledgment, and also worry, led us to include these kinds of topics in a practical course unit of a first cycle of studies study plan in the molecular biosciences for the last few years. So far, the approach has been focused on visual representations; the idea, in the near future, is to further develop the approach to encompass other kinds of data produced. Although the implemented pedagogical activity has not been formally assessed, in our understanding it added value to the training offered in this particular course unit. Moreover, we could observe that the students performed the proposed activity – a basic group exercise – with interest. After an introduction to the problem and its contextualization within the research integrity framework, each group of students is attributed a specific (and *leading*) scientific journal in the

field to explore the guidelines regarding image manipulation. The task is to gather information, specially what is closer to the experimental approaches followed (*e.g.*, electrophoresis gels or blots), to prepare a brief presentation summarizing the findings and finally share them with the remaining groups. Of course, common rules are found in the different journal guidelines, but this result is, somehow, illustrative of what really matters as good practice in image use and manipulation. These thoughts draw on an experience of integrating the theme of visual representations

and research integrity in undergraduate training in the molecular biosciences. Here, we present the implemented pedagogical activity and discuss different ways of integrating these kinds of themes in the study plan. The exploration of research integrity issues may be done in curricular units specially focused on these topics. Another way is to explore a specific problem from this point of view whenever it can be invoked. In our experience, this latter approach is feasible. We will argue it is of foremost importance.

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# THREE FUZZY AREAS IN THINKING ABOUT ACADEMIC MISCONDUCT

Bradford Barnhardt<sup>1</sup>

<sup>1</sup>*Woodstock School, Mussoorie, India*

## Abstract

The way we think about academic misconduct shapes how we deal with it. A review of literature from 1932 to the present reveals three areas where fuzzy thinking can undermine efforts to achieve goals related to academic integrity. These fuzzy areas are (1) toggling between moral and administrative views of academic misconduct, (2) approaching academic misconduct as the outcome of rational judgment, and (3) assuming students regard cheating as immoral. Avoiding fuzzy thinking in these areas enables educators to fine-tune their approaches to deterrence and consequence, to build stronger and more just cultures of integrity at their institutions.

*Fuzzy Area One* is whether academic misconduct should be regarded as ‘wrong’ for reasons that are administrative or moral. While rarely acknowledged, this distinction is baked-in to how institutions regard the goals of their academic integrity policies, and what range of responses to academic misconduct they develop and employ.

The administrative view is often represented when academic misconduct is conceptualized in research and policy as an inventory of specific behaviors, e.g., plagiarism, crib notes, changing margin size to make a paper look longer. By the administrative view, ignorance is no defense. Culpable ignorance policies hold students responsible for knowing the rules and impose consequences regardless of intentionality. Administrative approaches protect program integrity, which can be damaged by any form of academic misconduct.

Concerns about academic misconduct often also take a moral tone, for instance, when focused on the ‘wrong’ of taking unfair advantage. By

this conception, integrity policies protect honest students and seek to create communities that inculcate honesty as a moral value. In practice, educators and researchers frequently toggle between administrative and moral conceptions of misconduct. This can be seen in policy preambles and article introductions that approach academic integrity as a moral abstraction and then treat cheating as an inventory of behaviors without regard for intentionality or seriousness. As an example, Galloway (2012) begins by lamenting that “the majority of students report it is wrong to cheat, but most do it anyway ... Why are so many students willing to engage in this behavior?” The article then toggles to an analysis of results from a behavior inventory that takes no account of intentionality or seriousness.

While both the administrative and moral conceptions of academic misconduct have merit, it can be misleading to frame academic misconduct as a moral issue but measure it as an administrative one. Before considering measures such as ‘zero-tolerance’ or ‘three strikes,’ or mentoring, reflection, and restorative practice, institutions should be clear about where their integrity policies prioritize the preservation of program integrity and where they prioritize moral aims such as building cultures of honesty.

*Fuzzy Area Two* is whether students cheat based on rational judgment. This may seem like a strange assertion, since we often automatically assume that humans are rational actors. A tenacious legacy of the cognitive revolution in psychology is that the most influential theoretical models of cheating psychology are still couched entirely in cognitive-rationality.

Students are held to be “rational, utility-maximizing agents who decide to cheat by comparing its benefits and costs” (Bisping, Patron, & Roskelley, 2008, p. 5) and whose behaviors entail premeditated intentionality (Ogilvie & Stewart, 2010). These views are rooted in Rational Choice Theory (Sullivan, 2006), Deterrence Theory (Stafford & Warr, 1993), the Theory of Planned Behavior (Beck & Ajzen, 1991), and the Theory of Reasoned Action (DeVries & Ajzen, 1971).

Only since Daniel Kahneman won the Nobel Prize in 2002 for his insights into the non-rational nature of decision-making (Kahneman, 2011) have non-rational factors begun receiving consideration in published literature on cheating; these include *automaticity* (Harding Carpenter, & Finelli, 2012), *emotion and intuition* (McTernan, Love, & Rettinger, 2014; Murdock, Beauchamp, & Hinton, 2008; O’Rourke, Barnes, Deaton, et al., 2010), and *social contracts* (Barnhardt, 2014; Barnhardt & Ginns, 2017; Brent & Atkisson, 2011; Murdock, Miller, & Kohlhardt, 2004).

Taking a balanced view of the rational and non-rational aspects of academic misconduct broadens thinking about approaches to prevention. The assumption that academic dishonesty stems from rational judgment supports preventative measures that emphasize the cost/benefit of cheating or that feature logical exhortations. Allowing, instead, that cheating may also stem from non-rational factors supports preventative measures focused more on managing perceptions and building relationships.

*Fuzzy Area Three* is whether students agree that cheating is immoral. The very phrasing ‘whether students do / do not agree that cheating is immoral’ is already misleading. While copious evidence shows that most students think cheating is immoral, in general (e.g., Josephson Institute, 2000 – 2012), research over the last

ninety years also shows that this belief can be abandoned under certain circumstances.

Domain theory (Turiel, 1983) holds that young people view rules as being either moral or conventional. Rules occupy the moral domain when they involve harm or benefit to self or others, whereas they occupy the conventional domain when they originate in tradition, custom, or administrative considerations. For instance, in a related study, Thornberg (2008) found that students did not passively accept school rules as inherently moral; they judged “moral transgressions as wrong regardless of the presence or absence of rules” (p. 49). This is to say that moral judgment can be internal to the individual and specific to a given context.

At the macro level, most students think cheating is immoral. Similarly, most people think ‘breaking the law’ is immoral, in general terms. But we can easily think of circumstances that would make it appropriate to break the law. Likewise, students can disconnect their generalized beliefs about the immorality of cheating from specific acts of misconduct in class contexts that they regard as lacking moral validity. Taking this view, institutions may choose to focus more attention on shaping student perceptions of learning experiences as just vs. unjust or beneficial vs. harmful, with approaches such as building positive student-teacher relationships (Barnhardt & Ginns, 2017), designing classes around mastery goals (Murdock et al., 2004), designing programs that leverage the power of school culture (Crittenden, Hanna, & Peterson, 2009), and esteeming the credibility and competence of teachers (Anderman, Cupp, & Lane, 2010).

Being conscious of fuzziness in the aims and assumptions around academic misconduct mentioned above can help educators clarify and achieve the goals of their academic integrity policies.

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# TESTING OF SUPPORT TOOLS FOR PLAGIARISM DETECTION FOR THE JAPANESE LANGUAGE: TESTOP-J PROJECT

Tolga Özşen<sup>1</sup>, Salim Razi<sup>1</sup>, Özgür Çelik<sup>1</sup>, Senem Çente Akkan<sup>1</sup>, İrem Saka<sup>1</sup>,  
Tatsuya Sakaue<sup>2</sup>

<sup>1</sup>*Çanakkale Onsekiz Mart University, Turkey*

<sup>2</sup>*Hiroshima University, Japan*

### Keywords

Plagiarism detection, text-matching software, software testing, Japanese language, ideographic languages

### Abstract

The acquisition and/or learning process of Asian ideographic languages such as Japanese, Chinese, and Korean as a foreign/second language (L2) has several complex layers which are not limited to linguistic or grammatical features. Dominant cultural dynamics severely shape such languages with unorthodox writing systems for students outside the *Kanji region*. As to Japanese, the acquisition process has more layers not only because it has three unique ideogram-based writing systems (*Hiragana, Katakana, Kanji*), but also has differences in writing procedures (e.g. orthographic rules, punctuation marks, numbering, mixed/combined wording, etc.). Moreover, the interaction in daily life with Japanese language and culture is extremely limited, particularly for the Japanese L2 learners who are outside of the *Kanji cultural zone*. Spending a lot of effort on understanding the language and its culture may leave very little energy to focus on the academic integrity framework, resulting in academic misconduct cases, either intentionally or unintentionally.

On the other hand, academic misconduct issues (detection techniques, systems, tools, prevention methods, and etc.) for the Japanese language have been addressed in a small number of studies in the last two decades. The intersection points of most of those are the population and material they focus on. The majority of those studies focus on university students' writing assignments aiming to identify similarities based on words (syllables/characters) (Fukaya et al., 2003; Odaka et al.) or sentences (Suzuki et al., 2009) to reach the plagiarized web source from the paraphrased texts (Takahashi et al., 2007), and to develop detection systems (Ueta & Tominaga, 2010). Besides all those, Sakai and Tsuruhara argue academic misconduct behaviors related to professionals (e.g. duplicate submission for conferences) and the positioning of plagiarism in Japan through sanctions of universities as well (Sakai & Tsuruhara, 2012). Apart from these studies, Weber-Wulff's (2010) emphasis on the importance of the encoding variables (i.e. JIS-Shift and UTF-8) in plagiarism detection for

particularly Japanese language, apart from linguistic variables, is an important criticism that should be taken into account.

In an ideographic language such as Japanese as L2, acquiring the basic level, particularly for non-Kanji region students, takes a relatively long time. Consequently, academic writing techniques and detailed information regarding the promotion of academic integrity at the undergraduate level can only be taught limitedly and superficially. JLT related academic integrity studies mostly focus on citing techniques and ethics have become more visible in recent years (Yamamoto, 2016; Yamamoto et al., 2014; Yamamoto & Nitsū, 2015).

As can be seen, the Japanese language both as L1 and L2 is still very untouched territory in terms of detecting and analyzing academic misconduct issues and educational/pedagogical aspects. This ongoing project called “TeSToP-J” is the Japanese language version of the original TeSToP (Testing of Support Tools for Plagiarism Detection) project (Foltýnek et al., 2020) aiming to simulate the actual usage of text-matching tools in an educational setting by using a large collection of documents prepared in the Japanese language.

In this study, the methodology and protocols used in the original TeSToP project are revised in accordance with the characteristics of the Japanese language. This project aims to analyze Japanese-written documents compiled from four different sources (Wikipedia, online & open

access papers, non-online materials, and multisource [Wikipedia & government white papers & OA papers]) by comparing several regional (Japan-based) and international web-based similarity detection tools using two main criteria (coverage and usability) as in original TeSToP test.

In order to test those systems and/or tools, seven disguising techniques (*copy & paste*, *paraphrase*, *synonym replacement*, *same content with different writing system* [e.g. *Kanji* instead *Hiragana*, *Hiragana* instead *Kanji*], *translation*, *stylistics* [white characters, images, etc.] and *encoding application* [UTF-8 and JIS-Shift]) will be used. Each document will be available in PDF, DOC, and TXT form. Using the original TeSToP methodology will allow us to classify those systems into categories from *useful systems* to *unsuited systems for the Japanese language*.

Taking into consideration the number of systems to be tested, the variety and number of testing documents, this ongoing project has a serious potential to be the most inclusive test on the Japanese language ever done. With the possible results obtained from this study, it is expected to contribute to all stakeholders such as vendors, professionals (academics), and decision makers in educational institutions. More importantly, we hope that this work, with its results, will be a source of inspiration for other ideographic and/or Asian languages too.

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# FROM PLAGIARISM TO ACADEMIC INTEGRITY: CHANGING POLICY IN A CHANGED LANDSCAPE

Mairead Greene<sup>1</sup>, Michelle Tooher<sup>1</sup>

<sup>1</sup>*National University of Ireland, Galway, Ireland*

## Abstract

National University of Ireland (NUI), Galway has approximately 20,000 students and 1000 academic staff. As with many institutions, the focus of the work done in the area of academic integrity to date has mainly been on plagiarism. The university has support available for students both at a module level from individual lecturers and at an institutional level from the Academic Writing Centre with tutors available to help students develop their writing skills and avoid plagiarism. In addition, online lessons were developed as part of the AllAboard project (<https://www.allaboardhe.ie/>) to help students improve their referencing and citing skills. There is no doubt that many students struggle with intentional and unintentional plagiarism (Selemani, Chawinga & Dube, 2018) and these supports are much needed. In recent years, however, the threats to academic integrity have expanded significantly beyond classic plagiarism and universities like ours are now left in a position of having to pivot to deal with a much broader range of academic misconduct.

In order to begin addressing this broader academic misconduct, we have taken a multi-layered approach including supporting academic staff in revising their assessments, creating workshops around academic integrity for staff and students, developing and launching a lesson on contract cheating for students, and holding an academic integrity event for academic leadership in the University to highlight the current issues. However, we know that this is not enough. As reported internationally, even "authentic assessment" is regularly outsourced both for a fee to contract cheating sites and without a fee to family and friends (Ellis et al, 2020).

As a result, in addition to the educational efforts discussed above, a significant focus of our academic integrity work at our institution is to update the current plagiarism policy to a more comprehensive academic integrity policy. Our current plagiarism policy came into effect in the academic year 2012/13 and was designed to deal with classic cases of plagiarism and works well in those instances. However, the policy is not designed to deal with contract cheating, file sharing, data falsification and a myriad of other types of academic misconduct that have increased in prevalence across higher education over the last decade and in particular since Spring 2020 as is reflected in the literature and the media. (Lancaster & Cotarlan (2021), Sforza (2021)).

A robust academic integrity policy is essential to combat academic misconduct. Although some students will respond to educational efforts and moral pleas this alone is not enough, there needs to be consequences for engaging in academic misconduct and we must expend effort into discovering this academic misconduct (Ellis (2021)). Not only is it important to have an academic integrity policy which enables this, but the policy must be enforceable and academic staff and students need to be convinced that it should be used consistently for all cases of academic misconduct.

In preparing for writing this new academic integrity policy, we have reviewed international approaches to academic integrity policies, identified issues that the university should consider in drafting the new policy, consulted national recommendations from the National

Academic Integrity Network (NAIN) in Ireland, and determined the best way to incorporate these aspects given the institutional context.

In this presentation, we will outline the process we used to review our current policy, highlight

problems that we encountered, share the new features that we incorporated into our policy based on our research and describe the institutional change that is required to facilitate this new policy.

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# POLICIES AND REGULATIONS AGAINST FRAUD IN EVALUATIONS: THE SITUATION OF POSTGRADUATE LEVEL IN SPAIN

Maria Isabel Montserrat Sánchez-Escribano<sup>1</sup>, Rubén Comas Forgas<sup>1,2</sup>

<sup>1</sup>*University of the Balearic Islands, Spain*

<sup>2</sup>*Stockholm University, Sweden*

## Background

This work focuses on fraud in evaluations by Spanish postgraduate students and its regulation and policies designed by universities as a device to combat it. The main aim of the poster is to describe, by using content analysis to assess the regulatory systems in place in 45 Spanish universities, how Spanish higher education institutions design and elaborate regulations and policies regarding academic misconduct behaviours amongst its postgraduate students. We try to elucidate to what extent and with what orientations Spanish universities have put in place regulatory mechanisms to deal with transgressions against academic probity conducted by postgraduate students. These regulatory provisions can be

classified into 2 categories: on the one hand, those of a general nature, approved by the legislative body and that are applicable to all universities, and on the other, those of a specific character to each institution, approved by the various university governing bodies. These latest regulatory devices, those originated by each university, have been developed under the article 2 of Organic Law 6/20015 (BOE, 2001) and are conditioned by a general legal regime that in 2010 was reinforced with the approval of the Royal Decree 1791/2010, of December 30, approving the University Student Statute (BOE, 2010), which regulates the obligations and rights of students.

## Methodology

To answer the research questions, content analysis has been used, a method that allows making inferences not only about the texts being analysed but also about the issuer or the audience (Weber, 1990).

The analysis material is constituted by the norms, policies, codes and general documentation that, in one way or another,

incorporate the issue of integrity in the evaluations in postgraduate levels. The identification and retrieval of these documents was done online: the texts were retrieved from the analysis of the websites of Spanish universities (all the 45 public universities), locating 89 documents that are the sample of this study.

## Results

The vast majority of the Spanish universities include aspects related to the evaluation and qualification of the subjects —and, consequently, *ad-hoc* policies on academic fraud— in the regulations of its official

Bachelor's and Master's degrees, without having approved an equivalent norm for the Doctorate level. In some others, the same regulation is applicable to all the official programmes, both in undergraduate and postgraduate levels, taught

at the universities. In a third group, a smaller one, there are specific regulations for each one of the three official programmes (undergraduate, Master and Doctoral).

Spanish universities have designed measures against the phenomenon of fraud from a double perspective: a) prevention and punishment; distinguishing two areas: exams and academic assignments. As a fairly widespread preventive measure in exams against the phenomenon of identity theft and similar behaviours, most universities allow professors to demand documentation proving the student's identity before or during an exam. However, the consequences of non-identification differ from one university to another: some establish that, if a student is not identified, he/she will not be able to take the exam, while others allow him/her to present proof of identity later, being able to continue the test or exam, which will be graded only if the documentation is submitted within the term established by the university.

A second and quite common preventive measure is the prohibition of leaving the place of examination or access to it once the examination has begun. Some universities grant 15 minutes to be late for the exam and others allow students to be temporarily absent for exceptional reasons that will be assessed to the responsible lecturer/professor in charge of surveillance, who will also provide that the student is accompanied by someone from the faculty staff during his/her absence. Additional

## Conclusions

From the data obtained, we can affirm that, despite the fact that the regulations and policies of Spanish universities, for the most part, refer to the evaluation of postgraduate students and the issue of fraud is addressed, its treatment is very limited and superficial.

In summary, the analysis carried out provides universities with a map of situation regarding how academic dishonesty is contemplated in the regulations of Spanish universities, which

preventive measures are also foreseen, such as the installation of technological means in face-to-face or online tests (or the prohibition of telephone, electronic or computer devices. In fact, although they do not have been approved by regulations, most universities have adopted surveillance protocols for tests carried out online. Regarding to plagiarism, a practice to which few universities make explicit reference, it is scarcely foreseen that the assignments and materials handed-out by the students are accompanied by an explicit signed declaration regarding the originality of the work in Master's, or a commitment to comply with the code of good practices in Doctorate.

Behaviours typified in the postgraduate academic regulations and policies and the commissive means of fraud are generally summarized in a very generic description: use of any unauthorized material during exams, or possession of unauthorized electronic devices —also the alteration of the normal development of the evaluation process or the use of non-permitted means that affect the veracity of the evaluation—and only the few cases define the indeterminate and abstract concept of unauthorized material.

The consequences associated to academic fraud behaviours are widely repeated: regardless of whether or not a corresponding disciplinary process can be opened, the fraudulent completion of any fraud behaviour will result a qualification of 0 in the corresponding call.

can be used as a checklist when developing new regulations and policies.

Finally, it has to be said that a new University Coexistence Law is currently in parliamentary process in Spain. This provision considers academic fraud and plagiarism a very serious offense, and, once approved, will force universities to modify all regulations analysed in this present study.

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# PROTOTYPE TOOL FOR MISCONDUCT DETECTION: A DIGITAL FORENSICS APPROACH

Clare Johnson<sup>1</sup>, Ross Davies<sup>2</sup>, Mike Reddy<sup>2</sup>

<sup>1</sup>*University of South Wales, United Kingdom*

<sup>2</sup>*University of South Wales, Newport Campus, United Kingdom*

### Keywords

Plagiarism, contract cheating, academic misconduct, academic integrity, detection, OOXML, forensics

### Abstract

Digital forensics techniques are being used more and more frequently to gather evidence in criminal investigations, particularly those relating to cyber crime or crimes relating to Intellectual Property. However, these techniques are not yet widely used in determining the authenticity of student submissions, despite the significant problems of plagiarism and contract cheating in academia. Current methods of misconduct detection focus on text-matching software programmes which identify text that matches, or is very similar to, existing digital work. Some of these text-matching software providers have recently rolled out authorship tools that provide basic metadata about the submission. This may include analysis of the language and writing style of the author and compare these findings across cohorts as well as across previous submissions by the same student. The information provided by these additional reports has been shown to have a positive effect on assessors' ability to detect contract cheating (Dawson, Sutherland-Smith & Ricksen, 2019).

Plagiarism detection can be described as both extrinsic and intrinsic (PAN, n.d.). Extrinsic detection compares the document to existing

work in order to evidence plagiarism (e.g. text-matching) and intrinsic plagiarism detection analyses the input document using 'stylometry to examine linguistic features of the document' (Foltýnek, Meuschke & Gipp, 2020), detecting different writing styles within a single document and identifying features specific to certain authors, similar to the authorship tools already mentioned. Neither extrinsic nor intrinsic detection methods consider the document as an object in its own right, or analyse the information that is available *behind* the text that is seen in print or on screen.

Word documents are constructed using Open Office Extensible Mark Up Language (OOXML) format. During the writing process every piece of text is automatically allocated an edit run value (rsidR) by the software. Text written in one editing session (i.e. before a document save, whether manual or automatic) shares the same rsidR value. Text that is edited after being written introduces a new rsidR value as do additions and style changes. Analysing the rsidR values and providing a visual output of the editing can provide valuable insight into how the document has been written.

This paper presents a prototype tool for a novel approach to plagiarism, collusion and contract cheating detection, building on previous experiments by the authors. 'Clarify' (working title) extracts the metadata and forensic artefacts from work submitted in Word format, looking behind the text itself for detailed information on how the document has been written as described above. A file is passed into the software and automatically decompressed into its component parts, and the various artefacts are displayed in an easy to read report, including: visual display of edit runs, number of edit runs, list of edit run values, number of revisions, date created, author, total time spent editing, number of font changes, number of format changes, number of font size changes, evidence of white text and uncropped images. rsidR values are counted and anomalies flagged. Experiments were initially carried out on submissions that had already gone through a misconduct panel, and these are now continuing on authentic work in an attempt to build a benchmark of what an authentic assessment should look like. A prototype flagging system is being created so that unusual values, which are significantly higher or lower than those that would be expected from an authentic document are highlighted in the report. For example, it could be expected that the number of rsidR values will correlate with the length of the document, a longer document having more

unique rsidR's than a shorter one. Documents that fall outside of what is deemed 'normal' will be highlighted in the report. Similarly, a file creation date that precedes the assignment release could suggest that the student has reworked a previous student's submission.

Dawson, Sutherland-Smith & Ricksen (2019) note that the availability of software tools (authorship) support and improve detection of misconduct, not least by simplifying the detection process, but also by providing objective evidence for misconduct panels, as well as raising awareness that these types of misconduct activities exist (thus making the assessor more alert to them). Whilst 'Clarify' itself will not provide a silver bullet for solving misconduct, it could, in time, be an excellent addition to the techniques used by software such as Turnitin, sitting alongside authorship tools as yet another layer of detection. Of course, all tools require a good degree of care when interpreting the results, but early indications suggest that despite being in its infancy, the application of digital forensic tools as provided in this proof-of-concept could provide a very useful additional tool for academics to use when assessing student submissions for authenticity, drawing attention to anomalies in an easy to digest format that could greatly both speed up the process of detection as well as improve detection rates.

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# IMAGE REUSE DETECTION IN LARGE-SCALE DOCUMENT SCIENTIFIC COLLECTION

Oleg Bakhteev<sup>1</sup>, Yury Chekhovich<sup>1</sup>, Evgeny Finogeev<sup>1</sup>, Tatiana Gorlenko<sup>1</sup>, Mariam Kapriellova<sup>1</sup>, Aleksandr Kildyakov<sup>1</sup>, Aleksandr Ogaltsov<sup>1</sup>

<sup>1</sup>*The Antiplagiat Company, Moscow, Russia*

## Abstract

In this report, we consider the problem of identification of image reuse cases in collections of scientific documents by means of an automatic image reuse detection system.

The problem's relevance is due to the presence of precedents of reusing images from other sources in the field of medicine and biology. Thus, in (Bik et al., 2016), it is shown that up to 4 % of reused images are found in scientific articles on biology and medicine.

In the latest decade, the problem of identification of image reuse has already been addressed in several works (Srivastava et al., 2015; Akshay et al., 2019; Meuschke et al., 2018). The rapid development of deep learning methods of image processing made it possible to create automatic searching systems of similar images in collections (Wang et al., 2014). Those systems can be adapted to the problem stated in this report. In (Srivastava et al., 2015; Akshay et al., 2019), authors apply classical computer vision methods to image reuse search. Those methods include image hashing algorithms (Tang et al., 2012; Yang et al., 2006) and keypoint detection by different algorithms (Lowe, 2004; Bay et al., 2006). Nevertheless, those approaches were tested on collections that consist of several thousands of images, while a collection retrieved from academic works can contain several millions of images. We analyzed (Srivastava et al., 2015) and recreated the experiment on an extensive data collection. This experiment showed low recall of the approach.

We developed a solution aimed to find image reuse in collections that contain several millions

of images. It includes both classical computer vision algorithms and deep learning methods of image processing.

The technology of image reuse detection developed by us consists of four stages. We consider one of the images in the collection as the source of reuse. Different types of transformations could possibly be applied to the source (scaling, compression, rotation, reflection, greyscaling, channel selection, etc.)

The first step is to extract all the images from the document. Each page of the document is a separate image in high resolution. To get all the images from each page, we process every page of the document using the methods of classical computer vision, which highlight the images on the page. We do not use image extraction algorithms and libraries straightforward in order to avoid any influence of the way the document was generated.

At the second stage, charts, diagrams, schematics are excluded from images of the document. We do this to avoid a large number of false positives since diagrams will be easily recognized as similar to any incoming charts because the structure of images of this type are often very similar. Images that remain after the second stage are considered suitable for searching. In future work we plan to develop an independent solution for processing schematics and charts.

The third step is to search for candidates in the index of scientific documents. At this stage we form a fixed set of candidates from the collection for every suitable image. The special feature of this stage is the necessity to search in

the index. It is obvious that we can not compare incoming image with each object from the collection and perform the search for a reasonable time.

The fourth step is to match candidates with the right image accurately. To perform this stage, we use a Siamese neural network (Melekhov et al., 2016). We calculate similarity function between the matching image and each candidate to compare the candidates. Based on the values of the similarity function, it is determined both whether a given matching image is reused or not and the original source of the image.

We held an experiment in order to find cases of image reuse in articles from the list of open access journals DOAJ (DOAJ, 2022) using our solution. Our aim was to verify a hypothesis about the presence of multiple cases of image

reuse. We also analyzed detected cases of image reuse and specified the nature of those cases.

We indexed 1,970,703 DOAJ articles and formed a collection of 6,081,847 images. Then we submitted each image as a request and checked throughout the collection. As a result, we found cases of reuse. All the results were analyzed by assessors and divided into three groups: supposedly incorrect reuse, correct reuse, reuse of images, published by the same author in another source. The results of the analysis are represented in the report.

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Preliminary materials for this paper were published in the proceedings of the 20th Conference Mathematical Methods of Pattern Recognition (Bakhteev et al., 2021).

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# DETECTING POTENTIAL ACADEMIC MISCONDUCT IN CANVA QUIZZES

Christopher Nitta<sup>1</sup>, Talitha van der Meulen<sup>1</sup>, Marilyn Derby<sup>1</sup>

<sup>1</sup>*University of California, Davis, United States of America*

## Introduction

The COVID-19 pandemic left many instructors scrambling to replace traditional paper examinations with online versions. Many opted to use quiz features built into their Learning Management System (LMS). The previously in-person proctored exams, having moved online,

left instructors at our institution concerned about academic integrity. Given issues with existing solutions and the capabilities of the Canvas LMS, we developed a software system to detect potential academic misconduct on quizzes.

## Background

Canvas LMS is a widely used open source LMS released under the AGPLv3 (Instructure Inc., 2016). Canvas LMS provides a REST API that allows access to information within the system (Instructure Inc., 2021). A python package, `canvasapi`, is available to interact with the Canvas REST API (University of Central Florida

Center for Distributed Learning, 2017). Using the `canvasapi` package, we developed a system that is able to detect potential misconduct during quizzes. Our system is further augmented when Canvas' New Analytics Course Activity reports are provided. Further details of the detection system are provided in section 4.

## Related Work

There are two categories of software that are most related to our work: online proctoring and plagiarism detection. Our system combines the capabilities of both into a single package. Our work also relates to prior work of detecting misconduct in Canvas quizzes.

Online proctoring software solutions such as Respondus Monitor are designed to uphold academic integrity by locking down the web browser, video recording students, and automating the video analysis. Recording students increases exam anxiety, invades student privacy by requiring video monitoring in personal settings and utilizes AI for potential

misconduct. The use of such solutions has recently raised ethical questions (Coghlan, 2020); further, students at our institution recently passed a resolution calling for ending their use (REDACTED). Our system differs in that it only utilizes the data provided through Canvas LMS.

Turnitin (Turnitin LLC, 2021) and Measure Of Software Similarity (MOSS) (Aiken, 1997) are well-known for detecting plagiarism in written work and software respectively. Our work differs from that of Turnitin and MOSS as it focuses on Canvas quizzes and looks beyond plagiarism.

