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Remote Integrity and Accountability: Baseline Profile of Academic Fraud and Cheating in Online Classes

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Abstract

The COVID pandemic crisis has tremendously interrupted the learning processes in schools, specifically in the instruction and assessment delivery. The traditional residential/face-to-face (F2F) mode of pedagogical delivery has to give way to remote, distance, virtual and online modes of instruction and assessment. The Philippine government and the CHED called off the traditional modes of teaching and learning, compelling all schools to invest in remote, distance, virtual and online technologies. Online or electronic classes have been given priority in the service of learning continuity, i.e., for the schools to continue to operate and for the students to continue learning and prevent educational stunting. The CHED even had to mandate the schools to observe leniency and expand the latitude of relaxing the curriculum requirements to give due consideration to students and parents, who already suffered a lot – financially, mentally, and socially – by the difficulties brought about by this pandemic.

Here lies the problem. Too much privileging the online, distance education firmly paved by the call for leniency gives rise to the proliferation of academic fraud and cheating in online classes. With the nature of remote technology, where the residential/F2F checks and balances are inadequate, online classes are more vulnerable to online cheating and academic fraud.

Employing a triangulated internet-mediated methodology through online survey of more than 26,000 student-respondents, a series of systematic focused group discussions with 88 discussants, and key interviews from 20 informants, this paper revealed that for every 5 students, 3 admit cheating in their online classes in various degrees and frequencies (66%). Majority (62%) also find it easier to cheat online as compared to RF2F classes. And for every 10 students, 7 claimed are never caught cheating. The FGD results generated 101 raw responses, 234 open coded responses, 149 axial coded responses, and 9 selective coded responses or core themes which serve as the factors that explain why students are cheating more in their online classes. Of the 9 core themes, two factors appeared prevalent: behavioral factors (41%) and assessment factors (31%). The paper also discovered that the easiest subject to cheat is Physical Education and the most difficult is Mathematics. Further, the assessment types that are easiest to cheat on are multiple choice, true or false, and matching type, while the most difficult are essays and oral examinations.

Academic fraud through cheating in online classes cultivates academic misconduct, which profoundly results in professional misconduct and workplace malfeasance. Academic dishonesty may lead to future immoral conduct in the workplace as research

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connects academic dishonesty among students with future unethical behavior in the workplace. Academic misconduct impedes and detracts opportunities for employability. It becomes a very urgent societal problem in general and an employability issue in particular as a result of a creeping educational crisis coming out from the COVID health crisis.

Keywords: *Online class, Fraud, Cheating, Academic Fraud.*

Introduction

The COVID-19 pandemic crisis in 2020 brought massive disruptions to the Philippine education sector. Classes were suddenly interrupted; examinations disturbed; submission of requirements unsettled; school fees unpaid; school calendar and schedules broken; curriculum and syllabus sequencing jumbled; internships and field works imperiled; graduation delayed; residency and travel impaired; school infrastructure jeopardized; teachers' and students' health exposed; licensure exams postponed; and future plans ruined.

Because of this, the Commission on Higher Education (CHED) came out with a series of COVID advisories and a CMO on Remote Teaching and Learning (RTL). The CMO was aimed at mandating Philippine Higher Education Institutions (PHEIs) to shift temporarily but immediately to flexible and blended learning in order to comply with the emergency health safety protocols enforced by the Philippine government. Thus, the online era – or the period of heavy use of online classes – was borne.

RTL is also known as remote and virtual flexible learning, which is interchangeably used with distance education (DE). The concepts, frameworks and regulations for DE/RTL are laid down in the Republic Act (RA) 10650 of 2014, also known as the Open Distance Learning Act. While RTL is not exactly DE, it has become a loosened concept to cater to the exigencies brought about by the health crisis.

The law defines DE as referring to the "mode of learning in which students and teachers are physically separated from each other. It is student-centered, guided independent study, making use of well-studied teaching and learning pedagogies to deliver well-designed learning materials in various media. It is also sometimes described as flexible learning (FL) and distributed learning."

Interestingly, the CHED further defines DE and flexible learning separately. It defines DE as "a mode of instructional delivery whereby the teacher and the learner are separated in time and space, and instruction is delivered through specially designed materials and methods using appropriate technologies and supported by organizational and administrative structures and arrangements." For FL, CHED defines it as "the design and delivery of programs, courses, and learning interventions that address learners' unique needs in terms of place, pace, process, and products of learning. It involves the use of digital and non-digital technology and covers both F2F /in-person learning and out-of-classroom learning modes of delivery. It ensures the continuity of inclusive and accessible education when the use of traditional modes of teaching is not feasible, as in the occurrence of national emergencies."

What is highlighted as features now of DE, RTL, FL, and virtual learning are the 4 Ps – place, pace, process, and products. As necessitated by the pandemic, against the backdrop of calls for leniency by CHED during this difficult period, the traditional standardized mode of delivery has to give way to differentiated approaches, thus adding more to the disruption of the learning processes as well as to the school processes as a consequence.

The Southeast Asian Ministers of Education Organization (SEAMEO) has also been in the forefront of clarifying FL, which is defined as "a pedagogical approach allowing flexibility of time, place and audience including, but not solely focused on, the use of technology. Although it commonly uses the delivery methods of DE and facilities of education technology, this may vary depending on the levels of technology, availability of devices, internet connectivity, level of digital literacy and approaches."

In their book, Curtis Bonk and Charles Grayham advanced the concept of blended learning as closely resembling as FL. They define blended learning as a general "process using various pedagogical and delivery options… as it combines F2F instruction with computer-mediated instruction" [1].

As the PHEIs are given leeway on how to implement DE, RTL, FL, virtual and blended modes of delivery during the pandemic, nine learning modalities emerged with their operational features:

1. Residential learning is the traditional learning in the classroom as F2F in-person or in-campus, having the same time and space;

2. Distance learning is learning other than residential and F2F mode, or learning in different time and space;

3. Online learning is learning via the internet using online technology;

4. Remote learning is learning from afar, normally physically distant;

5. Technology-aided learning is learning with the use of electronic and digital technology;

6. Virtual learning is learning by simulation, as if like what is real (e.g., virtual meeting, virtual class, virtual study, virtual demonstration, virtual travel)

7. Flexible learning is learning with flexibility in teaching and learning activities and delivery modes;

8. Blended learning is learning combining two or more types of learning, normally residential and online; and

9. Hybrid learning is learning with value-adding or combining with many blends, something that one has while others do not (e.g., hybrid car, hybrid phone, hybrid class).

Essentially, during the pandemic, there are two major emerging modalities of learning: residential/F2F and distance learning. The other modes of online learning, remote learning, technology-aided learning, virtual learning, and flexible learning belong to the realm of distance learning.

Meanwhile, both blended learning and hybrid learning are value-added modes which make use of both residential/F2F and distance learning.

Two more concepts of modality have become popular again because of the online era: synchronous and asynchronous learning. Synchronous learning refers to the traditional residential F2F learning at the same time and place but has expanded over time to also allow simultaneous learning at the same time but different place through the use of technology. Asynchronous learning is a modality of learning and instructional delivery in different time and place and this is made possible through the use of online and digital technology. Both concepts first started to be used during the American correspondence education using the postal system in the 1920s and 1930s, and then in the military in the 1940s for the use in WWII. In the 1980s, both learning modalities were fully developed worldwide as part of the educational systems especially because of the advent of computer and internet technology.

However, there are emerging realities on the ground as these modalities or blenders are combined:

1. Not all remote are online
2. Not all distance are online
3. Not all virtual are online
4. Not all blended are hybrid
5. Not all distance are technology-aided
6. Not all online are LMS (Learning Management System)
7. Not all online are video conferencing
8. Not all synchronous are video conferencing
9. Not all modular are technology-aided
10. Residential/F2F may or may not be technology-aided

As mandated by CMO 4, all PHEIs are mandated to come up with their respective Learning Continuity Plan (LCP). The LCP lays down the use and timing of various modes or modalities – or what can be called as blenders – in responding to the various exigencies of students and teachers who are affected by the pandemic crisis in various extent.

For the University of Mindanao, its LCP aims at two-pronged objectives: for its students – and teachers as well – to continue to learn and prevent growth stunting, and for the school – just like any other private school – to continue to operate in order to survive.

The first objective is geared towards providing opportunities for sustained learning by addressing the learning loss brought by the pandemic disruptions. The second objective is to ensure that as a private school, UM can recover its losses as a result of enrolment deficit as students stopped enrolling during the pandemic lockdown.

It can be noted that public schools and state universities – whose tuition fees are free – have not suffered financial shortage; their regular overhead budgets are assured from the General Appropriations Act. Salaries of their teachers and employees are never disrupted. However, the private schools have been hit the most by the pandemic due to the stoppage of their operations. Since private schools primarily rely on tuition fees, the halt or drastic decline in students' enrolment can mean a disruption of the income flow. No enrolment means no income; and no income means no funds for overhead expenses. This means that teachers and employees have no salaries.

In fact, according to the Philippine Business for Education (PBEd), 1.1 million students did not go to school in 2021. This means that the students stunted their learning or stopped their enrolment, or both. There are also 1,179 private schools that closed in 2020 alone.

The COVID-19 pandemic appears more disadvantageous to private schools; teachers and employees of private schools suffer discrimination on top of the health risks. In the education sector, the COVID-19 pandemic is not just a health crisis; it is also an education crisis and economic crisis rolled into one.

The online era in the Philippine education system as brought about by the use of various distance learning modalities offer some opportunities:

1. The schools and students, even the parents, learn or catch up with educational technology.

2. The heavy use of online classes reinforces and enhances DE/RTL practices in the Philippines, which paves the way of improving the MOOCs (massive open online courses) programs in the country.

3. In the service of globalization, learning is expanded through borderless education through online learning; seamless online learning is enhanced without being constrained in physical space or disrupted by emergency crisis.

4. Online learning at home enhances family cohesion despite destruction of social capital in schools.

5. Parents are getting involved or engaged in online education of their children.

However, while the opportunities are promising, there are more constraints and challenges that emerged in the online era:

1. Internet is very poor; it imperils the advantages of DE/RTL.

2. Schools are forced to offer DE/RTL programs, but teachers are not prepared trained or certified in DE/RTL.

3. Teachers treat online classes as fixed F2F classes; many equate online classes with video conferencing.

4. Students are not prepared for DE/RTL modalities; many lack self-governance and maturity for self-directed learning as required for DE/RTL.

5. Students' interaction is a serious collateral in online classes, which gravely affects students' learning.

These constraints and challenges pose serious extant quality issues that derail educational standards:

1. Are students really learning? Anecdotal evidence points to a lot of letdowns.

2. Tons of learning competencies are not achieved in online mode.

3. Many of the curricular and non-curricular activities are halted such as research field work, practicum and internships, field trips, and exchange programs among others, thereby missing on important learning processes.

4. DE/RTL may be good in instructional delivery but performance assessment is vulnerable to academic fraud.

5. Huge mental and health problems are reported as a consequence of online classes.

6. Employers and the society at large may perceive graduates of online era as unreliable or sub-standard (the country is still very traditional in residential/F2F education)

These challenges likewise worsen the existing social divides that creep in the country even before the pandemic, such as:

1. Digital divide: techy vs. non-techy [2],[3],[4]

2. Digital divide: those with access vs without access to technology [5]

3. Connection divide: those with internet vs without internet connection [6], [7]

4. Connection divide: wifi data vs. mobile data [2] ,[6], [7]

5. Generational divide: reading generation vs. visual generation [8]

6. Geographical divide: urban vs. far-flung; internet services vary [5]

7. Private-public school divide [5]

Thus, the COVID-19 health crisis does not only aggravate the economic discrimination but also the social discrimination. Technology is not always an equalizer to level the playing field; it can at times portend the disparity in society.

Meanwhile, academic fraud or more specifically – cheating in online classes – have become unrestrained and unchecked during the online era. This is made possible due to the fact that students are not prepared for DE/RTL and many lack self-governance and self-discipline for self-directed learning. The teachers are also incapable of gauging, checking and even preventing the occurrence of cheating in online classes, especially in online examinations. Craig Markovitz wrote in The Degree 360, "online courses and exams certainly make it easier for dishonest students to cheat. Derek Newton agreed, it is the "anonymity and distance of the internet [that] made it easier for students to cheat."

But in the Philippines, these are all anecdotal. There is no documented empirical evidence on the extent of academic fraud during the online era in the country.

For DE/RTL to be effective and to prepare the country for better DE/RTL implementation, it is imperative to underscore the concept of remote integrity and accountability (RIA) in all modalities. RIA is the ethical foundation of a strong and vibrant remote teaching and learning programs. Without integrity and accountability in online classes, the use of DE/RTL modes and technologies shall only be misused and abused in the short term and squandered in the long term.

Objectives of the Study

Generally, the study aims to espouse the imperative of remote integrity and accountability as part of remote teaching and learning pedagogy. And to address the general problems, the study specifically intends to:

(1) Generate an indicative baseline profile of cheating practices in online classes in the University of Mindanao by:

(a) Identifying these various cheating practices online and

(b) Determining the extent of these practices online

(2) Determine the issues and concerns of faculty and students in relation to academic fraud in online classes.

(3) Design pedagogical policies or intervention programs that will equip educators with the knowledge and skills to detect and prevent cheating and academic fraud in remote teaching and learning pedagogy.

Statement of the Problem

There are three general problems that provide the predicates for the conduct of this study:

(1) Much of the articulation about remote teaching and distance education modes of delivery during the pandemic period only focuses on their promotion; there is a need to highlight the precaution about remote academic fraud and cheating in online classes;

(2) Remote teaching exacerbates academic fraud; cheating online is more widespread and uncontrollable in remote programs; and

(3) Technology can make or break the integrity of remote teaching and learning.

Significance of the Study

The study is very important due to the following:

1. It offers a baseline profile of cheating practices of students in the university; the profile allows for better understanding why students cheat in their online classes during the pandemic and post-pandemic period.

