# Academic Integrity Training Module for Academic Stakeholders: IEPAR Framework

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## Abstract

The global surge in academic misconduct during the COVID-19 pandemic, exacerbated by remote teaching and online assessment, necessitates a comprehensive understanding of the multidimensional aspects and stakeholders' perspectives associated with this issue. This paper addresses the prevalent use of answer-providing sites and other types of academic misconduct, underscoring the challenge of detecting all or most of the student misconduct. Exploring factors such as faculty inexperience in remote teaching and assessment, the paper advocates for proactive measures to preserve integrity in education. Emphasizing the need for a culture of integrity beyond traditional classrooms, the paper reviews existing models, then details steps to create a framework using the International Labour Organization (ILO)'s TREE training method. It presents the IEPAR framework (Inspiration, Education, Pedagogical considerations, Assessment design, Response and Restorative practice), and assesses its effectiveness. Incorporating faculty feedback, the paper concludes with evidence-based findings, positioning the IEPAR framework as a robust approach for addressing academic misconduct and fostering a culture of academic integrity in higher education through responsible training of all stakeholders.

**Keywords** Academic misconduct · Remote teaching · Assessment · Academic integrity · Workshop · IEPAR framework · Higher education · COVID19 · Responsible educational leadership · Teacher training

## Introduction

The maintenance of educational quality relies heavily on the essential principles of fairness, courage, honesty, respect, trustworthiness, and responsibility, as emphasised by the International Centre for Academic Integrity (2021). Since the onset of the COVID-19 pandemic, higher education has witnessed a global surge in issues and concerns surrounding academic integrity breaches against these values, particularly in the context of remote teaching and assessment, and classroom management primarily due to the utilisation of online evaluation methods (Erguvan, 2021; Janke et al., 2021; Clark et al., 2020; Krambia

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Kapardis & Spanoudis, 2022). Lancaster and Cotarlan (2021) estimated that during the pandemic there was a staggering 200% increase in the utilisation and access to assignment platforms such as Chegg by students. Additionally, Curtis et al. (2021) have revealed that a substantial percentage, potentially as high as 95% of students engaging in academic misconduct go undetected in classrooms. During the onset of the pandemic, educators also became aware that they were deprived of the ability to establish eye contact, interpret nonverbal cues, and establish effective connections with their students, beyond the realms of traditional pedagogy and physical classrooms. These types of connections are vital in upholding the principles of integrity throughout the teaching, learning, and assessment processes. (Khan et al., 2021).

It is crucial to acknowledge that this issue is not unidimensional, and it is imperative for all involved parties to comprehend the underlying concerns that contribute to the occurrence of these incidents among students beyond online teaching and learning. Caldas et al. (2022) conducted a study of students in Portugal in which 57.6% of students agreed they had committed academic misconduct with 76.6% agreeing that this is a "natural outcome of the competitive society we live in" (p1). Moreover, the increase in misconduct cases as reported by studies (Sefcik et al., 2020; Stephens et al., 2021) with alarming rates prompts a broader inquiry (McCabe et al., 2012).

Proactively addressing these concerns is critical for universities as such behaviours have a negative impact on the institutions, their reputations, devalue their degrees and can have a ripple effect on careers of graduates and society (Hobbs, 2021; Weale, 2021). Moreover, the increase in misconduct cases prompt a broader inquiry:

> *How can we establish a campus culture that fosters integrity and cultivates values of academic honesty, regardless of the circumstances surrounding the time, location, and mode of learning?*

It is agreed upon by scholars, academics, researchers, and policy makers that proactive methods of addressing academic misconducts are better, stronger ways forward which can help to face challenges such as the emergency distance learning during COVID-19 pandemic's lock down (Khan et al., 2022; Benson & Enstroem, 2023). In line with such efforts, this paper aims to extend the existing range of models and methods that have been reported in literature to build a culture of integrity (such as Four Stages of Institutionalizing Academic Integrity by Bertram Gallant (2011), AWARE model by Rogerson (2016), Three-level Model of Intervention by Stephens (2016) and others to reflect on and present IEPAR, a holistic framework conceptualised by Khan (2021), further studied, and analysed by Hill and Khan (2021)han (2021. This paper provides insights into how the model was developed, what purpose it is meant to serve and how it has been disseminated. The paper then goes on to reflect on faculty training conducted using the framework (eg. Khan et al., 2022) and the feedback on its effectiveness and ease of customisation to respective institutions.