The most related work to ours is Coffey and Clarke (Coffey, 2021) which in turn is based upon work by Metzger and Maudoodi (Metzger, 2020). The prior work discusses the use of creating a spreadsheet by pulling the activity

logs for each student and was focused on collaboration between students. Our system automates this process, as well as analyzes individual activity.

## Potential Misconduct Detection System

Our misconduct detection system development started in spring 2020 and has resulted in the development of a website that can analyze hundreds of quizzes within minutes or seconds.

The system outputs HTML files that have an index sorted by likeliness of misconduct, like results provided by MOSS.

## Potential Individual Misconduct Detection

Our detection system analyzes the individual quiz events for each student. The system detects four main categories of potential misconduct: page blurs, copy and pasting, prior knowledge of questions, and unauthorized resource access. When combined, the individual potential misconduct events can form a summary of concern that our system provides to the instructor for further investigation.

A page blur occurs when the Canvas quiz loses focus which can occur for many reasons. The reasons for a page blur can be as innocent as an accidental click outside the window or as nefarious as opening another window to get the answer.

The Essay Questions on Canvas provide a free-response text box that can have formatting. As the students enter their answers, the current results are transmitted as answer events to Canvas. This allows our system to reconstruct the timeline and detect potential copying and pasting.

Large exam windows accommodate students in different time zones; however, some students used this opportunity to get the questions from classmates and find correct answers before the

exam. Our system analyzes the amount of time students take on answering each question and compares it to the rest of the class. For example, an extremely short quiz time coupled with uniform time spent on each question and a high score may indicate prior question knowledge.

A Course Activity report makes it possible for the system to detect unauthorized (Canvas course specific) resource access during the quiz. As the system detects access of Canvas resources, our system can detect the use of multiple devices. To avoid access to resources during the quiz some students will load hundreds of pages of material just seconds before beginning the exam, our system can detect and flag this activity as well.

**Potential Collaborative Misconduct Detection**  
Our system provides analysis for potential collaborative misconduct beyond the question answer timing discussed previously. When there are large exam windows, the system analyzes quiz time alignment in combination with answer similarity as an indication of potential collaboration. This analysis could not be done manually in a reasonable amount of time.

## Results

Since deployment of our detection system, it has detected hundreds of confirmed instances of academic misconduct. In just eight courses,

19.2% of the 1,736 students were referred. Instructors have saved immeasurable amounts of time; additionally, the Student Judicial Affairs

Officers (SJAO) now routinely have students acknowledge their misconduct on the first meeting because of strong evidence, instead of requiring multiple meetings, or even formal hearings. Reducing the SJAO load is critical; there has been a dramatic increase in misconduct referrals since pandemic began. In total, there were 2.3× as many referrals in the first four terms of the pandemic compared to the preceding four terms (3,246 compared to 1,415).

The data we have indicates that faculty who utilized the system had 1.95× as many referrals

related to Canvas quizzes as those who did not, and 3.51× as many per student instructed. The system is likely catching much more misconduct on Canvas quizzes that typically would go undetected without the system. Students referred can be found “Not in Violation” of misconduct for many reasons, such as being adjudicated, or instructor unwilling to pursue a denied secondary or tertiary incident when one has already been confirmed by the student. The rate of students found “Not in Violation” of our system is in line with those referrals that were manually detected.

## Conclusion

The system designed at our institution to detect potential academic misconduct has successfully detected hundreds of cases of academic misconduct. This system or one like it can be

deployed at any institution that uses Canvas LMS, and we will provide access to the source repository for those institutions wishing to deploy our system.

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### COMING CLEAN – ADDRESSING THE ISSUES WHERE A STUDENT SELF DECLARES CONTRACT CHEATING

Thomas Lancaster<sup>1</sup>, Michael Draper<sup>2</sup>, Sandie Dann<sup>3</sup>, Robin Crockett<sup>4</sup>, Irene Glendinning<sup>5</sup>

<sup>1</sup>*Imperial College London, United Kingdom*

<sup>2</sup>*Swansea University, United Kingdom*

<sup>3</sup>*Loughborough University, United Kingdom*

<sup>4</sup>*University of Northampton and Loughborough University, United Kingdom*

<sup>5</sup>*Coventry University, United Kingdom*

#### Abstract

Contract cheating has become a massive threat to the integrity of the academic qualifications (Clarke & Lancaster, 2006). The problem is global in its scale and it is unlikely that there any universities or academic institutions that have not had students who have contract cheated, whether or not these students have been detected.

As contract cheating continues to be marketed widely to students, the higher education sector is having to address new challenges, many of which have been little discussed in the academic literature or in practice. This includes the challenge of “*coming clean*”, where a student wishes to declare that they have contract cheated to their institution, the focus of this session. A student may be forced to come clean when they have changed their mind about cheating (Draper et al, 2021), they are at risk of blackmail (Yorke et al, 2020) or have inadvertently succumbed to the unethical marketing practices followed by contract cheating providers (Amigud, 2020; Crockett and Maxwell, 2021; Lancaster, 2019). Research has indicated that higher education institutions often lack clear information and process to deal

with emerging situations like that of students coming clean (Waltzer et al, 2021).

The focus of this session (and the associated paper) is to share the findings of practitioners working in the academic integrity field, in essence, a form of experiential research. The session builds upon existing literature and sector guidance which the practitioners have contributed to (QAA, 2020b; Draper et al, 2021). The session will also be placed within the context of the QAA’s Academic Integrity Charter which the contributors have also helped to develop, and which has now been adopted by over 190 Institutions within the UK (QAA, 2020a). The presenters have experience dealing with contract cheating cases behind closed doors and discussing them in private with colleagues from across the sector.

The issues to be covered include:

- The reasons why a student may decide to come clean and admit to contract cheating. This will include student responses to the threat of external blackmail and extortion from the contract cheating industry.
- How to embed opportunities for students to come clean into teaching

sessions and to raise the issue with students in a non-confrontational manner.

- What to do if a student has initially engaged with a contract cheating provider or essay mill, but ultimately changes their mind and does not go through with a transaction or does not submit work that they have purchased.
- The idea of the “student as a victim” and why academic institutions may need to provide support to students when they decide to come clean.
- The need to update university policies, practices and procedures to allow for students to come clean and to address the situation when it occurs.
- Ways to involve students and Student Unions in the decision-making process in this situation.
- The issues of penalties in this situation, how institutions should consider

inappropriate conduct that may have taken place in a previous year of study, how this cannot be ignored but finding ways to partially mitigate against this.

The session will include real-world style examples based on the experiences that the presenters have had around the sector. Where necessary, these will be anonymised to allow them to be shared but also to allow attendees to benefit from them. Input from the audience will also be welcome.

The intention of the session is to not to provide a full set of answers as to what universities should do in any particular situation. Every university operates with different processes and there is not a single appropriate response that matches everyone. What the session will provide is further information that delegates can use about an emerging topic within contract cheating, as well as thinking points for them to take back to their own institution.

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# IMPROPER, UNETHICAL, OR BOTH? - REFLECTING ON OPPORTUNISTIC QUESTIONABLE ACADEMIC PRACTICES DURING COVID-19 BY HE STUDENTS

Shiva D Sivasubramaniam<sup>1</sup>, Salim Razi<sup>2</sup>, Zeenath R Khan<sup>3</sup>

<sup>1</sup>*University of Derby, United Kingdom*

<sup>2</sup>*Çanakkale Onsekiz Mart Üniversitesi, Turkey*

<sup>3</sup>*University of Wollongong in Dubai, United Arab Emirates*

### Introduction/background

The coronavirus (COVID-19) pandemic has severely affected the learning and teaching activities of higher education. Research has shown that the Higher Education sector was not ready to provide alternate learning and teaching approaches in a 'lock-down' situation (Scherer et al., 2021). Yet, educational organisations worldwide hurriedly focussed mainly on emergency remote teaching (ERT) to effectively deliver their programmes to maintain student satisfaction (Gamage et al., 2020; Joshi, 2021; Rapanta et al., 2020; Yeo et al., 2021). Many new and potentially 'innovative methodologies' for programme delivery, alternative assessment strategies and other drastic measures to minimise the detrimental effects of Covid-19 (and other) related physical and mental challenges of the students (Khan et al, 2021; Yu et al., 2021). Several universities have introduced 'no detriment policies' (also known as a 'student safety net') and put in place actions to provide extra pastoral student support. These measures include (a) online assessments provisions replacing traditional invigilated, timed examinations to un-invigilated assessments with a broader window of duration to complete, (b) marks adjustments to reflect the students' overall ability based on their previous performances and attainments, (c)

relaxed rules for extenuating circumstances (late submission requests) without the need to provide evidence etc. The aims of the 'no detriment policies' of many institutions are not entirely clear, but most of them aimed to mitigate the impact of the Covid-19 pandemic on students' attainments. Their term of reference includes "to ensure students obtain at least their average (or better) grade based on comparative overall performances throughout the year(s)" (National Union of Students-UK, 2020, para. 5).

From the point of view of students, the measures taken, such as no detriment policies, generally did address the problems faced by those who were either affected by the direct or indirect impacts of the pandemic that interrupted their engagement with their studies. In fact, a plethora of authors have reported that these flexible approaches did help student engagement, providing justifications for these types of approaches (Aladsani, 2021; Almendingen et al., 2021; Eaton & Turner, 2020; Gourley, et al., 2021; Koob et al., 2021; Yeo et al., 2021). However, through academic conversations with their counterparts, the authors of this workshop have also noticed an increase in fraudulent activities amongst a group of students (also named as "opportunistic

offenders”) (Arie & Jacobs, 2021; Comas-Forgasa et al., 2021; Day, 2021).

These were detected by many academics in different academic institutions worldwide. Academic institutions have reported an unusually high number of late submissions requests (LSRs) (Giusti et al., 2021; Kuhfeld et al., 2022). Some of these were found to be in unusual circumstances, formats, or excuses. These include students claiming Covid/non-

Covid related illness of distant relatives affecting students’ anxiety levels. These were also observed/reported in the institutions that are directly linked to the authors (as collaborators and/or external examiners). Whilst the extenuating circumstances claims may be true in many cases, the lack of vetting processes makes it impossible to understand how many claims were valid.

## Workshop aims

The workshop aims to generate an open and honest discussion amongst the attendees reflecting on their experience in implementing the safety net policies, expanding on what went well? What did not work? (their experience with ‘opportunistic offenders’) and how these can be

addressed in any future situations like this?. By having these conversations/sharing experiences we would like to take advantage of the good experience and propose corrections to those measures that were not fruitful.

## Intended methodology for discussion

We will begin the workshop by providing some sample no detriment activities noticed and/or reported. We will also detail how some of these safety net policies have directly affected the students, providing opportunities to take advantage of these policies. For example, some LSRs included photos of positive lateral flow test (LFT) without any identification of the subjects. These types of claims have surfaced after the introduction of the home LFTs. Again, it is impossible to verify these claims and therefore students are usually given the benefit of doubt. The ‘no detriment policy’ in the form of mark adjustment has itself affected some (especially international) students. For example, one university introduced a safety-net measure of ‘scaling-up’ marks using so-called “marks bands”. Applying this rule, those students who had marks within a mark band between 68 to 75% were awarded as 75% as their overall mark, with an additional note stating, *‘grades are adjusted according to safety net policy’*. Although this seems to be an appropriate action under Covid-19 restrictions, this has disadvantaged the students whose overall mark was already 75%. Their potential employers started querying whether their attainment is

truthfully reported (or due to the application of Safety Net policy).

Interestingly, from an operational point of view, implementing the ERT practices should require considerable changes to the curriculum, including assessment practices. However, not every institution or lecturer was ready for such a huge transformation; therefore, moving online simply meant using the same course content in an online environment for some lecturers especially where there was no institutional experience and/or support available regarding distance education. Finding themselves lecturing in front of their laptop cameras, inexperienced lecturers encountered difficulties in encouraging their learners to actively participate. Under ERT circumstances, compulsory attendance to the courses has been changed to optional attendance to online lectures, as learners were supposed to watch the recordings of the lectures at any time depending on their time zone and availability. Likewise, considering the principles of distance education, some institutions enabled much shorter sessions for ERT classes. For example, 45-minute sessions of face-to-face instruction were replaced with 25-minute ERT sessions. In

practice, some institutions simply shortened the length of courses without any further changes. Apart from instructional issues, these retrofitted ERT courses were problematic also with regards to assessment practices. Disregarding the requirements of online assessments, some lecturers did not hesitate to declare multiple-choice questions as their favourite assessment technique in ERT mainly because of the simplicity of grading. These lecturers wrongly assumed that providing time restrictions such as thirty seconds to answer each question should establish exam security. This expectation was, of course, too naive, as students were using some sharing platforms such as Discord and tutorial sites such as Chegg, during online exams to discuss and reveal the correct options for questions. Thus, such assessment practices did not evaluate whether or not the learners met learning outcomes.

Scientists fear that infectious diseases crossing from animals to humans (zoonosis) are going to rise in the future, therefore there is a high probability for future pandemics like this. It is imperative to think and plan effectively to deliver HE programmes whilst maintaining academic integrity during any potential pandemics. Authors hope these examples of safety-net linked issues/‘fraudulent practices’ would generate a lively discussion amongst the attendees. We believe in reflecting on ‘mistakes’ is vital for proactive planning for the future. We also need to openly discuss the negative implications of the safety net policy. Having this open discussion amongst academics/researchers and students from different disciplines would provide directions for future planning for proactive preparedness in situations like this.

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# AUTHORSHIP IN SCIENCE: PRACTICES ACROSS FIELDS AND BORDERS

Laura Ribeiro<sup>1,2</sup>, Sandra F. Gomes<sup>1,3</sup>, Ana Cristina Veríssimo<sup>1</sup>, Raquel Soares<sup>2,3</sup>

<sup>1</sup>*Department of Public Health and Forensic Sciences and Medical Education, Faculty of Medicine, University of Porto, Portugal*

<sup>2</sup>*I3S-Instituto de Investigação e Inovação em Saúde, University of Porto, Portugal*

<sup>3</sup>*Department of Biomedicine, Faculty of Medicine, University of Porto, Portugal*

### Keywords

Authorship; norms; malpractices; research integrity

### Abstract

Authorship standards are recognized in widely disseminated guidelines. However, authorship's use as a proxy of the quality of researchers can prompt misrepresentations of authorship and author disagreements, increasing the risk of unethical authorship. This workshop will offer a valuable opportunity for participants to share and reflect upon their views and practices regarding ethics in research authorship and discuss strategies that can be used in different research contexts to foster best practices and avoid misconduct risk.

In the modern system of science, authorship is a proxy of productivity and determines financial grants, recognition, professional advancement and salary. The quality of scientists is usually measured by the number of papers, citations or by the Hirsch index (Hirsch, 2005).

According to Papatheodorou et al. (2008), the increasing complexity of modern research, collaborative needs, research visibility and the pressures involving the "publish or perish" principle can lead to the inflation of authors. Others point out that some researchers dishonestly claim authorship to obtain a better academic ranking (Kwok, 2005). This hinders authorship standards which, although

widespread, do not seem to prevent unethical authorship from remaining common practice.

According to the European Network for Academic Integrity (ENAI) glossary (Tauginienė et al., 2018), unethical authorship involves

including a person who has not contributed to the research as an author of the study; excluding a genuine contributor to the research from the list of authors of the study; changing the sequence of authors in an unjustified and improper way; removing names of contributors in later publications; using one's power to add his/her name as the author of the study without any contribution; including an author without his/her permission. (p. 44)

Among these, the most common practices are honorary authorship (appointing people who have not contributed to the research), or ghost authorship (not appointing those who actively contributed to the research).

In 1985, the International Committee of Medical Journal Editors (ICMJE) introduced for the first-time authorship criteria that were adopted by various journals, societies and disciplines (Smith, 1997; Vartiovaara, 1985). These criteria, last updated in 2021, include:

(i) substantial contributions to the conception or design of the work, or the acquisition, analysis, or interpretation of data for the work; and (ii) drafting of the work or revising it critically for important intellectual content; and (iii) final approval of the version to be published; and (iv) agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved. (International Committee of Medical Journal Editors, 2021, p.2)

Also, the Committee on Publication Ethics (COPE, 1999) has established their own criteria for authorship.

Despite having widely established criteria, authorship norms and practices differ across fields, research teams and cultures, and many authors ignore guidelines. The first author usually occupies the most important position in a publication, but the last author represents distinct credits depending on the discipline. For example, in the medical field, the bottom of the list is distinctively reserved for the principal investigator, while in the social sciences it reflects a minor contribution. The places in-between are for minor contributions in both cases (Tschardt et al., 2007).

Some studies have been discussing the prevalence of authorship disagreements, their underlying factors, as well as the subsequent misbehavior (Smith et al., 2020) and others the best way to solve them (Faulkes, 2018). Authorship disagreements can be minimized by adopting responsible research practices such as to decide the list of authors and how they are ranked before initiating the research and correcting it throughout the project if needed. A comprehensive understanding about guidelines

and usual practices for a certain field, as well as a thoughtful discussion about this can certainly help to mitigate these disputes (Faulkes, 2018). Workshops are intensive educational programs that create valuable opportunities for participants to discuss different views of a topic, its challenges and solutions, to better understand it. Additionally, they can actively engage in learning activities that can then use in their research and academic activities (Sufi et al., 2018).

In this workshop, a three-part structure will be followed: 1) a diagnostic test, based on recent literature, where participants will be asked to individually complete a short multiple-choice questionnaire on their knowledge, perceptions and practices regarding ethics in research authorship; then 2) a small group discussion by splitting the participants in two breakout rooms, with a moderator, where they will be encouraged to discuss their responses and elaborate a collaborative best practices document; and 3) a final overview addressing the main issues raised during the session, complemented with information from recent literature and take-home messages.

Workshop participants will be asked for their informed consent so their contributions during the session can be used for publication. Quantitative data (questionnaire) and qualitative data (group discussions) collected during this workshop will have the ethical approval of the Ethics Committee of the University of Porto and it will be published as a full paper after the conference.

Overall, both the collaborative activities developed during this workshop and the expertise of the authors will offer insights to students, researchers and editors on strategies to promote best practices and combat malpractices in research authorship.

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# CHECKLISTS FOR MASTER STUDENTS, PHD STUDENTS, AND THEIR SUPERVISORS ON THE TRANSITION FROM ACADEMIC INTEGRITY TO RESEARCH ETHICS

Veronika Krásničan<sup>1</sup>, Sonja Bjelobaba<sup>2</sup>, Inga Gaižauskaitė<sup>3</sup>, William Bülow O-Nils<sup>2</sup>

<sup>1</sup>*Mendel University in Brno, Czechia*

<sup>2</sup>*Uppsala University, Sweden*

<sup>3</sup>*Lithuanian Centre for Social Sciences, Lithuania*

### Keywords

Academic Integrity, Academic Writing, Checklists, Research Ethics, Research Integrity

### Abstract

The importance of research ethics and research integrity is a growing concern within the research community (Armond et al. 2021; Fanelli 2009; Helgesson & Bülow 2021; Tauginienė et al. 2019). This is in part due to the prevalence of scientific misconduct and bad research practices, which all risk undermining public trust in science and research. While there is no simple answer to the question of how to best prevent research misconduct and other deviations from good research practice, one way forward is to prepare students in higher education already at an early stage and to encourage a smoother transition from academic integrity to research integrity. Students are potentially future researchers thus developing their attitudes, knowledge and skills in line with responsible research conduct as well as their ability to deal in situations of unacceptable research practices is necessary (Gladwin 2018). It has also been recognised that next to formal education and training

students observe and learn from the behaviour of others in academia (e.g., researchers or supervisors) (Gladwin 2018; Löfström 2012; Rissanen & Löfström 2014); therefore, role modelling and mentoring are inherent parts of teaching and learning in research integrity and ethics (Holbrook et al. 2017; Hyytinen & Löfström 2017).

In line with that, we have developed three checklists which might be used to make sure that students adhere to the appropriate norms and values in research as they conduct their thesis work, whereas supervisors are there to guide and mentor them. The checklists are targeting students on the master level, PhD students, and supervisors respectively, and provide guidance on how they should act in order to retain integrity within their work, highlighting the importance of proper citations and references, handling of research data, checking institutional requirements, among

other things. The checklists have been developed as an output of Erasmus+ Strategic Partnership project *Bridging Integrity in Higher Education, Business and Society* (BRIDGE, 2020-1-SE01-KA203-077973). A review of national and institutional level documents in six project countries (Sweden, Lithuania, North Macedonia, Czechia, and Ukraine) revealed that there is a need to bridge academic integrity and research integrity in early stages of research training. Commonly, in regard to students the focus is on academic integrity, whereas research integrity is confined to researchers and research conduct at further stages of academic (research) career. However, students *do* engage in research conduct and thus aspects of both academic integrity and research integrity must be combined in student training.

The checklists were created using the following methodology:

1. At the initial stage, each of the six project partners independently of others proposed a draft of checklists. We followed such a procedure to maintain objectivity and different views of all members of the project who come from different countries, research fields and have varied research and/or educational experiences. A total of 8 versions of checklists were created for master students, PhD students, and supervisors in the first round.
2. Subsequently, these checklist proposals were assessed during online project meetings and off-line feedback, and converted into a single file.
3. This file was discussed at a personal project meeting attended by all project members. The initial version of the

checklist has been recalled and modified.

4. The next 3 rounds of the comment procedure followed, where the members of the project commented not only on the content itself but also on the choice of words, relevance, and comprehensibility of individual checklist points.
5. After the last round of comments, the file was graphically processed and edited. This version is going to be presented to the conference participants.

In this co-creative workshop (Sanders & Stappers, 2008; Durugbo & Pawar 2014) we will present these checklists and empower participants to share their ideas on the connection between academic integrity, research ethics, and research integrity. While the term academic integrity incorporates “compliance with ethical and professional principles, standards, practices and consistent system of values, that serves as guidance for making decisions and taking actions in education, research and scholarship” (ENAI, 2018), the complementary terms research ethics and integrity focus on the ethical aspects of research and the integrity of researchers, research, and research-related institutions and systems (Helgesson & Bülow, 2021). Being students, PhD students, and supervisors, workshop participants are also representatives of the stakeholders thus ensuring us through the co-creation of the checklists that relevant opinions and needs are met. Our plan is to present this tool and to engage participants by asking them to test the checklists and the extent to which they are suitable for creating a bridge between academic integrity on the one hand and research ethics/integrity on the other.

## The workshop will be structured as follows:

1. A short introduction to the idea of checklists.
2. Workshop activity: Workshop participants will be split into 3 groups and each group will receive a prepared blank worksheet. In each group, participants will be asked to identify the main points that should be included in a checklist for a respective target group - master students, PhD students, or supervisors.
3. Discussion: Each workshop group will share their results and compare them

with a respective checklist provided by workshop organisers. A short discussion will follow up each checklist.

With the consent of workshop participants which will be asked for at the beginning of the session, workshop organisers will unobtrusively take notes of group activities and workshop discussions to preserve the feedback and suggestions from workshop participants. They might be further used to advance project outputs.

## Workshop takeaways:

1. For workshop participants: broader knowledge on how to facilitate the transition for students from academic integrity to research ethics/integrity
2. For workshop organisers: hands-on feedback from workshop participants on proposed checklists.

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# VIDEO ANALYSIS OF HIGH SCHOOL AND COLLEGE STUDENTS' USE OF CITATIONS AND PARAPHRASES

Martine Peters<sup>1</sup>, Tessa Boies<sup>1</sup>, Sarah Beauchemin-Roy<sup>1</sup>

<sup>1</sup>*Université du Québec en Outaouais, Canada*

### Keywords

Citation, paraphrase, plagiarism, high school, college

### Abstract

Our research project investigates digital scrapbooking strategies used in academic writing by students. Digital scrapbooking strategies are a type of learning strategy, which involves cognitive processing and execution of actions that fall under three skills: informational, writing, and referencing (Peters, 2015). When writing assignments, students will look for information (Ma et al., 2008; Réseau Éducation-Médias, 2005), then integrate it into their writing using quotes and paraphrases (Shi, 2010) which they then need to reference (Gravett & Kinchin, 2018). If students fail to reference their sources, they will be plagiarizing. One of the difficulties students experience when they use sources is the proper integration of the information found in their text, for different reasons such as lack of understanding of the text read or lack of vocabulary (Flores & Lopez, 2019). Students often explain how they are not familiar with the correct ways to quote (Auger, 2013), which norms to use (Ellery, 2008). They also have difficulty paraphrasing (Mori, 2018); they often produce a sentence that is too similar to the original one (Hayuningrum & Yulia, 2021). Several research studies highlight the difficulty students have in properly integrating information and bringing out their own voice (Hutchings, 2014).

This pilot project examined specifically two digital scrapbooking strategies: quoting and paraphrasing. Two high school students and two college students wrote an essay (approximately 500 words) on the project's computers as an assignment. The computers tracked the real-time evolution of all of the students' actions with a screen recording software which produced a video of the whole writing process. The results demonstrate that video recording as a research tool offers rich, varied, and meaningful data.

A first analysis was done to evaluate the quality of the texts produced. Data shows that all four participants are familiar with the type of text assigned and that they understand that they have to use sources to justify their opinions. However, another analysis using Compilatio (a similarity detection software) shows that even though students knew their actions were being recorded, all of them plagiarized when writing their text.

The participants' individual videos were then analyzed quantitatively for four kinds of citations: referenced direct citations, non-referenced direct citations, referenced indirect citations and non-referenced indirect citations. Results show the frequency at which students use direct quotes and paraphrases. Surprisingly, participants used paraphrases more often than

quotes. However, the number of non-referenced paraphrases was higher than those that were referenced. The data also shows clear differences between the high school students and the college students. For example, one of the college students plainly understands how to reference her sources but she still has difficulty

not plagiarizing because her paraphrases are too similar to her original sources.

We will conclude by proposing pedagogical avenues to better train students in the use of direct and indirect quotation so that they can correct their deficient practices by resorting to more effective and honest strategies.

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# THE RELATION OF ACADEMIC WRITING ANXIETY AND ACADEMIC MISCONDUCT IN JAPANESE LANGUAGE EDUCATION

Senem Çente Akkan<sup>1</sup>, Tolga Özşen<sup>1</sup>

<sup>1</sup>*Çanakkale Onsekiz Mart University, Turkey*

## Keywords

Plagiarism, writing anxiety, Japanese L2 learners, alphabetic languages, ideographic languages.

## Abstract

Learning a foreign language is a complex multi-variable process. One of the variables that influences the language acquisition process is the phenomenon of anxiety. This phenomenon of anxiety in the language acquisition process can shape learners' perceptions and attitudes towards academic integrity. Moreover, it leads to learning troubles and results in academic misconduct in higher education (Bretag et al., 2019). The problem of anxiety is occasionally even stronger for ideographic languages such as Japanese, particularly to those who have less interaction in daily life with that language.

Most of the studies on anxiety are related to alphabetic languages such as English, French, German and Spanish. Samimy (1994) emphasizes that it is important to focus on the distinctive features of the target language when discussing the factors of anxiety. Although, there are numbers of works that study the anxiety of the Japanese language learning process (e.g. İrim & Özşen, 2018; İshibashi, 2011; Motoda, 2000), it is difficult to find studies scrutinizing the relationship between language learning anxiety and academic misconduct, especially in Japanese.

Although there are studies evaluating the relationship between anxiety and misconduct (e.g. Cutri et al., 2021; Tindall & Curtis, 2020), due to the differences from alphabetic languages in many aspects with its grammar, writing system, culture, and history, it is not

appropriate to deal with academic misconduct issues in a general and single framework. Therefore, this study mainly aims to establish a solid evaluation ground that meets the realities and features of the Japanese language and to analyze the current relationship of Japanese learners' anxiety with academic misconduct issues that occur in the learning environment.

This paper is the first step in ongoing research and will be extended by making it available to a larger audience.

In this study, 3 goals are set in. Firstly, the reasons for the anxiety of writing in Japanese language and the consequences of the anxiety of students who are majoring Japanese language at the undergraduate level have been identified. Secondly, the knowledge and perceptions of Japanese L2 learners regarding academic misconduct through the notion of "plagiarism" is scrutinized through 5 sub-categories. Participants were asked if they had heard of the concept of plagiarism, if the given concepts were considered as plagiarism by the students, how students position the concept of plagiarism (i.e. legal issue, moral issue, technical issue, etc.), who was responsible for the plagiarism, and what factors cause plagiarism. Lastly, revealing whether there is a relationship between Japanese learners' anxiety on writing (Japanese) and their tendency to commit academic misconduct (in Japanese) will be the third goal of this study.

