

Combating the Academic Dishonesty in Higher Education: A Nominal Group Technique Approach

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Abstract

In the contemporary context of widespread access to digital information and communication, a significant obstacle in higher education pertains to cultivating moral education and establishing an academic culture and integrity. The prevalence of academic dishonesty behaviours among academic personnel further exacerbates this problem. This study uses the Nominal Group Technique (NGT) method to get expert views on solutions related to academic dishonesty in higher education. A total of 7 experts were involved in this study who were explicitly invited based on their respective expertise. As a result of the NGT process, expert voting suggested 16 concrete solutions that can be used to solve this AD problem. The resulting 16 recommendations are expected to be able to curb the growing and contagious AD problem among students and academics today. Future studies are also expected to be made to improve existing findings.

Keywords: academic dishonesty, higher education, nominal group technique

1. Introduction

The administration of examinations in educational institutions serves as a crucial means of assessing students' academic achievement, specifically in terms of their comprehension and application of course material. Examinations are a widely employed assessment method in higher education, serving as a means to impartially evaluate students' proficiency in achieving the learning outcomes of a given course (Orok, Adeniyi, Williams, Dosunmu, Ikpe, Orakwe, & Kukoyi, 2023). However, the rise in academic dishonesty and misconduct in a variety of forms has hindered the effectiveness of this procedure. There is a prevalent phenomenon among students in higher education institutions where cheating has become a cultural norm. This phenomenon undermines the fundamental objective of assessing students' knowledge through examinations (Diego, 2017). The issue of academic dishonesty is a widespread concern that impacts nations around the globe, including both developed and developing countries (Kusnoor & Falik, 2013; Asante & Nduro, 2014).

Students have many methods available to engage in acts of academic dishonesty. According to a recent study by Burgason et al. (2019), opening and closing browser windows during online exams is a method of academic dishonesty. This practice is employed to search for answers online and access images and text via personal electronic devices such as cell phones or smart watches (Herdian et al., 2021). According to the findings of Lancaster and Cotarlan's (2021) study, there has been a notable surge in the popularity of file-sharing platforms that offer assistance to students in their academic endeavours compared to previous years. The primary focus of academic dishonesty lies in the adeptness of pupils in utilizing technology, as Burgason et al. (2019) highlighted.

Dishonest conduct within the academic domain is an undeniable occurrence that permeates all levels of education. The prevalence of academic dishonesty in universities worldwide has resulted in adverse outcomes for students and the education system (Baran & Jonason, 2020). Academic dishonesty is a prevalent and enduring issue on college campuses, as noted by Bolin (2004). The issue of academic dishonesty is widely acknowledged as an ongoing concern within the realm of higher education (Herdian et al., 2021).

Based on the scenario described above, it clearly reveals that the phenomenon of AD is indeed tapering and growing. Therefore, the purpose of this research is to provide suggestions for addressing this issue in line with the advice of subject-matter experts. There is no doubt that numerous studies before this one have suggested various methods and approaches. Still, for this topic, we believe that the advantages of this study outweigh the suggestions and consensus of experts. In the subsequent section of this research, suggestions and recommendations will be elaborated upon in detail.

1.1 Academic Dishonesty

According to Bleeker (2008), academic dishonesty refers to cheating or engaging in plagiarism, which grants a student an unfair advantage in completing an assignment or examination. Cheating can be divided into three categories: independent-planned, social-active, and social-passive. Academic dishonesty in the form of independent-planned cheating refers to a student's

utilization of individually generated materials, such as notes, during an examination. Academic dishonesty in the form of social-active cheating refers to surreptitiously duplicating another student's answers without their awareness or consent. Social-passive cheating refers to one student granting permission to another student to replicate an answer. Plagiarism is a frequently encountered phenomenon typically characterized by appropriating someone else's work and presenting it as one's own (Smith, 2012). The perception of academic dishonesty is subject to cultural variation. There exist disparities in the perspectives on academic dishonesty across individuals from Western and Eastern cultures. Chinese students and Australian students have differing perspectives on plagiarism. Chinese students view plagiarism as more acceptable than Australian students (Ehrich, Howard, Mu, & Bokosmaty, 2016). According to a study by Yukhymenko-Lescroart (2014), academic dishonesty is not perceived as morally objectionable or a significant issue in Central Asia.

Contrary to conventional belief, Martin (2012) presents a counterargument to the notion that plagiarism is more prevalent in Asian environments. Martin's research findings indicate that plagiarism is more prevalent in individualistic societies than in collectivist cultures. This suggests that the occurrence of academic dishonesty is more intricate than previously understood.

1.2 Factors That Caused the Dishonest Behavior

Academic dishonesty is often attributed to a lack of understanding regarding its nature, which is a significant factor in its prevalence. According to Beasley (2014), it is common for students to deflect responsibility and assert their lack of awareness of academic dishonesty when they are detected engaging in such behavior. In a separate investigation, researchers discovered a limited level of consciousness regarding the definition of plagiarism and the laws pertaining to plagiarism within the institution (Ramzan, Munir, Siddique, & Asif, 2012). Understanding school policies regarding academic dishonesty is crucial because it has been found that students who possess this awareness are more inclined to exhibit behaviors that align with academic integrity (Henning et al., 2015; Thomas, 2017).

The foundation of the individual differences approach is based on the premise that students possess distinct inclinations toward engaging in dishonest behavior. Researchers have explored many variables to discover personal traits that may indicate cheating. Nevertheless, there is a lack of agreement regarding the suitable variables to be examined in this field of inquiry, and there is limited evidence supporting a consistently robust correlation between academic dishonesty and any of these characteristics. One exception to the findings is the concept of locus of control, as explored by Karabenick and Srull (1978) and Leming (1980). However, it is worth noting that Houston (1986) has produced results that do not provide evidence for a connection between academic dishonesty and locus of control.

