# The challenge of academic fraud
## What did we learn during the pandemic?

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## Abstract

During 2020-2021, the COVID-19 pandemic led educational institutions to implement learning management systems for online testing, encountering challenges in monitoring the improper use of resources, which increased uncertainty regarding academic fraud. This situation was worse in medical education, where the assessment of clinical and cognitive skills is crucial. Studies show that a high percentage of students admitted to having committed academic fraud, reflecting a global problem exacerbated by distance learning. The preliminary results of current studies indicate increased fraudulent practices and a dependence on memorization, challenging the effectiveness of online testing.

We suggest reviewing the testing methods to balance formative and summative assessments, emphasizing the importance of developing strategies to foster deep, applied learning, beyond memorization, to properly prepare students for their professional challenges. **(Acta Med Colomb 2024; 49. DOI: https://doi.org/10.36104/amc.2024.3207).**

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## Introduction

During the COVID-19 pandemic from 2020-2021, academic institutions adopted learning management systems (LMSs) to conduct online testing, facilitating the creation of closed-ended and multiple-choice question tests, a model widely used in on-site learning (1). However, the use of forbidden resources during the tests could not be monitored with these systems, unlike the on-site settings in which direct surveillance reduces fraud.

Teachers and administrators are still uncertain about online tests and how they were administered during these periods, especially whether students used additional resources to take the tests and whether that could be considered fraud (2). It is common for teachers to express distrust in the ability of online testing to ensure adequate student learning, which leads to different consequences (3, 4).

There is a significant debate within medical education regarding how the essential clinical and cognitive diagnostic skills are acquired and evaluated, especially during the first semesters of theory that progress toward practice. Online testing during the pandemic has created uncertainty regarding whether learning has been effectively and individually accomplished, which poses concerns about the future impact on the practical clinical skills needed for medical practice. This situation presents potential challenges for the student cohorts that have depended exclusively on information and communication technologies (ICTs) for their medical training (5-7).

Fraud can be defined as strategies used to obtain an advantage over others, breaking the established rules for taking quizzes or tests; or using forbidden aids to obtain information that provides answers in an unauthorized fashion on a written or other type of test. It is a voluntary action which is considered dishonest and entails an ethical judgement of the person. Fraud occurs in multiple forms which can be classified as active when the player voluntarily commits fraudulent acts that lead to personal gain (copying), or passive, when a person allows a fraudulent act to be committed (permitting his/her answers to be copied). In either case, fraud prevents the student from achieving the learning objectives (8).

Academic fraud is a global concern within the academic setting and has been widely studied in all fields. In Colombia, studies indicate that 94% of students have committed some type of academic fraud, with 51-70% engaged in passive actions like allowing others to copy on tests. The reasons behind these actions include work overload, disinterest in the topic and solidarity between classmates, among others (8-10). Internationally, in countries like Spain, United States, Taiwan and Holland, the percentages of students who admit to committing fraud range from 50 to 85%, emphasizing the influence of ICTs in facilitating this behavior, like plagiarism and the inappropriate use of internet resources (11, 12).

Fraud in higher education was not unheard of before the pandemic; however, during two years of distance learning aided by ICTs, academic fraud was suspected to be increasing. Preliminary results presented at the 2023 high school world congress showed an increase in the preparation of materials to be used during a test, the use of outside sources during a test, and the use of databases or question banks

to answer tests, as well as a reduction in the average time devoted to studying for a test (13).

These initial results (unpublished data) along with the analysis of qualitative interviews, have led to the following conjectures:

- The shift to online testing during the pandemic has revealed students' tendency to depend on memorization and the use of resources like question banks, reflecting a traditional approach in study methods that does not necessarily foster in-depth learning.
- While technology has facilitated access and study time management, the persistence of memorization as the main strategy emphasizes the significant challenge for online education: ensuring comprehensive and lasting learning, beyond simple information recall to pass a test.
- This emphasis on memorization instead of comprehension and knowledge application raises questions about the effectiveness of online tests and the need to develop strategies to promote more comprehensive and significant learning.

## Reflections

While online tests offer the advantage of efficiency and accessibility, they have also exacerbated concerns regarding academic fraud and have called into question the efficacy of purely theoretical and rote tests for measuring students' actual learning and proficiency.

Theoretical knowledge should be combined with practical clinical skills; excessive dependence on rote theoretical evaluations may be insufficient for preparing students for real-world challenges. This highlights the importance of incorporating formative evaluations, like clinical cases, presentations and workshops, that not only evaluate the students' ability to memorize but also their ability to apply knowledge in practical settings.

However, changing the testing approach requires a paradigm shift at both the institutional and teaching level. This change entails recognizing the intrinsic value of tests in medical education and assigning them a proper weight within the final grade. To do this, we suggest addressing two micro-curricular and test design areas that could be the topic of formative academic discussion.

- Reviewing the percentages assigned to summative assessments (tests), balanced against formative assessments.
- Reviewing the formative assessments and giving value to development and debate processes like meetings, minutes, and recordings, among others, that provide evidence of the students' learning processes and achievements.

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