To fulfill the first aim, a Japanese-specific anxiety scale has been developed to measure Japanese L2 students' anxiety about Japanese writing skills. According to KMO value (0.882>0.50) the anxiety scale is considered adequate, and Bartlett's value is significant ( $p=0,00<0,05$ ). The data in this section was obtained using a 5-point Likert scale. Factor analysis technique has been applied to develop the anxiety scale that transforms a large number of variables into a limited number of meaningful independent factors. For the second aim, a structured questionnaire was prepared and the participants completed it. This questionnaire consists of questions that reveal the Japanese L2 learners' knowledge and perceptions of academic integrity through the concept of "plagiarism" and also causes of it. To see if the items were consistent with each other, Cronbach's alpha value was calculated and found to be 0.65 (declarative knowledge) and 0.66 (causing factors of plagiarism questionnaires) and these values are acceptable for the reliability (Ursachi et al., 2015). The data show that students (51.4%) are not acquainted with the concept of plagiarism and cannot agree whether a given situation involves plagiarism and also see the plagiarism as a moral issue

rather than legal or technical one. Besides, from the student's point of view (more than half), the biggest role / cause of plagiarism lies with the teacher and university administrators. Regarding the relationship between these two parameters, it can be said that anxiety-causing situations also cause academic misconduct. The lack of Japanese writing skills among students required revisions to the writing skills course in the Japanese language teaching process as a program, teaching material and method. Students cannot fully grasp the facts of academic integrity because they cannot internalize writing, which is one of the four basic language skills. These problems are the consequence of a lack of education in the Japanese curriculum. Education policy, sanctions and curriculum revisions are needed to address these deficiencies and raise awareness of academic misconduct. Lastly, while it is clear that there is a link between anxiety in writing skills and plagiarism, the tendency between them becomes clearer when this study is conducted with a larger audience. This work was supported by Çanakkale Onsekiz Mart University, The Scientific Research Coordination Unit, Project number: SYL-2022-3875

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# THE CHALLENGE OF MAINTAINING ACADEMIC INTEGRITY AND REDUCING STATISTICS ANXIETY - COMPARING BETWEEN THREE LEARNING ENVIRONMENTS

Yovav Eshet<sup>1</sup>, Pnina Steinberger<sup>2</sup>, Keren Grinautsky<sup>3</sup>

<sup>1</sup>*Zefat Academic College, Israel*

<sup>2</sup>*Orot Israel College of Education, Israel*

<sup>3</sup>*Western Galilee College, Israel*

## Keywords

Academic integrity; statistics anxiety; academic dishonesty; planned online learning; emergency remote teaching; face-to-face learning; Covid-19

## Abstract

The current research examines the impact of statistics anxiety on academic ethical behavior as manifesting in undergraduate social science students attending introductory statistics courses in different learning environments: Covid-19-Emergency Remote Teaching (ERT), Planned Online Environment (POE), and Face-to-Face (F2F) courses.

The learning environment refers to the “where” and “how” students learn whether physically, digitally, culturally, or contextually. The elements constituting a learning environment are the people in it, the technologies available, its physical layout, its social and cultural environment (Whittle et al., 2020), and the pedagogical methods employed by teachers (Popan, 2020). Learning environments involve social, psychological, and pedagogical features affecting student achievement and attitudes (Helms, 2014). Research studies have established that students’ attitudes and anxiety explain performance in statistics courses (Onwuegbuzie, 2003). Previous research comparing students’ performance in POE and F2F statistics courses have inconsistent findings (Frey-Clark et al., 2019; Scherrer, 2011).

Statistics anxiety is a common phenomenon of situational anxiety. It is defined as a momentary feeling of anxiety aroused when taking a statistic course or dealing with statistical analysis (Zahan et al., 2020), the effects of which may negatively affect performance. Statistics anxiety is a personal feeling of disturbance, uneasiness, nervousness, and fear connected to statistics (Steinberger et al., 2021). It is determined by situational antecedents and the educational environment (Steinberger, 2020).

Scholarly studies have shown that anxiety and unethical or dishonest behavior (like academic dishonesty) correlate (Kouchaki & Desai, 2015). People experiencing anxiety tend to feel self-threatened and engage in unethical acts to restore confidence (Zhang et al., 2020). More specifically, studies have shown that anxiety feelings are frequent among students and academy members. An example may be students being required to work on complex and difficult educational tasks. They often turn to dishonest behavior (Wenzel & Reinhard, 2020) to avoid situations that they identify as potentially triggering anxiety feelings.

Thus, based on the literature, we constructed a mediation model that evaluated the role of

statistics anxiety as manifesting in social sciences undergraduate students, which accounts for the relationship of previous academic achievements and academic dishonesty. We hypothesized that learning environments and the differences in the mediating role of statistics anxiety in students' learning in POE, F2F, and ERT affect the suggested mediation model.

Data were collected from students in Israeli academic institutions studying for a bachelor's degree in social sciences. There was a total of 291 participants, of whom 12% were male students and 88% were female students. Participants' average age was 22 years. The questionnaires were administered to the participants in three different types of course enrollment: 39% of the students enrolled in POE, 29% in F2F, and 32% in ERT courses, through an online platform after receiving approval from the ethics committee. Over half of the participants (53%) reported that they had committed at least one act of academic misconduct. Structural Equation Modeling

(SEM) was used to examine the relationship between students' previous academic achievements and academic dishonesty mediated by statistics anxiety.

The results of the multi-group analysis show that path coefficients differ between the three learning environments (POE, F2F, and ERT). Specifically, the results support a model in which previous math and academic achievements are significantly related to academic dishonesty mediated by statistics anxiety in a POE context only. Accordingly, POE statistics learning is less effective than F2F instruction and practice.

Our research shows that instructors' presence in the learning process reduces students' anxiety levels and unethical behavior. Thus, we recommend that in POE, the instructor's presence includes supportive, emphatic, and interpersonal interaction to reduce virtual distance. We further conclude that introductory courses in statistics need to empower students experiencing statistics anxiety for a better sustainable statistical literacy population and maintaining a high level of academic integrity.

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# SEE YOU IN COURT! GERMAN COURT DECISIONS ABOUT DOCTORAL DEGREES REVOKED FOR PLAGIARISM

Debora Weber-Wulff<sup>1</sup>

<sup>1</sup>*Hochschule für Technik und Wirtschaft (HTW) Berlin, Germany*

### Abstract

Since 2011, the VroniPlag Wiki academic group has informed universities, mostly in Germany, about over 200 cases of plagiarism in academic dissertations. In at least 85 cases, the academic degree has been revoked by the university, however, the result of many cases is still unknown.

Universities in the German tertiary system are for the most part considered to be a governmental institution. Thus, all decisions by a university are administrative in nature and can be examined in administrative court. In 22 of the VroniPlag Wiki cases that are known to have come before an administrative court, the university has won the case and the doctorate remained revoked. In one of these cases, the university first lost their case, but re-traced the administrative steps in a correct manner and won in the second round. In three cases the universities have lost, for a variety of reasons. There are also quite a number of cases not documented by VroniPlag Wiki in which doctorates were revoked for plagiarism and the university was sued.

Since court decisions can be published, usually in an anonymized form, it is possible using these decisions to discover the grounds the petitioner gave for the revocation to be repudiated, the process that the university followed and any of their rejoinders, and finally, the decision and reasoning of the court. The reasoning of the court will often cite previous cases, enabling the

discovery of additional court decisions about plagiarism.

In this presentation, a number of interesting cases will be presented, focusing on the excuses given for the text similarity and the reactions of the courts, who generally do not look kindly on such excuses. Among the cases to be discussed are:

**Ama:** The doctoral dissertation in law by a candidate from Kosovo (who has since been appointed professor there) was found by the University of Bremen to be plagiarized. The plaintiff stated, among other arguments, that different academic standards were valid in his home country. The court found in 2019 that doctoral students are required to clearly identify all material taken verbatim or as a paraphrase from other sources or literature.

**Gc:** The doctoral dissertation in political science of a German member of the European Parliament was revoked by the University of Bonn in 2011. The plaintiff stated that he wanted his thesis to be readable and thus only put footnotes at the end of each paragraph, calling this "Oxford", then "Harvard" style citation. He also felt that that statute of limitations had passed for the thesis, which was published in 2000. The court made it clear that a verbatim use of text can only be differentiated from a paraphrased text if they are identified in a different manner, and that there is no statute of limitations on published theses.

**Mm:** This doctoral dissertation in political science was published in 1987. In 1989 there was a national scandal about alleged plagiarism in the dissertation, but the University of Bonn decided not to revoke the degree at that time. In 2011 VroniPlag Wiki documented much more plagiarism in the thesis. This time, the doctorate was revoked. The legal proceedings wound their way through the German courts, with a decision handed down by the highest administrative court in 2017. This often-quoted decision found that a dissertation cannot be considered an independent achievement and the basis for a qualification if it is quantitatively or qualitatively characterized by plagiarized passages.

**Sse:** The Free University Berlin revoked this doctorate in law in 2014 on the basis of five pages copied from another doctoral thesis. Sse sued the university, asserting all sorts of errors from improper make-up of the investigating committee to the women's equality officer not being involved in the case. Sse won both the administrative court and the administrative appeals court cases on a technicality: The university had put four professors on the investigating committee, there should have only been three. Since three and four are not the same, the revocation was rescinded. VroniPlag Wiki researchers found this published court decision and were quickly able to find the doctorate in question. It soon became clear that there was much more plagiarism on at least 107 of 165 pages of the dissertation. The university was informed, and they put together another investigative committee, this time with three professors, and revoked the doctorate again. They were again taken to court, again formal errors were alleged. But this time the revocation

was confirmed by the administrative court. Sse, in the meantime, completed a second doctorate in theater studies in Switzerland.

Double plagiarism case **Csc/Chg:** In Germany it is traditional for university professors to defend two dissertations, a *promotion* and a *habilitation*. VroniPlag Wiki first documented plagiarism in the second dissertation, the *habilitation* in law of the vice president of a German university. The University of Frankfurt/Main was informed in 2016 and withdrew the *habilitation*. But just before the university withdrew it, Chg relinquished it, and thus insisted that the university could not withdraw what had already been relinquished. The administrative court saw things differently and affirmed the withdrawal. An appeal from 2019 has still not seen a date set.

The question arose as to whether or not the doctorate was also plagiarized. VroniPlag Wiki documented extensive plagiarism in this case, named Csc, as well. The university revoked the doctorate and there was a good bit of press about this case of a double plagiarism. Chg stepped down as vice president, resigned from a tenured professorship, and returned to private life. Chg sued journalists who published her name and lost, and also sued the university, stating that the dissertation was no longer relevant. The court found in favor of the university, stating quite clearly that "a change in economic, political, or social circumstances that may have caused the plaintiff's dissertation to cease to be relevant to today's day-to-day scholarly discourse cannot result in the maintenance of a wrongfully awarded doctoral degree." (Pressestelle VG Frankfurt a. M. , 2021, 22 June, translation by the author).

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# RESPONSIBLE SCIENTIFIC RESEARCH: CHALLENGES AND OPPORTUNITIES FOR ETHICS/INTEGRITY OFFICERS

Susana Magalhães<sup>1</sup>

<sup>1</sup>*I3S-Instituto de Investigação e Inovação em Saúde, University of Porto, Portugal*

<sup>2</sup>*University Fernando Pessoa*

## Abstract

In this paper, we aim to provide a reflective, argumentative and critical analysis of the role of integrity officers in promoting responsible conduct in research. We also aim to stimulate the debate on the gap that has been steadily growing between ethics and integrity in science and its impact on the threat of researchers' self-regulation.

Research Integrity is an issue of concern by universities and other research institutions due to the growing number of cases of research misconduct every year (Altman, 2006; Deer, 2011; Steneck, 2002, 2006; Baker 2016; Diab-Nuhoho and Amponsah-Ofeh, 2021). Since the 1980s, research misconduct has led to the institutionalization of bodies specifically focused on dealing with research integrity issues, such as the Office of Research Integrity in the US and the UK Research Integrity Office. However, the annual number of articles on research integrity indexed in the Web of Science™ between 1982 and 2019 has risen from none to over 200 (ISIS 2020 Global Research Report). Science is no longer a one-man business, with isolated researchers working in their own laboratories, and the number of researchers has risen sharply, while the pressure of publishing continues to grow. In an academic world that is now widely open to society, the number of stakeholders is constantly increasing. Guidelines and norms have been issued covering the different dimensions and principles of trustworthy, reliable, honest and accountable research: the Singapore Statement (2010), the Montreal Statement (2013), the Hong Kong Principles (2019) and the revised European Code of Conduct for Research Integrity (2017). Hundreds of articles have been written on the

threats to research quality, including competitive environment, pressure to publish, poor mentoring/supervision and a rewarding system based on metrics, being thus likely to promote ethical disengagement strategies. However, making a statement about unethical conduct is not enough to understand how to act to put integrity back at the heart of the system. The meaning of integrity for researchers, research institutions and policymakers is not homogeneous, being influenced by one's own experience, training and work environment. Responsible research needs to be framed within ethical boundaries and not only under the concept of integrity.

Considering that ethics in research refers to the ethical fundamentals of the relations among the different stakeholders, while integrity covers the procedural dimension of research, we propose that Integrity Officers should also be Ethics Officers, highlighting their role in researchers' training in responsible research (which covers both relational and procedural issues). Based on the example of the Integrity Officer's work at one of the most important Portuguese research performing organizations in Health Sciences (the Institute of Research and Innovation in Health, i3S, University of Porto), we will discuss the challenges and the opportunities faced by those who play this role in (biomedical) research institutions and in the research ecosystem. Regarding this matter, we will focus on three main challenges/opportunities: the need to build trust from a bottom-up approach to research ethics & integrity, while issuing compliance documents that impose top-down norms; the demand for networking among different stakeholders of the research

ecosystem; and the promotion of good scientific practices with and for society.

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# CONSEQUENCES, RULES OR VIRTUES: HOW EFL STUDENTS JUSTIFY THEIR ACTIONS?

Özgür Çelik<sup>1</sup>

<sup>1</sup>*Çanakkale Onsekiz Mart University, Turkey*

## Keywords

Ethical decision-making, utilitarianism, deontology, virtue ethics, K-12, EFL

## Abstract

As an interdisciplinary concept, academic integrity is conceptualised and defined by scholars in a variety of ways. Simply, academic integrity is a commitment to ethical values in all academic practices. To better conceptualise academic integrity, we need to understand the relationship between integrity and ethics, which are often used as interchangeable (Hoekstra et al., 2016) but are different concepts. Stanford Encyclopedia of Philosophy defines integrity as a quality of a person's character which is mainly about acting morally (Cox et al., 2021), whereas ethics is defined as understanding the nature of human values and what constitutes the right conduct (Norman, 1998). It can be argued that the main difference between ethics and integrity lies in the question they try to answer. Ethics try to answer 'how do we understand the world?' while integrity's concern is 'how do we change the world?' (Education for Justice Program, 2019). In other words, ethics is related to theory, whereas integrity is related to action. Although these two concepts are often used synonymously, they are different concepts due to the nature of the question they ask. However, this does not mean that they are unrelated. On the contrary, the values and principles that are mentioned in the definition of integrity are ethical values (Visser et al., 2010) which means that ethical theories might have influenced the conceptualization of integrity. Moreover, Audi and Murphy (2006) argue that self-standing

attributions of integrity are of little practical or intellectual value. Therefore, the approaches to integrity can be rooted in ethics. However, there are also views proposing that integrity is independent from ethical theories (Cox et al., 2021). This view asserts that integrity is a complex concept that cannot be explained with particular ethical theories.

The current integrity approaches are based on the premises of particular ethical theories. Three major ethical theories are proposed in the literature, namely, 'utilitarianism', 'deontology', and 'virtue ethics'. As a form of consequentialism, utilitarianism favours that the morality of an action depends on overall social utility. Whether an action is moral or not is based on weighing (harm/benefits, happiness/unhappiness etc.) the consequences of that particular action. However, the consequences are measured by their overall impact, not according to the decision-makers (Education for Justice Program, 2019). Some studies show that students can use the utilitarian perspective to justify their academic malpractice behaviours (Manly et al., 2015; Riemenschneider et al., 2016). In contrast to the consequentialist notion, deontology asserts that choices cannot be justified by their consequences (Alexander & Moore, 2021). Actions are moral as long as they comply with certain principles or rules and the rule of thumb

of deontology is "do unto others as you would want them do unto you" (Education for Justice Program, 2019, para. 22). Deontology is not interested in the consequences of actions. It highlights the importance of adhering to the rules. The third major ethical theory is virtue ethics. This notion rejects that consequences or duties determine whether actions are moral or not. According to virtue ethics, life is too complex to be governed by strict rules that dictate how we should act (Stewart, 2009). This holistic notion is interested in individuals rather than actions. Virtue ethics requires doing the right thing no matter what the circumstances are (Education for Justice Program, 2019).

These ethical theories underpin the academic integrity approaches and how students rationalise their behaviours. Paine (1994) proposes two governing approaches to academic integrity: rule compliance and integrity approach. The rule compliance approach adopts the premises of deontology. Bernard and Keith-Spiegel (2001) argue that this approach aims to prevent academic dishonesty by controlling student behaviours through externally imposed rules, standards and procedures. It is all about what the rules are and how they are enforced. This approach is punitive in nature (Bretag et al., 2011), and students are regarded as acting with integrity as long as they do not violate the rules. The integrity approach corresponds to virtue ethics. This approach strives to promote responsible behaviour through self-regulation. The integrity approach dictates that developing and communicating values, integrating values into education, providing assistance, identifying and resolving problems should be done through ethical decision making (Bernard & Keith-Spiegel, 2001).

Over time, the approach to academic integrity has changed from 'how do we stop students from cheating?' to 'how do we ensure students are learning?' (Gallant, 2017). Scholars started to adopt the premises of virtue ethics rather than utilitarianism or deontology in their

approach to integrity. However, students' approach to integrity is often neglected. It may be important to explore which ethical theories are more influential for students in their decision-making process. Within this scope, this study aimed to explore how secondary school English as a Foreign Language (EFL) students justify academic misconduct behaviours and which ethical theories govern their decision-making process. To do this, I created four scenarios based on four academic misconduct types which are common among second language learners, namely using machine translation tools, using paraphrasing tools, contract cheating and plagiarism. The scenarios included elements from three ethical theories outlined above. I presented the four scenarios to 165 students in five separate sessions and collected their written responses anonymously through Socrative app. I analyzed student responses to reveal how they approach to scenarios and which ethical theories govern their decision-making process. Early findings show that, based on the given scenarios 29% of the students believe that it is ok to plagiarize, 49% believes that it is ok to contract cheat, 55% believes that it is ok to use machine translation tools and 61% believes that it is ok to use paraphrasing tools. A deeper analysis of students' responses revealed that utilitarianism (55%) is the most influential ethical theory in students' decision-making process, followed by virtue ethics (27%) and deontology (18%). The results show that students are more concerned with the consequences of their actions (utilitarianism) rather than rules (deontology) in their decision-making process. These findings may not directly show that students' decision-making process are endorsed by the certain ethical theories. However, these findings suggest that it can be useful to find out which mechanisms students use to construct their ethical decision-making process. Therefore, rather than teaching students how they should act (utilitarianism and deontology), helping them embrace certain virtues (virtue ethics) when justifying their actions would yield more sustainable results.

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### CHANGING TRENDS IN ACADEMIC INTEGRITY POLICY DEVELOPMENT: IMPLICATIONS FOR POST-COVID ERA

Salim Razi<sup>1</sup>, Irene Glendinning<sup>2</sup>, Shiva Das Sivasubramaniam<sup>3</sup>, Sarah Elaine Eaton<sup>4</sup>, Özgür Çelik<sup>5</sup>, Zeenath Reza Khan<sup>6</sup>; Sonja Bjelobaba<sup>7</sup>, Teddi Fishman<sup>8</sup>, Lorna Waddington<sup>9</sup>

<sup>1</sup>*Çanakkale Onsekiz Mart University, Turkey*

<sup>2</sup>*Coventry University, United Kingdom*

<sup>3</sup>*University of Derby, United Kingdom*

<sup>4</sup>*University of Calgary, Canada*

<sup>5</sup>*Balikesir University, Turkey*

<sup>6</sup>*University of Wollongong in Dubai, United Arab Emirates*

<sup>7</sup>*Uppsala University, Sweden*

<sup>8</sup>*Consultant on Academic Integrity, United States of America*

<sup>9</sup>*University of Leeds, United Kingdom*

#### Keywords

Academic integrity policies; academic integrity culture; COVID-19 policy trends; policy types

#### Abstract

As adherence to academic integrity standards is one of the most important aims of academia, many institutions develop academic integrity policies which should be regarded as a core element by quality and qualification assurance agencies. A well-developed policy should reveal responsibilities of stakeholders and provide guidance on investigating suspected cases and delivering sanctions (Razi et al., 2021). Bretag (2013b) also remarks on the importance of a holistic and multi-stakeholder approach in the establishment of a culture of academic integrity. Policies are seen as documents providing guidance to institutions to develop a culture of academic integrity by helping them define their standards, prepare related guidelines and procedures for their stakeholders. Keeping the

policies up-to-date is as important as developing them; otherwise, an out-of-date policy may bring more harm than benefit. It is therefore essential to address the changing trends during the COVID-19 pandemic in academic integrity policies by carefully blending what was already in place from pre-COVID era literature. Thus, this presentation aims to first highlight the general framework for academic integrity policies, and then present examples of the changing trends in academic integrity policies during COVID-19.

Paine (1994) suggested two approaches: rule compliance strategy and integrity strategy. The former corresponds to the punitive approach to academic integrity, whereas the latter refers to the educative approach. Although earlier conceptions of academic integrity or responses

to academic misconduct focused on how to prevent academic malpractice and what sanctions should apply to different academic integrity breaches, Bretag (2013b) spoke of an educative approach to academic integrity where proactive measures are prioritized over detection of and reaction to academic misconduct. Such developments fundamentally changed how we formulate our questions from “how do we stop students from cheating?” to “how do we ensure students are learning?” (Bertram Gallant, 2017).

A good, robust, and holistic policy can help build a culture of integrity in an institution by emphasizing the values of integrity (Khan et al., 2019). Policies also serve the purpose of “affecting the way [values are] taught and embedded in curricula” (Bretag, Mahmud, East et al., 2011, p. 1) and good policies can help in reducing misconduct (Stoesz & Eaton, 2020). If policies are not clear, comprehensive, easy to understand or inconsistent, these can raise serious doubt on the quality of the institution’s programs, teaching and learning (Bretag, Mahmud, East et al., 2011; Tennant et al., 2007). Policies serve the purpose of contributing to quality and quality management at an institution, which will help to develop shared values stemming from genuine commitment by all stakeholders (Bretag, Mahmud, Wallace et al., 2011; Exemplary Academic Integrity Project – EAIP, 2013).

Fundamentally, integrity is based on ethical principles and values of being honest, consistent, transparent and fair to the participant, public and scientific community. Ethics provides and underpins these principles as guides for research, whilst integrity makes us practise (or carry out) these principles in our day-to-day academic lives (Malan, 2007); therefore, both ethics and integrity collaboratively support appropriate and responsible behaviour in education and research. Organisational policies are usually based on ethical values (Polowczyk, 2017), but they should be written to suit all the different discipline (or subject) areas of an institution. Policies should consider the deviations and/or exceptions to the basic ethical principles.

Academic integrity policies are meant to be holistic, inclusive, and educative (Peters, 2019). Bretag, Mahmud, Wallace et al. (2011) list five core elements to be addressed in an academic integrity policy: access, approach, responsibility, detail, and support. Access refers to the ease with which the policy can be accessed or located, read and understood by all stakeholders of the institution, be it staff, students, or faculty. Approach refers to the manner in which the concept is approached or addressed. Responsibility refers to the roles played by all stakeholders involved and what is expected of them in those capacities. Detail refers to the depth of information provided in terms of types of misconduct, severity levels, approach to deal with allegations and processes. Finally, support refers to how the process is implemented, the type of training available for all stakeholders to understand the policy, and on how the process works.

Consulting existing policies might be an effective strategy as a point of departure for those who are either writing or revising policies. Researchers involved with the EAIP identified exemplary policies in Australia that others could use as a reference point (Bretag & Mahmud, 2016; Bretag, Mahmud, East et al., 2011, Bretag, Mahmud, Wallace et al., 2011; EAIP, 2013). Although consulting exemplary policies is an approach we recommend, we caution against lifting text or passages from other policies verbatim without acknowledgement as it could be considered plagiarism. Policies themselves can model ethical decision-making and behaviour that they wish constituents to follow. Policy documents that obviously plagiarise from other sources could lead to public outrage and negative media reporting.

Institutional policies can vary according to the institutional view about academic integrity, academic misconduct or cheating. A reactive approach might be the most primitive form of policy as each academic takes individual responsibility for identifying the misconduct and its consequences. Another approach adopted by some institutions is a formal, almost judicial stance towards handling breaches of academic integrity, seeing cheating as an aberration to be punished. Detection policies focus on catching

and generating evidence about academic integrity breaches. Proactive, deterrent or preventative approaches are designed to discourage and reduce cheating in academic work. Policies that have an educative focus are based on the premise that developing skills and knowledge related to academic integrity is at least as important as punishing students for academic misconduct.

This presentation mainly aims to present examples of the changing trends in academic integrity policies during COVID-19. Despite ill-designed assessment practices during COVID-19, responsible academics and administrators were forced to rethink, redefine, and reassess

common policies. For example, invigilated examinations were not viable, and they were replaced by online open book tests, short answer questions, timed assessments etc. Some institutions have tried to introduce new preventive measures such as the controversial 'e-proctoring' (Hollister & Berenson, 2009; Kharbat & Abu Daabes, 2021; Reedy et al., 2021;) which itself created additional challenges to the integrity policies. Therefore, it is essential for the integrity policy to holistically consider the ethical principles, their exceptions, national/international legislation that underpins integrity, and most importantly the situational changes, their needs and implications.

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# MAKING ACADEMIC INTEGRITY “CONNECTIONS”: (RE)DEVELOPING NWU STANDARD OPERATING PROCEDURES (SOPS) AT THE NORTH-WEST UNIVERSITY, SOUTH AFRICA

Zander Janse van Rensburg<sup>1</sup>, Anné Verhoef<sup>1</sup>, Mariette Fourie<sup>1</sup>

<sup>1</sup>North-West University, South Africa

## Abstract

Emanating from a crucial NWU Forum, hosted by the School for Philosophy during May 2021 titled “*Cheating, dishonesty and plagiarism with online Teaching and Learning(TL). What are the students saying? Can we fundamentally change it?*”, a group of highly motivated academics established a Community of Practice for Academic Integrity (CoPAI) to address academic integrity (AI) holistically, due to the fact that academic dishonesty, under current circumstances, is addressed on a case-by-case manner. Instead, this CoPAI strives to uncover as many aspects of the phenomenon as possible to be able to develop a systematic strategy to address all related issues. This event, as a result, served the purpose of gathering relevant stakeholders of the NWU on AI, such as staff from the Quality Enhancement Office, Writing Centre, Institutional Subject-Specialist: Plagiarism, the School of Philosophy and the Centre for Teaching and Learning (CTL). Herein, these stakeholders were in agreement with the need of engaging in further critical conversations regarding AI in a holistic, nuanced, and multi-disciplinary manner at the NWU. This initial small group invited all interested academics and support staff for a conversation on AI, specifically on the possible establishment of a CoPAI at NWU.

The focus, therefore, of this paper is to share the data of these critical discussions and experiences in developing relevant SOPs, specifically for a teaching and learning context. All the relevant engagements were recorded and transcribed. Hereafter, the data was analysed through a simplified thematic analysis.

Consequently, this paper is mainly informed by two occasions: (1) the fourth forum hosted on the 18th of October and the student forum hosted on 12th March 2021; and (2) SOP development meetings. The former yielded fruitful discussions where, for instance, our student representative aptly indicated the need to close the gap on “the dichotomy of the Institution”. On the other hand, amongst the primary concern gathered from the questions posed by the participants allude to the following: (1) creating awareness of the Policy amongst students (precisely when, what, where, and by whom); (2) the perceived focus is on borderline cases, as opposed to general cases; (3) the disciplinary committee’s capacity to process a vast array of cases and the streamlining reporting process; (4) cases regarding academic misconduct amongst students who enrol for courses cross-faculty; (5) record-keeping of cases dealt with internally by faculties and the accessibility intra-faculty; (6) distinguishing between academic dishonesty and poor academic writing practice.

As it stands, this paper speaks to Glendinning’s (2014) findings of the fact that generally, institutions have either poorly defined policies (by implication, poorly defined SOPs) or little evidence of monitoring and review of academic misconduct. Therefore, during our presentation, we will share the continual development of our SOPs to create a platform for a productive conversation with the participating delegates. To this end, we will demonstrate how we applied our Policy rules, informed our process, and analysed other academic integrity or

plagiarism policies found amongst other South African Higher Education Institutions. We hope to gather feedback on our understanding of our work from external neutral observers and the valuable experience from their institutions. Therefore, the takeaway of this

session/presentation encapsulates the purpose of the European Network for Academic Integrity (ENAI) in supporting higher education institutions to work together in the field of academic integrity and specifically the sharing of best practices in responding to misconduct.

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# ENHANCING ACADEMIC INTEGRITY THROUGH A COMMUNITY OF PRACTICE - QUO VADIS? AN APPRECIATIVE INQUIRY LENS

Mariette Fourie<sup>1</sup>, Anné Verhoef<sup>1</sup>, Zander Janse van Rensburg<sup>1</sup>

<sup>1</sup>North-West University, South Africa

*"The significant problems we face cannot be solved at the same level of thinking we were at when we created them... where insanity refers to doing the same thing over and over again and expecting different results. The important thing is not to stop questioning." - Albert Einstein*

## Keywords

Academic integrity, Appreciative inquiry, community of practice, higher education, transformation.