Given the dynamic nature of the target situation, it is reasonable that a significant portion of recent research has focused on examining the intersection between appropriate academic conduct and individual elements, notably psychological variables. As an illustration, the study by Buckley, Wiese, and Harvey (1998), which has been previously referenced for its examination of a sole situational element, namely the likelihood of being apprehended,

encompassed the assessment of five distinct individual factors. Notably, this study established a correlation between unethical conduct and two factors: aggression/hostility and male gender. Whitley (1998) also investigated one of the mild impacts he previously discovered, specifically aberrant behavior. According to Blankenship and Whitley (2000), there exists a correlation between indulging in minor kinds of deviant behavior, such as unsafe driving behaviors and being an unreliable friend or worker, and the act of cheating on examinations or fabricating justifications to evade taking exams. Wryobeck and Whitley (1999) conducted a study investigating how peers perceive individuals who cheat and their collaborators. The researchers discovered that students prioritizing learning tend to advocate for harsher penalties for cheaters. In contrast, students prioritizing grades tend to imitate the cheater's and accomplice's behaviors. In their study, Caruana, Ramaseshan, and Ewing (2000) observed a correlation between the Srole measure of anomie, which assesses feelings of pessimism and a lack of personal norms using a five-item scale, and instances of cheating among a group of business school students in Australia (Etter, Cramer, & Finn, 2006).

Based on the abovementioned phenomenon, the researcher feels this study needs to be carried out to resolve this issue. Nevertheless, this study is part of a small initiative to suggest possible solutions that can be taken to solve this problem using the NGT method.

1.3 Objective of the Study

The objectives of the project as a whole were:

- This study aims to see the views and recommendations of experts in dealing with the solutions to academic dishonesty in higher education.
- Make conclusions and recommendations in dealing with the solutions of academic dishonesty in higher education based on expert recommendations.

2. Literature review

Numerous researchers have examined the various factors associated with Academic dishonesty (AD). Ercegovac and Richardson (2004) conducted a study in which they presented and provided a comprehensive overview of the societal influences and individual characteristics associated with Academic dishonesty (AD). The literature suggests that several elements, such as social influences, achievement motivation, internal and external motivation, external pressure to attain high levels of performance, faculty members' views towards academic dishonesty, and institutional policies, have been identified as potential explanations for academic dishonesty (Nathanson et al., 2006; Yang et al., 2013). The several variables that contribute to the development of academic dishonesty (AD) encompass an individual's aspiration for social validation, the drive to attain exceptional marks, the pursuit of professional growth, limitations on time, and a lack of understanding regarding the extent of plagiarism (McCabe et al., 2006; Chiang, Zhu, & Yu, 2022).

The application of the fraud triangle has been utilized to evaluate and comprehend the various aspects that influence AD, as discussed by Becker et al. (2006), Burke and Sanney (2018), and

White (2020). Cressey's (1953) initial hypothesis was the foundation for Becker et al.'s (2006) characterization of AD as fraudulent behavior. The authors subsequently employed the fraud triangle model, which encompasses incentive/pressure, opportunity, and rationalization/attitude, as the conceptual framework for their analysis. Within this concept, the driving force behind academic dishonesty is the incentive or pressure that compels individuals to cheat. This motivation might originate internally, such as the personal aspiration to achieve a favorable grade, or externally, stemming from the influence of another individual. The chance may also arise from several sources, such as academics refraining from providing critical feedback on plagiarism or a lack of supervision in the examination setting. Ramos (2003) argues that rationalization and attitude reflect the capacity of students to perceive cheating as congruent with their moral frameworks. In essence, when fraudulent behavior manifests, it encompasses all three aspects. Academic research conducted by Imran and Nordin (2013) has demonstrated that AD negatively affects students and educational institutions and their perception and comprehension of workplace wrongdoing in subsequent years. The ramifications of engaging in academic dishonesty during formative assessments for students encompass the forfeiture of the chance to enhance their learning and an increased likelihood of lagging in summative evaluations (Arnold, 2016).

According to Petress (2003), various manifestations of academic dishonesty exist, encompassing actions such as copying answers from peers during tests, impersonating others to take exams, neglecting to attribute sources in academic work, removing exams from the testing environment, fabricating research papers and presenting them as one's own, unlawfully accessing examination offices or instructors' files to obtain tests or answer keys, undermining the work of fellow students, and illicitly altering official grades by gaining unauthorized entry into school computer systems. Furthermore, Roberts (2002) posited that plagiarism constitutes an additional manifestation of academic dishonesty when authors manipulate knowledge to serve their interests. According to Gehring and Pavela (1994), academic dishonesty is a deliberate act of deception wherein students attempt to claim credit for work or achievements that are not their own without proper authorization. This includes using unauthorized materials or false information in academic activities and fabricating academic assignments. Furthermore, academic dishonesty also encompasses actions that intentionally harm the academic progress of others, such as aiding fellow students in engaging in dishonest behavior, such as providing or receiving unauthorized assistance in academic exercises or taking credit for someone else's work (Meng, Othman, D'Silva, & Omar, 2014).

Previous research has also identified the influence of the availability and accessibility of digital information on the phenomenon of AD. Certain scholars have argued that the prevalence of copying and pasting the work of others while falsely presenting it as one's own has increased due to technological advancements (Lehman & DuFrene, 2011). The insufficient awareness and comprehension of institutional regulations about academic dishonesty among students (Şendağ, Duran & Fraser, 2012; Ewing, Anast & Roehling, 2016) could potentially be an additional factor that fosters misconduct. The existing scholarly literature has demonstrated that various factors, such as societal influences, different approaches to motivation based on achievement goals, both internal and external sources of inspiration, external pressures to meet

high-performance standards or deadlines, the aspiration to excel, the fear of failure, and the absence of personal integrity, can potentially account for instances of dishonest behavior within the academic context (Imran & Ayobami, 2011; McCabe, Trevino & Butterfield, 2001; R Van Yperen, Hamstra & Van der Klauw, 2011). The demand for further explanations might stem from various factors, such as the individual's aspiration for social approval, the need to conform to their peers, the drive to progress in their professional endeavors, the inclination to please others, or the motivation to safeguard their livelihood (Imran & Ayobami, 2011; McCabe et al., 2001; Van Yperen et al., 2011).