It is also crucial to mention here that in reviewing existing models and frameworks, it became evident that they predominantly focused on prevention, detection, moral judgment, and penalty, or were centred around training and managing misconduct. This highlighted a potential gap for a more comprehensive approach applicable to all educational institutions, including K-12 schools and higher education. The identified need inspired the development of a IEPAR framework outlined in this paper, addressing key concerns with potential for constant scalability to address future trends and needs. Additionally, the target audience for this model extends to various stakeholders, encompassing students, teachers, librarians, management, policymakers, responsible leaders, and others in any academic institution.

## Academic Misconduct and Integrity in Academia

Academic integrity has been defined by the European Network for Academic Integrity as "[c]ompliance with ethical and professional principles, standards, practices and consistent system of values, that serves as guidance for making decisions and taking actions in education, research and scholarship" (Tauginienė et al, 2018). This means that every action, decision, policy, practice taking place on campus in a university or school should follow the fundamental values of integrity as mentioned in the previous section. At its core, academic integrity upholds the principles of honesty, trust, and fairness in the pursuit of knowledge and scholarly endeavours. In educational institutions, the values associated with academic integrity underscore the importance of originality, ethical conduct, and proper acknowledgment of sources, fostering an environment where intellectual contributions are genuine and respected.

Academic misconduct is any behaviour or "act of using unauthorized and/or unacknowledged materials, methods or someone else's work for one's own benefit… to perform … dishonesty in or out of classrooms in order to gain unfair advantage" (Khan, 2014, p.39, 44). Concerns surrounding academic misconduct range from plagiarism and unauthorized collaboration to cheating, using unauthorised technology or material on examinations, getting a third party to complete assessments, eroding the fundamental principles of intellectual honesty. This poses a critical challenge within the educational landscape, encompassing both schools and universities because it clashes with the fundamental values, but also transparency, equity and justice, fair evaluation, teaching work ethic and risk of unethical behaviour at workplaces (McCabe et al., 2012; Park, 2003; Walker, 1998). Moreover, such breaches not only compromise the educational experience for individual learners but also undermine the credibility and reputation of institutions.

Students may resort to cheating due to academic pressure, fear of failure, a desire for higher grades, or a lack of understanding of ethical boundaries in their pursuit of success. Numerous studies have delved into studying the motivations behind academic dishonesty (Khan, 2014; Waltzer & Dahl, 2022; Awdry & Ives, 2021; Salehi & Gholampour, 2021), exploring strategies to prevent, detect, and address cheating behaviours (Khan, 2014; Bylieva et al., 2020; Adzima, 2020; Harper et al., 2021). These research endeavours aim to provide insights into effective interventions and some educational approaches that promote academic integrity, acknowledging the complex interplay of factors influencing students' decisions to cheat that include various stakeholders and their influences.

In an era marked by technological advancements and remote learning modalities, with the world reeling from the COVID-19 pandemic, and more recently the boom in Generative Artificial Intelligence (GAI) that has yet again caused a ripple for educators globally (Riso, 2023), the landscape of academic misconduct has evolved as is discussed in the following section, necessitating a comprehensive understanding of the multidimensional challenges and the development of proactive measures to cultivate a culture of academic integrity. Addressing these concerns requires a holistic approach that involves stakeholders at various levels, including students, educators, administrators, and policymakers, collectively working towards upholding the values that form the bedrock of academic pursuits.

## Academic Misconduct in the Digital Space

The fourth industrial revolution and the technologies supporting this era have been a great boon to the education sector. Be it accessibility or increasing inclusivity, or making content more engaging, or automating grading, technology has enhanced the teaching and learning experience for both the teacher and the student (Ally & Wark, 2020). However, the innovations in technology have also helped students who wish to engage in academic misconduct. The concern is not just the percentage of cases detected, but especially about cases that are not detected (Curtis et al., 2021). Undetected cases of academic misconduct among students present a concerning challenge for educational institutions and the integrity of the academic system (Fudge et al., 2022). While institutions have implemented various measures to prevent and detect academic dishonesty, it is inevitable that some instances go unnoticed. The complexity of this issue can be attributed to several factors.

Advancements in technology have provided students with more opportunities to engage in academic misconduct (Christensen Hughes & Eaton, 2020) while evading detection. Plagiarism detection software and other tools used by institutions may not always be able to identify all forms of cheating, especially when students resort to sophisticated methods such as automated paraphrasing (Fudge et al., 2022), generative artificial intelligence (Lancaster, 2023), translating, or using non-standard fonts (Elkhatat et al., 2021).