## Abstract

In valuing the expression by Albert Einstein, rethinking academic integrity in a changing higher education (HE) landscape has become eminent, especially in the context of online teaching, learning, and assessment. Against this backdrop, the North-West University (NWU) has established a Community of Practice for Academic integrity (CoPAI) towards curbing the prevailing 'academic misconduct insanity' phenomenon, going beyond the ordinary thinking performed in normal science. This novel approach to enhance academic integrity through a CoPAI and an appreciative inquiry lens replaces the ordinary thinking about academic integrity at our institution. Prior to the CoPAI, academic integrity was valued from a segregated approach, where (i) not all levels of the institution including all management levels, all academic and support staff, and students across all faculties and campuses were brought together as a community, and (ii) the valorisation of institutional aspects, engagement, and empowerment of the lecturers, as well as engagement and empowerment of the student were treated as separate initiatives in enhancing academic

integrity. This novel approach to CoPAI in the South African context, and globally, is evident from literature.

To this extent, the overarching paradigm, the philosophical assumptions, basic beliefs that define CoPAI, and values adopted by CoPAI, are vested in a pragmatic worldview. The pragmatist worldview offers an alternative epistemological paradigm acknowledging that any attempt to produce knowledge occurs within a social context, and that knowledge is not about an abstract relationship between the knower and the known, but rather refers to an active process of inquiry by valuing different approaches as research communities (Morgan, 2014). This worldview defines how a CoPAI is thinking about academic integrity and how a CoPAI makes sense of the complexities of academic misconduct. The purpose of CoPAI is encapsulated in the establishment of a CoPAI identity at the NWU, striving to achieve actionable insights, and is the birth of a coherent and cohesive vision for academic integrity at NWU. It is the beginning of a long-term project in which CoPAI will strive to diversify and grow. Its aim is to engage in exploratory and critical

conversations in driving and promoting academic integrity on all levels at the NWU and is represented by a voluntary and spontaneous group including all NWU Faculties and Support Departments. A purposive, snowball sample was employed following the spontaneous and voluntary nature of a community of practice. CoPAI greatly benefited from the effectiveness of a community through invaluable engagements and feedback from its members. The pragmatist paradigm further afforded CoPAI the opportunity to use a methodological approach that works best to investigate how a community of practice can enhance academic integrity at a HEI. This approach is aligned with the appreciative nature of the research methodology in sharing best practices, creating, and sharing of knowledge in the form of research and practical (teaching and learning) outputs, and ultimately fostering national & international collaboration on academic integrity. This approach frames CoPAI in a conceptual structure and represents the aim and design of the study.

CoPAI adopted an appreciative inquiry as methodology. Appreciative inquiry embraces principles and theories underlying a strengths-based change approach which assumes that each social system has a positive core of strengths. Moore (2021) defines appreciative inquiry as an innovative problem-solving approach, instilling self-determined change, that focuses on solutions rather than problems only. Appreciative inquiry further embraces the constructionist nature of reality where relationships and conversations describe what is real (Watkins, 2008). This approach is deemed necessary to investigate how a CoPAI can enhance academic integrity in HE. Appreciative inquiry further promotes positive psychology and positive organisational scholarship as a theoretical framework and includes three concepts: appreciation, inquiry, and wholeness. These concepts are briefly explained taking the CoPAI approach into account.

Appreciation entails that we appreciate and recognise people (as well as their valuable contributions), building on their strengths. These collated strengths become the foundation for positive change. Within the CoPAI context, appreciation is the result of the

establishment of a community of practice. CoPAI thus attempts to embrace this community where CoPAI anticipates building relationships and engaging in conversations about the realness of academic misconduct, and how to increase and protect the integrity of qualifications at the institution. This leads to the second concept of inquiry. Inquiry is to ask questions to learn from one another and to collaboratively identify a shared vision. The auspice of inquiry drives curiosity and a desire to discover. CoPAI relies on the appreciative methodology which includes specific techniques and operational steps used to bring about positive change in the HE system driven by the 4D cycle or model. CoPAI adopted this 4D model to thematically analyse the contributions of members through hosting various forum discussions. The third concept includes wholeness. This tenet of wholeness encourages participation on all levels of an institution. In this vein, CoPAI adopted a holistic approach which includes a range of institutional aspects, empowering of the lecturer and empowerment of the student. CoPAI envisaged participation, following this holistic approach, on all levels of the institution including all management levels, all academic and support staff, and students across all faculties and campuses.

In this context, CoPAI further adopted the basic principles underlying appreciative inquiry. Firstly, the constructionist principle emphasises that appreciative inquiry is a collaborative process that assumes that when people engage in conversations, they co-construct knowledge, structures, strategies, and processes needed for a shared understanding to succeed. This principle is directly aligned with the establishment of the CoPAI. The second principle refers to simultaneity, which suggests that inquiry leads to change and generates conversations that can potentially lead to action. The third principle is referred to as the poetic principle responsible for enforcing choice. This principle holds that we choose to make a difference. These principles are specifically enacted upon through the initiative of NWU academics towards the establishment of CoPAI, envisioning transformative change in the institution. Under the CoPAI leadership, the members of CoPAI are encouraged and

motivated to collaborate and create positive and optimistic solutions to the challenges of academic integrity. Furthermore, the anticipatory principle suggests that our current actions or behaviour are shaped by the visions we hold of the future. CoPAI strives to bring about positive change in the institution by the visions we hold for academic integrity. Lastly, the positive principle suggests that lasting change is dependent on social interaction and connectedness. CoPAI strives in this regard to sustain valuable relationships and the continuity of CoPAI forum discussions on both staff and student platforms.

CoPAI hosted six discussion forums during 2021 with a strategic focus to enhance academic integrity at the NWU. Data were generated from written and spoken narratives that emanated during the forum discussions and analysed through the identification of emerging themes and conversational analysis. Ethical approval was not necessary at this stage as the data collected through the application of

appreciative inquiry were used to inform institutional practices. The ethical considerations of this study also permits presenting at conferences since it constitutes institutional research. The findings and insights of these forums helped the NWU to strengthen their effort to enhance academic integrity on different levels. This will be expanded on in this paper.

Through the adoption of an appreciative inquiry, CoPAI succeeded in identifying some crucial needs for enhancing academic integrity at the NWU. It further enabled CoPAI to ensure that our institution remains relevant, responsive, and agile within an overarching transformational framework towards student success when faced with disruptions in the HE landscape. It is also clear that this is an ongoing task and that pertinent shortcomings regarding academic integrity processes (e.g., development of SOPs) at this institution should be prioritised and addressed.

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# ACADEMIC INTEGRITY, BLENDED LEARNING AND VIRTUAL DELIVERY– SECTOR RESPONSES IN THE CONTEXT OF AN INSTITUTIONAL CASE STUDY

Michael Draper<sup>1</sup>, Alison Perry<sup>1</sup>, Joanne Berry<sup>1</sup>

<sup>1</sup>*Swansea University, United Kingdom*

### Keywords

Academic integrity, blended learning, virtual delivery, academic misconduct, grade enhancement and academic misconduct

### Abstract

This presentation will consider how Higher Education providers within the UK managed the move to virtual delivery during the COVID-19 pandemic as a framework for an Institutional case study relating to changes in assessment policy and practices. The transition to blended learning was rapid, mostly effective but not universally welcomed by students or academic staff. Assessment is essential to a successful student learning journey encompassing student engagement, assuring academic standards and facilitating the development and demonstration of the knowledge and skills of students.

With the move to online assessment programmes validated by professional, statutory and regulatory bodies frequently required remote proctoring of those assessments to ensure the academic integrity of the assessment and as a precaution against cheating practices. Remote proctoring was also adopted outside of PSRB validated programmes (QAA 2020). A high profile experience of proctoring led to the production of an Independent review of the UK Bar Standards Board's management of remote proctoring of centralised examination (Huxley-Binns et al, 2021)

A blog piece entitled 'SU Officers are Waging war against Essay Mills' (2021) identified different reasons why students during the transition to virtual education due to the COVID-19 pandemic have been prone to participating in academic misconduct.

Firstly, it is asserted that this is due to the "assumption of student knowledge in having study skills" (Lomas et al, 2021). Secondly because of, a "lack of investment in academic skills leading to lack of confidence" (para. 8). Thirdly, the authors identified over-assessment as an issue as students may be overwhelmed by the number of assessments on top of additional responsibilities including family care and working. In addition a final reason given is a, "lack of student knowledge regarding consequences".

The marketing strategies of Essay Mills are also a threat because they target students in social media, without necessarily highlighting the negative implications of their services.

As online learning and assessment has evolved so have services for other forms of academic misconduct. With the transition to online learning during the COVID-19 pandemic, services now offer "attending classes,

completing assignments, and sitting exams” (Liu, 2021, para. 1). Hence, some Essay Mills also offer attendance at Zoom lessons as well as the more traditional completion of coursework.

Central to the presentation will be an Institutional case study following the development of a principled and values-based approach to an Institutional assessment policy, consequential changes to assessment practices and the impact of those changes on grade enhancement (inflation) and academic misconduct within a particular School setting during the COVID-19 pandemic. That case study will address the management of academics and students in that School of the change to assessment and delivery and the collegiate approach to assessment design and criteria undertaken by all stakeholders including the Institutional management response. In a 2022 QAA report more than half of respondents thought the shift to digital teaching and learning

had affected students final grades, with 38% believing the shift had promoted an uplift in student grades and 16% reporting that it had lowered them. Is there a correlation between grade enhancement (inflation) and academic misconduct? Our case study will address data for academic misconduct across the two years of the pandemic as well as impact on degree classifications in the context of pre-pandemic data and provide an analysis of emerging patterns and trends.

Consequently, recommendations will be made for enhancing the student experience of online delivery and assessment and maintaining a focus on academic integrity in the context of the move away from in person learning and teaching and invigilated examinations. In short, we need to engage with and adopt principles of academic integrity as a core component of learning teaching and assessment, not something which is simply linked to misconduct.

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# DEVELOPMENT OF A COURSE-LEVEL ACADEMIC INTEGRITY POLICY FOR COLLABORATIVE, SMALL-GROUP TASKS PROMOTING ACTIVE LEARNING

Ece Zehir Topkaya<sup>1</sup>, Burcu Özge Razi<sup>1</sup>, Tunahan Kürşat İlhan<sup>1</sup>

<sup>1</sup>*Çanakkale Onsekiz Mart University, Turkey*

## Keywords

Academic integrity, course-level policy, active learning, collaborative tasks, participatory action research

## Abstract

In higher education, an academic integrity (AI) policy describes “a university’s ethical principles and values, the forms of appropriate academic behaviour, the penalties for academic malpractice, and the procedures for handling policy violations” (Anohina-Naumeca et al., 2020, p. 1). Such institutional-level top-down regulations provide a framework creating clear lines of principles, rules, and expectations that everyone within the system needs to closely observe as well as standardization in terms of management and implementation, and quality control. On a global scale, such policies are in effect at many universities and are supported by different organizational and technical means such as management boards, events, workshops, handbooks, similarity detection softwares, etc. (Anohina-Naumeca et al., 2020). However, no matter how detailed an institutional-level AI policy is, studies have shown that university academic staff is regarded as the main source of information and support in AI-related issues (Anohina-Naumeca et al., 2020; Sutherland-Smith, 2010). Therefore, under the leadership of course instructors and the participation of students, course-level AI policies need to be established to ensure students understand the pedagogical goals that underpin a course syllabus, appreciate as well as claim ownership of the values, norms, and

principles of ethical behavior it aims to foster, and benefit from the learning experiences offered in and out of the classroom growing mindful of the academic culture and honesty it tries to strengthen.

Course-level AI policies can be aligned with courses where active learning is promoted through collaborative, small-group tasks. Active learning, in essence, is described as any type of learning that includes “instructional activities involving students in doing things and thinking about what they are doing” (Bonwell & Eison, 1991, p. 5). As one of the hallmarks of good practice (Chickering & Gamson, 1987), it has become a much valued instructional approach in higher education with professionals adapting its principles in their classrooms for more than 35 years (Allsop et al., 2020). Although a range of activities falls into the spectrum of active learning, collaborative learning is a key instructional strategy to achieve student-centeredness “involving a joint intellectual effort by students, or students and teachers together. Usually, students are working in groups of two or more, mutually searching for understanding, solutions, or meanings, or creating a product” (Smith & MacGregor, 1992, p.10). There is ample evidence in the literature supporting the positive impact of collaborative group work on student learning and

interpersonal skills (Hammar Chiriac, 2014). However, creating, monitoring, and evaluating collaborative group work also requires a high level of structuring in order to minimize the obstacles that may hinder the successful completion of the tasks. Unequal contributions of the group members, unauthorized collaboration with other groups, violations of academic integrity are some most salient problems encountered. Therefore, learning collaboratively with honesty and integrity needs to be set as a learning objective for such learning experiences and be communicated to the students, which necessitates the support of course-level AI policies.

Based on this understanding, this paper reports on an ongoing study into course-level academic integrity (AI) policy development, implementation, and evaluation in relation to collaborative, small-group tasks (CSTs) used as part of a combination of active learning activities in a second-year course of a pre-service English language teacher education undergraduate program at a state university in Turkey.

Within a participatory action research (PAR) approach, the study brings together the course instructor, two graduate students who were previously involved in similar CSTs with the instructor as undergraduate students as the research team, and the students who are currently enrolled in the course. PAR was chosen since offering an empowering experience to the students from the creation of the policy to its implementation is the primary goal of the study and in the core of PAR, there is a collaborative, self-reflective inquiry that stakeholders engage in to better understand and improve the situations and activities they are involved in (Baum et al., 2006).

The study comprises four phases that spread over a 10-week period in the spring term of 2021-2022 academic year: Phase I explores pre-service teachers' perceptions, experiences,

expectations, and needs regarding collaboration, teamwork, evaluation, and AI as they intersect in the coursework; Phase II focuses on engaging all stakeholders to develop a course-specific, sustainable AI policy for CSTs; Phase III aims to help the participants to create a rubric to be used as an instrument to observe and implement the policy and enable the students to evaluate decisions, actions, and performances during the CSTs; and Phase IV aims to understand the participants' opinions about and experiences in relation to the different phases of the PAR process. This paper intends to present the results of the first two phases as the study has not been completed yet.

Quantitative and qualitative methods will be used for data collection including a survey questionnaire comprising close and open-ended questions for Phase I and focus group discussions with the participants for Phase IV. The survey will be administered to volunteered students enrolled in the course via online using Google forms and the data will be analyzed using descriptive statistics where applicable and inductive content analysis will be used to process qualitative data obtained from the survey questionnaire and focus group discussions.

The intended impact of the study is three-fold: a) developing a course-specific policy in relation to CSTs to ensure transparency, accountability, and integrity regarding their organization, management, implementation, and evaluation, b) empowering and encouraging the students to take responsibility for their decisions and actions in such tasks, and c) cultivating a professional understanding about CSTs and showcase how pre-service English language teachers can develop such policies as well as use PAR to promote educational quality in their future teaching contexts.

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# TEACHING ACADEMIC WRITING SKILLS: A NARRATIVE LITERATURE REVIEW OF UNIFYING ACADEMIC VALUES THROUGH ACADEMIC INTEGRITY

Ajrina Hysaj<sup>1</sup>, Mark Freeman<sup>1</sup>, Zeenath Reza Khan<sup>1</sup>

<sup>1</sup>*University of Wollongong in Dubai, United Arab Emirates*

## Abstract

Processes of development and application of academic writing skills necessitate the existence of critical and analytical thinking during academic reading and academic writing processes. According to Bloom's taxonomy (1956) the process of shaping our thinking behavior is separated in two main categories: a) lower and b) higher-order thinking skills. These categories are conceptualized in a hierarchical style and the purposes they are utilized for differ. A similar model of classification was developed by Newcomb and Trefz (1987) who classified the four levels of learning as the ones involved in remembering, processing, creating, and evaluating. As Klimova (2013) mentioned, the levels of evaluating and creating are an indispensable part in the development and application of critical and analytical thinking in academic writing classes. Critical thinking skills has been researched extensively for the last three decades with authors like Paul and Binker (1990), Pithers and Soden (2000), and McPeck (2016) analyzing the uses of critical thinking in social or academic settings. This study is a literature review that aimed at understanding ways of unifying values of academic writing through academic integrity.

The empirical data on cheating (Scanlon and Neumann, 2002; Blankenship and Whitley, 2000) has recently become even more alarming, with studies by Khalmetski and Sliwka (2019), Fendler, Yates and Godbey, (2018) and Roberts (2018) that highlight the need of understanding the effects of technological usage in higher education especially in the production of written work. As students are partners in teaching and

learning, there is a growing need to adopt a holistic approach to also address the issue of the use of technology and its correlation with development of academic writing and implication on instances of academic dishonesty among students in universities (Gallant, 2008; Eaton et. al, 2020). Furthermore, it is essential that educators explore ways of helping students master their academic writing skills without compromising on quality, integrity or institutional culture. The role of educators in the process of teaching and learning should have a pro-active nature and be driven by notions of academic integrity and academic values.

Lack of understanding of the utilization of technology in the online platform and the tendency to consider technology more suitable as a cheating tool that offers quick fixes to matters of research, referencing and most importantly academic writing tasks, is damaging for students, educators and the higher education as a whole (Cavaliere, 2020; Abbasi et. al, 2021). Understanding the uses of technology in the online platform to aid plagiarism should be considered as immediate for educators worldwide aiming curbing of the rampant spread of plagiarism in higher education (Akbari, 2021). For instance, technology may be utilized by undergraduate students to copy and paste material from online sources without acknowledging the sources, and in most cases hijacking the thought and taking unjustifiable complete ownership of it (Al-Thwaib, Hammo and Yagi, 2020). Other unlawful use of technology includes the cut and paste phenomenon of literal paraphrasing (Irigaray,

2020), when students change a few words of the original, combine it with other pieces of writing tending to confuse the reader (Ramalho and Silva, 2020). Another very common use of technology by undergraduate students is fake external sources, when students use different sources, mainly newspapers, google sources and Wikipedia and attribute this work to reliable academic sources found in Google scholar or university libraries (Cagé, Hervé and Viaud, 2019). This practice not only damages the image of reliability and validity but it also demolishes students' purpose and desire to learn to write academic papers and improve academic writing skills (Phippen, Bond and Buck, 2021).

There is an array of ways that we could use to exploit the factors that impact the tendency of students to plagiarize while in the online platform (Nwosu and Chukwuere, 2020). According to David and Grosu-Rădulescu (2018), Çolak and Glendinning (2021) and Tauginienė et. al (2019) these ways could include but are not limited to understanding concerns and barriers of undergraduate students with regard to the completion and online submission of academic writing tasks. Another approach of looking into the problem is through the exploration of individual, cultural and gender-based challenges of undergraduate students (Catalena, 2020). Undergraduate students as people and as students are a blend of experiences, beliefs and thoughts. For instance, if prior to joining university students have been accustomed to utilizing technology to copy and paste material giving or not giving credit to the authors but without utilizing paraphrasing and summarizing techniques then their thought needs to evolve

and they should include paraphrasing and summarizing in their academic writing craft (Lancaster, Robins and Fincher, 2019). The acceptance of adaptation has to be internally justified so the thought of applying it in academic writing tasks, aiming the creation of an appropriate sense of fair ownership, is developed progressively amongst undergraduate students (Olivia-Dumitrina, Casanovas and Capdevila, 2019; Çelik and Lancaster, 2021; Perkins, Gezgin and Roe, 2020). Furthermore, although the development of such tendencies is naturally connected with schooling systems and a certain appropriate behavior in a given society (Bašić et. al, 2019), yet it becomes an integral part of students' behavior (Sun and Hu, 2020) and it requires adequate consideration to be amended for the better, in higher education. Another challenge that the higher education faces in the online platform is the adaptation of societal or gender based preconceived ideas with regards to the purpose and value of improving academic writing skills. For instance, while many students are of the opinion that academic writing as a cumulative and complex form of writing, takes time to develop, they at the same time consider it unnecessarily for male students or for students who study natural or exact sciences such as engineering, computer sciences or even nursing (Patak et. al, 2021). While there is nothing further than the truth in such statements, yet they may be a reason for confusion amongst undergraduate students that add into the lack of desire to improve academic writing skills in undergraduate or post-graduate classes in the online platform (Zhao and Sbaffi, 2022; Tran, Marshall and Hogg, 2022).

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# RESPONDING TO MISCONDUCT WITH EDUCATION: ACADEMIC INTEGRITY REMEDIATION TO REDUCE RECIDIVISM

Kelly H. Ahuna<sup>1</sup>, Loretta A. Frankovitch<sup>1</sup>

<sup>1</sup>*University at Buffalo, United States of America*

### Abstract

Following a major faculty and student survey, focus groups, and working committees, our university rolled out revised academic integrity policies and procedures in fall 2019. Included in these new procedures is an opportunity for undergraduate students with one non-egregious offense to expunge their conduct record in the Office of Academic Integrity through successful completion of a remediation assignment. The decision to offer remediation stemmed from a number of factors, including the recognition that undergraduate students require more direct instruction in practices of academic honesty at the university level, our international students require additional support as they assimilate to the norms and expectations for academic integrity in the United States, and instructors may be more willing to report infractions if students have some opportunity for forgiveness.

The academic integrity remediation assignment began in fall 2019 and has evolved over the past five semesters to meet particular goals. Specifically, students who complete the assignment should: have an enhanced appreciation of the value of both academic and professional integrity; gain greater awareness of the range of policy violations; apply insights about academic integrity to their own practices; become familiar with authorized resources for academic assistance offered by the university; and be less likely to commit another act of academic dishonesty.

The remediation process begins with a meeting between the student and a member of the Office of Academic Integrity. This initial conversation provides an opportunity for the student to reflect on their case, what led to their choices, how their actions affect them and others within the university community, and how integrity will be important in their future professional endeavors. At this meeting, students are enrolled in the three-module assignment built within our learning management system (LMS).

Module 1 consists of a “homegrown” Prezi presentation with information about the six values associated with academic integrity (ICAI, n/d), common causes of cheating, and the culture of higher education. There are also videos of members of our university community discussing the effects of academic dishonesty on them in their various roles (i.e., fellow student, parent, professor, director of the Office of Academic Integrity). After viewing the Prezi presentation, students answer a series of short answer questions specific to their case.

Module 2 provides students with ten scenarios of academic dishonesty. For each scenario, the student must correctly label the academic integrity violation, the most likely cause of the dishonesty, the effects (both academic and non-academic) of the behavior on the student, and the effects on others (e.g., classmates, professors, families, the university).

Module 3 is dedicated to legitimate resources for help, proper citation techniques, and

paraphrasing. Since all students at the university level must be able to properly cite and attribute work, this module provides both instruction and a quiz on these techniques.

Once complete, the Office of Academic Integrity staff member reads and scores the student's work. If revisions are required, the student receives comments about what is needed and why. Students have one chance to make changes to their work. Assuming the written portion of the assignment is successful, students then have a final meeting with the Office of Academic Integrity staff member. This meeting allows students to debrief what they have learned from the assignment and how they can apply those insights to their work moving forward – both in their academics and subsequent profession.

Although the written portion of remediation typically takes 5-6 hours to complete, students are given a 60-day deadline to ensure that there is no issue with short-term conflicts (e.g., final exams, travel, illness). Because the assignment

is intended as an educational intervention to prevent students from committing future acts of academic dishonesty, there is strict adherence to this deadline. Upon successful completion of the remediation process, undergraduate students with one non-egregious offense have their record cleared with the Office of Academic Integrity, meaning that their offense would not be reported out to graduate schools or employers seeking information about student records.

This workshop will include an overview of the remediation creation and execution, what students seem to gain from it, and data on its success. Specifically, of the 954 students who have cleared their record through this process since fall 2019, only 40 (4.2%) have had a repeat offense versus the 122 repeat offenders (17.2%) of the 711 students who opted not to take remediation to clear their record. This is a statistically significant result. Other variables, such as gender, year in school, and international versus domestic status will be examined.

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### APPROACHES TO QUALITATIVE RESEARCH IN ACADEMIC INTEGRITY: CHALLENGES AND SOLUTIONS

Inga Gaižauskaitė<sup>1</sup>, Ana Cristina Veríssimo<sup>2</sup>, Salim Razi<sup>3</sup>, Shiva Sivasubramaniam<sup>4</sup>, Sonja Bjelobaba<sup>5</sup>, Zeenath Reza Khan<sup>6</sup>, Laura Ribeiro<sup>2,7</sup>, Irene Glendinning<sup>8</sup>, Franca Marino<sup>9</sup>, Lorna Waddington<sup>10</sup>, Tomáš Foltýnek<sup>11</sup>

<sup>1</sup>*Lithuanian Centre for Social Sciences, Lithuania*

<sup>2</sup>*Department of Public Health and Forensic Sciences and Medical Education, Faculty of Medicine, University of Porto, Portugal*

<sup>3</sup>*Çanakkale Onsekiz Mart University, Turkey*

<sup>4</sup>*University of Derby, United Kingdom*

<sup>5</sup>*Uppsala University, Sweden*

<sup>6</sup>*University of Wollongong in Dubai, United Arab Emirates*

<sup>7</sup>*I3S-Instituto de Investigação e Inovação em Saúde, University of Porto, Portugal*

<sup>8</sup>*Coventry University, United Kingdom*

<sup>9</sup>*University of Insubria, Italy*

<sup>10</sup>*University of Leeds, United Kingdom*

<sup>11</sup>*Masaryk University, Czechia*

#### Keywords

Academic integrity research, qualitative research, data collection methods, sample in qualitative research, quality in qualitative research

#### Abstract

Academic misconduct has been drawn around multiple and complex facets, such as psychological, motivational, situational, social, and cultural (Whitley, 1998). Simultaneously, societal changes due to globalisation, technological progress, or the recent pandemic crisis, pose new, additional, and continuously changing challenges to academic integrity researchers (Dinis-Oliveira, 2020; Draper et al., 2021). Quantitative surveys have been extensively used to measure academic integrity attitudes and self-reported behaviour of respondents (e.g., students, academics, or

stakeholders) (Amigud & Pell, 2020; Bretag et al., 2019; Curtis & Tremayne, 2021; McCabe, 2016). However, a qualitative approach, with its holistic, “detailed, flexible, sensitive and naturalistic characteristics” (Payne & Payne, 2004, p. 176) and ability to adaptively respond to evolving circumstances, can provide unique insights into the context of academic integrity, the meanings people attach to their actions and relationships between behaviour and meaning (Payne & Payne, 2004). According to Creswell (2014), qualitative research benefits from various data collection methods that are usually

applied in a natural setting where the researcher acts as a data collection instrument; therefore, Creswell considers such a design as holistic with regards to the researcher's reflective role. It has also been argued that qualitative research approaches are particularly suitable to study complex and sensitive phenomena (e.g., Tillmar, 2012; Möllering, 2006).

Thus, a qualitative approach could be applied in the context of academic integrity research to better understand students, academics, or corporate perceptions of ethics and/or ethical behaviour, integrity, or misconduct, to study motives behind their choices in sensitive situations or situations that pose an ethical dilemma, to explore participants' perspectives on academic integrity policies or to gain unexpected insights in many other aspects.

During the workshop, we shall attempt to explore both the advantages that a qualitative approach can bring to researching academic integrity as well as solutions to resolve challenges that can arise from qualitative methods. As the scope of this discussion could be extensive, we will limit the workshop to three questions:

1. What qualitative data collection methods have participants used (or would consider using) in their academic integrity research and why?
2. How can sampling be managed in qualitative research on academic integrity?
3. How can the quality of qualitative research on academic integrity be evaluated?

The workshop organisers will encourage participants to share their ideas and experiences about using innovative or less common but potentially beneficial approaches to qualitative data collection. Moving beyond the more traditional qualitative methods employed in academic integrity research (e.g., interviews or focus group discussions), for example, visual analysis of mind maps was recently applied by Janczukowicz & Rees (2017) as an innovative

approach to collect data exploring understanding of and relationships between academic and professional integrity concepts among medical students.

When it comes to sampling, qualitative research uses non-representative, small samples as it focuses on "the specific, and its meanings, not explaining wider processes" (Payne & Payne, 2004, p. 209-210). 'Who' is selected goes hand-in-hand with 'what is discovered'; research participants are purposively selected based on their interest and suitability, the cases have to be information-rich and thus statistical randomness usually does not apply to qualitative sampling (Hennink et al., 2011; Patton, 2002; Payne & Payne, 2004). During the workshop, we will discuss how sampling decisions unfold in the design of academic integrity research, whether researchers face any specific challenges and, if so, what solutions they have applied or can suggest.

Evaluation of validity and reliability are essential for all types of research methods, but evaluating qualitative research requires a different approach to quantitative. Creswell (2014) relates qualitative validity with the accuracy of the results and qualitative reliability with the consistency of the researcher's approach. Flick (2007a; 2007b) proposes quality assurance principles which, according to him, should accompany the qualitative research process, from planning (e.g., principles of adequacy, openness for diversity) and implementation (e.g., a balance between rigour *and* creativity, consistency *and* flexibility) to dissemination (e.g., transparency, feedback). During the workshop, we will encourage participants to share how they approach quality assessment in qualitative academic integrity research or if there are any specific challenges arising from it.

The workshop organisers will explore all these aspects with workshop participants to co-create a roadmap for qualitative research in academic integrity. The purpose of the roadmap will be to support researchers when they are planning and conducting different designs for qualitative research. Co-creation has been shown as a productive approach to collaborative development of innovative tools and has been

used as a method in exploring different areas including tackling “super-wicked problems” such as climate change (Mauser et al., 2013; Wibeck et al., 2022), but also as a usable approach in higher education pedagogy (Iversen & Pedersen, 2017) including ethics education (Bombaerts et al., 2021). Co-creation workshops support identification of challenges within a particular field and can help participants to create new knowledge.