3. Methodology

The primary methodology employed in this study is the Nominal Group Technique (NGT). The study comprised a panel of seven professionals specializing in education and student psychology. Given the limitations of assembling specialists in person, academics have resorted to conducting Nominal Group Technique (NGT) sessions online through platforms such as Google Meet. A two-hour session was conducted. A panel of experts was convened to conduct a brainstorming session utilizing the Nominal Group Technique (NGT) to gather ideas and solutions informed by their professional opinions. Upon the session's conclusion, the researcher performed a precise computation utilizing the Nominal Group Technique (NGT) methodology to get results that address the aims outlined in this study.

3.1 Nominal Group Technique

NGT is a methodological process for identifying the level of agreement among a group of individuals on a particular issue. It was initially conceived as a "participation technique for social planning circumstances" (Delbecq, Van De Ven, & Gustafson, 1975), with "social planning situations" combining exploratory research, public engagement, the employment of interdisciplinary experts, and the review of proposals. Since then, it has been used in various group settings, including social science empirical research. The NGT (Nominal Group Technique) is a systematic procedure comprising four discrete stages: (1) The process of generating ideas in a self-directed manner to answer a prompt or query. (2) Facilitating the exchange and enumeration of these ideas in a round-robin format without engaging in conversation. (3) Elucidation of each concept and categorization of analogous concepts. (4) The act of individual voting to establish a hierarchy of ideas based on their perceived importance.

To foster genuine outcomes and active participation, voting procedures must adhere to the principles of anonymity and the abovementioned requirements. In conclusion, NGT creates lasting documentation of the group's proceedings and results by transcribing all proposals and authorized modifications onto flip-chart sheets. Individuals who were absent for all or a portion of a meeting and groups can resume their discussions from the point they left off during the prior session (Fox, 1989; Mustapha et al., 2022).

The Nominal Group Technique (NGT) is a time-efficient data collection procedure, often conducted within a session lasting approximately 1.5 to 2 hours. Participants are only obligated

to attend a single session, as stated by Potter et al. (2004). Furthermore, the study sessions necessitate minimal preliminary preparation on the researcher's part. To facilitate a productive session, participants must thoroughly examine the subject at hand, as Horton (1980) emphasized. Additionally, it is crucial to provide a favorable climate for democratic group collaboration during the data-gathering process. According to Harvey and Holmes (2012), doing two group sessions in a tiered auditorium was deemed suboptimal. They preferred a level space with a circular seating arrangement for participants. To facilitate the transcription of remarks and the collation of votes during the ranking process, it is advisable to have pens, flip chart paper, whiteboards, and cards available in the setting. These materials are essential for the minimal but necessary preparation work (Lennon, Glasper, & Carpenter, 2012).

3.2 Step in NGT Technique

The aforementioned technique becomes advantageous in identifying problems, exploring potential solutions, and establishing priorities. It demonstrates notable efficacy in "unfamiliar collectives," where mitigating disparities in social standing and linguistic authority among group participants is significant. NGT, which stands for Nominal Group Technique, generally comprises four sequential steps:

The process of generating ideas in writing, commonly known as brainstorming, is often characterized by a silent approach. Participants engage quietly and autonomously, recording their replies to a given stimulus question. (2) The round-robin method of idea recording involves each participant taking turns to offer a single idea, which is then recorded on a prominently displayed flip chart. Engagement in the discourse of ideas is prohibited. The finalized sheets are affixed on the wall to ensure the collective's visibility. The group's facilitator persists in soliciting input from the members until all ideas have been documented or until the group collectively decides that an adequate number of ideas have been generated. (3) Analysis of the compilation of concepts: The participants thoroughly discuss each notion listed to attain a thorough understanding of their respective meanings. (4) The voting process involves participants expressing their opinions on the most significant concepts, maybe ranking them in order of importance. These preferences are then recorded on a flip chart, and the resulting voting pattern is analyzed and discussed.

There exist three main components of NGT. The essential components for practical group discussion include (1) a thoughtfully constructed question that prompts responses at the intended degree of detail; (2) a collection of members who are focused on accomplishing specified tasks and possess knowledge in the relevant subject matter, and (3) a group leader who possesses a thorough understanding of the discussion process and is willing to serve as a facilitator rather than a subject matter expert.

3.3 Sampling Procedure

The optimal size of a (NGT) group is typically considered to range from five to nine individuals. Larger groups can be effectively managed with the implementation of minor procedural adjustments; nonetheless, it is recommended that any group beyond a size of 12 or 13 individuals be subdivided into smaller subgroups. The optimal length of a nasogastric tube

(NGT) group is typically considered to range from five to nine individuals. It is advisable to implement slight modifications in the procedural approach to manage larger groups effectively. There is debate about the most appropriate sample size for conducting studies using NGT techniques. Some scholars state that NGT can be performed on a single cohort or large group (Lomax & McLeman, 1984; Dobbie et al., 2004); however, it can be divided into small groups so that effective communication can be conducted depending on the needs of the study. However, it is recommended that any group over 12 or 13 individuals be subdivided into smaller subgroups consisting of 5 to 9 members groups comprised of 5 to 9 individuals. In this study, we used 7 experts, considering we have a problem gathering experts simultaneously (Mustapha et al., 2022). However, it is sufficient to implement NGT in this study.