In addition, the increasing availability and accessing of online answer-providing services and essay mills (Lancaster & Cotarlan, 2021) further exacerbates the problem. Students can easily purchase pre-written papers or hire others to complete assignments on their behalf, making it challenging for educators to distinguish between original work and outsourced submissions (Rogerson, 2017; Popoola, 2021). Moreover, the sheer volume of assessments and assignments that educators need to evaluate can make it difficult to thoroughly examine each submission for signs of misconduct. This can inadvertently result in undetected cases slipping through the cracks.

Furthermore, students who engage in academic misconduct may become adept at concealing their actions by mimicking the writing style and language of the original sources, making it harder for educators to identify instances of plagiarism.

During several webinar sessions with faculty and teachers that were led by the author for K-12 schoolteachers and faculty from universities with tacit consent received during registration to attend the sessions, the overarching concerns voiced by the audience revolved around:

1. fear of the unknown presented by rapid evolution of technology such as ChatGPT,
2. readily available and mushrooming answer-providing sites,
3. lack of the participants' experience in teaching remotely,
4. lack of understanding of assessment re-design and current edtech tools available, and
5. reduced ability to connect with students who refused to switch on their webcams or microphones.

The increasing prevalence of online assessments and the growing reliance of students on assignment answering sites have raised concerns within the academic community since institutions moved to emergency distance learning in 2020 following lockdowns due to the COVID-19 pandemic. One key factor contributing to this trend is the accessibility and convenience provided by these digital platforms. Students can access study materials and seek answers to their assignments anytime and from anywhere, allowing them to

work at their own pace (Weale, 2022). Moreover, time constraints faced by students due to various commitments, such as part-time jobs or extracurricular activities, drive them to seek quick solutions. Online assessment writing services and assignment answering sites offer immediate assistance, enabling students to meet deadlines and manage their multiple responsibilities more effectively (Khan, 2022). However, this growing reliance on such platforms carries certain risks. Firstly, it may lead to misconduct such as contract cheating, as students may copy answers without fully understanding the material or submitting work done partially or wholly by someone else as their own work (Clarke & Lancaster, 2006). Additionally, the lack of critical thinking and problem-solving skills development, as well as the potential for accessing inaccurate information, can hinder students' overall learning and intellectual growth.

## Faculty Inexperience and Unpreparedness in the Face of Crisis

Numerous researchers have highlighted the potential negative influence of faculty members' limited expertise in assessment design and their lack of preparedness in knowing how to use technology when dealing with a crisis. Especially during the pandemic, on the occurrence of academic misconduct (Dendir & Maxwell, 2020; Khan et al., 2021; Reedy et al., 2021), the insufficient experience of faculty members in designing assessments tailored to online environments, as well as their unfamiliarity with the effective utilisation of technology, may inadvertently have created loopholes that facilitated misconduct. Inadequate understanding of the features and functionalities of online platforms or generative AI can impede faculty members' ability to implement robust integrity measures, inadvertently providing students with opportunities to engage in dishonest practices.

The transition to online teaching and learning presented challenges in establishing meaningful connections between instructors and students, which can potentially contribute to an increased likelihood of academic dishonesty. The absence of face-to-face interaction and the limited ability to establish personal connections with students reduced opportunities for instructors to establish norms, set expectations, and foster a sense of accountability (Khan et al., 2021). In traditional classroom settings, instructors can engage with students, establish eye contact, and create an environment that promotes integrity and discourages cheating (Khan et al., 2022). However, the online learning environment, with its inherent limitations, may create a perceived anonymity and detachment that could potentially diminish students' sense of responsibility and motivation to uphold academic honesty.

## Implications of Academic Misconduct

Previous sections of this manuscript have posited to the implications of academic misconduct broadly to students, institutions and the workplace. Academic misconduct in online settings can also have significant negative implications for educational institutions, their reputations, and the integrity of degrees conferred. When instances of academic dishonesty go unchecked, it undermines the credibility and trustworthiness of the institution. The perception of academic rigor and the value of degrees awarded can be eroded, potentially leading to a diminished reputation among stakeholders, including prospective students, employers, and the wider academic community (Rana & Ajmal, 2013).