The workshop will include:

1. A short introduction about the potential of adopting a qualitative approach and data collection methods in academic integrity research.
2. Group discussions: We plan to divide the participants into 3 subgroups. Each subgroup will be dedicated to one question (as stated above). Also, adjusting to the hybrid mode of the conference, the groups will be split by mode of participation - remote or face-to-face.

3. Plenary discussion: Each group will present key points of their discussion. Overall conclusions will be drawn as well as highlights for future research.

With the informed consent of workshop participants, we will take notes of both group discussions and plenary discussions, taking care to ensure the anonymity of participants. These notes will be further incorporated into a post-conference publication reviewing the application of qualitative approaches to academic integrity research.

The co-creative nature of the workshop presumes mutually beneficial exchange between workshop organisers and workshop participants: a pre-workshop handout will be distributed to participants with an initial idea for a roadmap for application of qualitative research, leaving space for notes arising from the workshop; the workshop organisers will gain new insights stemming from workshop participants on application of qualitative approach in academic integrity context.

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# GUIDELINES ON THE TRANSITION FROM ACADEMIC INTEGRITY TO ETHICS IN CITIZEN SCIENCE

Eglė Ozolinčiūtė<sup>1</sup>, Sonja Bjelobaba<sup>2</sup>, Julija Umbrasaitė<sup>1</sup>

<sup>1</sup>*Office of the Ombudsperson for Academic Ethics and Procedures of the Republic of Lithuania, Lithuania*

<sup>2</sup>*Uppsala University, Sweden*

### Abstract

Citizen Science has many essential and intertwined features that are inseparable, therefore an attempt to find one single and universal definition of citizen science may be too broad. For example, sometimes Citizen Science is described as “scientific work undertaken by members of the general public, often in collaboration with or under the direction of professional scientists and scientific institutions” (Storksdieck et al., 2016). Other researchers define Citizen Science as “a growing practice in which scientists and citizens collaborate to produce new knowledge for science and society” (Vohland et al., 2021). Eu-citizen.science describes it as “any activity that involves the public in scientific research and thus has the potential to bring together science, policy makers and society as a whole in an impactful way” (Eu-citizen.science, 2022). Through Citizen Science people can participate in many stages of the scientific process. Universities may involve citizen science practitioners in the research projects that require human-based analysis of “large and varied data sets”; studies that include “data generated by individual citizens” (e. g. biomarkers or behaviours); research that exploits “devices to aggregate volunteer sensor or computer networks”; research that is based on “distributed observations” in a large geographical area (Wyler et al., 2016). Involving the public in research poses a set of ethical

questions that differs from those common in research ethics. Students and researchers are or might be involved and/or lead citizen science projects and therefore might have questions on how to address ethical concerns emerging in Citizen Science. Hence, there is a need to explore the transferability of ethical skills and the knowledge gained within academia (e.g., through studying and research conduct) into citizen science activities and to raise awareness of academia on customised ethical training in this regard. Taking this into account, we have developed the guidelines designated for master and doctoral students and their supervisors to carry out Citizen Science -related research activities in line with values of academic integrity. The guidelines provide guidance on how to follow ethical principles within Citizen Science -related research activities.

We used the following methodological approach to develop the guidelines. At the initial stage, the project team reviewed the scientific literature about linkages of academic integrity and citizen science, i.e., how the core values of academic integrity are explored in Citizen Science, using such international databases, as EBSCO, JSTOR and others (Uppsala University Database, 2021). For our search we used some filters, such as language (only English), title (such booleans, as “academic integrity AND citizen science”, “academic ethics AND citizen science”, “research integrity AND citizen science”,

“research ethics AND citizen science”), type of content (only full-text peer reviewed publications). Our search resulted in 0 items. Afterwards, we applied a different strategy to identify relevant sources in the field of citizen science ethics, which is that we harnessed our expertise in the field and refined our search by trying to identify the fundamental values of academic integrity (ICAI, 2018) in the papers that focus on citizen science ethics. We ended with a pool of around 150 sources. After perusal, we listed the relevant topics for further discussion. Within the project team we held a discussion that helped to short-list the most relevant topics in the guidelines: Privacy and Confidentiality, Informed Consent, Conflicts of Interest, Data Quality and Data Management, Use of Technology, Verification of Findings, Intellectual Property, Power Imbalance, Institutional Oversight. We also invited experts in Citizen Science from partner countries to contribute with illustrative examples for these topics.

We structured our guidelines into four sections: Introduction, Methodological approach, Recommendations and Bridging. Each recommendation consists of both a concise and

extensive description of a recommendation, gamified cases (developed by the project team) that exemplify the guideline, references and further readings.

In this workshop, we aim to enrich the bridging pathways for the Guidelines. To do so, using the World café method (WorkshopBank, 2022) we will introduce the concept of Citizen Science and the Guidelines on the transition from academic integrity to ethics in citizen science to the participants and then the participants will be invited to share their insights. The use of the World café method will help to expand the list of project-team developed bridging pathways; therefore, the workshop organisers will take notes to preserve the feedback from the workshop participants that will be used to further improve the Guidelines. Accordingly, the workshop participants will benefit from some takeaways, such as broadening their knowledge on how to facilitate the transfer of ethical skills from academic integrity into Citizen Science.

The Guidelines have been developed as an output of Erasmus+ project *Bridging Integrity in Higher Education, Business and Society* (BRIDGE, 2020-1-SE01-KA203-077973).

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# ACADEMIC INTEGRITY AND THE SHIFT TO MULTIMODAL ASSESSMENT

Dimitar Angelov<sup>1</sup>

<sup>1</sup>*Coventry University, United Kingdom*

### Keywords

Multimodality, assessment literacy, academic integrity, contract cheating

### Abstract

To address the needs of an increasingly digitalised professional and public life, universities have sought to cultivate a new type of communication skills through multimodal assessment tasks that rely on the potential of meaning-making resources in addition to writing, such as image, speech and sound (Ross et al., 2020). This trend, already evident in higher education across the developed world in the 2000s and 2010s (Archer & Breuer, 2015; Archer & Breuer, 2017), accelerated exponentially during the sudden transition of teaching and learning from onsite to online in the wake of the COVID-19 pandemic breakout (Xie et al., 2021; Rof et al., 2022). The phenomenon of 'multimodality' (Kress & van Leeuwen, 2001; Kress, 2010) has thus become a key new factor in the university assessment process which affects how academics design, regulate and appraise student assignments, including monitoring their compliance with academic integrity rules.

In this workshop, I will draw on the results of a UK-based research project on the pedagogic uses of the academic poster, which I will present

as a case study of the opportunities and potential challenges that multimodality offers for preventing plagiarism and contract cheating. I will analyse how the multimodal nature of the poster as an assessment task has altered the requirements for the development of students' assessment literacy (Price et al., 2012), and how current university procedures and tools ensuring academic integrity (e.g. the use of plagiarism-detecting software) have been affected by this change. In light of the academic poster case study, participants in the workshop will be invited to discuss a series of prompts and questions, including:

- To what extent can multimodal assessments be seen as an effective plagiarism prevention strategy?
- Can multimodal assignments present further challenges to prevent and detect cases of academic misconduct?
- What assessment design guidelines might be established to minimise the risk of academic misconduct when multimodal assessment tasks are concerned?

- What multimodal assessment genres can be offered as alternatives to written tasks, and what their benefits may be beyond ensuring academic integrity?

The workshop will conclude with the development of a framework of basic pedagogic principles that need to be taken into consideration when multimodal assignments are designed, overseen and assessed. The framework will be based on the discussion with

the workshop participants, but will also reference the nine assessment strategies developed by Bloxam and Boyd (2007, pp. 63–64) to limit academic misconduct and, specifically, plagiarism in student writing. These include: requiring current and unique assessment content, avoiding unequal distribution of assessment in a term, requiring an auditable trail, making assessment tasks engaging.

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## Concurrent Session 8 | Room 1

# ACADEMIC INTEGRITY AND RESEARCH ETHICS AS TRANSDISCIPLINARY FIELDS OF RESEARCH

Sarah Elaine Eaton<sup>1</sup>

<sup>1</sup>*University of Calgary, Canada*

### Keywords

Academic integrity, research integrity, transdisciplinary research, theory, methodology

### Abstract

Academic integrity and research ethics are not only areas of administrative and professional practice, but they are also research areas. In this session I explore the various facets of academic integrity and research ethics as areas of transdisciplinary scholarship including the historical development of the field; the plurality of methodological approaches used; and the diversity of theoretical and conceptual foundations that underpin the research. I explore threats to the development of the field such scholarship being dismissed or discounted by peers from different disciplinary backgrounds; and increased tensions when trying to navigate peer review. I conclude with a call to action for increased tolerance of methodological, theoretical, and axiological diversity and for cultivating deeper appreciation for research designs and approaches that differ from one's own disciplinary training.

As Bretag (2019) pointed out, the United States has led the way in large scale quantitative surveys, and Australia has led the way with research related to contract cheating. Bowers (1964) has long been credited with launching research into academic misconduct on a large scale (see Bowers, 1964), and later partnered with another prominent academic integrity

scholar, Don McCabe (McCabe & Bowers, 1994). Research has extended beyond Anglo-European countries facilitated, in part, by the European Network on Academic Integrity (ENAI).

Academic integrity research, in particular, has developed into a field of scholarship that includes, but is not limited to policy analysis (e.g., Çelik & Razi, 2021; Foltýnek & Glendinning, 2015; Glendinning, 2013); research on plagiarism and text matching software (e.g., Curtis & Vardanega, 2016; Dlabolová & Foltýnek, 2021; Foltýnek et al., 2019; Weber-Wulff, 2016); and studies relating to teaching, learning, and assessment (e.g., Bretag & Harper, 2017; Ellis et al., 2019). In addition, the study of research integrity and ethics has also proliferated in recent decades (e.g., Hyytinen & Löfström, 2017; Israel, & Drenth, 2016). These examples are by no means exhaustive.

Academic integrity and research ethics have evolved into a transdisciplinary field of scholarly inquiry. Lawrence (2010) defines transdisciplinary scholarship as addressing complex problems from diverse and heterogeneous domains which cannot be solved by any singular group. Scholars collaborate across academic disciplines and

across multiple stakeholder groups that includes researchers, educators, professionals, policy-makers, students, industry, and others. Lawrence (2010) notes that the need for cross-fertilization of knowledge and experiences from diverse groups, drawing from different methodologies and theories to develop action-oriented solutions.

The definition of transdisciplinary scholarship fits well with research into academic integrity and research ethics. As research in our field has developed in both breadth and depth, so too, has it become more complex. As the global academic integrity and research ethics community grows, there is a concomitant need to develop tolerance for methodological diversity, theoretical and philosophical divergences, and even axiological variances. Peels et al. (2019) explore the notion of “value pluralism” in research integrity as an area of *professional practice*, but to date, there has been little inquiry into the need for pluralistic approaches to integrity and ethics as *fields of scholarship*.

In this session, I outline key methodological approaches including qualitative, quantitative, mixed methods, experimental, interpretivist, and humanistic (including literary), highlighting how particular methodological approaches are influenced by scholars’ fields of disciplines. For example, English compositionists have contributed to the field through scholarly essays (e.g., Howard, 1992, 1999); while social scientists and others have focused on the collection of data from human participants for quantitative (e.g., Curtis & Vardanega, 2016), qualitative (e.g., Adam et al., 2017), and experimental studies (e.g., Rettinger & Kramer, 2009).

Then, I examine theoretical and conceptual approaches that have been used in academic integrity and research ethics scholarship over several decades including the theory of planned behaviour (Ajzen, 1991), critical discourse analysis theory (as used by Sutherland-Smith (2011), for example) and organizational development theory (as used by Bertram Gallant and Drinan (2008), for example).

I explore the possibility of threats to the development of research into academic

integrity and research ethics scholarship, such as scholarship being dismissed or discounted by peers from different disciplinary backgrounds; and increased tensions when trying to navigate peer review. Dismissals of others’ research can be a form of professional incivility that can extend into its own form of misconduct (for details on professorial misconduct, Braxton et al., 2011). The issue of finding reviewers who have sufficient expertise, time, and interest to review papers within this broad field of research is a topic that remains understudied, but is a pragmatic aspect of quality assurance. Complexities can arise when reviewers are tasked with assessing papers for which they have little disciplinary, methodological, or theoretical expertise. I contemplate examples of reviewer interference, such as reviewers demanding that manuscripts be changed to the passive voice when the researcher has been trained to write in the active voice, as one example. I contend that such tensions pose threats not only to the development of the research, but to the scholarly community as a space of civil discourse.

I conclude with three calls to action. First, I call for *increased awareness* of the transdisciplinary nature of academic integrity and research ethics as fields of research. Second, I call for intentional and *sustained tolerance* for methodological and theoretical plurality. Finally, I conclude with a call to go beyond awareness and tolerance, to cultivate *deep and genuine appreciation* for research designs and approaches that differ from one’s own.

An obvious limitation of this work is that this scholarly inquiry is constrained by my own academic training, which spans the humanities and social sciences, leaving me without lived experience in other fields, including, but not limited to sciences, technology, engineering, mathematics, and medicine (STEMM), health and medical sciences, and so on. Despite these limitations, I offer this analysis to promote discourse among academic integrity and research ethics scholars as one aspect of the continued development of our research as a global community.

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# RESEARCH ETHICS AT THE UNIVERSITY OF PORTO: A STUDY USING THE ENAI SELF-EVALUATION TOOLS

Fernanda Leite<sup>1</sup>, Ana Cristina Veríssimo<sup>2</sup>, Sandra F. Gomes<sup>2,3</sup>, Shiva D. Sivasubramaniam<sup>4</sup>, Milton Severo<sup>1,5</sup>, Laura Ribeiro<sup>2,6</sup>

<sup>1</sup>*Institute of Biomedical Sciences Abel Salazar, University of Porto, Portugal*

<sup>2</sup>*Department of Public Health and Forensic Sciences and Medical Education, Faculty of Medicine, University of Porto, Portugal*

<sup>3</sup>*Department of Biomedicine, Faculty of Medicine, University of Porto, Portugal*

<sup>4</sup>*University of Derby, United Kingdom*

<sup>5</sup>*Institute of Public Health, University of Porto, Portugal*

<sup>6</sup>*IS-Instituto de Investigação e Inovação em Saúde, University of Porto, Portugal*

## Keywords

Research ethics; responsible research practices; researchers; ENAI self-assessment tools

## Background

Researchers are expected to employ responsible research practices throughout all stages of designing, implementing, reporting, and publishing a study, as well as to support others (e.g., colleagues, mentees, etc.) to do the same, contributing to open, inclusive and ethically sound research environments (Forsberg et al., 2018; Sivasubramaniam et al., 2021). Despite this, research integrity has been a global concern, recently heightened by the multiple issues around pseudoscience, fake news, questionable research practices (QRPs) and misconduct brought to light during the Covid-19 pandemic (Bramstedt, 2020).

Research ethics as the “compliance with ethical and professional principles, standards and practices” (p.38), and responsible conduct of

research as considering its “potential impact on subjects of research and wider society” (p.38) are key to ensure the validity and trustworthiness of research (Tauginienė et al., 2018). Scientists who breach these standards, either due to lack of knowledge, preparation and/or support from ethically ill research environments, or by intentionally engaging in fraudulent behaviour such as data fabrication, falsification, or plagiarism (FFP), compromise the value and credibility of research (Fanelli, 2010; Yu et al., 2021). These acts undermine the ethics and quality of scientific work, as well as society's trust in science, researchers, academic institutions and professional bodies (Fanelli, 2009; Forsberg et al., 2018; Tauginienė et al., 2018).

## Objectives

This study aims to assess practices, knowledge and perceptions towards research ethics

among faculty and researchers at the University of Porto.

## Methods

Researchers at academic and research institutions in the University of Porto will be considered for this quantitative, cross-sectional study. The Academic Integrity Self-Evaluation Tool for Researchers (AISETR) developed by international experts of the European Network for Academic Integrity (ENAI) (Gaižauskaitė et al., 2020) will be applied to assess participants' practices, knowledge and perceptions towards research ethics in the following domains: 1) Policies and practices, 2) Questionable research

practices, 3) Reporting and publication and 4) Commitment to responsible conduct of research. As it is the first time the tool is being used for data collection purposes, validation tests will also be conducted. This study will be carried out (online/ in-person, based on available conditions) from mid-March 2022 and will follow the ethical principles approved by the Ethics Committee of the University of Porto. The preliminary results for this presentation will be available by mid-April 2022.

## (Prospective) Results

This study is part of a master's dissertation integrated in an institution-wide project taking place at the University of Porto, in collaboration with the ENAI. The results presented during this session will provide an insight into the practices, knowledge and perceptions towards research ethics in both faculty and researchers at the

University of Porto. These results will allow the identification of deficiencies and areas of improvement which can be overcome through more training in research. The benefits and challenges of a newly used tool to assess research ethics will also be addressed.

## Conclusions

The outcomes of this research work will be discussed against recent literature. Based on this, the authors will recommend useful strategies that academic institutions, research centres and researchers themselves can adopt to promote responsible research practices and

avoid fraud and misconduct risk. Ultimately, these recommendations should help fostering excellence of scientific research and good quality science which are key for society's advancement and trust in science.

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# APPLYING THE ENAI SELF-EVALUATION TOOLS TO ASSESS STUDENTS' ACADEMIC INTEGRITY AT THE UNIVERSITY OF PORTO

Ana Cristina Veríssimo<sup>1</sup>, André Cambra<sup>1</sup>, Pedro Oliveira<sup>2,3</sup>, Paula Mena Matos<sup>4</sup>, Milton Severo<sup>2,3</sup>, Laura Ribeiro<sup>1,5</sup>

<sup>1</sup>*Department of Public Health and Forensic Sciences and Medical Education, Faculty of Medicine, University of Porto, Portugal*

<sup>2</sup>*Institute of Biomedical Sciences Abel Salazar, University of Porto, Portugal*

<sup>3</sup>*Institute of Public Health, University of Porto, Portugal*

<sup>4</sup>*Faculty of Psychology and Education Sciences, University of Porto, Portugal*

<sup>5</sup>*I3S-Instituto de Investigação e Inovação em Saúde, University of Porto, Portugal*

## Keywords

Academic integrity; higher education students; ENAI self-assessment tools

## Background

Higher Education Institutions (HEIs) have at the heart of their mission the promotion of their students' learning and ethics (McCabe et al., 2001). By fostering students' compliance with academic integrity values of honesty, fairness, trust, responsibility, and respect for others (International Center for Academic Integrity, 2014; Tauginienė et al., 2018), HEIs are contributing to a fairer educational system where students engage in meaningful learning experiences and to ensure future workforce is adequately prepared to fulfil their social and professional responsibilities (Glendinning, 2020; Keener et al., 2019).

Academic misconduct has been a widespread practice among higher education students (McCabe et al., 2001; Whitley, 1998). Therefore, HEIs should continuously monitor and reflect upon institutional approaches to strengthen academic integrity and mitigate misconduct (McCabe et al., 2001). At this level, assessing to what extent students understand and comply with integrity principles in their academic practice, as well as student perceptions of the drivers behind academic misconduct is paramount to better guide future research and HEIs actions (McCabe et al., 2001; Whitley, 1998).

## Objectives

This study aims to assess practices, knowledge and perceptions towards academic integrity in

higher education students at the University of Porto.

## Methods

International experts of the European Network for Academic Integrity (ENAI) have developed an Academic Integrity Self-Evaluation Tool for Students (AISETS) (Gaižauskaitė et al., 2020), as well as for other relevant stakeholders such as teachers and researchers which, although initially developed with a pedagogical purpose, are currently being adapted for research data collection. The AISETS assesses students' practices, knowledge and perceptions towards academic integrity in three major areas: 1) Study skills, 2) Academic writing and 3) Plagiarism,

using multiple-choice and Likert scales. The tool will be applied cross-sectionally to first year Portuguese students attending different courses at the University of Porto for initial validation and data collection on the above contents. Data collection (online/ in-person, depending on available conditions) is scheduled to start by mid-March 2022. The preliminary results for this presentation will be available by mid-April 2022. This study will follow the ethical principles approved by the Ethics Committee of the University of Porto.

## (Prospective) Results

This study is part of a PhD thesis integrated in an institution-wide project taking place at the University of Porto, in collaboration with the ENAI. The results should provide a multi-campus

overview of students' practices, knowledge and perceptions towards academic integrity at the University of Porto.

## Conclusion

Overall, this study will be a first step to validate a tool that has the potential to provide valuable comparative data across institutions to help advance academic integrity. The results can be used by HEIs at the University of Porto to

enhance their interventions to foster academic integrity practices, knowledge and attitudes among their students, thereby helping to prepare ethically responsible professionals who will contribute to a better society.

## Intended practical implications

During this session, attendees will benefit from the authors' insights regarding: i) the strengths and challenges of a newly used tool to assess students' academic integrity; ii) gaps in students' knowledge, practices and attitudes towards academic study skills, academic writing

and plagiarism; and iii) useful strategies, based on both the findings of this research work and recent literature, that HEIs, teachers and also students can adopt to uphold responsible academic practices and counteract misconduct among students.

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# ARTIFICIAL INTELLIGENCE LED THREATS TO ACADEMIC INTEGRITY

Thomas Lancaster<sup>1</sup>

<sup>1</sup>*Imperial College London, United Kingdom*

### Abstract

The academic integrity community often focuses its attention on the threat of contract cheating (Clarke and Lancaster, 2006), where a student can pay or use a third party to have original academic work produced for them for assessment. By contract cheating, a student is bypassing learning and stands to gain academic credit that they do not deserve.

Recent years have seen the world embrace the power of artificial intelligence, even though this is often considered as something of a black box by the general population, including many educators. There are automated tools out there which will generate written content (and more) for a variety of tasks, ranging from blog content, to sales copy, to social media posts, to essays and assignments. Lancaster (2022) has identified these as a major challenge to academic integrity.

The power of the systems available today extend far beyond the essay spinning and paraphrasing tools explored elsewhere in the literature.

A quote relating to how contract cheating providers will embrace robotic writing software is telling:

*“Premium content services are emerging that enable you to write essays for other people, but don't require that you deliver them yourself. They rely on AI to deliver completed*

*assignments or texts that are as good as or better than human writers. As these AI technologies mature, they will spawn a new business model in which writers, editors and proofreading companies compete against one another for custom content assignments.”*

The quoted text represents one vision of where the contract cheating industry is heading, but this isn't a quote in the traditional sense as it has been generated using an automated writing service, which has also checked this using its own internal systems that suggest this writing is plagiarism free. Now, due to the way in which much artificial intelligence based writing software works, there are likely to be similar ideas expressed online that use different forms of phrasing, but the whole quote is telling. Indeed, it is very probable that current writers for contract cheating firms are using automated writing software to speed up their production of essays and assignments and to increase their revenue.

This session will provide a case study based introduction to the artificial intelligence based tools available to students to assist with their assessments, which is intended to appeal to delegates without a specialist computing background. The focus will be on tools operating in the English language. The session is intended to help those attending to be aware of where the assessment landscape is heading

and to help them to consider how to work with technologies like the ones being explored in the future.

The outline plan for content for the session (and potential accompanying written chapter) is as follows:

- An introduction to automated writing tools and the bigger picture in which they operate, including their real-world commercial applications
- A small amount of technical detail into GPT-3 and other technologies that form the basis for automated writing, enabling attendees to understand some of the magic inside the “black box”
- Case studies of some of the tools available for automatic writing and the type of output they produce, showing that they can provide support for a variety of assessment types
- The extension of artificial intelligence-based generation techniques to assessment types other than simple written exercises, such as literature reviews and computer programming

- The current early status of work to detect text that has been automatically generated
- The implications of this technology for future assessment and how this relates more widely to the future of the contract cheating industry

This will be a largely practical and case study-based session, but some appropriate academic sources will be included as background. This is a fast-moving field, so the session content is subject to updates.

As the session will show, most current automated writing software will not produce perfect essays out of the box, but technology is improving all the time and there are Computer Scientists working on this problem, perhaps unaware of the unintended consequences for student assessment. Contract cheating became a massive threat for education precisely because this was not widely talked about from an early point. The intention of sharing this information with attendees early is to try and avoid a similar threat developing from artificial intelligence-based writing systems.

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# A RULE-BASED DECISION SUPPORT SYSTEM FOR DETECTING, REPORTING, AND SUBSTANTIATING CONTRACT CHEATING WITHIN ASSIGNMENTS IN COMPUTING COURSES IN UK HIGHER EDUCATION

Suraj Ajit<sup>1</sup>, Aparna Maikkara<sup>1</sup>

<sup>1</sup>*University of Northampton, United Kingdom*

## Abstract

Contract cheating is a global challenge to Higher Education and has increased with the onset of COVID-19 (Erguvan, 2021; Hill et al., 2021). It is an extremely serious issue in computing courses, particularly in relation to programming (Lancaster et al., 2019; Luxton-Reilly et al., 2018). Contract cheating can also be more broadly termed or redefined as assignment outsourcing (Awdry, 2021) because cheating need not explicitly be based on a specific contract. This could involve getting part or the whole assignment done by family or friends. Contract cheating brings serious disrepute to universities and devalues higher education qualifications. Contract cheating can have major consequences for public health and safety when students enter professions based on work produced by outsourcing (Dawson et al., 2020). It is also unfair on students who do not cheat and have worked hard to earn their degree. In the UK, Quality Assurance Agency (QAA) have stressed how contract cheating is an extremely serious matter when compared to plagiarism because of the deliberate, intentional decision of a student to engage a third-party to complete work (“Contracting to Cheat in Higher Education. How to Address Contract Cheating, the Use of Third-Party Services and Essay Mills. 2nd Edition, The Quality Assurance Agency for Higher Education,” 2017). QAA have also acknowledged that “... if a student is determined to find a way to use an essay mill, they will do so. Therefore, the greater deterrent will lie in

detection of their use – detection is now the priority.” Assessment design can help in the reduction of cheating, but no assessment should be considered as cheat proof.

Detection of contract cheating is time-consuming, onerous, and difficult. There is considerable amount of work done in developing software tools and methodologies to aid detection of contract cheating. Findings have suggested that software may be an effective component for universities to detect contract cheating (Dawson et al., 2020). Examples include Turnitin’s Authorship Investigate tool, stylometrics (Ison, 2020), keystroke dynamics (Byun et al., 2020) and intelligent decision comments (Renzella et al., 2020). It must be noted that none of these software tools/techniques can be used to accurately detect or substantiate contract cheating. This would still require human judgement after careful review of the evidence together with other information such as student viva/interview performance and academic engagement to determine the balance of probabilities if contract cheating has occurred. Hence, our research project hypothesized that an intelligent decision support system (or expert system) corroborating evidence from different tools and sources could improve the efficiency of detecting, reporting and substantiating contract cheating.

The research explored the possibility of using a rule-based expert system utilizing forward chaining algorithms to support decision making of markers and academic integrity officers. A pilot study was conducted within a UK university. The process of detecting, reporting, and substantiating contract cheating within that university involved several stages: (1) The marker finds cues and suspects contract cheating to have occurred. He/she/they may then invite the student for a viva/interview to gather further evidence. On suspicion of contract cheating, the marker needs to fill in a standard referral form provided by the university. A summary of the reason(s) for referral needs to be stated in this form. The form then needs to be sent to the administration team together with all the evidence. (2) The administration team sends this form to one of the Academic Integrity Officers (AIO) appointed by the university. These officers are usually academics who are trained and given the responsibility of investigating academic misconduct cases. The AIO reviews the submission (referral form and evidence) and invites the student for an interview. Following interview and further investigation, the AIO decides on whether academic misconduct has occurred, the type of penalty and if the case needs to be referred to a panel for further investigation. The reasons for the decision need to be stated in the form. (3) The Panel makes the final decision based on the facts of the case and evidence provided.

The above process has been known to be time consuming particularly during COVID-19 with the high volume of cases and limited resources. Students could face significant delays in receiving case outcomes. The high workload involved in detecting and reporting cases could deter markers from doing so. Moreover, there is also the need to ensure consistency and accuracy of decisions taken. To this end, our

research project designed a rule-based expert system to support decision making of both markers and academic integrity officers. The expert system makes use of facts and rules to support the marker in detecting contract cheating. The system generates an academic integrity score for each case and flags the marker on whether he/she/they need(s) to invite the student for a recorded viva-voce. For large class sizes, it is time consuming, tedious, and laborious for markers to conduct a viva-voce for all students. The system aims to alleviate this problem by shortlisting students for viva-voce. The integrity score is calculated by acquiring data from the marker (e.g., irregularities in assignment (references or methodology used) and combining it with that of others such as learning analytics (engagement), Turnitin (low similarity), assessment weightage and grade history. A dashboard indicates all the parameters contributing to the integrity score. Following viva-voce, the marker enters viva notes into the system and decides on whether to refer the student for suspected contract cheating. The system assists in autocompletion of referral forms. Further, the system supports the AIOs by displaying a dashboard that integrates data of the student's performance/record in other modules/assignments. The algorithm of the proposed system was tested using a small sample of marked assignments from previous years. Preliminary evaluation of the prototype design of the proposed system was conducted by interviewing a lecturer and an AIO. The interview was structured and comprised of largely closed-ended questions including the use of Likert Scale. Feedback received is encouraging and both agreed that such a system would improve the efficiency of detecting, reporting and substantiating contract cheating. Work is currently underway to fully implement the system and evaluate it using a larger sample of assignments.