3.4 Expert Criteria

According to Booker & Mc Namara (2004), experts are individuals who have acquired their degrees, training, experience, professional membership, and peer recognition via diligent effort and dedication (Nikolopoulos, 2004; Perera et al., 2012). As per the findings of Mullen (2003), an expert is defined as someone who possesses extensive knowledge and expertise in a specific field or industry. The selection of experts is a crucial factor to take into account in the NGT technique. If the process of expert selection is conducted inadequately and relies on certain criteria, doubts may arise regarding the legitimacy, validity, and reliability of the study's findings (Mustapha & Darussalam, 2017). As per the findings of Kaynak & Macauley (1984), the researchers involved in the study must have expertise or familiarity with the subject matter being investigated. The researcher carefully chooses experts who possess a minimum of seven years of experience and who are highly knowledgeable in their specific field of expertise. These experts are selected based on a rigorous set of criteria that is both demanding and relevant to the study. Experts with more than 7 years of expertise in their disciplines were therefore chosen for this study. One counseling professor, 1 education associate professor, 4 university lecturers actively teaching at public universities, and 1 psychology lecturer from a private university are all involved. The experts involved in this study were also selected based on their willingness and agreement to participate in this NGT session. If the expert does not agree, then the researcher will find another expert instead. Willingness is one of the most important features in the success of the NGT session and it is one of the important criteria in the NGT process.

3.5 Implementation of the NGT Process

In this study, we utilized the NGT procedure through an online platform, specifically Google Meet. Conducting this process required gathering all the experts in person, which was challenging due to their remote locations and affiliation with different universities. Therefore, we opted to conduct it online. The duration of the process is 2 hours. The participation in this NGT session is extended to all 7 experts. Initially, we provide a briefing to the experts, followed by 20 minutes for them to contemplate and generate ideas through brainstorming. Subsequently, we extend an invitation to them to participate in the discourse and consider the topic put out in the NGT-PLUS software (software designed for analyzing the Nominal Group Technique) (see Figure 1). The recommended things are presented to the experts, and subsequently, the decision-voting process is conducted. The results are submitted to specialists for validation and

authentication (refer to Table 2).

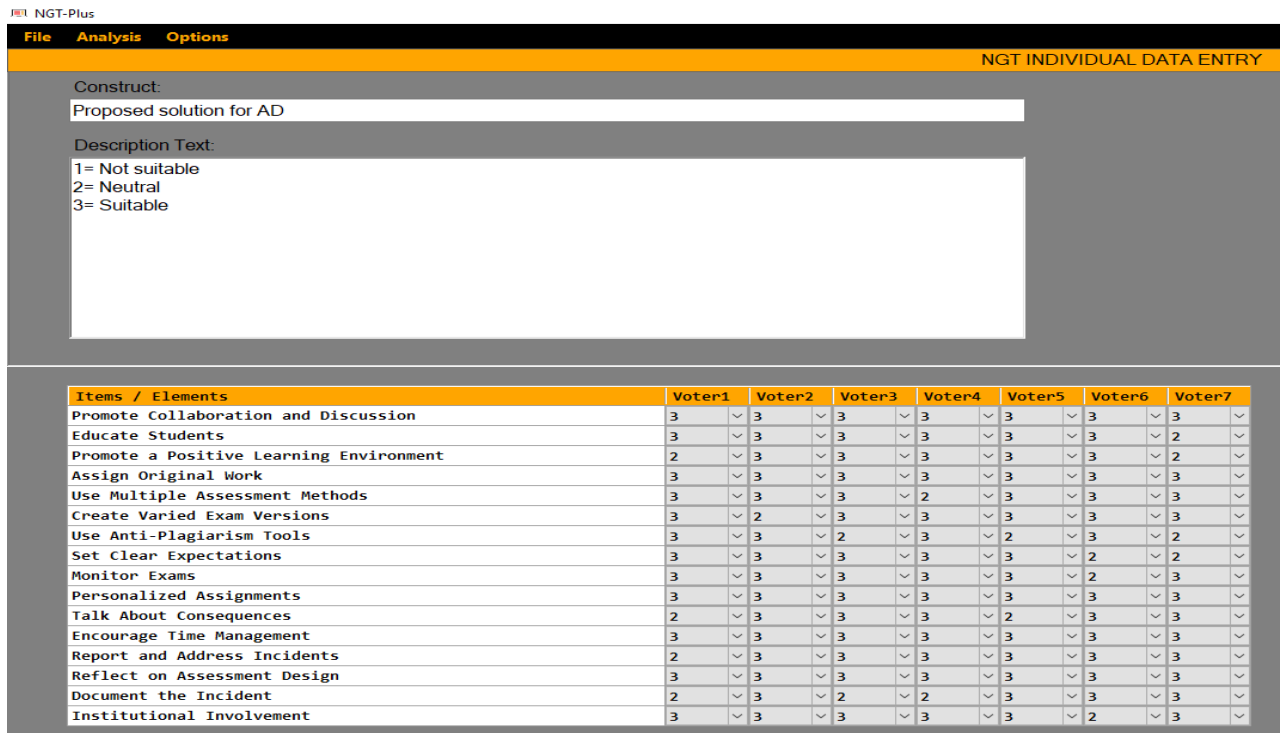


Figure 1. NGT Data Entry

3.6 Data Analysis

This study used NGT-PLUS software to analyze the voting data obtained from expert views. Since no other software is specifically built to analyze NGT, we use this software as it is easy to operate and more suitable than traditional methods.

4. Findings

In this section, we will present the results of the study after the data has been analyzed. The results of the recommendations from Table 1 and the results of the agreement analysis are presented in Table 2, and a summary of the percentage of agreement is shown in Figure 2.