2. The baseline profile, with all the findings and trends, is able to help the university in improving its DE/RTL programs in the implementation of online classes; pedagogical decisions are properly guided by the results and recommendations of this study.

3. As the study is a first of its kind in the Philippines, it can drive replication surveys in other schools to establish a baseline profile nationwide.

4. Through the study, the imperative of remote integrity and accountability shall be given serious attention as a necessary component of remote teaching and learning. RIA needs to be understood as a precondition to effective and meaningful DE/RTL programs and technologies.

5. Online technologies like the Learning Management Systems (LMS) can also be guided to include or enhance their anti-fraud features. The university is subscribed to Blackboard and Quipper LMS; both can benefit from the results of the baseline profile of the study.

Scope & Delimitations

The study is only a seminal paper; it cannot offer conclusive findings for generalization. As it offers an indicative baseline profile of cheating practices in the university, it is limited in online survey, qualitative focused group discussions and key informants' interviews. It is imperative to conduct more exploratory studies to dig deeper and understand the factors that reinforce and facilitate the fraudulent behaviors of students in their online classes. At best, this paper provides the baseline data at the surface level, which is a first of its kind not only in the university but also in the country.

The unsupervised and asynchronous online survey may suffer some validity and reliability issues as the students as respondents answered the questions on their own. This is the reason why the percentage of survey respondents was aimed for a higher turn out to offset the reliability issues [9]. The paper adopts the observations of Nosen and Woody (2008) and Jones, et al. (2021) about the advantage of participant anonymity factor in asynchronous online surveys; such advantage is seen as encouraging more respondents to respond more honestly in online surveys. However, Jones, et al. (2021) also warned of data quality issues coming from ineligible responses that are common among asynchronous online survey. Nosen and Woody (2008) likewise previously observed of the risks brought about by high rates of invalid responses in anonymous online surveys. Thus, this paper gives full accounting of invalid responses (IRs) in applicable tables in the presentation and discussion of data. As the IRs are part of screening or exclusion protocols in the data processing, these are excluded in the data analysis.

The study was compelled to use the asynchronous online survey and online focused group discussions (FGDs) because the face-to-face survey and interviews were not feasible. The field work was done during the peak of the COVID-19 quarantine and lockdown restrictions.

There are advantages and disadvantages in deploying surveys and FGDs online. For the online survey, it is safer, cheaper, and faster to deploy and distribute through the internet and it is easier to process data [10]. The survey application software has built-in features for automatic processing. For the online FGDs, they are borderless and the discussants are easy to convene (they are in their own comfort of place and space), also cheaper and safer to use, and the discussions are easier to record (audio and video) and process later.

There are disadvantages, however. For the survey, the asynchronous mode tends to yield low return rate and it is difficult to do probing. This is the reason why the period of online survey was extended. The online survey can be annoying and thus affecting the quality of responses. Online surveys are not good for very long and exhaustive instruments. For the FGDs, internet behaviors of discussants are different from their face-to-face behaviors during the discussions. This is difficult to capture in the online FGD mode.

And lastly and more importantly, as many literature point out, both the online survey and the online FGDs are affected by internet connectivity issues which affect the quality of survey responses and FGD discussions.

Despite all those novel advantages and the recognition of disadvantages, this paper is cognizant of the natural limitations posited in various literature:

1. High potential risk for sampling bias in the unsupervised online survey [11]; [12]. There is no way to ascertain if the intended respondents are the ones responding to the survey.

2. Shared use of smartphones or computers to respond to the online survey may affect the quality of survey responses [13]

3. Since the study is seminal, data quality has not been tested and irrelevant or faked data entry rate may be higher [14], [12]. This explains the significant percentages of null response entries in the survey results (respondents are not responding to the forced-choice questions).

4. Extremely high risk of data bias is generated from online surveys and the lack of interviewer poses a disadvantage as open-ended question responses are left unexplored and not probed; validity and reliability may be derailed [10] .

Apart from increasing the survey sample size, the study also adapted the recommendations of Zahariev, et al. (2009) to mitigate the effects brought about by the limitations in employing online surveys and online FGDs.

1. Make the online survey short (consider the webpage fit of devices);

2. Online survey length is about 15 survey questions as part of mobile questionnaire design (the study had 16 questions only);

3. The online survey questionnaire design should be based on the question types supported (single choice, multiple choice, open ended); and

4. Further, the online survey questionnaire design should use shorter, more concise questions with lesser texts in the question-and-answer categories; and

5. Online surveys need to be supplemented by other methods for validation (this study makes use of online FGDs and KIIs).

Relevant Literature

What Craig Markovitz and Derek Newton wrote were all commentaries about cheating in online classes in the United States. As online education is already more than a $100-billion global industry in 2015 and projected to peak at $350-billion by 2025 (pre-pandemic figures), cheating in online classes is now poised to be a big business for the enterprising. Some following empirical data in the US provide the proof.

A higher education survey in the US with more than 2,000 college professors and administrators revealed that about 60% believed that academic fraud is more common in online courses than in face-to-face courses. The survey results were similar to those earlier reported by King, et al. (2009) wherein 73.8% felt it was easier to cheat in an online class versus a traditional one. Moreover, the study was indicative of tolerant views of probable cheating behaviors when the teacher does not set a test-taking policy. In a study about online schools in the US from a survey of more than 600 undergraduate and graduate students, about 33% admitted to cheating in online classes but only 2% were caught cheating. This is the reality of the nature of online technology; it is vulnerable to cheating and it is difficult to get caught.

Over the last decade, online learning has become a prominent industry. It has shown substantial growth as the Internet and education converged to provide a platform for people to learn new skills. Even before the pandemic, Research and Markets forecasted that the global online education market would reach $350 Billion by 2025. With the

increase in online college education, cheating is a booming business, where students have more opportunities to outsource their schoolwork (Newton, 2020).

Similarly, among 639 undergraduate and graduate students from two universities, results show that cheating happened more frequently in online classes for students enrolled in both online and face-to-face classes [15]. With the exception, students who enrolled only in online classes are less likely to commit cheating than those who took only face-to-face classes. This contradictory phenomenon can be explained by older students enrolled only in online classes, taking more academic integrity responsibility, and cheating less. Another study discovered that among the respondents of 635 undergraduate and graduate students, 32.7% admitted to cheating in online classes, and 32.1% admitted to cheating in live classrooms. In comparison, only 2.1% of online students and 4.9% of students in a live class were caught cheating [16]. Data suggests that students were almost four times more likely to cheat in online classes than in live classes and that their classmates were over five times more likely to cheat [16]. In addition, Yardley et al. (2009) surveyed the prevalence and perceived severity of cheating behaviors of several alumni from different universities and found that most of the respondents (81.7%) have reported that they committed at least one form of cheating behavior during their undergraduate years. Also, the study affirmed that “copying from another student's assignment” and “allowing others to copy from your assignment" were the most common forms of cheating, and students' top reasons for cheating were lack of time and to help a friend.

Over the years, students get creative and learn many new ways to cheat with the help of internet technologies. Rowe (2004) cited three common ways students used dishonesty in online assessment: taking their exams later to gather leaked answers, retaking exams based on false assertions, and getting unauthorized help during exams. A Kessler student survey in the US in 2017 revealed the following:

1. 76% said they copied texts from somebody else’s assignment;
2. 79% admitted to plagiarism from internet sources;
3. 72% said they used mobile devices to cheat;
4. 42% said they purchased custom papers or essays online; and
5. 28% said they paid for a service to take their online classes for them.

In a MacAfee study, 1 in 3 American students use mobile phones or other connected devices to cheat on exams. This number shows that 30% of American students are cheating in their online classes. This figure affirmed the survey of online schools showing about 33% of students admitting to cheating in online class.

How do American students cheat? Some trends of cheating practices were identified:

1. Online identity fraud (identity spoofing; somebody is attending the online classes)
2. Impersonation (small-scale identity fraud)
3. Surrogacy (large scale impersonation)
4. Outsourced assignments
5. Plagiarism
6. Call a friend (during exams)
7. Consult Google (during exams)

In her own paper, Hollis (2018) found that students are increasingly becoming savvy in cheating in their online classes, including buying so-called allies to serve as ghost-students to take an entire class or examination for them. This is similar to impersonation and surrogacy. Citing other authors, Hollis acknowledged that an increasing number of

students felt easy to cheat online. The figures grew from 63% in 2009 to 74% in 2017. Hollis likewise noted the opportunity to cheat in the online environment, driven most especially by anonymity.

Hughes and McCabe (2006) suggest possible indicators of academic misconduct: student maturity, perceptions of what constitutes academic misconduct, faculty assessment and invigilation practices, low perceived risk, ineffective and poorly understood policies and procedures, and a lack of education on academic misconduct.

At a Congressional hearing, former Inspector General Kathleen S. Tighe of the US Department of Education testified on why American students are cheating:

[The] "management of distance education program presents a challenge…. because of limited or no physical contact to verify the students' identity or attendance. [This is] because of aspects of distance education that take place through the internet; students are not required to present themselves in person at any point."

Tighe's testimony is very crucial in understanding better the nature of DE/RTL programs with the use of online technology. Both Derek Newton and Leah Hollis were correct in noting that anonymity and distance present as drivers for students to cheat. Dishonest students, as Craig Markovitz would describe, will cheat more in online classes. But even the honest students are also tempted – even seduced – because of the opportunity and ease of cheating [17], [18], [19]. The nature of the online technology presents daunting problems for its systems integrity and the moral integrity of the users (students).

In the other parts of the world, cheating in online classes is pervasive. Ayoub/Al-Salim and Aladwan (2021) found cheating by students in online classes are increasing in recent years as technologies are abused in the following areas – cutting and pasting materials from the internet; sharing online quizzes; and texting answers to classmates. Online technologies have also become the platform for the conception of a new set of cheating practices called e-cheating or e-dishonesty [17]. Citing various sources, Holden, et al. (2021) explained the forms of e-cheating and academic dishonesty as including the following examples:

- downloading papers from the internet and claiming them as one's own work;
- using materials without permission during an online exam;
- communicating with other students through the internet to obtain answers;
- having another person complete an online exam or assignment rather than the student who is submitting to work;
- using unauthorized materials or forbidden resources during the exam;
- facilitation (helping others to cheat);
- falsification (misrepresentation of oneself);
- plagiarism (claiming another's work as one's own); and
- providing an unearned advantage over other students

Holden, et al. (2021) describes e-dishonesty as referring to "behaviors that depart from academic integrity in the online environment." In explaining why students resort to e-cheating and become e-dishonest, Holden, et al. (2021) cited the so-called fraud triangle as propounded in various literature. The fraud triangle considers three major factors:

- opportunity (students perceive that they can cheat without being caught)
- incentive, pressure or need (coming from parents, peers, friends)
- rationalization or attitude (perceives that cheating is an acceptable norm)

Holden, et al. (2021) did a comprehensive systematic review of various literature on academic integrity and cheating practices in online classes, and concluded that approximately 42-74% of students believe that it is easier to cheat in online classes. That is about four to seven students out of 10 perceiving the online technology as easy to cheat on. The range of estimation confirms the 60%-figure on the same data from the US surveys.

What have been done so far?

Hollis (2018) cited some recommendations to control online cheating at the organizational and faculty level. The organizational solutions are the following: check student's IP addresses; use test centers for assessment; student report in person to the specific test center with identification on hand; offer hybrid courses; clearly define what academic dishonesty is and promote severe penalties for ghosting; and hire personnel that deals with possible ghosting, instead of faculty. Meanwhile, the faculty-level recommendations are the following: require photo ID for registration and during online exams; require students to submit course notes and drafts of work; provide links to the anti-plagiarism program; utilize webcams in supervising exams or quizzes and require all professors to include academic integrity policies on their course syllabus. In support of the latter study, it appears that having a code of honor is far less effective in delivering online courses and leads to only a negligible decrease in online cheating behaviors [20]. Thus, the authors propose incorporating stern warnings that inform the students of the potential consequences of cheating if committed. This method leads to a vital (about twofold) drop in cheating. Furthermore, Bilen and Matros (2021) propose two implementable solutions for the online cheating problem: an online exam policy that requires capturing each student's computer screen and room and creating exams with more straightforward questions with less time to answer.

On the other hand, Rowe (2004) suggests additional ways to minimize e-cheating, such as using exam software to generate randomized questions, safeguard test bank accessibility, and produce various versions of each assessment. In support of the latter investigation, Golden and Kohlbeck (2020) validated paraphrasing test bank questions to minimize cheating on online exams. Results show that students perform better on verbatim questions than paraphrased ones (80.4% vs. 69.1%).

Conceptual Framework

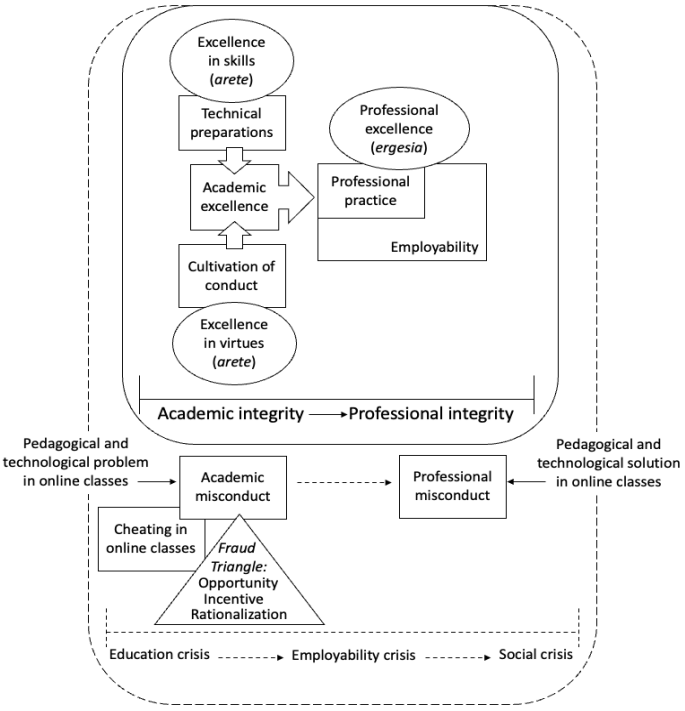

Figure 1: Cheating in online classes as an urgent employability issue

From the various relevant literature and empirical evidences from other countries, there is a pervading issue on the abuse and misuse of DE/RTL technology and online classes specially during the pandemic. Figure 1 portrays the link between cheating in online classes and learning crisis in the short term and social crisis in the long term. As it is a creeping education crisis, it also has a long-term implication to employability and professional practice of the graduates.