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# EXPLORING TEACHERS' PERCEPTION OF PARENTAL INVOLVEMENT DURING PRIMARY SCHOOL ASSESSMENTS IN A MIDDLE EASTERN COUNTRY

Veena Mulani<sup>1</sup>, Zeenath Reza Khan<sup>2</sup>

<sup>1</sup>*Al Diyafah High School, Dubai, United Arab Emirates*

<sup>2</sup>*University of Wollongong in Dubai, United Arab Emirates*

The impact of overt parental involvement in schooling has not received the attention that it deserves, but has come to the limelight due to recent emergency distance learning. Parental involvement has always been hailed as a crucial part in early childhood learning success. However, the importance parents give to attainment levels of children can cause them to cross boundaries of acceptable support and involvement. Giving importance to attainment has always been high in the middle eastern part of the world for various reasons, for instance, as aiding in higher career opportunities. While on surface, this may seem acceptable, this competitiveness can sometimes be taken personally, to the extent that parents are willing to go over the boundaries of what is morally acceptable involvement and support, committing academic misconduct and distorting teachers' assessment of student's contribution and learning (Khan and Mulani, 2020).

To further investigate the importance of parental involvement, Al Sumaity (2012) explained that parental involvement was pivotal in the United Arab Emirates (UAE), given the culturally diverse nature of the country's population, made up of nationals and the majority population of expatriates from many countries. However, when a parent is involved,

this has a ripple effect on the student's attitude, engagement, student-teacher relationship, and finally academic achievement (Sakiz & Aftab, 2019; Smith et al., 2019; Deer et al., 2020). The issue is the balance between helping a child and doing the work for the child which is a serious breach of academic conduct. This delicate threshold is often crossed by parents wanting desperately for their child to 'be the best', 'do the best' and 'achieve the best', often at the cost of integrity of assessments. With the intention to investigate and eventually instil academic integrity values in younger children, our study focuses on the primary schooling years.

Teachers have always been in a difficult position of balancing the parent-teacher relationship and balancing the parents' involvement in their students' learning. On one hand, they may be faced with over-involved parents, on the other hand, ones that are negligent (Calarco, 2020; Harris & Goodall, 2008).

The framework on teaching and learning developed by the Knowledge and Human Development Authority in the UAE informs schools on criterion on assessments and attainment levels; however, it does not explicitly outline guidelines on assessment design, parental involvement, or academic integrity (KHDA, 2015).

Amid ambiguity in societal norms and gaps seen in formal guidelines by authorities, it is imperative to explore whether primary teachers are aware of the issue, place the importance on honest work, and are capable of managing parental involvement in student assessments. Following on from prior studies in the UAE (Khan and Mulani, 2020; Khan and Mulani, 2021), we set out to explore and understand teachers' perception and expectation of students and parents in their K-12 schoolwork and assessments, and to identify gaps in pre-service teacher training that should prepare teachers on assessment design and management of parental involvement.

The study collected responses using an anonymous survey that was sent to teachers and middle leaders after receiving necessary ethical approvals. The measurement items were put into a survey questionnaire which requested the target respondents to answer using a five-point Likert scale (1=strongly agree, 2=Agree, 3=Neutral, 4=Disagree, 5=Strongly disagree). A total of 31 teachers responded. Nine responses were removed due to incompleteness, leaving 22 valid responses for data analysis, which is an acceptable 70% response rate (Davidoff, 2002). The respondents who completed the survey were teachers from K-12 schools that offered British and Indian curriculum schools (two of the most prominent syllabi offered in schools across UAE) and aimed to draw a comparative analysis of teachers' opinions on parental involvement. We had 81% respondents in the role of teachers and 19% in the role of subject leaders in their respective schools. We also collected other demographic data such as areas of teaching such as STEM (24%), Social Sciences (24%) and Arts/PE (52%). The overall experience of the teachers in their current role ranged from (1) less than three years (41%), to (2) between three to five years (32%) and (3) above five years (27%). 86% of the respondents worked in a capacity where they designed assessments, 67% in grading assessments, and 38% in checking quality of assessments and grading.

Descriptive statistics was used to help us understand parental involvement across four

categories: (1) expectation of parents and students when working on assessment, (2) level of parental involvement in assessment, (3) expectation of teachers when setting up assessments, and (4) preservice teacher training to prepare teachers on assessment design to manage parental involvement. Results indicate that teachers believe their students and parents are well informed about the importance of their work assessment (mean value 1.88), while teachers believe their discussions with parents do help parents understand their expectation of their involvement (mean value 1.72). Results also show that while teachers believe parental involvement in child's education may be helpful (mean 1.4), that overt parental involvement hinders assessing students in primary school; in fact high mean values (3 to 4.4.) of parental involvement factors indicate that teachers believe parents helping students in completing their assessments or home learning work is not acceptable and not acceptable (mean 4.4). Teachers also believe their prior training programs help teachers in setting up students' assessment (1.92), and would also help to manage parents' expectation of assessment (1.95). Results also indicate teachers believe assessment rubric plays a major role in how and where students complete their projects (mean 1.86).

Finally, using a t-test and observing the p-value, we found no statistically significant difference between British curriculum and Indian curriculum in terms of teachers' perception of level of parental involvement in primary school assessment. However, when we observed the mean values, that parental involvement in assessment is slightly more in Indian curricula than British curricula.

We believe the results of this study mark a milestone as it is one of the first and rare efforts to identify parental involvement in primary school students' assessment completion as not just helpful, but sometimes detrimental. The study highlights how teachers view parental involvement as hindering when the involvement is unacceptable (eg. parental complete entire model, parents complete entire home learning

work). Additionally, the study highlights the importance of assessment rubrics in managing parental involvement and the importance of preservice training for teachers in managing parental involvement that was not covered in respondents' prior training.

We believe this study paves way for further investigation to understand parents and students perceptions of parental involvement, and look further into preservice teacher training to see how teachers may be better prepared when they are in-service.

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# THE STATE OF ACADEMIC INTEGRITY EDUCATION AND POLICY DEVELOPMENT IN PRIMARY AND SECONDARY SCHOOLS IN EUROPE: A CALL FOR ACTION

Zakir Hossain<sup>1</sup>, Özgür Çelik<sup>2</sup>, Corinne Hertel<sup>3</sup>

<sup>1</sup>*Inter-Community School Zurich, Switzerland*

<sup>2</sup>*Balikesir University, Turkey*

<sup>3</sup>*International School of Zug and Luzern, Switzerland*

## Introduction

Primary and secondary schools are supposed to lay a solid educational and ethical foundation for their students. The development of values at a young age in school contributes to the ethical competencies of students and accordingly increases academic achievement (Berkowitz, 2011; Gamage et al., 2021; Price-Mitchell, 2015). Studies have revealed that neglecting academic integrity during the early years results in bad habits being formed and students continue to display these habits during their university education and workplace (Bacha et al., 2012; Broeckelman-Post, 2009; Dukes, 2012; Gamage et al., 2021; Gravett & Kinchin, 2020; Mulisa & Ebessa, 2021). The presence of a robust academic integrity policy (AIP) is just as critical as holistic instruction to ensure academic integrity at every level of education starting in primary school. The theory put forth by Bretag et al. (2014) is that a comprehensive and clear AIP helps create a culture of integrity at all levels of schooling. Yet, the ethical foundation in general and academic integrity, in particular, is largely overlooked or rarely addressed in primary and secondary school curricula and instruction (Hossain, 2020 & 2022; Menéndez & Valle, 2018; Price-Mitchell, 2015; Santos, 2021; Stoesz, 2022). This is not an exception in Europe,

as Santos (2020) reported that no guidelines or courses have been developed for secondary education in Europe pertaining to academic integrity and research integrity.

The research also demonstrates that besides teachers, qualified school librarians<sup>1</sup> play a vital role in supporting ethical use of information or academic integrity literacy (AIL) at schools - be it policy development or instruction (Hossain, 2020; Menéndez & Valle, 2018; Merga, 2022; Tauginienė & Gaižauskaitė, 2018; Tilke & Barrett, 2021). Further, Merga (2022) stated that school library professionals “Promote understanding and compliance around issues of academic integrity and plagiarism, copyright and digital rights management, research ethics and online safety” (p. 7). Although academic integrity education (AIE) in pre-university years has profound implications, little research has been done on the topic, including in Europe. With this background in mind, we initiated this global study to investigate policy and instructional practices associated with academic integrity and copyright literacy in primary and secondary (K-12) schools by collecting data from qualified school librarians.

<sup>1</sup> School librarians are also referred to as library media specialist, teacher librarian, library teacher, and professeurs documentalistes in France (Hossain, 2019).

## Methodology

Based on our study objectives, we conducted an online survey to gather data from qualified school librarians globally commencing March 2021. The questionnaire was created following a thorough literature review, the first author's academic integrity workshop experiences with school librarians in Vietnam, Switzerland, and Hong Kong, and the first and third authors' professional experiences as school library professionals. To ensure equal understanding by survey participants, we defined the related terms and outlined the study objectives as well as data usage and privacy. We then shared the draft questionnaire with two qualified teacher-librarians<sup>2</sup>, an academic integrity workshop consultant and a university professor for their feedback. Using the feedback received, the survey questionnaire was finally created with Google Forms, which included closed, semi-open (using a 5-point Likert scale), and open-ended questions. The questionnaire was divided into three sections - 'Academic Integrity Policy & Instruction', 'Copyright Literacy Policy & Instruction' and 'Demographics & Professional Questions'.

## Findings

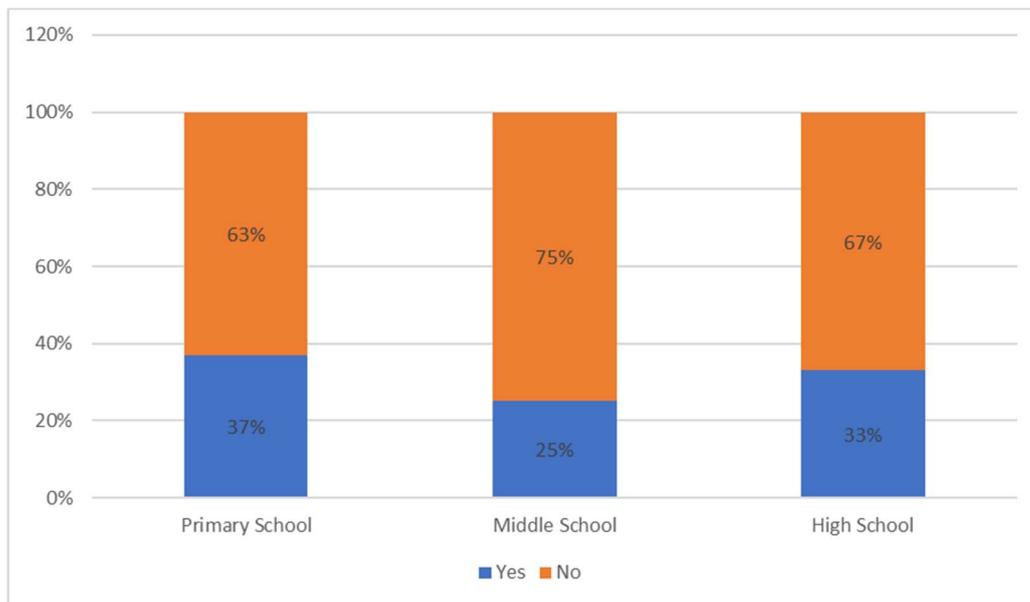
The survey participants reported that academic integrity is a problem at their schools ( $M = 2.6/5$ ) as well as nationally ( $M = 2.9/5$ ). As part of the study, the status of academic integrity instruction/education/literacy was also explored at the survey participants' schools. A majority of the participants reported that academic integrity is taught in their schools to some degree, with 37% beginning at primary school, 25% at middle school and 33% at high school (see Figure 1).

A variety of means and platforms were used to distribute survey questionnaires to the target population, including the International Association of School Librarianship (IASL) and IFLA Schools Section listservs, national, provincial, cantonal and city school library/librarian associations. We extensively used social media channels such as Twitter, Facebook, and LinkedIn to reach out to our target audience. Personal emails/tweets/posts were also sent/posted within the authors' networks. To date (March 2022) the survey has garnered 565 responses from 82 countries, including 126 respondents from Europe. Of those responses, 11 were discarded for insufficient information ( $n=554$ ). The majority of participating school librarians have a master's degree in Library and Information Science or a related field, followed by a bachelor's degree (26.83%), a diploma (6.50%), or a Ph.D. (5.96%). The European respondents ( $n=126$ ) were drawn from 30 countries, with Switzerland having the highest number (29). Other notable respondents were from Germany (15), England (12), Scotland (10), and Iceland (7). For this paper, we analysed sections 1 and 3 of the data collected from 30 European countries.

While only 47% of the school librarians indicated they had dedicated lessons to teach AIL, others have hardly been able to teach it or teach when their colleagues invite them to do so. Participant school librarians agreed that workshops, co-teaching with teachers, and using the schools' internal AIL-related resources (e.g., LibGuide, Handbook) were the most effective ways to teach academic integrity in their contexts.

<sup>2</sup> "A qualified teacher librarian is defined as a person who holds recognized teaching qualifications and qualifications in librarianship" (Australian School Library Association, n.d.).

Figure 1. Do you teach academic integrity at your school?

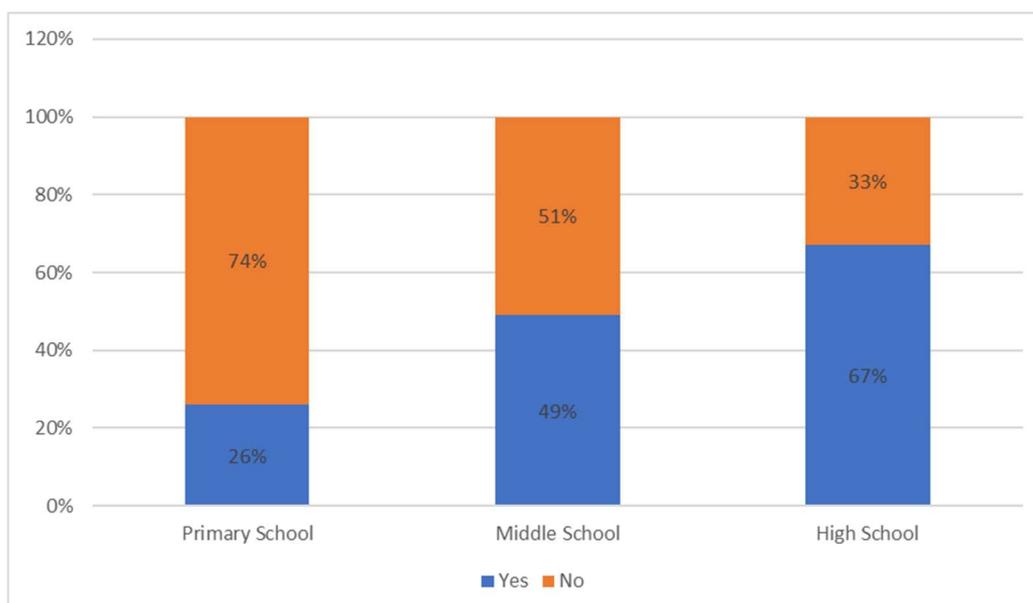


Our survey specifically asked whether their schools had AIPs. According to the survey respondents, 74% of Primary, 51% of Middle, and 33% of High Schools do not have AIPs in place as depicted in Figure 2. The majority of schools that possess an AIP also include a student academic integrity agreement form, 29% contain a teacher agreement form, and 13% contain a parent agreement form.

(73%) believe that the headmasters/principals, teachers and program coordinators/grade level leads in their schools value AIL education and promotion. Regarding academic integrity support, school librarians reported that their schools receive the most support and guidance from external examination boards and curriculum providers (e.g., International Baccalaureate, Advanced Placement, etc.).

Further data analysis revealed that approximately three-quarters of participants

Figure 2. Does your school have an academic integrity policy?



By asking an open-ended question in the survey, we also gathered school librarians' perspectives on the challenges they face when implementing academic integrity at their schools. The participants highlighted several issues, including lack of collaboration from the teaching colleagues, insufficient time to teach

academic integrity, not embedding ALL into the curriculum, lack of support from administration or external sources (curriculum provider/district or provincial education authority, local university), and a lack of training or related professional development.

## Implications and Conclusions

Drawing on the responses of the participants, it can be argued that AIE in European primary and secondary schools is still in the minds of people or on documents. The problems with the effective implementation of academic integrity still prevail. In many school settings - regardless of whether they have an AIP or not - AIL instruction is lacking or sporadic. This study suggests that schools promote AIE within their own institutions through policy development and instructional integration and promotion. This is aligned with the Council of Europe's (2021) Platform on Ethics, Transparency, and Integrity in Education (ETINED) recommendations that the member states follow best practices and principles-based approaches in promoting academic integrity and raising awareness of ethical issues, transparency, and integrity in education.

Collaboration between school librarians and teachers can be used to develop a program based on stakeholders' experiences and informed by research; this can either be integrated into an interdisciplinary curriculum or taught independently as a critical academic skill. It is essential that current and incoming teachers and school librarians are trained in academic integrity and related concepts including instructional skills, both pre-service and after their entry into the profession. In light of the literature, findings of this study and based on the authors' policy and instructional experience, it can be concluded that to develop ethical citizenship in the pre-university years, schools need to adopt an interdisciplinary AIL instructional/educational model backed up by a robust AIP spanning across primary and secondary years.

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# HOW WE RESPOND TO ACADEMIC MISCONDUCT AT UDEM

Adriana Lizeth Barberena-Cerda<sup>1</sup>

<sup>1</sup>*Universidad de Monterrey, Mexico*

## Keywords

Integrity, academic integrity, honor council, academic misconduct, honor code.

## Abstract

At the Center for Integrity in Universidad de Monterrey (UDM) we are very clear about the importance of a formative approach to respond to cases of academic misconduct. For this reason, our Honor Code emphasizes that the consequences for committing a breach of integrity seek for the students to learn from their mistakes so that they do not continue to commit them in the future. To do this, we have different types of consequences that range from a reprimand to definitive dismissal, through the request for an apology, conditioning, repair of the damage, community service, an academic integrity seminar, among others.

Along with the Honor Code are the Procedure for managing cases of academic dishonesty and the Policy for the operation and organization of the integrity bodies that resolve cases of academic dishonesty. These three documents explain how we respond to academic misconduct, how offenses are classified and, based on this classification, which integrity body will resolve every case: The Integrity Committee or the Honor Council. And it is precisely the latter, the one that entails greater learning for the students, since they have to appear at a hearing before this council made up of professors and students to be listened to and guided to improve their behavior. This body is responsible for reviewing the most serious offenses or recidivism, they are trained on topics such as how to manage a hearing, interrogation techniques, emotional intelligence, restorative justice, among others.

In the hearing process, we have the figure of the peer educator, who is a student from the Honor Council who accompanies the reported students throughout their process, explaining what they will experience during the hearing and any questions they may have about it. They even enter the hearing with them, but they do not have a voice or a vote in it, they only accompany.

The practice of having an Honor Council with professors and students for the hearings, as well as having an integrity advisor for each of our school divisions, has resulted in greater awareness of the issue of integrity, as well as increased commitment by both professors and students to report academic dishonesty, because in addition to trusting the process, they seek to provide a learning opportunity and not just a punishment. This committee may be an opportunity to discuss all forms of violation of academic integrity not just from the part of students.

It is worth mentioning that we strongly encourage professors to report cases of academic dishonesty to the Center for Integrity, since in this way each case is objectively managed, respecting the guidelines indicated in our Honor Code. However, we also highlight the importance of the first instance that detects the case, that is, the professor, who is recommended to speak with the student first to understand the situation and, with the details, to be able to make the corresponding report, if it is the case. On the other hand, students or any

other member of our university's community can also and should report academic misconduct, so once they do so, they are asked for as much information as they have in order to deal with the case properly.

At our university we are very clear that in order to be able to respond to academic misconduct, we must first raise awareness of the issue and carry out strategies that encourage upright behavior not only by our students but also by our professors and administrators. And for this we carry out the following practices, some of them learned from universities with great experience in the subject such as UC San Diego or Davidson College, but adapted to our context. Also, continuously working with organizations such as ICAI or ENAI has allowed us to learn about the different ways to deal with academic dishonesty and promote a culture of integrity:

- Awareness campaigns and events.
- Training and professional development for faculty.
- Updated policies and transparent management of academic misconduct reports.
- Student groups like the "Integrity Ambassadors".
- Diagnostic evaluation, research and continuous improvement processes.
- Workshops and conferences.

- Use of anti-plagiarism software like Turnitin, Safe Assign, Lockdown Browser and Respondus Monitor.

Within our practices to avoid academic dishonesty, is the constant training and promotion of the culture of integrity within our students. Beginning with the Rite of Honor Commitment for all first semester students, where they sign their commitment to academic integrity and the importance of complying with the Honor Code is explained to them. We carry out this event as part of their university induction course, where they also have to take a mandatory online course on academic integrity.

On the other hand, we have a co-curricular course that all our students must take, where four sessions of it are dedicated to academic integrity. At the same time, our students are asked to sign their honor pledge in each of their academic activities and we continually have training and events that foster academic integrity such as Integrity Week, activations in our Integrity Ambassadors social networks and our annual conference since 2013.

We are aware that all of these actions are not enough, but we continue to work on strategies to achieve an honest campus, for which we work together with other local, national and international universities and organizations to share best practices.

# SUPPORT FOR VICTIMS OF ACADEMIC MISCONDUCT: AN INTERACTIVE PORTAL AND SUPPORT NETWORK

Dita Henek Dlabolová<sup>1</sup>, Tomáš Foltýnek<sup>2</sup>, Rita Santos<sup>1</sup>

<sup>1</sup>European Network for Academic Integrity, Czechia

<sup>2</sup>Masaryk University, Czechia

### Keywords

Academic misconduct, victims, web portal, facing academic integrity threats

### Abstract

*My paper was plagiarized. My data was stolen and published without my concern. My teaching materials are being sold online. My co-author fabricated data for our paper. My teacher used my dissertation in his paper without acknowledging me.*

These are a few examples of issues that might bother victims of academic misconduct. Sometimes they are not able to get appropriate support from their institution or a respective publisher. Sometimes they are afraid to call because the “academic villain” is in a stronger position. Sometimes they simply do not know what to do and who to turn to.

Institutional support services are often not able to provide clear guidance on how to respond to external threats of this nature, therefore European Network for Academic Integrity decided to include support of victims of academic misconduct among its activities. In 2019 a special working group on this matter was established. Members of the group decided to create a special interactive web portal for the victims of academic malpractice. The portal should be a place where the victims can look up

useful information, anonymously discuss their problem or ask for personalized guidance. In cooperation between Mendel University in Brno (Czechia) and University of Nicosia (Cyprus), the portal was designed and a prototype was created. The prototype was presented at the ENAI annual conference in Dubai in 2020 (Chochula et al., 2020).

To enable further development of the portal and to build a support network of people who can help, the activities on supporting victims of academic misconduct were included in an Erasmus+ Strategic partnerships project “Facing Academic Integrity Threats” (FAITH). The three-year project was granted in late 2021 and started in February 2022. This project is being conducted by a consortium consisting of Canakkale Onsekiz Mart University, European Network for Academic Integrity, University of Konstanz, University of Maribor, and University of Porto.

The portal is available at [www.academicintegrity.eu/victims](http://www.academicintegrity.eu/victims) and it will be officially launched and introduced on the occasion of the European Conference on

Academic Integrity and Plagiarism 2022 in Porto. The aim of this presentation is to demonstrate the portal and the means of support that it provides. We will show the functions of the portal and explain how the victims can search and receive support and how the community can assist them.

Thanks to the web portal, the ENAI and the FAITH project are establishing a confidential support network and providing an advisory service for people affected by unethical academic conduct. The target audience of the portal will include people whose work has been plagiarized, people who genuinely contributed to research but were denied credit due to unfair practices, authors who have been persistently tormented/entrapped by predatory publishers (Sivasubramaniam et al., 2021), whistleblowers, who have been specifically targeted for reporting academic misconduct, etc.

Through the portal, we aim to provide impartial and eventually personal advice. The portal has a public and private section and includes various resources - frequently asked questions, a discussion forum overseen by a supporting group, a space to share an individual question which will be dealt with by an assigned mentor, and anonymized stories of victims.

The FAQ section will grow gradually based on ongoing operations and the issues bothering the

portal users. Discussion forum users will be directed to a private and secure area to post questions, and there will be a network of advisors providing support. The advisors will be experts from the ENAI working group and the FAITH project, but also other users, potentially former victims. When someone makes an individual contact to ask for help, a mentor will be assigned to establish the nature of their situation, assess their needs, and decide what expertise is needed. The experts will be assigned from within the FAITH project and help may be sought from our global partners to establish bespoke support. The section with stories of victims will be based on publicly available and known cases (which is the content at the time of launching) and also there will be new articles based on stories of the portal users - after obtaining their consent and anonymization. Creating this community-backed support group is itself innovative as it provides a freely accessible service not currently available.

We believe that the platform will raise awareness of how to defend against violations of academic integrity and support people disadvantaged by unethical conduct of others, through inclusivity. By providing assistance via mentoring and support, we will provide new opportunities for those who have unintentionally been involved in academic dishonesty to overcome their difficulties.

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# H2020 INTEGRITY PROJECT: PROMOTING ACADEMIC INTEGRITY AT PORTUGUESE HIGH SCHOOLS VIA DEVELOPING MODULE AND ASSESSMENT STRATEGIES

Rita Santos<sup>1,2</sup>, Igor Lopes<sup>2</sup>, Paulo Gomes<sup>2</sup>, Júlio Borlido Santos<sup>2</sup>, Anna Olsson<sup>2</sup>

<sup>1</sup>*European Network for Academic Integrity, Czechia*

<sup>2</sup>*University of Porto, Portugal*

## Keywords

Academic Integrity; Dilemma cases; High School Students; Teaching Integrity

## Abstract

Empowering students in academic integrity and responsible conduct in research (RCR) is a complex and pressing matter, particularly in light of the easy access to information and data that comes with the digital age, and the evolving context of educational policies and structure (Sutherland-Smith, 2016; Steneck, 2006). Presently, across Europe, there is a lack of general guidelines on how to teach academic integrity, and great differences are observed in the teaching approaches employed by professors, the topics covered, the learning aims and the levels of engagement (Bretag, 2016; Löfström et al., 2015; Simon et al., 2019). Moreover, whenever such teaching courses are implemented, this is usually only at the Higher Education level, targeting bachelor, master and/or PhD students (Goddiksen et al., 2020; Löfström et al., 2015). High school students rarely receive formal training in academic integrity and RCR aspects (Goddiksen et al., 2020; Hossain, 2022), despite the pertinence of these issues both within the high school context and as preparation for higher education. In addition to that, a fundamental question concerns how to best implement academic integrity training in school teaching, since most European high school programmes are based on

a structured curriculum, with limited focus on integrity.

The H2020 INTEGRITY project builds on the understanding that academic integrity depends on students and young researchers knowing what is responsible conduct in research and having the confidence and means to act with responsibility. The project seeks to empower students at three levels (high school, undergraduate, and PhD) and in various academic disciplines (including STEM, social sciences, humanities and the arts, as well as high school's interdisciplinary curriculum) through training tools tailored for each level and discipline.

Here, we will present the pedagogical approach adopted in INTEGRITY to develop tailored teaching modules about academic integrity and RCR to high school students. This is based on INTEGRITY's European survey study that gathered information about the high school students' perceptions and experiences with RCR and integrity issues (Johansen et al., 2021; pending revision). Particularly, in this survey, high school students were asked questions that aimed to assess their level of understanding of

appropriate and inappropriate academic practices (e.g. Self-reported understanding of what is good practice in relation to three dimensions of academic integrity: citation and plagiarism; working with others and assigning authorship; collection, analysis and presentation of data) and their personal experience with such practices (e.g. Self-reported engagement in questionable academic practices among upper secondary students – During your high school education have you...). The findings from this survey study allowed us to identify four major academic integrity issues (1-collaboration and working together; 2-collection, analysis and presenting data; 3-drawing on the work of others; 4- reporting misconduct and other unethical actions) that were then incorporated into our teaching modules.

The high school portfolio takes into account the transdisciplinary curriculum at this education level, and our team worked on modules for the life sciences. In order to make the tools easily integrated within school's curriculum and more appealing for students and teachers, and ensure their long-term implementation, we opted for incorporating integrity teaching with topics that are part of the Portuguese high school curriculum and that are part of our ongoing outreach program for high schools. Animal Experimentation and Genetic Testing were chosen as topics which are both scientifically and ethically interesting.

Each module was designed and structured to provide a brief introduction to concepts and terms relevant to the subject (e.g. meaning of research, research integrity, ethics of animal experimentation and genetic testing, among others). Then, a practical activity, based on a

gamification scenario-case board of students' every day school situations, was developed for each module, to promote students' discussion and critical reflection about misconduct and questionable practices. We strived to connect the school situations to the research integrity cases; e.g. the temptation to manipulate results to gain recognition and the possibility to unconsciously bias results which underlie the integrity cases were also present in the student dilemmas. The modules concluded with an overall class discussion, which outlined the key ethical and research integrity issues that were identified by the students as they worked through the modules.