Table 1 presents the comprehensive scores derived from the expert's perspective on resolving academic dishonesty issues. The results of this study provide a concise overview, indicating that the percentages of the analyzed parts are all within an acceptable range for practical application. This phenomenon can be attributed to the percentage value over the threshold of 70%, as stipulated by previous research investigations (Deslandes, Mendes, Pires & Campos, 2010; Dobbie et al., 2004) (refer Table 2). The researcher concludes that all study participants concur on the acceptability and utility of the primary components of the constructed model. Compared to the Delphi approach, the modified NGT technique enables researchers to acquire information efficiently, eliminating the need for iterative evaluation sessions among experts. Figure 3 explains the value of % agreement among the experts involved in giving opinions in

this study.

Table 1. Prosed Solution by an Expert

No	Solutions	descriptions
1	Promote Collaboration and Discussion	Encourage collaboration and discussion on assignments within appropriate bounds. This can reduce the temptation to cheat by allowing students to learn from one another's insights.
2	Educate Students	Ensure students understand what constitutes academic dishonesty, including plagiarism, cheating on exams, and submitting someone else's work as their own. Communicate the institution's policies and expectations regarding academic integrity.
3	Promote a Positive Learning Environment	Foster a classroom atmosphere where students feel engaged and motivated to learn. When students are genuinely interested in the material, they are less likely to resort to dishonest practices.
4	Assign Original Work	Design assignments that require critical thinking, analysis, and personal input. Projects and papers that encourage individual thought and creativity are less likely to be plagiarized.
5	Use Multiple Assessment Methods	Utilize various assessment techniques, including exams, essays, presentations, and group projects. This makes it harder for students to rely solely on cheating methods like copying during exams.
6	Create Varied Exam Versions	If exams are a significant assessment component, consider creating multiple versions of the same exam. This can reduce the effectiveness of cheating during exams.
7	Use Anti-Plagiarism Tools	Employ plagiarism detection software to identify copied content in assignments. This not only catches dishonesty but also acts as a deterrent for students contemplating cheating.
8	Set Clear Expectations	Clearly outline assignment guidelines, citing requirements and collaboration policies. This reduces confusion and excuses for unintentional plagiarism.
9	Monitor Exams	During in-person exams, arrange seating to minimize the potential for cheating. For online exams, use remote proctoring tools to monitor students' activities.
10	Personalized Assignments	Assign topics or prompts requiring students to draw from their experiences, making it harder to find pre-written content online.
11	Talk About Consequences	Discuss the severe consequences of academic dishonesty, both within the educational setting and beyond. Help students understand that cheating can have lasting negative impacts on their future.
12	Encourage Time Management	Often, academic dishonesty occurs due to time pressure and last-minute desperation. Encourage good time management practices to reduce the need for cheating.
13	Report and Address Incidents	If you do catch academic dishonesty, follow your institution's procedures for reporting and addressing such incidents. Consistent enforcement of consequences sends a strong message about the importance of integrity.
14	Reflect on Assessment Design	Regularly review your assessment methods and assignments. Are they susceptible to cheating? Can they be improved to discourage dishonesty?
15	Document the Incident	Keep a record of the incident, including the evidence, the meeting with the student, the actions taken, and any communication that follows. This documentation can be necessary for future reference and for maintaining consistency in your approach to academic dishonesty cases
16	Institutional Involvement	If the incident is particularly severe or repeated, involving relevant administrators or academic integrity committees may be necessary to ensure a fair and consistent response

Table 2. Voting Result (expert voting)

Items / Elements	Voter1	Voter2	Voter3	Voter4	Voter5	Voter6	Voter7	Total item score	%	Rank Priority	Voter Consensus
Promote Collaboration and Discussion	3	3	3	3	3	3	3	21	100	1	Suitable
Educate Students	3	3	3	3	3	3	2	20	95	2	Suitable
Promote a Positive Learning Environment	2	3	3	3	3	3	2	19	90	3	Suitable
Assign Original Work	3	3	3	3	3	3	3	21	100	1	Suitable
Use Multiple Assessment Methods	3	3	3	2	3	3	3	20	95	2	Suitable
Create Varied Exam Versions	3	2	3	3	3	3	3	20	95	2	Suitable
Use Anti-Plagiarism Tools	3	3	2	3	2	3	2	18	85	4	Suitable
Set Clear Expectations	3	3	3	3	3	2	2	19	90	3	Suitable
Monitor Exams	3	3	3	3	3	2	3	20	95	2	Suitable
Personalized Assignments	3	3	3	3	3	3	3	21	100	1	Suitable
Talk About Consequences	2	3	3	3	2	3	3	19	90	3	Suitable
Encourage Time Management	3	3	3	3	3	3	3	21	100	1	Suitable
Report and Address Incidents	2	3	3	3	3	3	3	20	95	2	Suitable
Reflect on Assessment Design	3	3	3	3	3	3	3	21	100	1	Suitable
Document the Incident	2	3	2	2	3	3	3	18	85	4	Suitable
Institutional Involvement	3	3	3	3	3	2	3	20	95	2	Suitable