Why does it matter? Because habitual cheating cultivates systematic corruption in society.

As shown in the framework, academic excellence prepares the students for professional practice or become highly employable. To achieve academic excellence, the students need technical preparations to excel in skills (techne) and cultivation of conduct to shape their virtues as good students (arete). Both excellence in skills and excellence in virtues ideally result in excellence in the profession (ergesia). This is the most ideal aspiration of many schools and their students, to be able to cultivate academic integrity towards the end goal of professional integrity.

However, because of academic misconduct through the pervasive cheating in online classes, academic integrity is greatly derailed and professional integrity is gravely risked. The pervasive cheating is made conducive by the concept of fraud triangle as a result of pedagogical and technological problems arising in online classes.

Ayoub/Al-Salim and Aladwan (2021) showed that there is a very strong correlation between academic integrity in online classes and academic learning quality, thus proposing to focus on strong programs to instill ethical values among the students in their entire academic journey.

Blankenberger and Williams (2020:417) succinctly puts it: "As we consider the short-term and long-term impacts of COVID-19 on higher education, we are struck by the critical role of institutional integrity and accountability."

The people are aghast and angered with so much anomaly and irregularity in government. But the corruption in government begins with the corruption in classes. Ayoub/Al-Salim and Aladwan (2021:47) support as they concluded in their study: "Consequently, academic dishonesty may lead to future immoral conduct in the workplace. There is research that connects academic dishonesty among students with future unethical behavior in the workplace."

There is a profound connection between the integrity in the class – be it residential or virtual – and the integrity of the country. Pedagogical integrity makes or breaks the nation's integrity.

The profound connection lies in the answer to this nagging question: why do we have so much corrupt people in government, and many are involved in national scandals, despite their formative years in schools?

This is the perennial awkwardness: what if cheaters in class become teachers? Or professionals? Or government officials? What if the cheaters in class pass their courses, even qualify as outstanding graduates?

The students as youth are the country's future; their integrity at present shapes the integrity of the future. System's integrity (online classes) needs the culture of integrity (good conduct, good students, good citizens). The schools can help in expanding the space for integrity by reducing the space for anomaly in remote online classes through pedagogical and technological response.

METHOD

Internet as method

During the time of the pandemic quarantine restrictions, the conduct of physical face-to-face research is one of those intellectual endeavors that are gravely disrupted or impeded. Researchers are compelled to resort to the internet as a methodological remedy in collecting data, as conventional physical fieldwork is now transmuting into virtual fieldwork. While literature on internet research [21], [23], online research [24] ; [25]; [24], remote research [25]; [24], technology-aided research [22], and digital research[24]; [26] are not new, these are again highlighted and privileged during the Covid-19 health crisis.

The internet as a method – more properly known as internet-mediated research or IMR [27] – is the general research design employed in this study, more specifically in the use of online survey and online focused group discussions (FGDs). More than ever, with the Covid pandemic until the next, the internet as a method has become an inescapable and necessary research tool [22]. It is becoming a useful research platform when face-to-face data collection fieldwork is not feasible.

In using the internet for research, [23] conceived of the following:

1. research method 'with' the internet: adapting face-to-face methods using internet
2. research method 'in' the internet: researching online interactions
3. research method 'on' the internet: adopting online research as a topic for research

As this paper belongs to the research method 'with' the internet, it is using the internet as a data collection tool for the asynchronous online or electronic survey and the face-to-face online FGDs. The online survey was deployed using the GoogleDoc which can be

accessed anytime during the survey period. For the online synchronous (face-to-face) FGDs, the paper made use of the Google Meet video conferencing software.

Survey Instrument

The online survey questionnaire was self-made based from various literature and was validated by professionals on questionnaire design. In order to give the respondents ease and comfort in answering each question and understanding the purpose of the study, the questionnaire was developed in a highly concise form for online deployment through the GoogleDoc.

The survey questionnaire was first content-validated by an internal and external expert using a standardized 7-item validation sheet in a Likert scale of 5 (excellent) to 1 (poor). The content validity yielded an average mean score of 4.8, which is just 0.2 shy from the highest validity score of 5. The survey responses were collated and measured using the frequency distribution [37], fixed choice, ranking, and open-ended response analysis [28].

Design & Procedure

The study employed triangulated qualitative research employing the survey, the FGD, and the key informants' interviews (KII). The primary aim is to establish a baseline profile, which could be a first in the Philippines. A purposive confidential baseline survey was designed and deployed online. Since the field work and data gathering period of the study was conducted during the pandemic period in 2020 and 2021, the online survey and focused group discussions (FGDs) were done online respectively using Google document and Zoom videoconferencing. The KIIs were done informally and randomly face-to-face. The triangulation method is also an attempt to mitigate the natural limitations and disadvantages of the online modes of survey and FGDs.

The survey allowed to mine and generate the intended data for the baseline. To complement the baseline online survey, a mix of five organized FGDs were employed to validate and enrich the baseline data. A few informal KIIs – numbering to about 20 – were conducted for conversation analysis to seek elaboration of the survey and FGD data trending. The KIIs included school administrators, teachers, students, and parents.

The baseline survey and KII results were consolidated and analyzed by simple trending while the FGDs made use of micro-interlocutor analysis [28], constant comparison analysis [30]; [29], [31]; [32]; and classical content analysis [32]. These are all the common techniques in analyzing qualitative data from the FGD results.

A sum of five FGDs were conducted in November 2021 with a total of 88 FGD participants, who were purposively chosen via snowballing technique by the nature of their position in the university. The spread of the FGDs is shown in Table 1.

The number of FGDs conducted and the number of participants hereof are sufficient and compliant with the standard practice of 3-6 FGDs [36]. Having more FGDs and FGD participants will only result in saturation sampling, where no new data can be elicited anymore [34], [33]; [35].

Table 1: Online FGD Deployment and Gender Distribution

FGD Participants	**Date Conducted**	**Male**	**Female**	**Totals**
Deans, Directors & Principals, UM Main	November 10, 2021 AM	8	9	17
Program Heads/Coordinators, UM Main	November 11, 2021 AM	10	11	21

CSG/CSO Student Leaders, UM Main	November 11, 2021 PM	4	9	13
Deans, Directors & Principals, UM Branches	November 15, 2021 AM	9	15	24
CSG/CSO Student Leaders, UM Branches	November 16, 2021 PM	3	10	13
	Totals	34	54	88

The online survey was conducted from the period January to May 2021, covering the period of 2nd semester, SY 2020-2021. The survey was extended up to the summer period (June-July 2021) up to the 1st term of the following semester (1st semester, SY 2021-2022), from August-October 2021. The extension was conducted only for those colleges who had the least survey participation in the first round. The total baseline population used for this survey was 31,393. This number was based on the combined total student population of UM Main and UM Branches for this period.

Survey Participants and KII/FGD Discussants

The intended survey respondents were all students at the University of Mindanao in all levels, and originally targeted a minimum of purposive sample of 5,000 students – or just about 15% of the total population of 31,393 across UM Main and UM Branches. However, due to the reliability issues attendant to online surveys, as well as the ease of reaching out to many respondents as the technology was available, the survey sampling was changed to the highest possible turn-out to achieve a more reliable participation rate and quality of data. Thus, as shown in Table 2 and Table 3, the actual survey turn-out yielded a very high 26,453 respondents, or 84% of the baseline figure of 31,393.

Table 2: Online Survey Deployment

Survey Participation Rate	**Population**	**Share**
All-UM Student Population, 2nd semester SY 2020-2021	31,393	100%
Students who participated in the online survey	26,453	84%

Table 3: Online Survey Gender Distribution

Gender	Population	Share
Male	9,939	38%
Female	13,947	53%
Undecided	1,651	6%
No Response	916	3%
Total	26,453	100%

The survey was able to generate a very large number of respondents to mitigate expected reliability problems relative to online surveys. Of the total respondents of 26,453 (100%), majority are females (13,947 or 53%). The males accounted only for 9,939 (38%) while a few neither decided (6%) nor responded (3%) to their gender affinity.

Table 4: Online Survey Distribution by Education

Educational Level	Population	Share
Grad/Post-Grad	490	2%
College	24,254	92%
High School	1,388	5%
Elementary	55	<1%
Invalid Response	266	1%
Total	26,453	100%

College students dominate the survey respondents; this is expected as college has the greatest number of studentry in the university.

Table 5: Online Survey Distribution by Age

Age Distribution	Population	Share
9-Below	10	<1%
10-14	274	1%
15-19	7,180	27%
20-24	15,264	58%
25-29	1,678	6%
30-34	484	2%
35-39	135	1%
40-44	83	<1%
45-49	38	<1%
50 and above	38	<1%
No Response	1,177	4%
Invalid Response	92	<1%
Total	26,453	100%

Majority of the respondents come from the 20-24 age group, which consists of college students. Table 5 corresponds with Table 4 in terms of population distribution by age and educational level.

RESULTS & DISCUSSION

Presentation and Analysis of Data

An alarming 3 out of 5 students (or 6 out of 10 by ratio) in the university admit to cheating in their online classes, as 66% or 17,475 responded affirmatively (Table 6). About the same number of students (16,399 or 62%) said that cheating in online classes is easier as compared to the residential (physical), face-to-face (RF2F) classes (Table 7). When asked if they also know of others who are cheating in online classes, majority (13,656 students or 52%) said answered agreeably (Table 8).

Cheating in online classes is disturbingly pervasive (66%) validated by majority awareness (52%) and recognition of ease of cheating in online modality (62%).

Table 6: Have you ever cheated in your online classes?

Yes or No	Population	Share
Yes	17,475	66%
No	8,231	31%
Undecided	747	3%
Total	26,453	100%

Table 7: Cheating in online classes is easier than in RF2F classes?

Yes or No	Population	Share
Yes	16,399	62%
No	8,325	31%
Undecided	1,729	7%
Total	26,453	100%

Table 8: Do you know of others or your classmates cheating in online classes?

Yes or No	Population	Share
Yes	13,656	52%
No	12,487	47%
Undecided	319	1%
Total	26,453	100%

The favorite mode of cheating or modus operandi (MO) are copying from internet sources (39%); Googling during quizzes and exams (23%); copying from somebody else's assignment (12%); and calling a friend or classmate during quizzes and exams (10%). The other MOs are diffused as shown in Table 9. However, it can be noted that those who

claimed in Table 6 that they did not cheat or those undecided could have also responded in Table 9.

Table 9: How did you cheat in your online classes (multiple responses)?

Modus Operandi (MO)	Population	Share
I copied from internet sources	15,361	39%
I Googled during quizzes and exams	8,994	23%
I copied from somebody else's assignment	4,905	12%
I called a friend or classmate during quizzes and exams	4,077	10%
I just logged on and leave the online class	1,513	4%
I submitted for my friends or classmates in online classes	1,241	3%
I bought essays and projects online	890	2%
Somebody else answered for my quizzes	446	1%
My brothers/sisters answered for my quizzes and exams	414	1%
My classmates answered for my quizzes and exams	413	1%
Somebody else attended my online classes for me	374	1%
I paid and outsourced my assignments	370	1%
I paid and outsourced by thesis	201	1%
My parents answered for my quizzes and exams	193	<1%
Total	39,392	100%

The study wanted to identify which type of student assessments are easy to cheat. Common assessment types were presented in a table and the respondents were asked to rank the top three from the most easy (Rank 1) to the least easy (Rank 3). The respondents had to make a single choice only per rank to tally with the total number of respondents (26,453). As shown in Table 10, the top three easiest to cheat are Multiple Choice (55%) followed by True or False (37%) and Matching Type (25%). The Table 10-1 presents the break-down of the responses summarized in Table 10.

There are other assessment types which are distributed in frequency as shown in Table 10-1. The valid responses (VRs) – the total of those who responded given the choices – for Rank 1 is 20,731 which is 78% of the total number of respondents (26,453); Rank 2 with 19,222 which is 72% of the total respondents; and Rank 3 with 18,524 which is 30% of the total respondents. The share of VRs to the total number of respondents are very high despite the non-participation (no answer) of a significant number of students, ranging from 22% to 30% from rank 1 to rank 3.

Table 10: Easiest to Cheat in online classes?

Easiest to Cheat		f	%
Rank 1	Multiple Choice	11,437	55
Rank 2	True or False	7,020	37
Rank 3	Matching Type	4,630	25

Table 10-1: Which type of quiz or exam is easy to cheat in online classes?