We will present the results of the testing of the two modules in 6 Portuguese high schools, and the challenges observed. Informal feedback from the students was collected through direct sharing of opinions, during the classroom testing of the modules. Feedback from the teachers was collected through a structured survey, which aimed to assess the suitability of the modules regarding their learning aims, students' engagement level and the likelihood of teachers to use such modules again in teaching classes. Overall, both the students and the teachers found the modules to be relevant, well-designed and to promote very interesting discussions among high school students on academic integrity and RCR issues. Students expressed that they particularly enjoyed the opportunity to critically reflect with their peers on integrity issues during the game-board activity and to learn about the ethical aspects of both animal experimentation and genetic testing. Teachers said they would like to continue to apply the developed modules in their teaching classes in the future.

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# PUPILS' INFORMAL SOCIAL STRATEGIES IN MANAGING INDIVIDUAL REGULAR SCHOOLWORK AND LEAKED NATIONAL TESTS – THE SIDESTEPPING OF TWO CONTROL SYSTEMS FOR EQUITABLE GRADING

Charlotta Rönn<sup>1</sup>

<sup>1</sup>*Mid-Sweden University, Sweden*

## Keywords

Grades, informal networking, mobile phones, pupils' perspective, written assignments

## Abstract

Informal networking, where people share information and experiences, in for example social media such as Facebook, Instagram, and Snapchat, is increasing worldwide. At the same time there is a development towards an increased focus on the individual and the individual pupil's achievements in formal education in many countries (cf. Carlgren, 2015) including Sweden (Dahlstedt & Fejes, 2019). According to the Swedish curriculum (2011) pupils are intended to develop their sense of taking responsibility for their learning and an eagerness for lifelong learning. Visible learning (Hattie, 2009), and the closing of pupils' achievement gaps, have had a considerable impact on curricula and teaching methods world-wide and especially in Sweden. The teachers are required to ask questions such as "Where is the pupil?" "Where is (s)he heading?" and "How is (s)he going to get there?"

It is not only teachers who assess the pupils' results; pupils need to develop abilities to assess their own written assignments as well as those of their peers; in the Swedish curriculum and its annotations it is stressed that pupils must learn to compose text together with peers, and give

and receive feedback from peers, in order to develop their skills (Swedish National Agency for Education, 2017, 2018). Furthermore, summative assessments have gained ground in Swedish schools. This includes extensive national testing (Lundahl, 2009) with the aim of enabling equitable and equivalent grading (National Agency for Education, 2019). Over recent years, numerous National Tests have been leaked in Sweden before the scheduled test-date. In order to prevent future incidents of leaking the National Tests are to be digitalized from 2023 (Swedish National Agency for Education, 2020).

The aim of this study was to explore and analyze what informal social strategies pupils apply in dealing with regular individual schoolwork and how this could be understood from goal-oriented and result-oriented school contexts, with specific focus on pupils' achievements and where the pupils are constantly assessed and graded.

The theoretical framework is Goffman's (1959) theater metaphor, in which people's behaviors are considered as being enacted either on the

“backstage” or “frontstage” of social life as a part of impression management. In this study, backstage is used for pupils’ interaction with peers beyond teachers’ sight. Frontstage is used for assignments handed in to teachers for assessment.

This ethnographic study comprised four months of observations and two weeks of audio-visual recordings of one class in year 8 (14 year-olds) in spring 2017, followed by 18 semi-structured interviews with the same pupils one year later at a Swedish municipal lower secondary school. At the school, about 90% of the teachers were qualified teachers, and the teachers of the selected class were still working at the school in autumn 2021. The Regional Ethical Review Board in Umeå, Sweden, reviewed the study.

The analysis showed that some of the pupils took responsibility for their learning and developed an autonomy in line with the curriculum’s (and teachers’) intentions, and (to a great extent) did their assignments on their own. In order to obtain more elevated grades with minimal effort, others relied on the achievements of classmates, which tended to go unnoticed by teachers. For example, out of the teachers’ supervision some pupils logged into their classmates’ Google classroom accounts (both inside and outside the classroom) and wrote original texts for them, others took pictures of their completed assignments and forwarded to peers who reformulated the texts in their “own words”. Not knowing who had sat in front of the computer and produced a text led to an assessment dilemma. The results indicate that the visual learning’s central questions, the a) Where? b) Where to? and c) How? may deviate for teachers in assessing pupils, and for pupils in assessing their own and their peers’ texts. In interviews with pupils in Year 9, where they took 15 National Tests, they spoke frequently about the leaked National Tests and the leaked instructions for teachers on assessment, which were spread nationwide through social media. These documents were shared by the pupils in the Snapchat group of

the class, and pupils helped peers to prepare for the National Tests with help of the leaked information. The pupils who relied on classmates to help them with regular schoolwork were more likely to read the leaked tests beforehand. Exclusion mechanisms related to gender, language mastery in Swedish, as well as socio-economic issues, were part of the pupils’ informal social strategies. More details of the findings will be presented at the conference.

In accordance with Lantz-Andersson, Linderöth, and Säljö (2009), it is the user of the technology device who decides how to use it. In the present study, computers, smartphones and social media facilitated the pupils’ informal social strategies when they were doing regular schoolwork and preparing for the National Tests out of the teachers’ sight. This can lead to unfair assessment and grading, since the ability and knowledge of some pupils will not be reflected in the submitted assignment.

The study exposes an issue, where curricular changes bring less desirable “results” than intended, and where the control system for equitable grading was sidestepped at two levels by the informal social strategies applied by the pupils: the classwork grading as well as with the National tests which are designed to regulate the classwork grades. In a goal-oriented and result oriented school context with an enhanced focus on assessing and grading the pupils, the pupils applied informal strategies and used digital technology out of the teachers’ supervision; some pupils made the visual learning invisible for the teachers by moving it out of the teachers’ sight, and some pupils turned their individual assignment into a social exercise by relying on assistance from peers (Rönn, 2022).

It is important to discuss and further explore the rationale of pupils behind their informal social strategies and their sharing and reading the National Tests and the assessment instructions for teachers beforehand.

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# GRADUATE STUDENTS' REFLECTIONS AS PARTNERS OF ACADEMIC INTEGRITY ADVOCACY DURING COVID-19

Beatriz Antonieta Moya<sup>1</sup>, Alex Paquette<sup>1</sup>, Sarah Elaine Eaton<sup>1</sup>

<sup>1</sup>*University of Calgary, Canada*

### Introduction

The pandemic outbreak in 2020 started a profound disruption of the teaching and learning in higher education worldwide, creating reactions that will still be unfolding until the system reaches balance (Blankenberger & Williams, 2020). Part of this disruption involved addressing the new challenges posed by contract cheating companies (Comas-Forgas et al., 2021; Janke et al., 2021) and building a new

understanding of the impact of e-proctoring software on students (Eaton & Turner, 2020). At this juncture, students faced an unimagined learning scenario and had to overcome diverse barriers to advance their studies (Stoesz, 2020). However, students did not always position themselves in the background; many became partners in addressing these academic integrity issues.

### Problem Statement

Although experts have identified that academic integrity should be addressed by different stakeholders of educational communities (Eaton, 2020; TEQSA, 2017), many academic integrity field experts still believe that deepening understanding of students' perspectives on academic integrity needs to be further explored (Kolb et al., 2015; Szabo et al., 2018). Therefore, we argue that students' voices have been less visible in the academic integrity literature and propose addressing this gap through this inquiry. Keeping in mind that academic integrity is a teaching and learning

imperative (Bertram Gallant, 2008), we also contend that these explorations should consider a perspective that recognizes Students as Partners (Bovill & Felten, 2016; Felten, 2013; Mercer-Mapstone & Marie, 2019). We argue that analyzing students' experiences expressing advocacy to address current academic integrity issues through a teaching and learning lens is an urgent need. Moreover, we believe these expressions are especially relevant in disruptive contexts such as the one posed by the COVID-19 pandemic.

### Purpose

The purpose of this study is aligned with the following research question: how our

experiences as graduate student partners of academic integrity advocacy were during

COVID-19? We build this study drawing from Colpitts et al. (2020) to address the students' experience gap. This paper also seeks to document and analyze individual and shared

experiences, including diverse students' representation roles within and outside an educational institution.

## Conceptual Framework

Considering the students' engagement this inquiry embodies, we frame this work in one of Felten's (2013) principles of good practice in the Scholarship of Teaching and Learning (SoTL) called *conducted in partnership with students*. Following this principle, the involvement of students in SoTL ranges from ensuring they are not harmed in research as participants to students' partnerships with faculty members. From Felten's (2013) perspective, the second end of the continuum has the potential to develop a sense of shared responsibility and sustain the inquiry's authenticity.

This notion of students participating in SoTL research has evolved and is now recognized as *Students as Partners* (SaP). Building from previous work in the field, Mercer-Mapstone and Marie (2019) define SaP as a way of thinking and practicing that re-draws the traditional relationship between faculty and students into collaborators. In SaP, students become more

empowered, engaged, and responsible for their learning process.

We also situate this inquiry in the integrated model for academic integrity through a SoTL lens (Kenny & Eaton, 2022). Therefore, we recognize that student advocacy work is embedded in the critical elements for changing teaching and learning cultures: high impact professional learning opportunities, local-level leadership and micro-cultures, scholarship, research & inquiry, and spaces, pedagogies & technologies. Moreover, these key elements of change interact with formal and informal spaces. Following this model, significant conversations, networks, relationships and communities belong to the informal processes; policies, programs, resources, and committees make up the formal processes. Moreover, these actions are embedded at diverse organizational levels, such as the individual (micro), departmental (meso), institutional (macro), and beyond (mega) (Simmons, 2016).

## Methods

Following Colpitts et al. (2020), we use action research supported by narrative inquiry to highlight students' voices in this qualitative study. We use a qualitative approach because it provides an opportunity for analyzing practice in context (Bovill & Felten, 2016) and embrace a view on action research that acknowledges our mental world, as individuals, and the social world, encompassing our interactions with others (McNiff, 2016). In this study, we (two graduate students) reflect on our engagements with diverse organizations inside and outside a higher education community. The narrative

inquiry component is inspired by Freeman's (2012) work, which places the writing of the personal past as a dialectical relationship of past, present, and future, and as constructions deriving from the narrative imagination. Furthermore, Freeman (2012) highlights that autobiography requires discerning the sources that compel the self, recognizing that such a project is beyond a mere representation of one's life. Moreover, this notion of autobiography emphasizes intersubjectivity in the realm of narrative inquiry.

This study involves two participant-researchers, graduate students from a Western Canadian university, and the faculty member who guided their academic integrity advocacy work during the pandemic. Data collection procedures include a questionnaire developed by the faculty member. The data collection process also

engages participant-researchers in a reflective process about individual experiences; these narratives are later supplemented with reflections from the faculty member guide to create a liminal space that facilitates reframing traditional faculty and students' roles (Jensen & Bennet, 2016).

## Implications and conclusions

This study provides academic integrity stakeholders with a perspective on an experience that involved graduate students and a faculty member guide in an inclusive and equitable partnership to carry out academic integrity advocacy work during the pandemic. This experience, where graduate students a) experienced a process of expanding their identities to become academic integrity documenters, content creators, collaborators and promoters, b) engaged in reflective practices on best approaches to convey

prevention messages that could be meaningful to their peers, and c) adapted to new resources and platforms supports a shift of the notion of SaP from theory to practice, provides situated narratives that shed light on the emerging practice, and helps build theory on these kinds of partnerships (Bovill & Felten, 2016). Moreover, it expands understanding of the integrated academic integrity model through a SoTL lens (Kenny & Eaton, 2022), adding from a student advocate perspective.

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# WHAT'S THE HARM? THE PROFESSOR WILL NEVER KNOW: UNDERSTANDING HOW STUDENTS JUSTIFY PARTICIPATING IN THE “GREY AREAS” OF ACADEMIC INTEGRITY

Kelley A. Packalen<sup>1</sup>, Kate Rowbotham<sup>1</sup>

<sup>1</sup>*Queen's University, Canada*

## Abstract

Most students do not engage in serious cheating, but many engage in seemingly insignificant transgressions. These trivial violations, such as unauthorized collaboration or sharing what is on a quiz, are difficult to catch and sanction. Moreover, regardless of the seriousness of the violation many professors are reluctant to investigate and sanction cases they do identify (Jendrek, 1989; Singhal, 1982). As such, we argue that a proactive approach to academic integrity is more effective than a post-hoc punitive approach. Adopting a prevention focus can also reduce one's likelihood of sliding down the slippery slope (Welsh et al., 2015), which is the phenomenon by which small violations pave the path to increasingly more significant major ethical violations (Gino & Bazerman, 2009). To be proactive, however, requires that we understand not only the specific scenarios in which students engage in trivial, hard to detect violations, but what drives their willingness to engage in academic integrity more generally.

In this study we used responses from 44 students at a Canadian University who participated in one of four computer-facilitated focus groups to create a catalogue of scenarios in which students might consider it to be acceptable to engage in specific types of trivial violations. We then administered an online survey to 856 students at the same university. In the survey we asked students to evaluate the extent to which they felt each scenario was

acceptable (e.g. asking a friend if they were on the right track or comparing final answers but not how they arrived at the answer when completing an individual assignment). More than a quarter of the students also provided open-ended comments at the end of the survey about their thoughts on academic integrity in the university in general.

We examined the students' qualitative and quantitative responses using mechanisms of moral disengagement (Bandura, 1999) and neutralization theory (Sykes & Matza, 1957) to categorize why students violated academic integrity. Importantly, we found that the mechanisms students used to justify why it was acceptable to push the boundaries on specific questionable behaviour differed from those they used to justify violating academic integrity more generally. By regressing self-reported rates of academic integrity violations on a measure of students' willingness to engage in grey area violations, we also demonstrated that the slippery slope effect occurs in academia; students who found it acceptable to violate academic integrity in more “grey area” situations also engaged in more trivial and non-trivial academic integrity violations in general.

Our study contributes to the theories of moral disengagement and neutralization in two important ways. First, we identified several ways students used the mechanisms of moral disengagement and neutralization theory to justify violations of academic integrity that to

our knowledge had not been previously identified. These included rationalizing their behavior 1) because they convinced themselves that there were no consequences and 2) to avoid being the victim. In addition, similar to drawing on higher loyalties (e.g. friends) to rationalize being academically dishonest, we also identified the process of justifying actions as meeting the higher purpose of learning. Second, we demonstrated that while students predominantly displaced responsibility when speaking about violating academic integrity in general, when they were confronted with evaluating the acceptability of specific scenarios, explanations that relied on displaced responsibility and condemning the condemners were not among the most acceptable solutions. In short, students drew on different mechanisms to justify their actions at the micro versus macro level of behavior.

Our analysis also showed that this process appears to unfold over time with students who had been in the program longer periods of time showing greater moral disengagement with respect to the three seemingly minor transgressions we analyzed. We also showed that higher levels of moral disengagement in

specific behaviors correlated not only with higher levels of engagement in those questionable behaviors, but higher levels of engagement in other minor as well as more serious violations. We argue that these findings demonstrated the importance of not turning a blind eye to seemingly harmless minor transgressions, as in accordance with the notion of the slippery slope, these minor transgressions appeared to be the gateway for more serious transgressions. If students were working collaboratively on individual assignments, relying on notes from others and sharing information about quizzes, then they were also more likely to plagiarize and submit work that it was not their own.

Finally, recognizing that small trivial violations are challenging to detect and monitor we offer three tactics that either undermine or neutralize the mechanisms of moral disengagement that students used to justify their actions. Our suggestions at the pedagogical level speak to mechanisms that students used to justify their actions in specific violations and those at the program level speak to mechanisms that students used to justify their actions more generally.

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# INTERNATIONALISATION OF HIGHER EDUCATION IN FINLAND – A CHALLENGE FOR INTEGRITY IN ACADEMIC WRITING AT MASTER’S LEVEL

Erja Moore<sup>1</sup>

<sup>1</sup>*Independent Researcher, Finland*

## Abstract

All higher education students write a Master’s thesis before graduating with a Master’s degree (EQF level 7 out of 8) from a university. A Master’s thesis presents the knowledge, skills and competences of the graduate. During studies, higher education students are familiarised with the concepts of academic integrity and academic writing, both as readers of scientific texts and producers of their own text. While studying and after graduating from a university with a Master’s degree, the graduate is expected to follow academic integrity: “being honest and having strong moral principles that you refuse to change” (Cambridge Dictionary 2021), and comply “with ethical and professional principles, standards, practices and consistent system of values” (Tauginienė et al. 2018, 7). In Finland, universities supply academic integrity and writing manuals that guide students to write original text about their own subject area and to cite and quote sources in order to incorporate own text with existing knowledge. Accurate referencing is essential in academic writing, references give credit to original authors, and detailed publication information is one aspect of credibility for any Master’s thesis.

Internationalisation of higher education has expanded in the 21<sup>st</sup> century. Among other countries, also Finland offers higher education to international degree-seeking students, and follows the principles of internationalisation at home by offering study programs in English.

There have been concerns about the quality of higher education and the unquestioned use of English language (Weimer et al. 2019).

My presentation focuses on integrity of academic writing and use of references specifically in the methodology chapters of Master’s theses that have been written in the context of internationalisation of Finnish higher education. The data consist of a purposive sample of 28 English language Master’s theses that have been accepted in Finnish Universities of Applied Sciences in 2020 and published in Theseus. The accuracy and consistency of referencing in the same data have been analysed for a presentation in the previous plagiarism conference (Moore 2021). In this presentation, the analysis covers, besides the accuracy of referencing, also the use and quality of references in methodology chapters.

There are two theses in the data that do not have a complete chapter on methodology. The research question is stated but there is no data nor analysis. In one thesis, the methodology is spread in different parts of the thesis. The methodology chapters in the remaining 25 theses were 2-17 pages long, on average 4-5 pages. The number of methodology sources varies from zero to 17 cited sources. The content of the methodology chapters varies from general text with no references at all to profound and detailed reflections of the methodology with references to appropriate

sources. Analysis was started by taking notes on the use of methodology sources, making comparisons between the reference lists and in-text references, and followed by thematising the findings.

Referencing in methodology chapters was found to be accurate or having only minor inaccuracies in 13 theses. In eight theses, plagiarism is present, with either minor or major parts of the methodology having been copied with references from previous publications. Another five theses have severe inaccuracies in references to methodology sources, or the text had been copied and modified from popular webpages.

Patterns of referencing inaccuracies in methodology chapters are diverse. They are overlapping, and in a thesis, there can be one or more of the following features. First, international plagiarism, identified in the earlier analysis of the data (Moore 2021) refers to text that has been copied with references from texts published before anywhere in the world, or text has been copied and translated. Second, the methodology chapters had unprofessional or

incorrect translations from Finnish to English. Third, there is misquoting where the referred source is wrong or the source cannot be found and verified. Finally, in some theses the methodology is written based on inappropriate sources, such as commercial websites or student materials, creating a “www-methodology” in which all references are made to non-scientific websites.

The Master’s theses accepted in the context of internationalisation of higher education in Finland do not always follow the academic integrity standards and conventions of academic writing. Some of the poor quality of English theses can be due to situations in which neither the teacher nor the student is using their first language. The results of this study demonstrate the need for external evaluation of the outcomes of Finnish higher education programs that are offered to degree-seeking international students and as internationalisation at home. International cooperation in external evaluation and in plagiarism research is required in order to guarantee that all Master’s degrees in Finland reach the expected EQF level 7.

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# RESEARCH ETHICS TRAINING TO FACILITATE COLLABORATION IN AN INTERNATIONAL PARTNERSHIP

Catherine Deri<sup>1</sup>, Martine Peters<sup>1</sup>

<sup>1</sup>*Université du Québec en Outaouais, Canada*

### Keywords

Research ethics; Ethics training; International partnership; Academic integrity.

### Abstract

In Canada, research ethics are normally discussed in the case of studies involving humans as participants. Researchers must adhere to the *Tri-Council Policy Statement* (2018) developed by three federal research agencies mandated to promote research that is conducted according to the highest ethical standards. This policy draws from the core principles: (1) Respect; (2) Well-being; and (3) Justice, first published by American scholars in the Belmont Report of 1979, after a series of clinical trials treated human subjects unethically.

At the present time, it is up to each university to educate graduate students and professors in research ethics for the design, review, and conduct of studies. However, these training efforts are not globally standardized in higher education institutions, partly due to cultural, linguistic, and social differences in the interpretation and application of ethical principles (Serrano & Linares, 1990). According to Page (2004), these differences can be rooted in history, politics, and power dynamics between cultures leading to unintentional

conflicts between collaborators. When research projects involve the partnership of universities dispersed across the world, Sidle et al. (2006) suggest Memoranda of Understanding as a strategy to overcome issues of “cooperation between ethics review boards at collaborating institutions” (p. 23).

Our research project, called *Partnership on University Plagiarism Prevention* (PUPP), involves 31 universities and five agencies located in Canada, the United States, the United Kingdom, France, Spain, Portugal, Czech Republic, Slovenia, and Turkey. This international study aims at identifying digital scrapbooking strategies (DSS) used by students and professors, to determine how teaching and learning these strategies can prevent plagiarism. Since the project is funded by the *Social Sciences and Humanities Research Council* (SSHRC) of Canada, over a period of seven years, it is expected that all partners and collaborators will adhere to the aforementioned ethical standards.

This presentation will discuss how our project lead institution provided research ethics training to 27 professors and research assistants responsible for the development and submission of ethics applications for their respective institutions. In keeping with the conference topic pertaining to *institutional requirements and processes*, we will be presenting how three training sessions were designed based on a tutorial on research ethics developed by SSHRC and composed of eight modules applicable to all studies regardless of discipline and methodology. The intended

learning objective was to develop baseline knowledge on research ethics, but the actual effects also included enhanced cohesion between researchers and collaborators through their participation in active learning activities. This teaching and learning experience is expected to increase successful outcomes from the evaluation of ethics applications by partner institution ethics review boards. Therefore, our designed training can become a framework that can be adopted by other international research projects in the future.

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# INTENDED AND ACTUAL EFFECTS ON ACADEMIC INTEGRITY DURING COVID-19 CLOSURES – CASE STUDY OF UNIVERSITY OF PUBLIC SERVICE

Gabor Laszlo<sup>1</sup>

<sup>1</sup>*University of Public Service, Hungary*

## Keywords

Academic integrity, emergency remote teaching, online examinations, proctoring, regulations

## Abstract

Covid-19 has had serious consequences in all aspects of people's everyday life – including solving how to run Higher Education online. In the case of emergency distance education, the curriculum was not designed for an online platform (by-design), but due to the sudden disaster, education was changed to some form of distance education, but little or no change in methodology was possible due to the sudden change (Hodges et al., 2020). It is, therefore, a response to a need, which places a heavy workload on students, teachers, and administrative support - requiring constant communication and feedback to keep it functioning (Mohammed et al., 2020).

This paper introduces what internal policy changes have been induced with the Hungarian

government's regulation by introducing distance teaching and online examinations in academic integrity at the University of Public Service (UPS).

Using a case study methodology, this paper aims to investigate and demonstrate how the transition to online education and examinations has been carried out through internal regulation, what were the objectives, how focused it has been on academic integrity, how it has achieved its goals and how they affected students' habits. The use of a case study methodology is justified by the research question, the ability of researchers to intervene in events, and the time factor of the events under study (Yin, 2013).

## Background

In Hungary, the Government Decree 40/2020. (III. 11.) on the declaration of state of emergency – as a consequence of the novel coronavirus (SARS-CoV-2) pandemic outbreak – affected the operation of higher education. Government Decree 41/2020 (III.11.) on the

measures to be taken during the state of danger, declared that - for the prevention of the human epidemic endangering life and property and causing massive disease outbreaks, for the elimination of its consequences, and for the protection of the health and lives of Hungarian

citizens - students were prohibited from entering higher education institutions.

Forced emergency responses significantly impacted the digital transformation of higher education. In the case of the transition to emergency remote teaching, there were no uniform (central) guidelines for institutions. Each institution tried to respond to the challenges by using and expanding the resources available following its internal regulations. Technically, University of Public Service strictly limited and controlled the available on-premise software application. The University switched from face-to-face education to remote teaching within ten days during the first closure in spring 2020. The rector declared the period between 12-22 March as an educational break to prepare for distance learning from 23 March 2020. The rector's measure did not allow the opportunity for synchronous online classes in the 2019/20 spring semester, so that semester was completed with online education, which meant pre-recorded lectures and online submitted assignments via Moodle or email. The end-of-semester knowledge assessments (exams) for all subjects were based on the evaluation of student's assignments (essays) prepared at

home (Koltay, 2020a). The use of text-matching software (plagiarism check) was not mandated and promoted; therefore, only a few lecturers used it voluntarily.

The academic year 2020/21 started with face-to-face teaching, but with special conditions and preparations for the transition to online teaching, which did not apply to online exams. In mid-November, new closures were announced, which meant another changeover to online education (Koltay, 2020b). In this case, the exams had already been held online, and Study and Examination Regulations were adjusted to this situation on 21<sup>th</sup> November and 23<sup>rd</sup> December (Nemzeti Közszoigálati Egyetem, 2020, Koltay, 2020c). The following two types of distance examinations were available: online oral examination or written examination using Moodle Quiz or assessment module. (NKE Járványügyi Operatív Törzs, 2020) The spring semester of 2021/22 was carried out online, including the exam period, with only minor changes to the regulations. (Koltay, 2021, NKE Járványügyi Operatív Törzs, 2021). The conference presentation will show this regulation in detail and its impact on academic integrity.

## Problem formulation

According to the COVID-19 pandemic, a formal assessment of the impact of the online examination policies and regulations on academic integrity was missing. Starting from the 2021/22 academic year, a new LMS has been

introduced at the university to improve the learning processes. The new LMS has expanded functionality and renewed design based on the experiences during the pandemic.

## Methods

A survey asked lecturers about their thoughts on the new system and their experience during the pandemic in the spring of 2022. Data collection was performed by voluntary online questionnaire. The questionnaire incorporated a set of questions on academic integrity.

The preliminary results of the lecturers' opinion suggest that a higher percentage of students used unauthorized/fraudulent resources during the online (distance) exams than in the attendance form before the pandemic. However, although fraud was detected in several cases, the clear evidence of what

happened was not available. Professors being committed to maintaining academic integrity have changed their methods to the context of their best. The goal was to ensure that students cannot cheat, or at least it was made difficult for them to do so. However, this was not always feasible due to the policies in place, including the missing option of using of proctoring tools.

## Conclusion

The pandemic has brought new challenges for everyone in everyday life and also in higher education. It has drawn attention to a broad variety of structural issues, which have been addressed and resolved in different ways throughout closures. By the time divergent

The students' semi-structured interviews with 50 in two groups and their general feedback suggest that they took advantage of the opportunities offered by the changed circumstances. While students did feel that this achievement resulted in a better grade, it could also harm their professional performance in the longer perspective.

regulations of the institutions and faculties were established, the closures were gone. Particular attention should be paid to the training of trainers on new digital technologies and challenges, as well as the formation of attitudes in the field of academic integrity.

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# THE GREY AREAS OF PROOFREADING: INSTITUTIONAL APPROACHES TO THE USE OF THIRD PARTIES AND GUIDANCE TO STUDENTS.

Mary Davis<sup>1</sup>

<sup>1</sup>*Oxford Brookes University, United Kingdom*

## Keywords

Proofreading; institutional policies; study skills guidance; third-party proofreaders.

## Abstract

This session will focus on current grey areas in proofreading through examining institutional policies and guidance to students, before presenting recommendations to improve practice.

Proofreading is an expected stage of the academic writing process before students submit assignments. However, institutional approaches to proofreading can be inconsistent and unclear in policies and academic integrity guidance, particularly regarding the use of a third party. Tutors often emphasise to students the need to proofread their work carefully, or indeed recommend that they engage a third-party proofreader in order to avoid losing marks for unchecked errors and to write in a way considered coherent to markers (Turner, 2012). At the same time, although institutional policies vary, there is a common focus on warning students about the dangers of getting too much help with proofreading. These different messages may result in students experiencing a dilemma if they are not confident about proofreading their own work: they want to hand in polished work to gain a good mark but may be anxious and unclear about how to approach proofreading and the limitations of what a third-party proofreader can do (Conrad, 2019).

Studies of contract cheating have highlighted problems with third-party proofreading. Lancaster and Clarke (2016, p. 639) explain that use of 'copyediting services' may constitute cheating; for example, this could occur if they intervene significantly with a text or take over authorship. Similarly, Draper and Newton (2017) discuss the difficulty of clearly distinguishing between the actions of proofreading, private tutoring and contract cheating and deciding exactly where a line between ethical and unethical practice is crossed. Furthermore, the exact role of a proofreader is unclear, even among proofreaders themselves; as reported by Harwood et al. (2012), proofreaders may take the role of 'helper' as an informal support system, 'cleaner' who tidies up the text, 'mediator' bridging the gap between student and tutor, or 'teacher' to provide instruction. Harwood (2018) also highlights the greatly varying practices between proofreaders in terms of what they correct or consider ethical interventions. It is evident that proofreading remains a very grey area which requires more clarity to guide staff and student decisions about what is appropriate.

Therefore, this research sought to examine and compare policies and guidance documents

about proofreading at five Higher Education institutions in the UK. It was found that these policies and guidance documents tend to concentrate on the following dimensions: defining proofreading and the difference between proofreading and editing; explaining what third-party proofreaders can and cannot do (significantly, all had a longer list for what proofreaders cannot do); warning of the consequences of using third-party proofreaders and where it would be considered cheating; recommending that students do their own proofreading; emphasizing that authorial responsibility rests with students; listing the kinds of errors to correct. Transparency was required by one institution in the sample, through a student declaration about the use of a third-party proofreader.