Instances of widespread academic misconduct online can also create a sense of unfairness among students who uphold academic integrity. Those who work diligently and adhere to ethical standards may feel disheartened by the realization that others are gaining an unfair advantage through dishonest means. This can lead to a loss of motivation, decreased trust in the educational system, and a compromised learning environment for all students.

Additionally, academic institutions may face legal and ethical consequences if they are found to be negligent in addressing and preventing academic misconduct. There can be legal implications related to intellectual property violations, copyright infringement, and breach of academic integrity policies for all stakeholders (Moss, 2022). Institutions that fail to take appropriate measures to combat academic misconduct may be subject to legal action and damage to their institutional standing.

Furthermore, the impact of academic misconduct extends beyond individual cases. It can tarnish the collective reputation of a department, faculty, or even the entire institution. Prospective employers may question the quality and authenticity of degrees awarded by an institution with a reputation for academic dishonesty. This can hinder graduates' career prospects and weaken the institution's position in the academic landscape.

## Upholding Values of Academic Integrity

Fostering a culture of academic integrity across a campus is of utmost importance in teaching and learning. Upholding and promoting values of honesty, fairness, trust, courage, respect, and responsibility (ICAI, 2021) in academic pursuits not only ensures fairness but also contributes to the overall educational experience and personal growth of students. When educators prioritise and emphasise the significance of academic integrity, they instil in students a strong foundation for ethical decision-making and responsible conduct.

By actively fostering academic integrity values, educators not only deter instances of cheating and plagiarism but also cultivate an environment that encourages critical thinking, originality, and the pursuit of knowledge (Bhattacharya et al., 2022). Students who are aware of the importance of academic integrity are more likely to engage in authentic learning experiences, take ownership of their work, and develop a genuine understanding of the subject matter.

Moreover, the promotion of academic integrity serves as a valuable life lesson for students beyond their educational journey. The skills and values cultivated through academic integrity, such as honesty, respect for intellectual property, and ethical reasoning, are transferable to various aspects of life and future professional endeavours. Graduates who embody these values are not only better prepared to contribute positively to their fields but also serve as ambassadors of integrity, promoting ethical behaviour in their respective communities.

A longitudinal study by Khan et al. (2022), examined the initiatives undertaken by a western university situated in a Middle Eastern nation. It traced the systematic modifications, the development of policies and protocols, and the resulting comprehensive response throughout the campus on academic integrity efforts that led to enhanced awareness of academic misconduct; and most importantly, it emphasized the significance of cultivating a culture of integrity as a proactive measure rather than waiting for crises to arise. Other studies such as Gallant and Drinan (2008), Caldwell (2010) and Celik and Razi (2023), have also posited similar conclusions.

Based on the findings from the webinars hosted, and existing literature, the objective of this study became to answer the following:

*How can we establish a campus culture that fosters integrity and cultivates values of academic honesty, regardless of the circumstances surrounding the time, location, and mode of learning?*

## Methodology: Framework Development

To answer the question, we adopted a qualitative approach that involved a variety of qualitative methods to research, review, propose and verify the proposed framework. This was a well-suited methodology for this study because it allowed for in-depth exploration through literature survey method, and flexibility in capturing feedback such as verbally through participants' lived experiences, giving valuable insight into the interplay between the framework, participants and the environment using summative content and thematic analysis (Braun & Clarke, 2006; Hsieh & Shannon, 2005). Creating word clouds helped to find emerging themes.

This section of the paper is organised as follows—it first presents a literature survey summary of existing models, followed by a discussion on the overarching gap. Then the section provides theories that inform understanding of student and staff behaviours, followed by the development of learning outcomes for the framework. The section then provides a comprehensive look at the IEPAR framework and its five pillars, followed by a discussion on the model-design choice. The diagram below visualises the workflow of this research (Fig. 1):
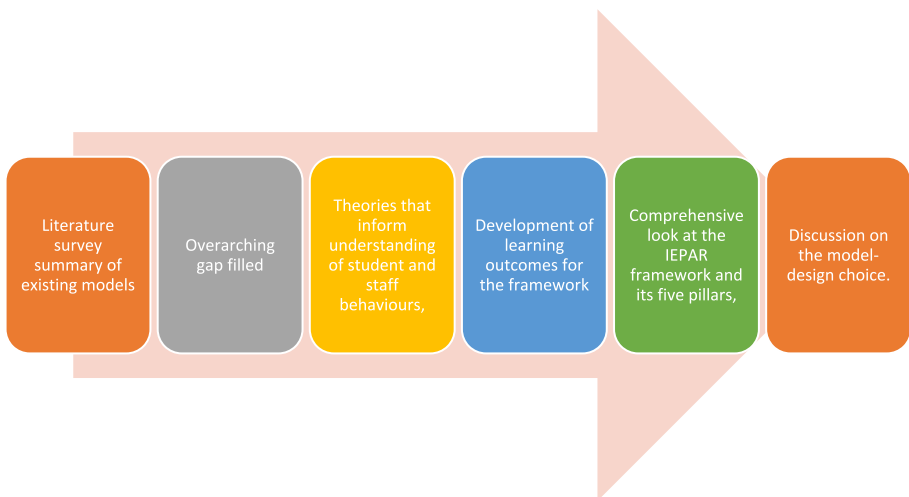