Rank from the most easy (Rank 1) to least easy (Rank 3)

Easiest to Cheat	Rank 1		Rank 2		Rank 3	
	f	%	f	%	f	%
True or False	3,156	15.22	**7,020**	**36.52**	3,166	17.09
Essay	2,258	10.89	1,638	8.52	1,903	10.27
Multiple Choice	**11,437**	**55.17**	3,647	18.97	2,570	13.87
Matching Type	984	4.75	2,728	14.19	**4,630**	**24.99**
Fill in the Blanks	1,974	9.52	2,926	15.22	4,511	24.35
Oral Test/Exam	256	1.23	374	1.95	581	3.14
Case Study	288	1.39	407	2.12	470	2.54
Project/Portfolio	378	1.82	482	2.51	693	3.74

Valid Response (VR)	20,731	100	19,222	100	18,524	100
% of VR to Total	-	78.37	-	72.66	-	70.03
No Answer (% to Total)	5,722	21.63	7,231	27.34	7,929	29.97
Total	26,453	100	26,453	100	26,453	100

In the reverse, the study likewise wanted to identify which type of student assessments are most difficult to cheat. The same choices of assessments were presented in a table and the respondents were asked to rank the top three from the most difficult (Rank 1) to the least difficult (Rank 3). Again, the respondents had to make a single choice only per rank to tally with the total number of respondents (26,453). As shown in Table 11, the most difficult to cheat are Essay (33%) for Rank 1, followed by Oral Test/Exam (24%) for Rank 2, and the same Oral Text/Exam (25%) for Rank 3. Essentially, the most difficult to cheat in online assessments are Essays and Oral Tests/Exams. The Table 11-1 presents the break-down of the responses summarized in Table 11.

There are other assessment types which are distributed in frequency as shown in Table 11-1. The valid responses (VRs) – the total of those who responded given the choices – for Rank 1 is 20,644 which is 78% of the total number of respondents (26,453); Rank 2 with 19,392 which is 73% of the total respondents; and Rank 3 with 18,942 which is 72% of the total respondents. The share of VRs to the total number of respondents are very high despite the non-participation (no answer) of a significant number of students, ranging from 22% to 28% from rank 1 to rank 3.

The trends for VRs and no-responses for Table 10-1 and Table 11-1 are not far off from one another.

Table 11: Most Difficult to Cheat in online classes?

Most Difficult to Cheat		f	%
Rank 1	Essay	6,875	33
Rank 2	Oral Test/Exam	4,649	24
Rank 3	Oral Test/Exam	4,802	25

Table 11-1: Which type of quiz or exam is most difficult to cheat in online classes?

Rank from the most difficult (Rank 1) to least difficult (Rank 3)

Easiest to Cheat	Rank 1		Rank 2		Rank 3	
	f	%	f	%	f	%
True or False	1,339	6.49	1,443	7.44	916	4.84
Essay	**6.875**	**33.30**	3,461	17.85	2,704	14.28
Multiple Choice	2,380	11.53	1,078	5.56	1,090	5.75
Matching Type	628	3.04	827	4.26	984	5.19
Fill in the Blanks	1,962	9.50	1,663	8.58	1,703	8.99
Oral Test/Exam	3,734	18.09	**4,649**	**23.97**	**4,802**	**25.35**
Case Study	2,833	13.72	4,597	23.71	2,961	15.63
Project/Portfolio	893	4.33	1,674	8.63	3,782	19.97
Valid Response (VR)	20,644	100	19,392	100	18,942	100
% of VR to Total	-	78.04	-	73.31	-	71.61
No Answer (% to Total)	5,809	21.96	7,061	26.69	7,511	28.39
Total	26,453	100	26,453	100	26,453	100

Part of the study was to identify which subjects or courses are easy or difficult to cheat on during the online classes. The succeeding tables reveal very interesting trends. The trends are summarized in Table 12 and Table 13, but the breakdown of the ranking is shown in Table 12-1 and Table 13-1. As these tables are open-ended and single response only, the respondents are asked to identify the subjects or courses by themselves according to the rank of ease or difficulty.

As shown in Table 12, the top three courses that are easy to cheat in online classes are PE (Rank 1 with 18%), Science (Rank 2 with 17%), and Filipino (Rank 3 with 18%). As shown in Table 13, the top three courses that are difficult to cheat in online classes are Math (Rank 1 with 37%), Science (Rank 2 with 24%), and Math again (Rank 3 with 19%). Thus essentially, both Math and Science are identified as the most difficult subjects to cheat in online classes.

The Table 12-1 and Table 13-1 computed the valid responses (VRs) only. Valid responses are concentrated responses that determine commonality of responses. Excluded from the computation of VRs are the other responses (Others), which are essentially valid but they are widely dispersed and the commonality falls below 100 responses. Excluded in the counting also are the NES (no easy subjects to cheat) and the NDS (no difficult subjects to cheat); the invalid responses (IRs) and the no-answer (NA). The VRs are computed against the total population to establish the extent of population proportion.

Table 12: Courses easiest to cheat in online classes

Courses easiest to cheat		f	%
Rank 1	Physical Education (PE)	957	18
Rank 2	Science	540	17
Rank 3	Filipino	397	18

Table 12-1: Which course or subject is easy to cheat in online classes?

Rank from the most easy (Rank 1) to least easy (Rank 3)

Easiest to Cheat	Rank 1		Rank 2		Rank 3	
	f	%	f	%	f	%
English	801	15	452	15	358	16
Math	420	8	234	8	264	12
Physical Education	**957**	**18**	191	6	213	10
Filipino	368	7	430	14	**397**	**18**
Minor Subjects	753	14	161	5	153	7
Science	313	6	**540**	**17**	322	15
NSTP	294	5	233	7	152	7
Environmental Science	355	7	163	5	104	5
Art Appreciation	213	4	181	6	-	-
History	208	4	247	8	208	10
Rizal	200	4	167	5	-	-
Reading Comprehension	293	5	113	4	-	-
Purposive Communication	125	2	-	-	-	-
Ethics	107	2	-	-	-	-
Valid Responses (VRs)	**5,407**	**100**	**3,122**	**100**	**2,171**	**100**
% of VRs to Total	**-**	**20**	**-**	**12**	**-**	**8**
Others (Dispersed)	866	-	5,832	-	5,787	-
% of Others to VRs	-	16	-	187	-	267
% of Others to Total	-	3	-	12	-	22
No easy subjects to cheat (NES)	3,189	-	3,050	-	3,137	-
% of NES to Total	-	12	-	12	-	12
Invalid Responses (IRs)	16,991	-	1,927	-	2,005	-

% of IRs to Total	-	64	-	7	-	8
No Answer (NA)	-	-	12,532	-	13,353	-
% of NA to Total	-	-	-	47	-	50
Total	**26,453**	**100**	**26,453**	**100**	**26,453**	**100**

As shown in Table 12-1, the VRs range from 8% to 20% only of the total population of respondents (26,453). The other responses range from 3% to 22% of the total responses. The NES accounts for only 12%, which could mean that all subjects or courses are difficult to cheat online. The IRs is 64% of the total respondents for the first ranking but hugely declining with 7% to 8% for the second and third ranking. The NAs are about half of the total respondents (47% to 50%) for second and third ranking. Over-all, the data in Table 12-1 suggest that the responses are significant for Rank 1 only, while responses in Rank 2 and Rank 3 are not that significant.

For Table 13-1, the VRs range from 9% to 18% only of the total respondents. The other responses (Others) are dispersed answers ranging from 32% to 38% of the total respondents. The NDS accounts only for 6% to 7% of total respondents, which could mean that all subjects are easy to cheat online. The IRs is only 1% of the total respondents in all ranking. And the NAs range from 37% to 49% of the total respondents, indicating an increase from the first rank to the third rank. Over-all, the data in Table 13-1 suggest that the responses may not be significant for all ranks, although the sciences and mathematics appeared common among the like-minded respondents, accounting for 4,697 for the first rank, 2,300 for the second rank, and 2,649 for the third rank.

Table 13: Courses difficult to cheat in online classes

Courses difficult to cheat		f	%
Rank 1	Math	1,753	37
Rank 2	Science	559	24
Rank 3	Math	504	19

Table 13-1: Which course or subject is most difficult to cheat in online classes?

Rank from the most difficult (Rank 1) to the least difficult (Rank 3)

Easiest to Cheat	Rank 1		Rank 2		Rank 3	
	f	%	f	%	f	%
Math	1,753	37	412	18	504	19
Science	111	2	559	24	307	12
English	156	3	202	9	245	9
Reading Comprehension	274	6	213	9	128	5
Physics	-	-	151	7	115	4
Filipino	-	-	-	-	109	4
Chemistry	-	-	-	-	103	4
Calculus	339	7	128	6	-	-
Accounting	383	8	-	-	-	-
Research	125	3	-	-	-	-
Major Subjects	1,153	25	252	11	438	17
All Subjects	403	9	383	17	700	26
Valid Responses (VRs)	**4,697**	**100**	**2,300**	**100**	**2,649**	**100**
% of VRs to	-	18	-	9	-	10

Total						
Others (Dispersed)	9,961	-	9,984	-	8,479	-
% of Others to VRs	-	212	-	434	-	320
% of Others to Total	-	38	-	38	-	32
No difficult subjects to cheat (NDS)	1,664	-	1,770	-	1,941	-
% of NDS to Total	-	6	-	7	-	7
Invalid Responses (IRs)	293	-	317	-	386	-
% of IRs to Total	-	1	-	1	-	1
No Answer (NA)	9,838	-	12,082	-	12,998	-
% of NA to Total	-	37	-	46	-	49
Total	26,453	100	26,453	100	26,453	100

In understanding the cheating practices in online classes, it is not enough to identify the who (cheaters), the how (modus operandi), and the what (courses or subjects). It is also important to understand the extent of frequency of cheating as revealed in Table 14. When asked how many times they cheated in their online classes, majority of the respondents (66%) said rarely or less than 5 times only during the time of the survey. A significant percentage (23%) said a few times or more than 5 times to 10 times. The rest cheated more than a few times, many times, and several times. Valid responses account for 79% - which indicates high reliability – of the total respondents. The percentage can also be interpreted as about 8 out 10 students cheated in their online classes in various frequencies.

It can be noted that about 8% – or 2,084 respondents – said they never cheated in their online classes. Comparing to the data in Table 6, the 8% is about four times lower than the 31% – or 8,231 – who said they did not cheat in their online classes. The inconsistency could be attributed to one of the many delimitations in employing online surveys.

Table 14: Frequency of Cheating in Online Classes

Have many times have you cheated in your online classes?	f	%
Rarely (less than 5 times)	13,857	66
A few times (more than 5 times to 10 times)	4,755	23
More than a few times (more than 10 times to 15 times)	1,128	5
Many times (more than 15 times to 20 times)	410	2

Several times (more than 20 times)	593	3
Others	219	1
Valid Responses (VRs)	**20,962**	**100**
% of VRs to Total	-	**79**
Never	2,084	8
Don't Know	46	0.17
No Answer	2,406	9
Invalid Answers	955	4
Total	**26,453**	**100**

One of the reasons why cheating can be pervasive in online classes is the detection factor, or the fear of being caught. Obviously, when the opportunity to cheat is reinforced by the lack of detection, the students tend to be audacious to cheat. Opportunity becomes more attractive and seductive without detection. This is part of the so-called fraud triangle cited by [17]. As shown in Table 15, a very significant number of respondents – 17,829 or 75% – admitted of never being caught cheating in their online classes. The VRs account for a very reliable 98% – or 23,803 respondents – out of the total respondents of 26,453 students. The percentage can be interpreted as 7 out 10 students are never caught cheating in their online classes (except the 73 students who admitted being always caught cheating; this number is just less than 1% of the total population).

Table 15: Caught Cheating in Online Classes

Have you ever been caught cheating in your online classes?	f	%
Always	73	0.306
Sometimes	2,233	8
Rarely	3,128	13
Never	17,829	75
Others	540	2
Valid Responses (VRs)	**23,803**	**98**
% of VRs to Total	-	**90**
Did not cheat	496	2
Don't Know	389	1
No Answer	1,562	6
Invalid Answers	203	1
Total	**26,453**	**100**

In the informal KIIs, a single question – why students cheat more in their online classes? – was used to elicit discussions from which probing questions were raised as follow-up questions.

There were several reasons shared in the KIIs; these reasons are grouped into four factors: teacher factor; student factor; parent factor; and technological factor.

For the teacher factor: teachers leave their students on their own; teachers are moonlighting during the WFH mode (doing other work online); teachers are unable to detect student cheating; teachers are selling online modules and materials (pervasive in public schools); teachers are doing research, thesis, and dissertation for a fee. This is the opportunity and rationalization in the fraud triangle [18].

Caselet #1: Moonlighting teachers

Many teachers resorted to moonlighting in order to augment their income due to economic difficulties during the health crisis. This is particularly true to teachers in the private schools (public school teachers continue to receive their salaries). As a result of

moonlighting – getting other extra-work for extra-income – the teachers are unable to fully attend to their online classes, leaving the students on their own, usually unable to diligently check on the students' outputs. Worse, the teachers are unable to detect if their students are cheating or not. Most of the moonlighting practices of teachers include enlisting as VA (virtual assistant) to foreign-owned companies, accepting online classes from other schools, even accepting delivery jobs on the side during the day.

One teacher accepted three more online subjects from other schools, whose class schedules coincide with his own classes in the university. As a remedy, the teacher made use of four devices: one desktop, one laptop, one tablet, and his smartphone. Each device corresponded with one class. The desktop was for his main class; the other three for three other classes from other schools. All at the same time. He just asked his students to make reports, or give them exercises, and talked to his online classes alternately. The teacher did it every day, for the entire semester of his online classes during the pandemic period.

Because several teachers enlisted as night-shift VAs, they are awake from 9 o'clock in the evening up to the wee hours ending at 6 o'clock in the morning. And thus, during the day these teachers were asleep, leaving their online classes. Their students would not complain, as long as they passed the subjects.

One dean was aghast. When he assigned an early-morning online class schedule to one of his teachers, the teacher refused because the class schedule coincided with his daily laundry schedule. Before the pandemic, the teachers normally do their laundry or groceries during weekends; but during the pandemic they also do their stuff during weekdays, competing and conflicting with their online classes held at home.

For the student factor: students are not learning in online classes; students are not serious in their classes; students encounter difficulties in online classes; students discover more creative ways in techy cheating; students recycle modules/manuals (SIM/SDL), at times for a fee; students become lazy specially if their teachers are busy in other online work; students are presented with a lot of opportunities to cheat in online mode. Multiple-choice questions (MCQs) attract the students to cheat. This is the opportunity and rationalization in the fraud triangle [18].