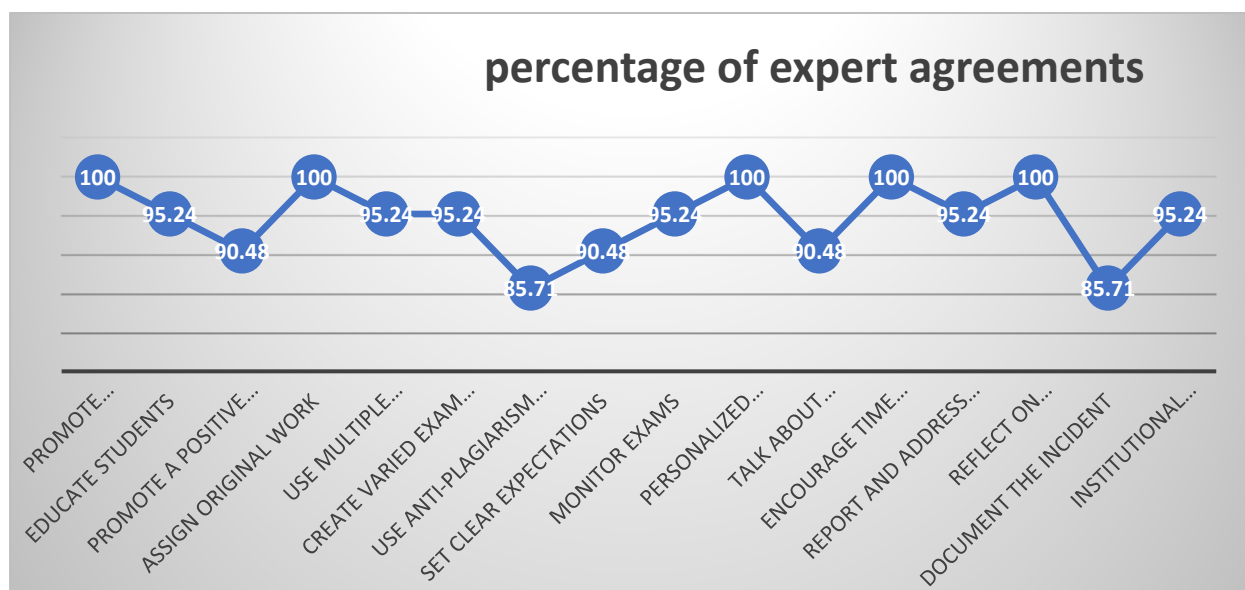


Figure 2. Percentage of Expert Agreement

** > 70 % (the accepted value of consensus)

5. Discussion

The discussion surrounding the ethical considerations about academic integrity and honesty in education is not a novel subject. This issue has persisted for a significant duration, posing a persistent challenge for educators regarding identification and resolution. The educational experience provided by the educator and received by the student should not be diminished or deprived. However, the geographical separation inherent in distance education may give rise to some ethical considerations that could be heightened. One of the most prominent factors to be taken into account is that of academic integrity and the act of plagiarism.

The ramifications of academic dishonesty extend beyond the personal consequences of transgressing moral or ethical boundaries. Furthermore, cheating not only diminishes the perceived academic integrity of the educational institution but also undermines the value of degrees obtained from this school (Chace, 2012; Mensah et al., 2016). Additionally, it poses a significant risk to the credibility and authenticity of these academic credentials (Wollack & Cizek, 2017). According to previous research conducted by Smyth et al. (2009) and Teixeira & Rocha (2010), individuals who resort to cheating to achieve academic success demonstrate a lower level of preparedness for the professional environment. Furthermore, these individuals are more prone to engaging in unethical behaviors that mirror the act of cheating. Higher education institutions perceive themselves as entities that extend beyond the mere conferral of degrees, emphasizing their dedication to cultivating ethical and well-prepared individuals (Chan, 2016). To achieve this objective, it is crucial for higher education institutions to not only enforce consequences for students found engaging in academic dishonesty but also implement measures to reduce the occurrence of cheating on a systemic level.

They considered the fundamental significance of academic integrity in fulfilling an institution's educational objectives, preventing academic dishonesty during the predominant mode of evaluation. Namely, testing holds great importance for numerous colleges and universities. The presence of this challenge to academic integrity necessitates the implementation of stringent security protocols in both classroom and test centre settings. According to Petrak and Bartolac (2014), students must be continuously monitored during testing. Additionally, Weinstein (2013) emphasizes the need for proctors to be prepared to address any abnormal testing conduct promptly.

6. Conclusion

Based on this phenomenon, the researcher tries to propose a solution related to this issue. This issue has a massive impact on the academic world, not only on individuals but also on educational organizations and the country. Therefore, the researcher suggested 16 solutions that can be taken to curb this problem. Although this solution may not be able to prevent it as a whole, perhaps it can be used as a specific guideline in this solution. Based on this recommendation from an expert, it is pretty sensible to take note and action.

7. Limitations and Future Research

Every study cannot escape from limitations, as well as this study. This study only focuses on the opinions of experts in higher education, but the views of experts in other educational institutions are not involved. It is recommended that future researchers also involve experts from other educational institutions, such as experts from schools, colleges, and private institutions. In addition to this view being made in Malaysia, views from other countries and foreign institutions may be made in obtaining stronger and more extensive information. This study also only involves the NGT method; future research may be combined with other methods such as Fuzzy Delphi, Interpretive Structural Modeling (ISM), AHP, and others, so it may be possible to obtain stronger and more cohesive data. For future studies, future researchers may be able to explore more detail related to more proactive measures or can build a mechanism or tools to curb this problem. Specific modules can also be made and are highly encouraged to be created in the future.