**Fig. 1** Workflow of research

**Literature Survey on Existing Models**

Using the literature survey (Ulz, 2022), we began to explore existing models to develop a culture of integrity. This was conducted as follows:

- using the online library databases from a university in Australia which uses 251 online databases
- using search terms "framework, "model", "culture of integrity", "building a culture of integrity", "resources"

Figure 2 below highlights the models/frameworks/resources that comprehensively speak to this matter.

- The Three-Level Model of Intervention
  The Three-Level Model of Intervention by Stephens (2016) focused on K-12 schools and how to develop interventions for students, students and teachers, and the larger community (students, teachers, administrators, and parents). The author positions the intervention as a pyramid, positioning the school-wide efforts as the base.
- Academic Integrity Toolkit
  Academic Integrity Toolkit by Wangaard and Stephens (2011) is a resource guide for K-12 schools that offers a wide range of tools and strategies designed to cultivate a culture of academic integrity among teachers, school administrators, and parents. It equips them with a toolkit of resources that can be easily reproduced, including handouts, to facilitate the establishment of an Academic Integrity Committee. By providing a well-structured plan and policies, this resource supports the development of an environment that values honesty and diligence in academic pursuits.
- Academic Seminars
  Academic Seminars (Stephens & Wangaard, 2016) is once again a guide for K-12 schools, which presents a theoretical and empirical examination of a process-oriented, four-component model approach aimed at cultivating students' moral functioning in relation to academic integrity. The model provides a systematic framework for promoting ethical behaviour and moral decision-making among students.
- Handbook on school-wide program to prevent and manage behaviour



**Fig. 2** Identified frameworks/models/resources on building culture of academic integrity

The Handbook on school-wide program to prevent and manage behaviour by Lane et al. (2009) provides guidance on the process of designing, implementing, and assessing a comprehensive, integrated, three-tiered (Ci3T) model of prevention. Instead of offering a pre-packaged program, the book provides a range of resources and strategies that enable the customization of Ci3T to suit the specific needs and priorities of individual schools or districts. Notably, Ci3T stands out by combining behavioural, academic, and social-emotional elements within a unified, evidence-based framework.

Interestingly, the literature survey found that some of the major studies did propose models/frameworks/resources all aimed at K-12 schools and not higher education. Conducting a review of existing literature to find models or frameworks for higher education, the following two prominently featured:

- Four Stages of Institutionalizing Academic Integrity
    Bertram Gallant's (2011) Four Stages of Institutionalizing Academic Integrity which was presented as a report to review how universities respond to cheating and then provides strategies to help universities determine changes that may be necessary to bring to the university to address their responses and how they see cheating.
- AWARE Model
    The AWARE model by Rogerson (2016) presented to the Higher Education Compliance and Quality Forum is a framework aimed at higher education institutions to acknowledge there is a problem, warn students of the consequences, rethink assessments, how to react and respond and educate themselves.

It is important to note here that Spectrum of Prevention by Cohen and Swift (1999) which was discussed in Stephens (2016) has largely inspired our model. The Spectrum of Prevention is a holistic model that was designed by Cohen and Swift (1999) to prevent injuries. It has six levels of interventions, which are:

- influencing policy and legislation
- changing organizational practices
- fostering coalitions and networks
- educating providers
- promotion community education
- strengthening individual knowledge and skills

(Cohen & Swift, 1999).