Caselet #2: Online environment vulnerable to cheating

Professors easily detect low-performing students based on their past assessments (from 1st to 3rd exams). One particular student was expected to fail the final exam but he was able to get a score of 95 out of 100 items. After a further probe, the professor found out that another person took the exam for the student, his classmate. Although students must keep their camera on while taking the online exam, some students request to turn it off because of internet connectivity issues and their computers either do not have installed camera or the camera is defective. This is a usual scenario in online examination, where cheating pervades because nobody is watching. Because of the pandemic, student learning has changed how students work.

A professor witnessed his roommate, who happened to be his student, along with his three classmates, answering the MCQ exams together and scanning their e-books for answers. The professor confronted the students and warned them of cheating and collusion. The students stopped what they were doing. But the professor later found out that the group transferred to another location and continued what they started.

Many students adapt quickly to the new normal of educational modality, while others struggle with using the online learning platform, workable devices, and internet connections. Further, students get exposed to a lot of stress and pressure to get better grades as well as to the conducive temptation and opportunities to cheat. They form close study groups, work collaboratively, and draw on one another's support. The so-called collaboration among students now morphs into cheating to survive.

For the parent factor: parents want their children to pass their online classes at all costs; parents are the ones answering exams and assignments for their children; parents are the ones attending the online classes for their children. This is the incentive or pressure in the fraud triangle [18].

Caselet #3: Collusive family members

A parent confided that his son always sleeps during his online classes. What his son normally do is to open his class online, show his face in the camera during the attendance checking and after which, put off his camera and just leave the audio on. And he sleeps the whole time. He asks his younger brother to once in a while participate in the online class by giving his comments in the chat box of the LMS.

A mother admitted answering the MCQ final examinations of his children to make sure their answers were correct. This started as a tutorial only at the beginning, but eventually ended up as the mother was left to answer the final exams.

In a published article at The Hechinger Report, a well-known mid-Atlantic university caught a test-taker who turned out to be another student using the identity of the original student. He was contracted to cheat and answer the test. Also, upon review, remote proctors discovered that this same person had taken the test for at least a dozen students enrolled in seven universities across the United States. Faculty and testing experts agreed that the shift to online testing often increased cheating because universities, colleges, and testing companies were left unprepared for the scale of the transformation or unable or unwilling to pay for safeguards (Newton, 2020). This is the classical MO on misrepresentation, impersonation, or surrogacy.

For the technological factor: the LMS is vulnerable to cheating; LMS is lacking anti-cheating features; there is a misuse of Search Engines apps; there is a misuse of tutoring apps; online essays are replete and easily available for public use. The technological conditions are conducive for cheating in online classes to thrive [17] ; Knudson and Bopp, 2021).

Caselet #4: Abuse of tutorial apps

A student was implicated in a case of academic dishonesty and a formal disciplinary procedure was conducted as a consequence of the formal complaint. The problem solver or tutor of the CourseHero app lodged a report to the school authorities about a student who threatened him because of the wrong solution he provided. This complaint, which arose from the threat by the student, revealed that many students use the app – which is supposed to aid in tutorial sessions – for cheating, i.e. uploading a test or assignment question or a problem-solving exercise to the app and get the answers to submit to the teacher. The purpose of the tutorial to help in learning was lost and defeated.

Caselet #5: Easier plagiarism in online mode

A language professor caught a student plagiarizing his classmate's essay with the help of a paraphrasing tool. After careful reading and comparing their works, the professor figured that both papers have similar sentence structures but paraphrased with synonymous words. Furthermore, upon validation, the student, whose work was plagiarized, disclosed that he was helping his classmate by sharing his work with the knowledge that his classmate would use it as a reference only.

In another case of a student cheating in his final examination, the professor prepared a program-specific set of examination exercises. The student shared his answers to his friend in another class, thinking that all major subjects have similar final examination exercises.

The improper use of technology in online classes – either as deliberate abuse or unintentional misuse makes cheating more difficult to detect or prevent. For example,

homework solutions such as CourseHero and Chegg apps are online learning platforms that help students prepare for their exams or view flashcards, write essays, and receive help with questions from their course materials. Students need to subscribe and pay up to a thousand pesos monthly to get these services. However, the undue advantage of the pandemic leads students to misuse and abuse their services. Researchers of the International Journal for Educational Integrity found a 196.25% increase of requests posted to Chegg's homework help section between April and August 2020 for five STEM subjects [38]. Students demonstrated contract cheating by putting requests live via the platform and receiving solutions during the examination period. The growth of student request exam-style questions corresponds to the time since classes migrated online due to the pandemic. The increase of requests correlates with the shift as education delivery and assessment transitioned online and indicates that the students use the platform more than it should be and that universities do not permit it, even though it has an honor code prohibiting cheating. In addition, experts cautioned students who use learning platforms with their real names are found easy and potential targets of blackmail (Quintana, n.d.)

Some students are looking for expedience to comply with their essay requirements using internet-based paraphrasing tools – known as essay spinners – to rewrite or rephrase previously published materials or somebody else's work. And then, they turn in the generated essay as their own original work without properly acknowledging the source materials. Such tools create different essay variants using specific algorithms or artificial intelligence, which subscribers can use for free or pay up to seven hundred pesos monthly to get premium services. However, the accessibility of these tools provides opportunities for abuse and misuse. It can encourage plagiarism, which puts students at risk of grave intellectual dishonesty and failing to achieve the expected learning outcomes as they may not sufficiently understand the information they compiled or generated [39]. Unfortunately, plagiarism support tools such as the Turnitin cannot detect similarities of re-engineered essays produced by paraphrasing tools. These are however evident by conventional manual checking, i.e., manually compare the sources and submitted output. This is a logistics nightmare for teachers. Furthermore, in a recent survey on the testing of 15 different plagiarism tools, authors found that these tools cannot satisfactorily detect plagiarized work disguised through synonym replacement and manual paraphrasing [40].

The survey results and KII responses were made part for the FGDs for validation and discussion. Many of those shared in the KIIs likewise appeared and discussed collectively and lengthily during the FGDs. As shown in Table 1, five systematic FGDs were conducted and participated by academic heads, teachers and students.

In the FGDs, four focused questions were employed for the discussions.

1. What do you think of the emerging trends coming from the survey data and KII results?

2. Why do you think students cheat in their online classes?

3. Do you know of other modus of cheating practiced by students in online classes?

4. What can you recommend to help curb students' cheating in online classes?

The responses were systematically processed using micro-interlocutor analysis, constant comparison analysis, and classical content analysis. The three techniques in processing and analyzing FGD results primarily used various levels of coding as a result of abstraction by thematization.

Micro-interlocutor analysis

The micro-interlocutor analysis is a disaggregated method of analysis to present the FGD results by discussants (Figure 2). It is referred to as micro-interlocutor to imply the use of information for meticulous analysis about how the FGD discussants responded to FGD questions. This will show the so-called discussants' response characteristics to the FGD

questions during the FGD discussions. For this paper, the method is intended to establish the unprocessed and undissected FGD responses in their raw format, straight from the mouth of the discussants. These raw responses were the actual verbatim transcription as part of the FGD documentation.

FGD sessions	D-1	D-2	D-3	D-4	D...	D-88
FGD Question 1	RR	RR	RR	RR	RR	RR
Q2	RR	RR	RR	RR	RR	RR
Q3	RR	RR	RR	RR	RR	RR
Q4	RR	RR	RR	RR	RR	RR

Figure 2: Micro-interlocutor data presentation RR – Raw response

Based on Table 1, an expanded profile of the conducted FGDs is presented in Table 16. Further, as shown in Table 17, the FGD sessions were cross-tabulated by FGD questions to derive the number and distribution of raw responses.

Table 16: Online FGD Deployment, Session Assignment and Gender Distribution

FGD Participants	**Assigned Session No.**	**Male**	**Female**	**Totals**
Deans, Directors & Principals, UM Main	FGD #1	8	9	17
Program Heads/Coordinators, UM Main	FGD #2	10	11	21
CSG/CSO Student Leaders, UM Main	FGD #3	4	9	13
Deans, Directors & Principals, UM Branches	FGD #4	9	15	24
CSG/CSO Student Leaders, UM Branches	FGD #5	3	10	13
Totals		34 (39%)	54 (61%)	88 (100%)

Table 17: Response Profile by FGD Sessions and Questions

FGD Sessions	**FGD Question Number**				**Totals**	
	1	**2**	**3**	**4**	f	%
FGD #1	8	6	5	4	23	22.77
FGD #2	7	3	5	5	20	19.80
FGD #3	8	2	1	7	18	17.82
FGD #4	4	4	3	9	20	19.80
FGD #5	5	1	8	6	20	19.80
Totals	32	16	22	31	101	100

Q1: What do you think of the emerging trends coming from the survey data and KII results?

Q2: Why do you think students cheat in their online classes?

Q3: Do you know of other modus of cheating practiced by students in online classes?

Q4: What can you recommend to help curb students' cheating in online classes?

Table 16 shows there are 88 total discussants who participated in the five FGD sessions with the females accounting for the majority (61%). Total raw responses summed up to 101, which are evenly distributed in all the five FGD sessions. Question numbers 1 and 4 elicited the highest number of responses (31-32).

All discussants were coded as D1, D2, D3 up to D88 with their corresponding names and actual raw responses.

Table 18: Distribution of Discussants

FGD Sessions	Discussants	Total
FGD #1	D1 – D17	17
FGD #2	D18 – D38	21
FGD #3	D39 – D51	13
FGD #4	D52 – D75	24
FGD #5	D76 – D88	13
Total		88

The following 10 discussants registered the longest responses as shown in the annexes. Of the 10 discussants, 6 come from the FGD #2 that consisted of Academic Program Heads and Coordinators from UM Main:

1. D12 (FGD #1)
2. D22 (FGD #2)
3. D24 (FGD #2)
4. D30 (FGD #2)
5. D35 (FGD #2)
6. D36 (FGD #2)
7. D38 (FGD #2)
8. D40 (FGD #3)
9. D46 (FGD #3)
10. D85 (FGD #5)

Interestingly, three discussants emerged to be very participative as they answered 3 or 4 questions. More interestingly, the top two discussants are students.

1. D39 (4 questions); FGD #3; students' group, UM Main
2. D77 (4 questions); FGD #5; students' group, UM Branches
3. D15 (3 questions); FGD #1; administrators' group, UM Main

Constant comparison analysis

The constant comparison analysis organizes the FGD responses into data chunks in three levels. The first level is grouping the responses – or data chunking – in open coding. The open codes are then processed and chunked further in the second level using axial coding. Axial coding is the process of relating the open codes into similar themes. The axial codes are further narrowed down into core themes in the third level using the selective coding.

The purpose of constant comparison is to supplement the results of the micro-interlocutor data by dissecting the raw responses and group them together into open, axial, and selective codes using common themes as criteria. The themes are determined by abstraction or reduction of similar responses and characterize them into thematic synthesis. The coding in various levels shows how the responses tend to converge or diverge based on the codes and their frequency counts.

Coding is the process of assigning an attribute, feature, theme, or trait known as codes. The process involves qualitative abstraction or data reduction based on commonality or shared attributes. Codes can be in the form of concepts, phrases, keywords, even numbers. Adu (2019:23) defines coding – or qualitative coding – as a subcategory of qualitative analysis that allows for "systematic, subjective and transparent process of reducing data to meaningful and credible concepts that adequately represent the data and address the research problem, purpose or question."

Adu (2019:25) further describes data reduction as "summarizing data to the extent that the condensed form adequately represents participants' responses to the interview

questions; relevant document collected; event, behavior, or process observed; or field notes complied." Citing Saldaña (2016), Adu (2019:25-26) illustrates data reduction as a process of "transforming specific information to more general concepts, where relevant data (i.e. information which could help in addressing the research problem, purpose or question) is separated from the raw data."

Interestingly, Bazeley (2021) departs from Adu's concept of data reduction. For Bazeley, coding "provides a means for purposefully managing, locating, identifying, sifting, sorting, and querying data. Labelling a segment of data to code it is one of the best guarantees against losing sight of a valuable idea or item of data. Coding is not a mechanistic, data reduction process, but, rather, an analytic process that is designed to stimulate and facilitate further analysis. It is a necessary step in most approaches to qualitative analysis, yet forms of coding, approaches taken to coding, and specific purposes for coding vary enormously" [41].

Either way, raw data are transformed systematically into coded data – using several approaches – to make meaningful information and narrative in qualitative research.

In this paper, there are a total of 101 raw responses documented verbatim in the micro-interlocutor analysis as shown in Table 17. The number is chunked and filtered into 234 open codes, which were further chunked and trimmed down into 149 axial codes. Finally, nine emerged as core themes coming out from the selected codes (Figure 3). The Table 19 presents all the codes in précis while the Table 20 shows the distribution of open coded responses by FGD sessions and FGD questions.