References

- Amanda White. (2020). May you live in interesting times: a reflection on academic integrity and accounting assessment during COVID19 and online learning. *Accounting Research Journal, Emerald Group Publishing Limited, 34(3)*, 304-312.
- Arnold, I. J. (2016). Cheating at Online Formative Tests: Does it pay off? *The Internet and Higher Education, 29*, 98-106.
- Asante-Kyei, K., & Nduro, K. (2014). Inclining factors towards examination malpractice

- among students in Takoradi Polytechnic, Ghana. *Journal of Education and Practice*, 5(22), 1-9.
- Baran, L., & Jonason, P. K. (2020). Academic dishonesty among university students: The roles of the psychopathy, motivation, and self-efficacy. *Plos one*, 15(8), e0238141.
- Beasley, E. M. (2014). Students reported for cheating explain what they think would have stopped them. *Ethics & Behavior*, 24(3), 229-252.
- Becker, D., Connolly, J., Lentz, P., & Morrison, J. (2006). Using the business fraud triangle to predict academic dishonesty among business students. *Academy of Educational Leadership Journal*, 10, 37-54.
- Bleeker, K. C. (2007). *To be honest: Championing academic integrity in community colleges*. Rowman & Littlefield.
- Bolin, A. U. (2004). Self-control, perceived opportunity, and attitudes as predictors of academic dishonesty. *The Journal of Psychology*, 138(2), 101-114.
- Booker, J. M., & McNamara, L. A. (2004). Solving black box computation problems using expert knowledge theory and methods. *Reliability Engineering & System Safety*, 85(1-3), 331-340.
- Buckley, M. R., Wiese, D. S., & Harvey, M. G. (1998). An investigation into the dimensions of unethical behavior. *Journal of Education for Business*, 73(5), 284-290.
- Burgason, K. A., Sefiha, O., & Briggs, L. (2019). Cheating is in the eye of the beholder: An evolving understanding of academic misconduct. *Innovations in Higher Education*, 44(3), 203-218.
- Caruana, A., Ramaseshan, B., & Ewing, M. T. (2000). The effect of anomie on academic dishonesty among university students. *International Journal of Educational Management*, 14(1), 23-30.
- Chace, W. M. (2012). Cover story: A question of honor: Cheating on campus undermines the reputation of our universities and the value of their degrees. Now is the time for students themselves to stop it. *The American Scholar*, 81(2), 20-32.
- Chan, R. Y. (2016). Understanding the purpose of higher education: An analysis of the economic and social benefits for completing a college degree. *Journal of Education Policy, Planning and Administration*, 6(5), 1-40.
- Chiang, F. K., Zhu, D., & Yu, W. (2022). A systematic review of academic dishonesty in online learning environments. *Journal of Computer Assisted Learning*, 38(4), 907-928.
- Cizek, G. J., & Wollack, J. A. (Eds.). (2016). *Handbook of quantitative methods for detecting cheating on tests*. Taylor & Francis.
- Delbecq, A. L., Van de Ven, A. H., & Gustafson, D. H. (1975). *Group techniques for program planning: A guide to nominal group and Delphi processes*. Scott, Foresman.

- Diego, L. A. B. (2017). Friends with Benefits: Causes and Effects of Learners' Cheating Practices during Examination. *IAFOR Journal of Education*, 5(2), 121-138.
- Dobbie, A., Rhodes, M., Tysinger, J. W., & Freeman, J. (2004). Using a modified nominal group technique as a curriculum evaluation tool. *FAMILY MEDICINE-KANSAS CITY*, 36, 402-406.
- Ehrich, J., Howard, S. J., Mu, C., & Bokosmaty, S. (2016). A comparison of Chinese and Australian university students' attitudes towards plagiarism. *Studies in Higher Education*, 41(2), 231-246.
- Ercegovac, Z., & Richardson, J. V. (2004). Academic dishonesty, plagiarism included, in the digital age: A literature review. *College & Research Libraries*, 65(4), 301-318.
- Etter, S., Cramer, J. J., & Finn, S. (2006). Origins of academic dishonesty: Ethical orientations and personality factors associated with attitudes about cheating with information technology. *Journal of research on technology in education*, 39(2), 133-155.
- Ewing, H., Anast, A., & Roehling, T. (2016). Addressing plagiarism in online programmes at a health sciences university: a case study. *Assessment & Evaluation in Higher Education*, 41(4), 575-585.
- Fox, W. M. (1989). The improved nominal group technique (INGT). *Journal of management development*, 8(1), 20-27.
- Harvey, N., & Holmes, C. A. (2012). Nominal group technique: an effective method for obtaining group consensus. *International journal of nursing practice*, 18(2), 188-194.
- Henning, M. A., Malpas, P., Manalo, E., Ram, S., Vijayakumar, V., & Hawken, S. J. (2015). Ethical learning experiences and engagement in academic dishonesty: A study of Asian and European pharmacy and medical students in New Zealand. *The Asia-Pacific Education Researcher*, 24, 201-209.
- Herdian, H., Mildaeni, I. N., & Wahidah, F. R. (2021). "There are always ways to cheat" academic dishonesty strategies during online learning. *Journal of Learning Theory and Methodology*, 2(2), 60-67.
- Horton, J. N. (1980). Nominal group technique: A method of decision-making by committee. *Anaesthesia*, 35(8), 811-814.
- Houston, J. P. (1986). Survey corroboration of experimental findings on classroom cheating behavior. *College Student Journal*, 20(2), 168-173.
- Imran, A. M., & Ayobami, O. R. (2011). Academic dishonesty among tertiary institution students: An exploration of the societal influences using SEM analysis. *International Journal of Education*, 3(2), 1.
- Karabenick, S. A., & Srull, T. K. (1978). Effects of personality and situational variation in locus of control on cheating: Determinants of the "congruence effect". *Journal of personality*, 46(1), 72-95.