The study skills advice that these five universities provide about proofreading overlaps in a few areas with the policies and guidance documents, including recommending that students do their own proofreading and detailing the kinds of errors they should correct, the latter seeming to be the primary focus of study skills advice. The types of errors to correct through proofreading are commonly arranged as a checklist or as questions to prompt checking, such as 'Have you formatted citation appropriately?' Other suggestions to students include printing out a text for checking and reading out the text to try to spot errors. The study skills advice is presented for students to undertake themselves through independent learning; very little evidence was found of teaching sessions on proofreading in the sample. So, although

proofreading is an established part of academic writing, it seems to be overlooked in the teaching of academic writing.

However, teaching proofreading is highly recommended to encourage students to develop further writing skills and avoid students seeing writing support tutors as their own proofreaders (Alowayid, 2020). Giving students exemplars to proofread and discuss corrections, applying checklists to their own writing and explicitly building in proofreading as a stage of writing into an assignment preparation schedule are all recommended as engaging ways for students to learn proofreading skills.

Good practice in proofreading policies involving a third party should emphasize transparency with proofreading (requiring students to state if a third-party proofreader was used, and what was corrected). Furthermore, a 'flag but not fix' approach to proofreading (Conrad, 2019, p.179) is recommended, so that students can learn from the check, make the corrections themselves and retain their authorial ownership and development of their texts.

This session connects to the conference theme of institutional requirements regarding the effects of proofreading policies and guidance, and to academic integrity as embedded practice in teaching, with the recommendation that proofreading become part of academic writing instruction. The session will raise participants' awareness of current issues in proofreading policies and provide suggestions for improvement.

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### BIOETHICS IN MEDICAL EDUCATION IN ANGOLA

Edson Joaquim Mayer Alfredo<sup>1</sup>, Natan Monsores de Sá<sup>2</sup>

<sup>1</sup>*Queen Mbandi University, Malanje, Angola*

<sup>2</sup>*University of Brasília, Brazil*

#### Keywords

Research ethics; Bioethics; Ethical positioning; Medical Degree; Angola; Core Curriculum.

#### Abstract

Angola, Bioethics, as a subject, is not included in the curricula of medical education, that is, it is not taught as a horizontal discipline or as a transversal topic in the career, and its contents lack systematization (Alfredo, Catumbela and Sá, 2019). In this sense, there is a gap that needs to be filled in order to foster a culture of valuing human rights that allows the coexistence of biomedical, techno-scientific knowledge and the local traditional cultures (Adebamowo, 2007; Andoh, 2011; Ndebele et al.,2012).

The bioethical issues that arise in the context of Angolan medical education are mainly due to its sanitary and epidemiological problems, with specific cultural characteristics, resulting from the colonial history and the introduction of European or American values, which need to be the target of critical reflection (Adebamowo, 2007; Andoh, 2011; Ndebele et al.,2012) (Alfredo, Catumbela and Sá, 2019) (Langlois,2008) (Langlois,2008).

Objective: to carry out a situational diagnosis about the insertion of Bioethics teaching in medical schools in Angola, from March 2016 to April 2019.

Method: Descriptive study, with a mixed approach, which evaluated the profile and level of understanding (in some topics of bioethics) of 4<sup>th</sup> year medical students from the five universities and compared the Angolan curricula with those of Portugal, Brazil and Cuba.

Results: 100 students were included in the study. Of these, three were excluded, with a response rate of 97%. The mean age was 24.74 ( $\pm 6.73$ ), 59 were women (61%), 89 were single (92%), 47 were Catholic (48%) and 18 were of the Ovimbundu tribe (19%). The students' answers about the concepts of Bioethics and ethics were incomplete and wrong among the different schools. The majority were against abortion 57 (72%) and 14 (78%), both in the Cuban and Portuguese schools. Ten Jehovah Witness students (13%) would not accept blood transfusion. Less than a third of the students would be in favor of euthanasia. Forty students (51%) in the Cuban school tended to have a more paternalistic attitude. Breach of confidentiality is an unknown issue to 56 (71%) and 11 (61%) students from Cuban and Portuguese schools, respectively. Sixty-three students (80%) from Cuban schools and 12

(67%) from Portuguese ones would opt for vaccination, based on the utilitarian theory. Forty-six students (58%) of the Cuban schools correctly answered the concept of human vulnerability. Final Considerations: We infer that religiously based morality (Catholic Church) may have influenced the ethical positioning of students. But further studies are needed with larger sample sizes, with the probable inclusion of students from other year levels, and the consultation of professors to precisely determine how Bioethics is inserted in the medical education of Angola. Due to the lack of an international accreditation program that regulates the teaching of Bioethics, we propose that the Angolan academic authorities adopt the integration of the subject in a transversal way in the medical career, based on the logic of the Core Curriculum of UNESCO, adapted to the socio-cultural context of Angola.

With the objective of undertaking the situational diagnosis about the insertion of Bioethics in the Teaching and Learning process of Medical Education in Angola, after a thorough analysis of the forms filled in by the students, referring to questions that involve ethical dilemmas and some principles of the Core Curriculum of UNESCO and the subsequent comparison of the Angolan curricula with those of Universities in Portugal, Brazil and Cuba, this study allowed us to arrive at the following statements(Alfredo,Sá,2019):

Although there is a great diversity of ethno-linguistic groups among the students, where a certain predominance of the Ovimbundu is observed, we believe that the answers were little or not influenced by the cultural values transmitted in each group.

We infer that religious-based morality (Catholic Church) may have influenced the ethical positioning of students.

In relation to some principles discussed in the Core Curriculum, despite the students having little knowledge or incomplete answers, we consider the following aspects about the results: different curricula, in which Bioethics is not properly systematized in terms of content to be taught; the socio-cultural and economic context of the country, justified by the trend of response based on the utilitarian theory and the local epidemiological profile.

But more studies are needed with larger sample sizes, with the probable inclusion of other years, and the consultation of professors to precisely determine how Bioethics is inserted in the medical education of Angola. Due to the lack of an international accreditation program that regulates the teaching of Bioethics, we propose that the Angolan academic authorities adopt the integration of the subject in a transversal way in the medical career, based on the logic of the Core Curriculum of UNESCO and adapted to the socio-cultural context of Angola.

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# EDUCATING AND TRAINING IN RESEARCH INTEGRITY (RI): A STUDY ON THE PERCEPTIONS AND EXPERIENCES OF EARLY CAREER RESEARCHERS ATTENDING AN INSTITUTIONAL RI COURSE

Francesca Greco<sup>1</sup>, Silvia Ceruti<sup>1</sup>, Stefano Martini<sup>1</sup>, Mario Picozzi<sup>1</sup>, Marco Cosentino<sup>1</sup>, Franca Marino<sup>1</sup>

<sup>1</sup>*University of Insubria, Varese, Italy*

## Introduction

Research integrity (RI) is defined as adherence to ethical principles and values, deontological duties, and professional standards necessary for responsible and proper conduct in the pursuit of scientific research and related activities (CNR, 2022; Poff, 2014). The ethical principles have been summarised in the European Code of Conduct for Research Integrity (ECCRI) published by ALLEA (2017), which also includes the notion of Research Misconduct (RM).

The relevance of RI issues has been internationally recognised in recent years, and several initiatives have been promoted to raise awareness among the scientific community, policy makers and the general public. However, a widespread internalisation of the principles

contained in the European Code of Conduct for Research Integrity seems not to have been achieved yet, also due to the lack of specific training of early career researchers.

Early training on RI, especially for new researchers, is of fundamental importance to help understanding ethical principles of good conduct in research. The main aim of this study was to assess the effectiveness of an online course on methodology, ethics, and integrity in academic research and map the perceptions and attitudes about RI and RM in a sample of early career researchers. The study was performed in the context of a program aimed at including RI related teaching among essential components of a PhD programme.

## Materials and Methods

An intensive training course was provided by the University of Insubria on behalf of the VIRT2UE project, a train-the-trainer program for RI trainers and researchers (grant agreement N.787580), as part of a PhD programme and open to any interested researchers.

The course was divided in two sessions: the first session was carried out online independently by each participant and consisted in online

modules and materials provided by the Embassy of Good Science website ([https://embassy.science/wiki/Main\\_Page](https://embassy.science/wiki/Main_Page)); the second session consisted of a face-to-face online training, delivered over two consecutive days by three trainers.

A questionnaire was built upon the revised version of the Scientific Misconduct Questionnaire (Broome et al., 2005; Mabou

Tagne et al., 2020) and adapted to an online course with a limited number of participants, with the integration of RI concepts. It consists of five macro investigation areas which allow collection of data on respondents' preconceptions and experiences, specifically concerning: research and ethical climate at the work environment, perceived prevalence of RM in the workplace, attitude and beliefs about RI and RM, behavioural influences on RI and RM, and personal involvement in RM.

## Results

The number of trainees attending the course was 16 and collected data shows an acquired awareness about RI and RM attitude and beliefs pre- and post-course. A general lack of knowledge about RI and RM by our participants, at an early stage of their research career, represented a major challenge in developing the course. Specifically, participants who rated as high their understanding of the rules and procedures related to RM significantly increased after the course (pre: 37.5% - post: 61.5%).

## Discussion

The course adopted a virtue-based approach to RI, in accordance with the principles outlined in the ECCRI. Participants received an overview of RI and RM issues, and practical real-world examples of ethical dilemmas were discussed to stimulate reflection and insight. Participants were strongly encouraged to actively contribute to the course, by sharing personal opinions and ideas.

Submitting a questionnaire at the beginning of the course allowed the assessment of knowledge and awareness about RI issues among the course participants, differing in age, type of educational background and research experience. Re-administration of the questionnaire once the course was over, helped

The questionnaire submission was made available before and after the course on a voluntary basis. The questionnaire was provided via the Microsoft Forms application, collected data was processed in anonymous and aggregate form with Microsoft Excel and analysed through a descriptive approach by comparing the participants' response percentages and cross-checking them between the two administered questionnaires.

Furthermore, participants agreed on the lack of awareness among researchers regarding the amount of misconduct (pre: 43.8% - post: 69.2%) and, in their opinion, the lack of research ethics consultation services within institutions strongly influences RM (pre: 12.5% - post: 61.5%). After the course, respondents agreed that all professional education programmes should include information about standards for research ethics.

in assessing the impact of the course on participants' responsiveness.

Based on collected data and direct feedback from participants, it seems possible to argue that, even among early career researchers, a certain degree of awareness about the importance of RI is present. The integration of RI topics into their training is also felt as important.

A further relevant finding is the value acknowledged by early career researchers to the possibility of sharing with their peers and superiors any ethical dilemmas which may arise in research. In this regard, the creation of a working environment that fosters awareness on RI among researchers seems to be crucial. The course represents an example of a first

experience of RI training provided in a doctoral programme at our university, and the small

sample reflects the actual number of students enrolled.

## Conclusion

Institutions, especially academia, should introduce specific RI training for researchers at a very early stage of their careers, including the institution of research ethics consultation services to support all researchers. Senior scientists should be responsible for promoting and integrating RI into their teaching and research practices, and for stimulating early career researchers to engage in peer-to-peer dialogue in order to develop good practices based on RI principles consistent with the ECCRI. This course was very positively evaluated by participants, who actively contributed to

discussions on various RI related issues, and encourage the implementation of this training tool by making it an integral part of the PhD programme. Nevertheless, despite the course, about 30-40% of participants still failed to understand RM and its occurrence. We hypothesize that the online format may have affected its effectiveness and/or that more time should be allowed to some participants to fully grasp the principles and practices which are at the course core.

The authors declare no conflicts of interest.

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# PLAGIARISM AND POLITICAL LIFE: BARGAINING THE NEW FORMS OF “DISTINCTION”

Mihai Coman<sup>1</sup>

<sup>1</sup>*Bucharest University, Romania*

## Keywords

Plagiarism, post-communism, control of the academic field, cultural capital conversion

## Abstract

After the fall of the communist regime and following the general opening towards the Western world and its values, Romania saw a proliferation of universities: 56 state subventioned universities (8 of which were military) and 26 private universities. Recently, the process of evaluation led to the accreditation of 189 doctoral schools, representing 398 scientific fields. At the same time, in recent years, numerous journalistic investigations, some confirmed by decisions of academic forums, have brought to light an unexpectedly large number of political, administrative and military leaders who obtained their doctorate through plagiarized works. However, all these journalistic investigations and the debates generated by them have led to a simplistic explanation: politicians are corrupt.

Under these circumstances we have to reveal the mechanisms that allowed the distortion of the academic model of integrity and the maintenances of the structures and procedures that allow, even encourage the fraudulent obtaining of university degrees. Based on Bourdieu's work on academic fields and the battle for cultural capital, in our study we will show how the political actors used the breaches in the law, rules and organizational

systems, or created such breaches, in order to a) transform political capital into cultural capital; b) promote into power positions (full professors, deans, heads of departments) those representatives of the university environment that would enhance their ability to obtain the academic titles and enhance their reputation, – which will then be re-transformed into political capital. The political instrumentalization of plagiarism was favored by factors such as the pluri-valence of plagiarism definitions in the Romanian legislation, the passivity of academic bodies of quality assurance, the absence of indisputable moral and professional courts, such as "watchdogs" against such excesses and abuses. In this context, the media and some NGOs were more active than the universities, which, through numerous revelations, raised public awareness. Paradoxically, there was no immediate and firm reaction from the university courts. Beyond pathetic and too often politicized statements, university leaders have not given clear signals that they are determined to deal with this phenomenon – in fact, the broadest institutional reaction has come, unexpectedly, from the National Intelligence Academy (the university of the secret services of Romania) which sent for

analysis almost 20 theses that it considers affected by the “suspicion of plagiarism.”

We will show that when we talk about obtaining Ph.Ds. through plagiarism, we must understand that it is a system – that is, the **institutionalization of theft**, a group of people who although they intended to prevent this phenomenon, tolerate, encourage, and promote it as normality. Ultimately, the system was shaped by the interests of its actors: aiming at meeting their own personal needs, they distorted the principles of academic research on the one hand, and the mechanisms of selection and of academic control, on the other hand. In this way, two contradictory processes interconnect: a formal adaptation to the western curricula and a deformation of these general frames by the academic and extra-academic actors.

New elites always need a symbolic legitimization – some are building churches, others are financing sports clubs, others are investing in cultural industries etc. The academic title (PhD + the status of Professor) offer a form of “distinction” (in the meaning of Pierre Bourdieu’s concept). Political leaders thus turn political capital into cultural capital – by simultaneously distorting the academic system rules, inserting savage capitalism norms (=unregulated markets). On the other side, in these 30 years of post-communist history, the main concern for some academic elites was transforming the top positions from the

academic hierarchy in means for obtaining financial and/or political benefits. In this way the doctoral school leaders (supported by their rectors), used their decision-making powers to create a “market” of doctoral titles (that they would control and that would generate economic benefits). In this case, the academic leaders have exploited their position as providers of public respectability and have negotiated the politicians’ access to academic titles in exchange for different economic benefits and political protection.

Journalistic investigations have done a great job by revealing the plagiarised fragments of all these doctoral theses. The debates, generated by intellectual elites, have pointed at the corruption of the political class, as a label, but without conceptual developments. As far as I know, there is no integrative theoretical model that could explain these phenomena and predict its further evolutions. In my analysis, based on Bourdieu’s work on academic field and *the conversion of economic, social & cultural capital* (Bourdieu, 2012), I have attempted to provide a theoretical model to explain the phenomenon of “top” plagiarism, as a systemic process. Starting from the model of capital liquidity and its transformation from one category to another (political/social, economic, cultural) and from the strategic needs of different actors to obtain control over their fields, we can explain its patterns and its redundant aspect (see the German, French, Czech or Slovakian cases).

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# LESSONS FROM DELIVERING EMERGENCY ONLINE WORKSHOPS THAT CAN ENHANCE ACADEMIC INTEGRITY VALUES AND SKILLS AMONG K-12 STUDENTS

Zeenath Reza Khan<sup>1</sup>

<sup>1</sup>*University of Wollongong in Dubai, United Arab Emirates*

### Abstract

COVID19 has been plaguing us since the beginning of 2020. Schools around the globe either closed or moved to the virtual platform, depending on where they were located, how much support their government provided and how much resource they had at hand (UNESCO, 2020). Emergency distance learning became a term used more and more frequently as schools in the UAE were asked to move teaching and learning online in April 2020 (Hodges et al., 2020). One thing most academics grappled with was maintaining integrity of assessments and exams conducted online. Any kind of student cheating has serious implications on the quality of education, the degree, reputation, and the greater community. Although this has been a source of concern, very little research has been conducted to truly understand the situation in the months and terms that followed, especially for K-12. Moreover, prior studies identified a gap in academic integrity and writing skills that K-12 students are trained in when they move to higher education, making it difficult for them to adjust to tertiary studies (Sivasubramaniam and Khan, 2021; Khan et al, 2021).

This study presents findings from short, emergency online workshops that were delivered as 90-minute intensive sessions to address this problem for K-12 students in the United Arab Emirates as schools reached out for

assistance for Grades 6 and above. Titled as academic integrity values and skills (AIVAS), eight online workshops were carried out for a total of 1147 students (and their parents who were invited to sit with their children) between April 2020 to May 2021 virtually. One workshop was a mixed cohort of students from grades 6 – 12, three were conducted for grades 10 – 12, two for grades 8 and 9, and two for grades 6 and 7.

At the beginning of one workshop (grades 10 – 12), with explicit approval from school and parents/guardians, students (n=88) were asked through an anonymous survey link about academic misconduct behaviour among peers, with a response rate of 62%. Findings highlight how 18% of students knew a classmate who helped someone in an exam, 18% received help in an exam, 8% plagiarised, 17% self-plagiarised, 10% had outside help and 17% had engaged in all of these behaviours. Furthermore, students felt “insecure”, “uneasy”, “relieved”, “self-disgusted”, or “overwhelmed” when asked how they felt in telling a difficult truth. The mixed-grades workshop revealed how students from the higher grades (n=53) were more aware of referencing as an important skill because “it is important to give credit”, “ensures trusted sources”, “allows more collaboration”, “because

it shows honesty”, “it is upholding integrity” and more.

The workshops that followed were based on a transitional module developed for K-12 students as “next-level preparedness” by Khan et al (2021). Although the Khan et al (2021) module is a three-day course, developed using pedagogical considerations based on Butcher, Davies and Highton (2006; 2020), these online workshops were intended to be more intensive due to constraints from schools in terms of number of sessions, hours and availability of students for one workshop. So, the content was mapped to the Khan et al (2021) module by capturing the three categories of content they delivered: (1) explicit lessons on academic integrity policies, (2) academic writing and literacy topics, and (3) reflection, but condensed to fit a 90-minute workshop. These emergency online workshops included (1) story-telling of an integrity ambassador that led to discussions on academic integrity values, (2) types of academic misconducts and how to avoid them briefly by introducing academic writing and citation practices, and (3) exercises that used practice immersion, and some formative and summative assessments to ensure students learned to recognise misconduct types, were aware of integrity values and their importance, and the

role of students in their own learning journeys. Feedback from students showed 94.60% felt confident about their own knowledge on academic integrity after the workshops. What is more, students followed up the sessions with contacts with facilitators to clarify doubts such as ‘how to avoid plagiarism’, ‘how to plan assessments’, and others. In addition, every school that asked for the workshops followed up with written feedback from the management of the schools, parents and/or students to confirm the value added by the workshops in helping to raise awareness on academic integrity values, dangers that arise due to absence of integrity values and how to avoid such situations.

It is believed these findings are vital for academics, teachers, policymakers, and researchers to recognise the behaviours that are common among students in schools. It is further believed the findings are vital for the audience of the conference so they are better able to support students during emergency distance learning or online learning situations and bring about changes in policies and frameworks to train teachers, who in turn can then support their students to develop skills for tertiary education and help create a pathway to a sustainable, inclusive, and accessible education for all.

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# STUDENTS' VIEWS ON ACADEMIC INTEGRITY: EXPLORING THEIR DECLARATIONS ACROSS THREE YEARS OF ACADEMIC INTEGRITY WEEKS

Rob Lowney<sup>1</sup>, Fiona O'Riordan<sup>1</sup>

<sup>1</sup>*Teaching Enhancement Unit, Dublin City University, Ireland*

## Abstract

This contribution will share insights into students' thoughts and attitudes to academic integrity, garnered through analysis of three sets of academic integrity declarations created by students from 2019-2021. These declarations were captured during annual "Promoting Academic Integrity Weeks" at Dublin City University (DCU). The week-long campaign, organised annually by DCU's Teaching Enhancement Unit (TEU), Library and Students' Union seeks to raise awareness of academic integrity, assessment design and contract cheating among staff and students (DCU Teaching Enhancement Unit, 2021). Among other synchronous and asynchronous events, students are invited to make a declaration about academic integrity.

Academic integrity has been defined by the International Center for Academic Integrity (ICAI) as a commitment 'to six fundamental values; honesty, trust, fairness, respect, responsibility and courage' (Fishman, 2014). Academic integrity often focuses on student assessment (mis)conduct (Eaton and Turner, 2020) but they are not one and the same (McKay, 2021). Academic integrity is about fostering ethical behaviour and it is about good teaching and learning (Morris, 2016; Stephens, 2016).

The TEU has focused on the area of academic integrity as an area of work for several years.

Initially, as part of an Erasmus+ project, the focus was on assessment design to uphold academic integrity. This project produced a literature review into the area (Egan, 2018) and a suite of principles for staff around embedding academic integrity in assessment design. This work then advanced to the development of an 'Academic Integrity Hub' for staff, to enable them to explore issues of academic integrity and to support them in actioning the principles of assessment design. Many of these resources are also available externally under a Creative Commons licence at <https://teuintegrityproject.wordpress.com/> (2018).

Taking this work further, the TEU partnered with the Library and Students' Union to coordinate the first academic integrity week in an institution in Ireland in 2019, influenced by the ICAI's Day of Action. In 2020 and 2021, a national academic integrity week took place, under the umbrella of which DCU participated. As part of the 2019 week, students were invited to contribute an anonymous personal declaration around academic integrity to a "pledge wall", which was facilitated by TEU staff. These "pledge walls" were situated at three locations on campus during week, to which students affixed post-it notes with their thoughts and attitudes. Owing to the Covid-19 pandemic and the extended remote teaching context, in 2020 and

2021 these “pledge walls” morphed into an online “declaration bank” on DCU’s Moodle-based virtual learning environment (VLE), into which all students were invited to submit an anonymous entry and to browse others’.

For the first time in Ireland, national guidelines for academic integrity have been drafted by a network comprising higher education representatives—the National Academic Integrity Network (NAIN). These guidelines state that academic integrity is “everyone’s business”, that they hold “enrolled learners at the centre” and that learners have a “leading role in terms of their own behaviour in upholding academic integrity” (NAIN, 2021, p.7).

With that in mind, it is timely to examine students’ own thoughts and attitudes towards academic integrity. The three sets of student declarations provide interesting insights. Between 2019 and 2021, over 800 student declarations were made during the academic integrity weeks. At present, the authors are analysing the declarations using the thematic analysis approach from Braun & Clarke (2021). The analogue format of the 2019 pledges have been converted to digital text to allow electronic coding. The pledges entered into the VLE declaration bank have been exported as text,

with no additional metadata. All three sets, comprising simply the pledges themselves, have been combined in a spreadsheet to facilitate coding. Emergent themes include:

- Fairness—plagiarising and cheating is not fair on others;
- Right and wrong—plagiarising and cheating is just simply wrong;
- Value of degree—plagiarising and cheating affects the value of the degree for all students;
- Learning—plagiarising and cheating leads to no learning.

This contribution at ECAIP will share the background to and details of the academic integrity week initiatives and student declaration activities that took place between 2019 and 2021, as well as the major themes from the student declaration once fully analysed. The authors welcome conversations and discussions with conference attendees around these themes, particularly if similar themes are emerging in other institutions. Moreover, discussions around how to capitalise on student sentiment and better support them to uphold academic integrity are most welcome, considering the central role they play themselves.

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# STUDENT INVOLVEMENT IN UPHOLDING ACADEMIC INTEGRITY: STUDENT BOARDS AS PRAXIS

Özgür Çelik<sup>1</sup>, Temel Serdar Yılmaz<sup>1</sup>, Nalan Erçin<sup>1</sup>, Burcu Özge Razi<sup>1</sup>, Senem Çente Akkan<sup>1</sup>, İrem Saka<sup>1</sup>, Emre Uygun<sup>1</sup>

<sup>1</sup>Çanakkale Onsekiz Mart University, Turkey

## Keywords

Academic integrity, student involvement, student board, praxis

## Abstract

On the grounds of the prerequisites of the research, it can be stated that academic integrity is *sine qua non* element. While the community of a handful of educators and students is one of the smallest parts of academic integrity, bringing it to the size of an institution would be a big step towards maximising it. That, creating a culture of academic integrity, not only adds a formal dimension but also increases the quality of academic studies, establishes a strong chain of honesty among stakeholders, and ensures that all stakeholders are responsible for each link of this chain (Razi, 2020). Thus, one of the most important objectives of academic institutions is to raise awareness and a sense of responsibility that all stakeholders are interconnectedly part of the academic honesty chain, which requires a commitment on an institutional basis.

Although academic integrity is substantially reflected as merely concerned with the misconduct of students, it has several dimensions and, consequently, stakeholders, which respectively are internal, organisational, institutional, and societal (Gallant, 2008). Starting from the basis as a surface definition, the individuals, including actors of academic

integrity like students, teachers, and researchers, lay the foundation of other dimensions since actors constitute organisations which, then, become parts of broader contexts like institutions; then, the institutions shape the social contexts which have expectations from individuals forming organisations and institutions (Gallant, 2008). From this perspective, it is evident that all stakeholders, namely managers, teachers and students, are of critical significance as they are interconnected, and unless any of them act with integrity, all stakeholders would be negatively affected. As one of the core stakeholders of academic institutions, students have a critical role in upholding academic integrity across institutions.

The so-called ambassadors of academic integrity are primarily students. Traditionally, students' role is confined to not violating academic integrity and presenting original work. However, students are at the very centre of upholding academic integrity. As John et al. (2021) stated, "students play an important role in helping build a culture of academic integrity and are the primary initiators for any activity, campaign or dialogue" (para. 5). Students not only can raise

awareness of other students about academic integrity through various activities but also can contribute significantly to the formation of a culture of academic integrity. From this standpoint, we can mention certain roles and responsibilities of students as the ambassadors of academic integrity, such as acting proactively to prevent academic misconduct, encouraging and motivating their peers to follow the premises of academic integrity, and internalising the fundamental values of academic integrity in every moment of their academic life, which are honesty, trust, fairness, respect, responsibility, and courage (ICAI, 2021).

For a long time, academic integrity scholars have been putting tremendous efforts to uphold and underline the significance of academic integrity by publishing seminal papers. These works contribute much to the body of knowledge and pioneer a collective understanding of academic integrity. Nevertheless, publication may not be enough to generate the desired impact (Green, 2019). Scholarly works may fall short in reaching students. Academic integrity student boards act as a bridge between scholars and students in terms of exploiting the impact of research outcomes to the fullest. The members of student boards are composed of students who have background knowledge about academic integrity, and at the same time, they are well-informed about the dynamics of student mindsets to which scholars have little access. Therefore, student boards are essential in the effective implementation of academic integrity across the institutions, which is in harmony with Bretag and Mahmud's (2016) claim that students should act as academic integrity champions in such student-led bodies to support the development of policies and mentoring of others. Such organisations, thanks to their organic relationship and close contact with students, can be considerably effective in gathering genuine information about their most urgent learning needs to produce academic works with integrity and reasons for their accidental or intentional academic integrity breaches. Consequently, this kind of data can be

used to create appropriate and context-sensitive preventive steps like training modules, workshops, or institution-wide educative campaigns.

From this standpoint, the Centre for Academic Integrity (CAI) of Çanakkale Onsekiz Mart University, Turkey, gives due importance to student involvement in creating a culture of academic integrity. CAI student board was established with seven members (3 PhD, 3 MA, and 1 BA student). All members are studying academic integrity in their theses. The student board primarily collaborates and cooperates with the CAI board. The main activities of the board have been the production and dissemination of educative content for social media (e.g., A Visual Guide to APA7), announcement of currently available webinars or instructional materials for students and conducting research and participating conferences on Academic Integrity to test and widen our knowledge of the field. The board also aims, as future initiatives, to create and present an online interactive module, organise workshops and webinars, and run AI-themed poster, essay, or video competitions. To this end, the student board regularly meets once a month to discuss the topics and issues on the agenda, set new goals, and share tasks. All the members of the board also collaborate online through project management software to accomplish the pre-set objectives. In line with the aforementioned objectives and the crucial role of students as ambassadors, through such activities, the board aims to create opportunities for its members to take active roles and responsibilities in improving their own knowledge and helping others gain awareness in academic integrity rather than staying as passive recipients of the theoretical information generated by academic integrity researchers. Thereby, furthermore, "praxis" is to be established where theory and practice develop in a symbiotic relationship (Freire, 1974; Hawkins & Norton, 2009). In this presentation, we, as the CAI Student Board, aim to share our experiences, activities and approaches to

uphold academic integrity in our context. Additionally, our sincerest desire is to call for

global collaboration and cooperation with other academic integrity student boards.

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