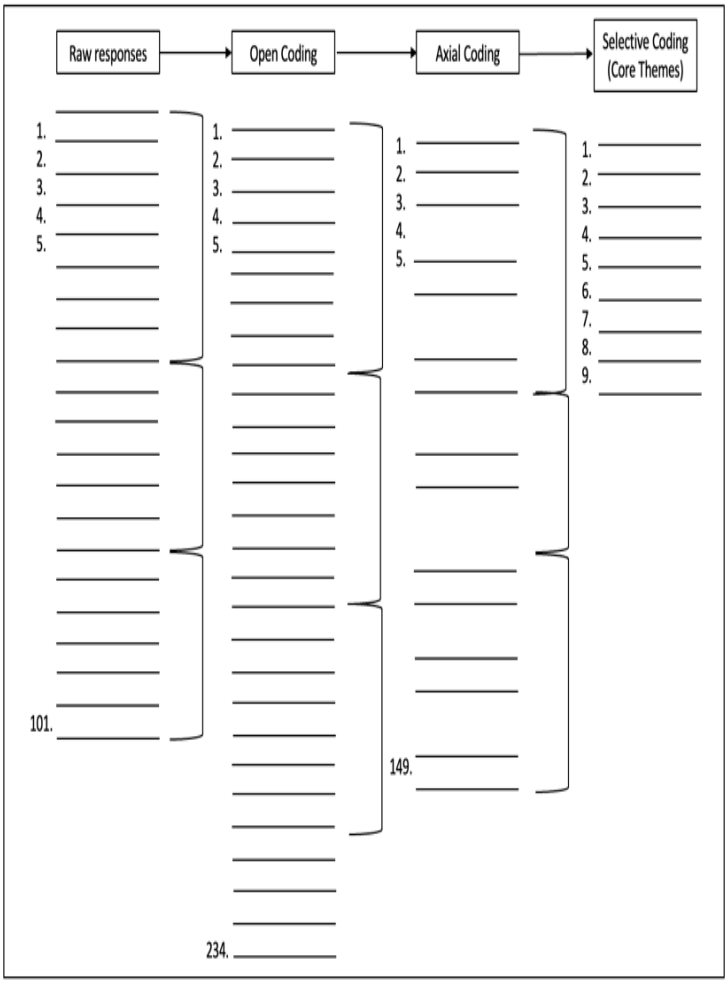

Figure 3: Constant comparison data presentation

Table 19: Summary of coded responses

Responses and Coded Responses	**Totals**
Raw responses	101
Open coded responses	234
Axial coded responses	149
Selective coded responses (core themes)	9

Table 20: Distribution of Open Coded Responses by FGD Sessions and FGD Questions

Distribution of Open Coded Responses	**FGD Question #**				**Total Open Codes**
FGD Session	**1**	**2**	**3**	**4**	
FGD #1	11	17	12	11	**51** (21.79%)
FGD #2	28	14	4	13	**59** (25.21%)
FGD #3	11	14	9	15	**49** (20.94%)
FGD #4	10	2	14	9	**35** (14.96%)
FGD #5	17	6	9	8	**40** (17.09%)
GRAND TOTAL	**77** (32.91%)	**53** (22.64%)	**48** (20.51%)	**56** (23.93%)	**234** (100%)

As shown in Table 20, the FGD #2 generated more open codes with 59, comprising 25% of the entire 234. This is followed by FGD #1 with 51 open codes accounting for about 22%. The FGD question #1 likewise derived more open codes at 71 for 32%.

Only the axial code on ‘affirming e-cheating trends’ appeared 16 times out of 149 axial codes, indicating that the FGD results agreed with and upheld the identified cheating practices by students during the online classes. This group of cheating in online classes – categorized as e-cheating – has become distinct from the conventional cheating practices in F2F classes. The main difference is the use of technology, which has shown to facilitate in creating the seductive opportunity for students to cheat in online classes.

The other axial code is ‘cheating group chats’ which appeared 8 times out of 149. This practice is becoming pervasive as students maintained covert group chats without their teachers for purposes of cheating. The other axial codes are distributed evenly into 1 or 2 counts, with a few 3 or 4.

Caselet #6: Accidental post in legitimate and covert chat groups

Students use instant messaging apps like Messenger and Discord to share information rapidly. Students send screenshots or screen recordings of examination questionnaires and their solutions to their chat group or group chat (GC) where their subject professor is not a member. Professors confirmed the existence of the Cheating GC among students. In one instance, a professor mistakenly received screenshots of the exam questionnaires in the official class GC. The sender (student) immediately deleted the photos. Another professor caught a student flaunting a screenshot of their Answer Key GC using MyDay. Likewise, another professor happened to check the FB profile of his student. The student posted a screenshot of his LMS quiz questions with feedback, which garnered comments from other students: "share lang, share lang" and "share more." Other students use two or more devices while taking the exam. Aside from using the other second device for Googling the answers, the students also use it to conduct an online meeting on the side

(simultaneous with the on-going class) using Google Meet with his closed-door study group and discuss the questions and share their answers.

Finally, the third level of coding analysis in constant comparison is the selective coding, which determines selective codes from the axial codes (149 codes). The selective codes serve as the core themes that chunk the axial codes into thematic synthesis or grouping. The nine emerging core themes are:

1. Behavioral
2. Instruction
3. Assessment
4. Facilities/Resources
5. Environment
6. Methods
7. Academic integrity policy
8. Academic unpreparedness
9. Syllabus

On why students cheat in online classes can be explained by the two major emerging core themes: behavioral and assessment factors. These are further explained using the classical content analysis.

Classical content analysis

The classical content analysis, also known as conventional analysis, directly makes use of codes after a coding process to chunk or group together the responses from the FGDs. For the purpose of this paper, the classical content analysis is abstracted using the open-level (1st level) codes from Figure 3 and directly grouped according to related core themes. This is for purposes of ease of qualitative and quantitative validation (Figure 4).

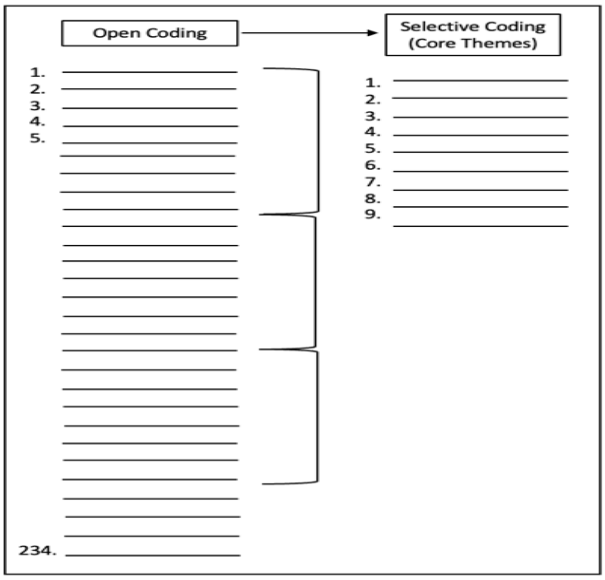

Figure 4: Classical content data presentation

Table 21 and Table 22 present the emerging core themes distributed among the open codes as well as by FGD sessions.

Table 21: Distribution of Core Themes by Axial Coding

Emerging Core Themes (Selective Codes)	Core Theme Code	Totals (Open Codes)
Behavioral	1	**95** (40.60%)
Instruction	2	**19** (8.12%)
Assessment	3	**81** (34.62%)
Facilities/Resources	4	**3** (1.28%)
Environment	5	**4** (1.71%)
Methods	6	**18** (7.69%)
Academic integrity policy	7	**2** (0.85%)
Academic unpreparedness	8	**8** (3.42%)
Syllabus	9	**4** (1.71%)
Total		**234** (100%)

Table 22: Distribution of Core Themes by FGD Sessions

Emerging Core Themes (Selective Codes)	FGD Session #					Totals
	1	**2**	**3**	**4**	**5**	
1. Behavioral	20	22	11	18	24	95
2. Instruction	6	3	6	4		19
3. Assessment	18	29	20	7	7	81
4. Facilities/Resources		1	1		1	3
5. Environment		2	1	1		4
6. Methods	1	1	10	2	4	18
7. Academic integrity policy		1		1		2
8. Academic unpreparedness	3			1	4	8
9. Syllabus	3			1		4
Totals	51	59	49	35	40	**234**

On why students cheat in online classes can be explained by the two major emerging core themes: behavioral and assessment factors.

The behavioral theme accounts for 41% among the open codes. This will have a big implication in terms of values formation programs for the studentry.

The next major factor is the assessment theme, accounting for 35% among the axial codes. Current assessment designs in the school are generally intended for F2F modes. When used in online modes, they are vulnerable to distortions that drive – or seduce – students to cheat. Conventional F2F assessments may not be applied in online assessments in preserving assessment integrity.

As shown in Table 22, both behavioral and assessment factors appeared to have elicited complete responses in all FGD sessions, as compared to the other core themes. This indicates the general agreement on these two core themes by the FGD discussants.

Figure 5 shows the over-all triangulated framework for qualitative data analysis, which also indicates the methodological design employed in the study.

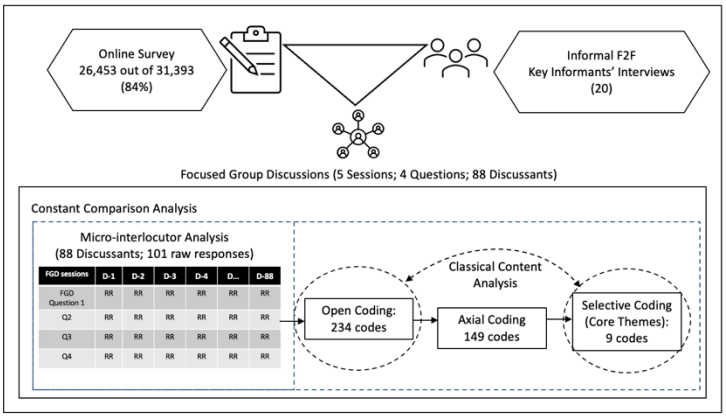

Figure 5: Triangulated Qualitative Data Analysis Framework

Explanation and Interpretation of Data

An alarming 3 out of 5 students (or 6 out of 10 by ratio) in the university admit to cheating in their online classes. About the same number of students said that cheating in online classes is easier as compared to the residential, face-to-face (RF2F) classes. Further, about 8 out of 10 students admitted cheating in their online classes in various frequencies and 7 out 10 students are never caught cheating in their online classes. Majority are also aware of others who are cheating in online classes.

One of the reasons why cheating can be pervasive in online classes is the detection factor, or the fear of being caught. Obviously, when the opportunity to cheat is reinforced by the lack of detection, the students tend to be audacious to cheat. Opportunity becomes more attractive and seductive without detection. This is also the reason why the paper cannot conclude that the students in the university are cheaters by nature. It is the system on the online modality that presents the attractive opportunity for students to cheat or be compelled to cheat.

The favorite modes of cheating or MOs are:

1. Copying from internet sources
2. Googling during quizzes and exams
3. Copying from somebody else's assignment
4. Calling a friend or classmate during quizzes and exams

These MOs resemble the patterns in the cheating practices in online classes in the United States.

Most easy to cheat in terms of assessment type are multiple choice questions (MCQs), true or false, and matching types. Most difficult to cheat are essays and oral tests or examinations. In the online mode, objective types of assessment – especially the MCQs – are the most vulnerable to cheating. The demonstration type of assessment – those that belong to the so-called authentic assessment types – such as essays and recitations are the most difficult. However, there are applications now that make essays even susceptible to fraud.

In terms of subject areas, the easiest to cheat on are PE, Science and Filipino courses. The most difficult are Math and Science. In online courses, complex courses seem a bit difficult. On why Science appeared both easy and difficult can be attributed to the limitations of unsupervised open-ended questions in the online survey.

The cheating practices of students in online classes are primarily affirmed and upheld in the FGD discussions as derived from three levels of coding. This is followed by the pervasiveness of cheating group chats among the classes, with technology as the enabling

factor that creates the seductive opportunity for students to cheat in online classes. In this case, technology for DE/RTL platforms are misused or abused, departing from their intended good use in DR/RTL modes.

Further, the factors that emerged why students cheat are behavioral in nature, followed by assessment designs. These are the areas for possible intervention to strengthen students' values formation while improving the assessment designs that are appropriate for online delivery.

As validated in the KIIs, the trends and reasons why students cheat in their online classes can be classified into the student factor and technological factor. Two more emerged – the parent factor and teacher factor. Both are validated further in the FGD results.

Notable from the KIIs and in the dispersed FGD results are the roles of parents, teachers, and technology in reinforcing the predilection of students to cheat in their online classes.

On the part of the parents, their parental pressure exerted upon their children for them to pass in their classes or subjects become more intense in the online mode. Many parents are the ones attending the classes of their children, or even answer test questions or examinations. This is classical identity fraud, personification or surrogacy depending on the scale. This also reinforces the anecdotes why the students are not learning in their online classes. Their parents do.

On the part of the teachers, many are found to be negligent. Due to economic reasons, many teachers are engaged in moonlighting during the pandemic period where work-from-home (WFH) is granted to them. As a result, the teachers do not have time to properly teach and monitor their students online. Commonly identified moonlighting practices are teaching several classes online in various schools with simultaneous schedules and just using several devices for the synchronous sessions; doing virtual work online as virtual assistant (VA), whose schedules oftentimes compete with regular online classes; and doubling as delivery drivers or partners (Grab, Panda, Lalamove). As their downside, WFH arrangements have reinforced the seductive opportunity for students to cheat. In this case, the teachers are also cheating.

On the part of technology, various learning management systems (LMS) lack the anti-cheating features as several full-feature subscription can be expensive to the majority of the students and their families. Further, there is also a wanton misuse of search engine apps and tutoring apps. Online essays are replete and easily available for public use. When misused or abused, technology can be very seductive.

Shown in figures 6-9 are infographic renditions of the findings of this study for better illustration and construction.