- Kaynak, E., & Macaulay, J. A. (1984). The Delphi technique in the measurement of tourism market potential: the case of Nova Scotia. *Tourism Management*, 5(2), 87-101.
- Kusnoor, A. V., & Falik, R. (2013). Cheating in medical school: the unacknowledged ailment. *South Med J*, 106(8), 479-83.
- Lancaster, T., & Cotarlan, C. (2021). Contract cheating by STEM students through a file sharing website: a Covid-19 pandemic perspective. *International Journal for Educational Integrity*, 17, 1-16.
- Lehman, C., & DuFrene, D. (2011). *Business communication* Mason. OH: South-Western Cengage Learning.
- Lennon, R., Glasper, A., & Carpenter, D. (2012). Nominal Group Technique: its utilization to explore the rewards and challenges of becoming a mental health nurse prior to the introduction of the all graduate nursing curriculum in England. *Work Pap Heal Sci*, 1(2), 1-5.
- Lomax, P., & McLeman, P. (1984). The uses and abuses of nominal group technique in polytechnic course evaluation. *Studies in Higher Education*, 9(2), 183-190.
- Martin, D. E. (2012). Culture and unethical conduct: Understanding the impact of individualism and collectivism on actual plagiarism. *Management Learning*, 43(3), 261-273.
- McCabe, D. L., & Trevino, L. K. (1997). Individual and contextual influences on academic dishonesty: A multicampus investigation. *Research in higher education*, 38, 379-396.
- McCabe, D. L., Butterfield, K. D., & Trevino, L. K. (2006). Academic dishonesty in graduate business programs: Prevalence, causes, and proposed action. *Academy of Management Learning & Education*, 5(3), 294-305.
- Meng, C. L., Othman, J., D'Silva, J. L., & Omar, Z. (2014). Ethical Decision Making in Academic Dishonesty with Application of Modified Theory of Planned Behavior: A Review. *International Education Studies*, 7(3), 126-139.
- Mensah, C., Azila-Gbetor, E. M., & Appietu, M. E. (2016). Examination cheating attitudes and intentions of students in a Ghanaian polytechnic. *Journal of Teaching in Travel & Tourism*, 16(1), 1-19.
- Mullen, P. M. (2003). Delphi: myths and reality. *Journal of health organization and management*, 17(1), 37-52.
- Mustapha, R., & Darusalam, G. (2017). *Aplikasi kaedah Fuzzy Delphi dalam Kajian Sians Sosial*. Penerbitan Universiti Malaya. Kuala Lumpur.
- Mustapha, R., Ibrahim, N., Mahmud, M., Jaafar, A. B., Ahmad, W. A. W., & Mohamad, N. H. (2022). Brainstorming the Students Mental Health after Covid-19 Outbreak and How to Curb from Islamic Perspectives: Nominal Group Technique Analysis Approach. *International Journal of Academic Research in Business and Social Sciences*, 12(2), 90-

99.

- Nathanson, C., Paulhus, D. L., & Williams, K. M. (2006). Predictors of a behavioral measure of scholastic cheating: Personality and competence but not demographics. *Contemporary educational psychology, 31*(1), 97-122.
- Orok, E., Adeniyi, F., Williams, T., Dosunmu, O., Ikpe, F., Orakwe, C., & Kukoyi, O. (2023). Causes and mitigation of academic dishonesty among healthcare students in a Nigerian university. *International Journal for Educational Integrity, 19*(1), 1-16.
- Petrak, O., & Bartolac, A. (2014). Academic honesty amongst the students of health studies. *Croatian Journal of Education: Hrvatski časopis za odgoj i obrazovanje, 16*(1), 81-117.
- Potter, M., Gordon, S., & Hamer, P. (2004). The nominal group technique: a useful consensus methodology in physiotherapy research. *NZ Journal of Physiotherapy, 32*(3), 126-130.
- Ramos, M. (2003). Auditors' responsibility for fraud detection. *Journal of Accountancy, 195*(1), 28-36.
- Ramzan, M., Munir, M. A., Siddique, N., & Asif, M. (2012). Awareness about plagiarism amongst university students in Pakistan. *Higher education, 64*, 73-84.
- Şendağ, S., Duran, M., & Fraser, M. R. (2012). Surveying the extent of involvement in online academic dishonesty (e-dishonesty) related practices among university students and the rationale students provide: One university's experience. *Computers in Human Behavior, 28*(3), 849-860.
- Smith, C. (2012). *Ethical behavior in the e-classroom: What the online student needs to know*. Elsevier.
- Smyth, L. S., Davis, J. R., & Kroncke, C. O. (2009). Students' perceptions of business ethics: Using cheating as a surrogate for business situations. *Journal of Education for Business, 84*(4), 229-239.
- Teixeira, D. R., Machado, C. J. S., Farias, O. D., & Dupas, F. A. (2010). Descrição e análise quantitativa da composição e grau de participação dos atores públicos e privados nos conselhos de unidades de conservação e mosaicos federais segundo o arcabouço legal. *V ENCONTRO DA ANPPAS, Anais.... Florianópolis, SC*.
- Thomas, D. (2017). Factors that explain academic dishonesty among university students in Thailand. *Ethics & Behavior, 27*(2), 140-154.
- Van Yperen, N. W., Hamstra, M. R., & van der Klauw, M. (2011). To win, or not to lose, at any cost: The impact of achievement goals on cheating. *British Journal of Management, 22*, S5-S15.
- Weinstein, D. (2013). *Bureaucratic opposition: Challenging abuses at the workplace*. Elsevier.
- Whitley, B. E. (1998). Factors associated with cheating among college students: A review. *Research in higher education, 39*(3), 235-274.

- Whitley, B. E., Nelson, A. B., & Jones, C. J. (1999). Gender differences in cheating attitudes and classroom cheating behavior: A meta-analysis. *Sex Roles, 41*(9-10), 657-680.
- Wollack, J. A., Cizek, G. J., Davis-Becker, S., & Buckendahl, C. (2017). Test security for licensure and certification examination programs. *Testing in the professions, 178-209*.
- Yang, S. C., Huang, C. L., & Chen, A. S. (2013). An investigation of college students' perceptions of academic dishonesty, reasons for dishonesty, achievement goals, and willingness to report dishonest behavior. *Ethics & Behavior, 23*(6), 501-522.
- Yukhymenko-Lescroart, M. A. (2014). Ethical beliefs toward academic dishonesty: A cross-cultural comparison of undergraduate students in Ukraine and the United States. *Journal of Academic Ethics, 12*, 29-41.

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