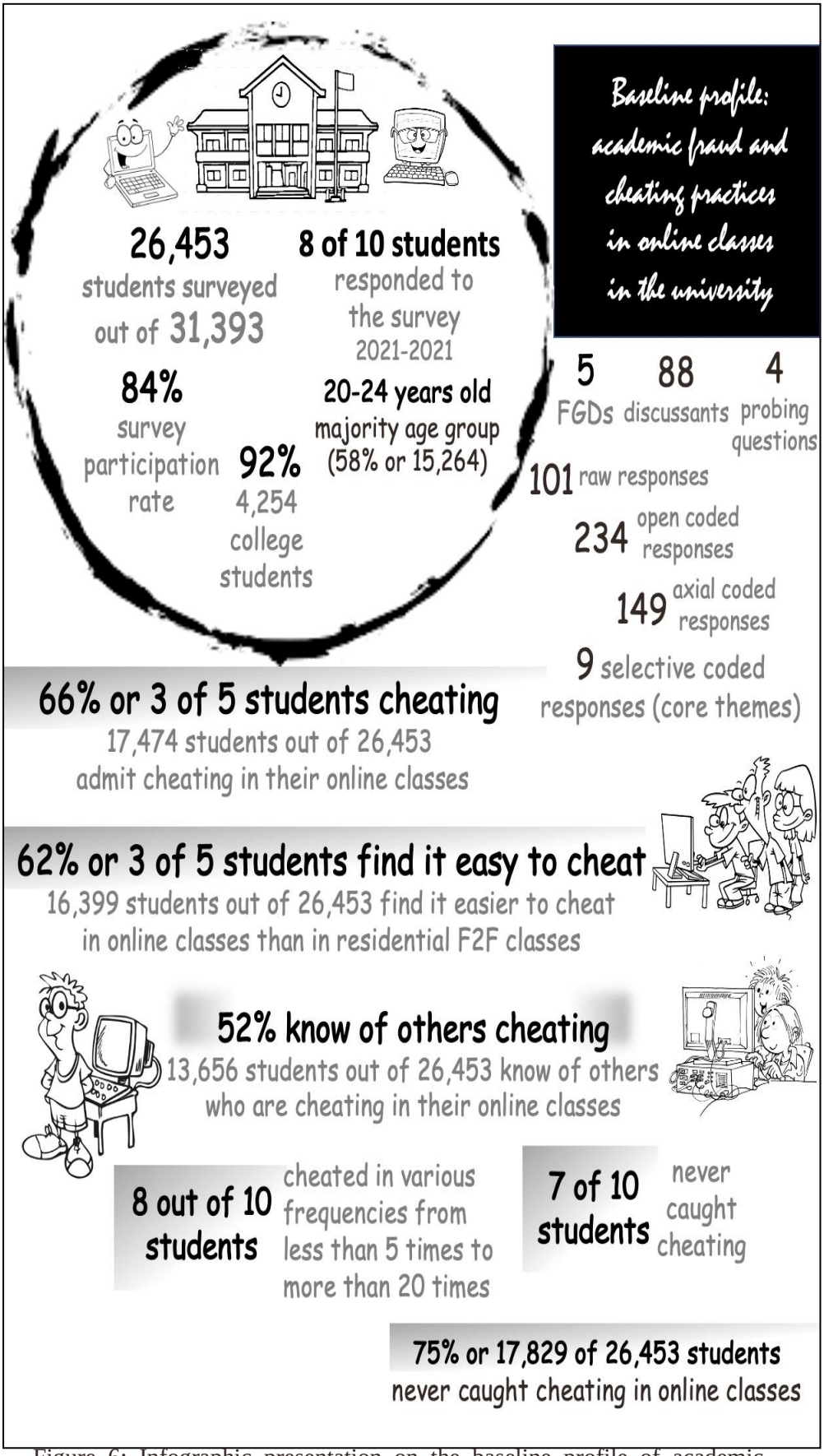

Figure 6: Infographic presentation on the baseline profile of academic fraud and cheating in online classes

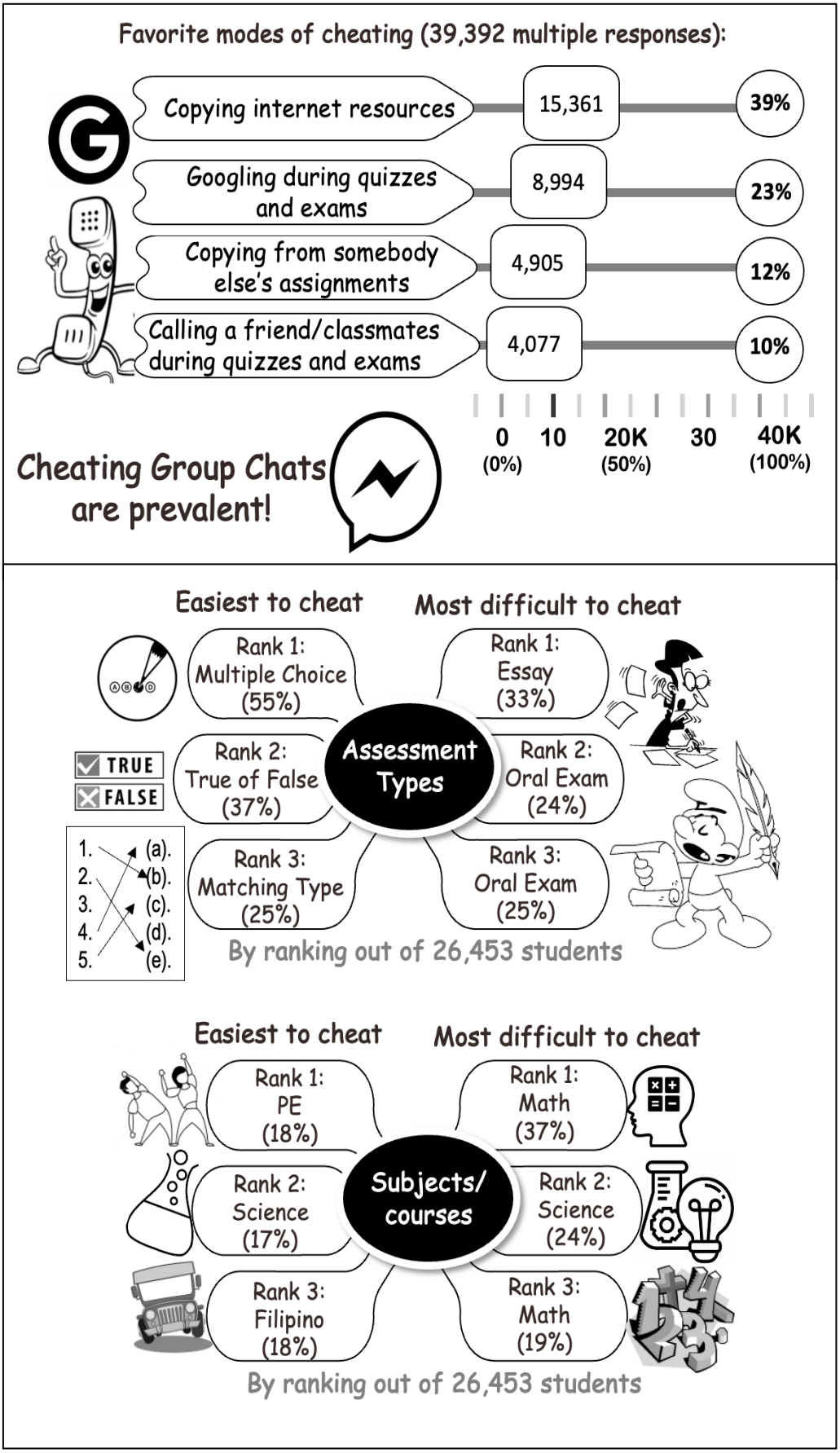

Figure 7: Infographic presentation of the trends on cheating practices in online classes

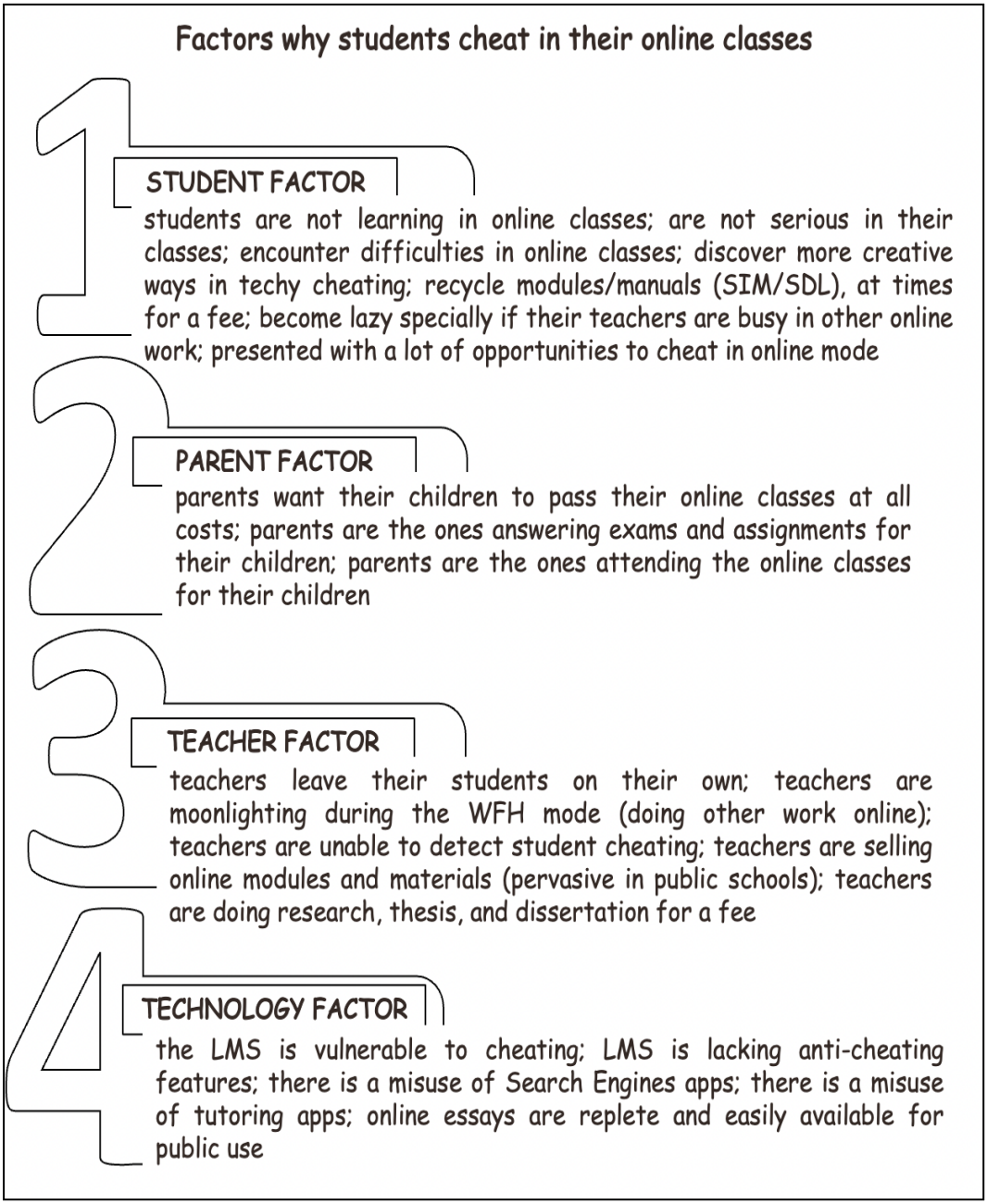

Figure 8: Infographic presentation of the factors why students cheat in online classes

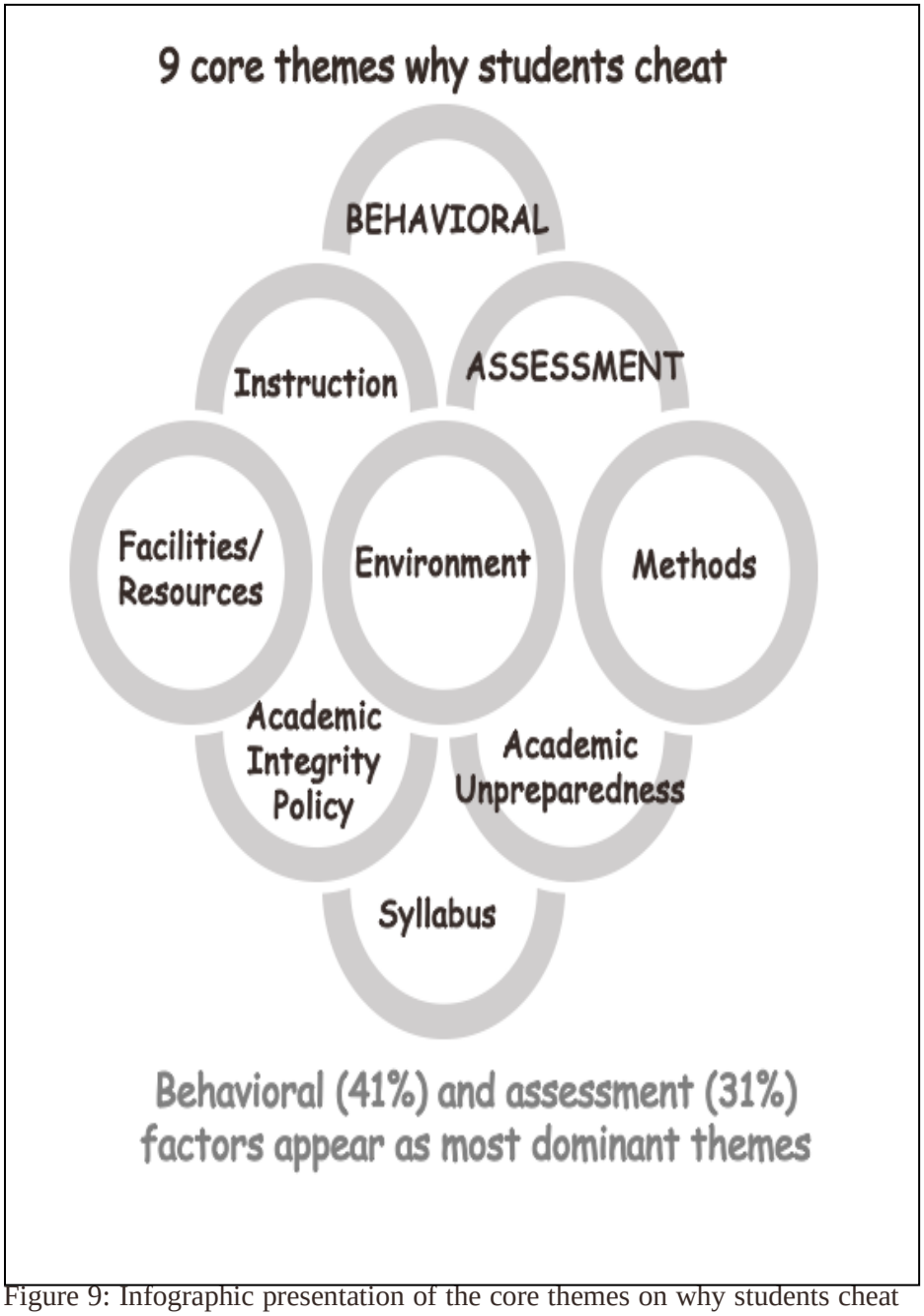

Figure 9: Infographic presentation of the core themes on why students cheat in online classes

RECOMMENDATIONS

The recommendations in this study are multi-pronged as cheating in online classes are reflective of deep-seated problems, which are only highlighted and illuminated by the pandemic crisis. While this study does not offer conclusive claims, the baseline profile proffers indicative trends and arguments about the pervasiveness and extent of academic fraud and cheating in online classes during the pandemic period. It is the assertion of this paper for all stakeholders to look into this problem and consider the following recommendations.

For the instructional and assessment delivery in general:

1. Online lectures have limitations; explore online delivery strategies that will promote students' participation online such as online group workshops, online case

discussions, or demonstrations. DE/RTL is conducive for HOTS (higher-order thinking skills) such as analytical and problem-solving skills.

2. Adhere to DE/RTL principles of delivery, using short but high-impact online lectures with synchronous case studies or exercises.

3. DE/RTL is learner-centered. This is one of the essential principles of this modality. The instructional design must give more time and virtual space to the students.

4. Recorded audio or video lectures are helpful supplements; the students can always go back to them for review.

5. Reduce the use of video conferencing; give more time to give individual feedback to students synchronously or asynchronously.

6. Gauge student performance through an assessment spread in the entirety of students' online participation over time (use of varied question types). Authentic assessments for final examinations are ideal in DE/RTL mode.

7. Essays are most effective in online examinations but timed and done synchronously. But without the capacity or technology to detect the use of essay apps, this is rendered useless.

8. Synchronous recitations with camera put on can be effective. Timed synchronous exercises are secure from cheating online.

9. Discourage the use of MCQs/FCQs (forced choice questions), True-or-False, and Matching Types in online exams; they are the easiest to cheat. In fact, it is better to use more performance tasks than MCQs or FCQs especially in summative assessments.

10. If MCQs or FCQs have to be used as part of formative assessments, use one question at a time. This is to avoid cheating for advanced questions.

11. But if possible, require RF2F mode for all examinations and other assessments. This will drastically reduce online cheating.

12. There are learning competencies that are difficult to attain in the online mode; instructional delivery must go blended, combining RF2F mode and DE/RTL mode. This allows residential (physical) validation of virtual identity and reduce the anonymity factor that is found to make online cheating conducive and seductive.

For the schools:

1. Strengthen the core values of integrity, self-governance, and self-discipline among the studentry. DE/RTL and online classes demand self-directed learning, and these core values serve as the effective pillars. With or without pandemic, academic integrity is always paramount in the academic formation of students. Without integrity, academic excellence only promotes impunity. Without integrity, Filipino students can turn out to be the smartest and brightest cheaters and go scot-free. Imagine the effect when they become professionals, businessmen, government officials or employees, and worse – teachers in the future.

2. Institutionalize the adherence and fidelity to explicit integrity policy or honor code. Let the teachers, students, and their parents take their written allegiance and their acceptance of penalties due to breaches. Without penalties, the honor code can be toothless and useless.

3. The schools need to invest time and resource. Remote online education requires more time to prepare, requires technology to deliver, and demands more efforts for preparation and execution.

4. Reduce or calibrate the grant of WFH arrangements for teachers and professors. Conducting online classes via WFH is extremely difficult to monitor. Schools should be

able to check the attendance, LMS utilization and online classes of their teachers. This is better done in the campus when teachers/professors report to school for ease of monitoring.

5. Address the attendant problems in DE/RTL, especially academic preparedness and mental health issues among the students. Guidance counselling programs need to be DE/RTL-ready.

6. Much of the online deployment strategy is determined by logistics decisions, not by pedagogical decisions (e.g., LMS is supplemental only to RF2F class; should be used outside of the class so as not to drain bandwidth). DE/RTL is as much as pedagogical as logistical in nature. There is a need to learn properly the use of DE/RTL and make it as part of the curriculum for those who are implementing the pure or blended DE/RTL. Get certified from UP Open University or CHED in accordance with the guidelines on DE/RTL and blended learning as provided in CMO No. 27 s. 2005, RA 10650, and CMO No. 4 s. 2020.

7. All teachers, students, and parents need to be oriented properly on the proper use of DE/RTL modality, including the ethical use of technology. Systems integrity is part of remote integrity in the use of DE/RTL.

8. Use authentic assessment to motivate students and reduce student cheating in online classes and examinations. Students are also less likely to cheat when they are encouraged to demonstrate learning in ways that are most authentic to them; the key is motivation. Authentic assessments are useful in remote integrity and accountability.

For the government:

1. Address the perennial internet connectivity issues. Effective and meaningful DE/RTL and online classes depend exclusively on internet connection. Erratic and poor connection only boosts the seductive opportunity for students to cheat. Authentic learning of students is gravely hampered. DE/RTL technologies rely only on the internet.

2. Disseminate widely the practice, principles, and guidelines on DE/RTL as provided in CMO No. 27 s. 2005, RA 10650, and CMO No. 4 s. 2020. Mandate and accredit schools as DE/RTL providers.

3. The CMO No. 27 s. 2005, RA 10650, and CMO No. 4 s. 2020 are all edicts for the higher education. The government needs to come up or lay down regulations for the basic education, giving due consideration to the learning capacities and requirements of minors or learners below 18 years old. DE/RTL technologies should be sensitive and friendly to minors.

4. Revisit CHED Advisory #6 and elaborate or clarify on the call for leniency during the pandemic period. There is a need to demonstrate leniency; everyone is adjusting to the New Normal. This is the reason why schools – especially those who design outcomes-based education (OBE) curriculum – provide expanded opportunities for students by giving more chances to cope up. This is not the time to impose unyielding rigidity (integrity is better than rigidity). However, CHED's COVID Advisory #6 on leniency cannot be construed to include cheating in online classes. The advisories need to be careful of misconstruction.

5. Check and police the apps that are being used for cheating. The regulatory agencies such as the CHED, the Department of Information, Communication and Technology (DICT), and the National Bureau of Investigation's anti-fraud units can come up with guidelines and make the necessary legal interventions. Simple cheating in online classes can foster more criminal behaviors using technology. This is cyber-crime in the making.

For the students:

1. Millennials are profiled as digital natives. Harness thy techy skills for meaningful DE/RTL programs.

2. Develop self-discipline and be serious with one's integrity. This is for the sake of everyone's future. And the future of the country relies on good citizens. Good citizens are formed in schools from students who are strongly cultivated in integrity.

For the teachers/professors:

1. Older generations and non-techy generations find it difficult to use LMS and other online apps, as compared to digital natives and techy generations. There is an urgent need to learn technology and develop thy technological skills. It is imperative to catch up and keep up with the changing demands of the modern times. Without learning technology, DE/RTL is rendered useless, and cheating shall only proliferate in prosperity.

2. Love tinkering with various apps to supplement the use of LMS or DE/RTL technologies.

3. In the conduct of online classes, focus on giving feedback and facilitating interactive learning. Reduce the usual one-way lectures.

4. Do not treat the LMS or online classes as a fixed modality held in fixed space and time. There is a need to understand and harness synchronous and asynchronous learning. Many teachers treat online classes like regular RF2F classes, thus monopolizing the online period with all the video conferencing lectures.

5. Learn to detect academic fraud and cheating in online classes. Learn to use anti-plagiarism softwares.

6. As teachers, summon thy natural uncanny knack of fraud detection and validation. This includes the skill of always referencing to previous works or other works. Defrauded written papers can be easily detected if the cheaters are not careful.

7. Do not abuse WFH arrangements. Simple!

For the LMS providers or technology providers:

1. Reduce the opportunity of cheating by embedding stringent anti-cheating features. Strengthen anti-plagiarism softwares.

2. Embed creative and interactive features that are easy for teachers and learning facilitators to use.

3. Embed various features that are easy for giving feedback to students.

4. Embed various features that are easy for monitoring students' performance.

5. Develop features that allow more students' participation or synchronous group work online.

6. Develop LMS that are friendly and interactive for students in general, and minors in particular.

7. Develop more unspoofable technology to verify virtual identities in DE/RTL modes, such as identity facial checkers.

8. Orient technology to fight abuse of technology such as lockdown browsers or digital proctoring among others.

For further research and publication:

1. Replicate and expand the online survey on national scale to include several schools from Luzon, Visayas and Mindanao with purposive sampling. Conduct a few more FGDs, while being aware of saturation data already.

2. Publish this study into a book for wider reach, especially education policy makers. Increase the online survey respondents, FGDs and KIIs, as well as enhance the findings and analysis presented herein.

3. For deeper study, encourage the conduct of statistical or experimental research to understand the specific variables or factors that correlate with cheating practices in DE/RTL modality, similar with what Ayoub/Al-Salim and Aladwan (2021) did in their study among active online university students.

4. Conduct more research fora or conferences showcasing DE/RTL methodologies, practices, and ethical dilemmas in the Philippines, and publish the same for wider dissemination.

As an over-all recommendation, include the remote integrity and accountability (RIA) framework in DE/RTL programs. The specific recommendations laid down in this paper for instructional and assessment delivery, for the schools, for the government, for the students, for the teachers/professors, for the LMS and technology providers, and for further research and publication, serve cumulatively as pillars of RIA. These recommendations contain specific proposals and initiatives that cut across people's integrity (core values and behavioral conduct) and system's integrity (delivery and technology). So far, the system's integrity is very much privileged leaving people's integrity behind. This is the reason why DE/RTL has unwittingly created the conducive environment for academic fraud and cheating in online classes. This is where the problem lies. And this is why RIA is imperative.

Despite all the pressing issues and daunting challenges, the COVID-19 pandemic crisis undeniably presented new opportunities. The online era – the period of massive use of DE/RTL – exposed the country to the world of online technologies for education. The schools have gained the experience in providing online education. The teachers and the students – and their parents – have become somewhat literate or proficient in online classes albeit with lots of difficulties. Willingly or otherwise, the schools have to embrace technology for the sake of their students. This is the essential intention of the Learning Continuity Plans mandated by the CHED. The online modalities have enabled the schools to sustain cohort learning, overcome learning obstacles brought by the pandemic, and prevent growth stunting in the long term. For good or bad, this crisis is an opportunity.

However, much of the articulation about DE/RTL modes of delivery during the pandemic period only focuses on their promotion; we also need to highlight the precaution about remote academic fraud and cheating in online classes. Ayoub/Al-Salim and Aladwan (2021) affirmed that so much focus has been given to the delivery infrastructure of online classes but little research is done on the students' ethical behavior and learning quality in online programs. Thus, remote teaching exacerbates academic fraud; cheating online is more widespread and uncontrollable in remote programs. For its part, technology can make or break the integrity of DE/RTL.

Anecdotal sharing of random college students reveals that they are not learning in asynchronous sessions when they are left alone. If students are not learning, the integrity of DE/RTL and online classes is diminishing as these (especially asynchronous sessions) need some level of cohort maturity for self-directed learning; this is the essential intent of DE/RTL. When students do not learn but want to pass, what do they resort to? Cheating.

While we delight on the promotion of remote teaching and learning, we need to be aware of and prepare for its precaution. To be meaningful and serve its core purpose, DE/RTL needs the RIA. What is RIA?

Remote integrity and accountability is the ethical foundation of a strong and vibrant remote teaching and learning programs. RIA implores that the students' conduct must not be left behind. Together with technology, there is a need to bring integrity and accountability in the virtual world. RIA is the framework of ethics (doing good and

better) and ethic (system being intact and not misused or abused) in remote educational processes. In remote online classes, there is a heightened imperative to inculcate ethics and ethic and cultivate maturity among our students and teachers as well. DE/RTL needs mature, ethical students and teachers to preserve the integrity of the system.

RIA is also the cultivation of self-integrity (people's integrity) to preserve the system's integrity of remote teaching and learning. Self-integrity is the foundation of self-directed learning, a key feature in DE/RTL pedagogy. Further, remote integrity adheres to the fundamental virtues of academic integrity: honesty, trust, fairness, respect, responsibility, and courage (Holden, et al., 2021). Meanwhile, accountability is being answerable or liable to the responsibility of remote learning. As DE/RTL technologies are developed, there is also a need to develop technologies and strategies to help ensure remote integrity and accountability. Without RIA, cheating in online classes just puts to waste the time and efforts of the teachers. And worse, imagine the colossal implication of graduating students who are cheaters scot-free.

This paper concludes by raising a few points for reflection: what students' level or segment can the schools expect maturity? What students' level or segment are prone to cheating and fraudulent acts in online classes? As everyone – especially the students – is properly cautioned of the massive distress brought upon by the pandemic pressure, there is thus a need to make remote online classes enjoyable, delightful and memorable for the students, parents, and teachers. How then can DE/RTL be made meaningful? If students find online classes meaningful and they are motivated, they may not need to cheat.

As the country is in the pivotal period of embracing the necessity to be adept in using educational technology, this paper finally ends by remembering famous exhortations respectively from a Slovakian technology blogger and an American author. "Technology will never replace teachers, but teachers who use technology will replace those who do not." (Zuzana Molčanováz). "Technology will never replace great teachers, but in the hands of great teachers, it is transformational" (George Couros).

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