For the same reason as it inspired Stephens (2016), we adopted the comprehensive nature of the model that allows for "developing multifaceted approaches" (Cohen & Swift, 1999, p.203). Like the spectrum, which commences with enhancing individual knowledge and skills and ascends through various levels to impact policy and legislation, we also aimed for our model to adopt a similar trajectory. This design prompted us to explore comprehensive strategies, beginning with grassroots initiatives to fortify individual understanding and capabilities. As our framework progresses, it was then extended beyond classroom, encompassing organizational practices and policies, management of detection and penalty, and beyond, thus aligning with the layered intervention levels delineated in the Spectrum of Prevention. By incorporating this holistic perspective, we believe the proposed framework would address academic integrity from its foundational elements to broader institutional

and systemic dimensions, ensuring a comprehensive and effective approach to fostering ethical conduct within educational settings.

In the process of reviewing the existing models and frameworks, resources and tools, it became apparent that existing models/frameworks/resources largely looked at prevention, detection, moral judgement and penalty or positioned as training and management of misconducts; thus identifying a possible gap that a more holistic approach was called for that would address any education institution, be it K-12 schools or higher education institutions, and a model that would help address areas of concern highlighted in this paper. This also led to the following observations:

Target audience: (1) any academic institution—K-12 schools or higher education institutions; (2) any stakeholder—students, teachers, librarians, management, policymakers, etc.

## Reviewing Existing Theories to Support Comprehensive Model

In having identified the gap, the author worked closely with colleagues to adopt elements from Activity Theory (AT), Theory of Intended Behaviour (TIB), and Social Cognitive Theory (SCT) to provide a basis for what a framework might look like (Hill & Khan, 2021). Together they posited that individuals' actions and interactions, be it a teacher, leader or student, were influenced by their environment, personal experiences, and perceived value of the approach or technology they were utilizing.

Drawing on the conceptual framework of Activity Theory (Portnov-Neeman & Moshe, 2013), student perceptions were examined within the context of tools, rules, and community. Activity Theory highlighted the significance of these elements in shaping individuals' perceptions and patterns of use; for instance, what students have access to, how they view these tools and websites, the rules they follow and what they perceive to be normal behaviour (Hill & Khan, 2021).

The Theory of Intended Behaviour (TIB) posits three levels of explanatory factors: personal beliefs, which are influenced by individual characteristics and experiences; normative beliefs and social determinants, which impact behavioural intentions; and the performance of specific behaviours, which is predicted by behavioural intentions, situational conditions, and past experiences (Taherdoost, 2018). Interestingly, applying this theory helped to shed light on the extent to which students act with or without integrity based on their social environment, levels of prior education, and so on (Hill & Khan, 2021).

Social Cognitive Theory (SCT) incorporates three main factors, namely behaviour, personal factors, and the environment, to explain and predict both individual and group behaviour (Middleton et al., 2019). SCT considers behavioural outcomes in relation to usage, performance, and adoption of specific practices, such as using technology and helping position perceived value and usefulness of online learning and interactions (Hill & Khan, 2021).

Based on these theories, the author's experience in training managers, teachers and students on academic integrity values and their importance and sessions, and workshops on academic misconduct, how to avoid them, the author conceptualised the IEPAR Framework (Khan, 2021) which is explained in detail in the next section.

## TREE Method to Develop the Framework

Using the International Labour Organization's (ILO) TREE training method, a training plan was made based on the criteria listed below. TREE stands for Training for Rural

Economic Empowerment, a program that was launched by ILO. Although the proposed framework is not only a training method, but also a model that can be followed by any institution or individual, the TREE method is believed to be a good fit for this study because it is a "comprehensive and community-based approach" (ILO, 2023, para 3) which applies to any framework/model/resource in building a culture of integrity in institutions. Below are ILO's TREE training plan criteria followed by a discussion on how each was applied to develop the IEPAR framework:

- learning objectives for the framework
- total amount of time for the training using the framework
- prior knowledge requirements
- proficiency
- training methodology
- training material
- training location
- training schedule
- syllabus
- provider
- evaluation
- cost

(ILO, 2023)

**Developing Learning Outcomes** Based on the extensive literature survey of existing models and frameworks, the main aim of developing a new framework was to ensure it was (1) holistic in nature (2) proactive in nature.

Keeping these in mind, using Brigg's theory of constructive alignment (2005) and revised Bloom's taxonomy of higher order thinking (Anderson et al., 2001), the author drew up a set of learning outcomes for the framework to be used to conduct training. These were to:

1. Understand the depth and breadth of issues related to academic integrity, and identify its values in a campus
2. Identify and evaluate key stakeholders of a student's learning journey and their roles in developing a culture of integrity
3. Demonstrate understanding of the holistic framework developed and its pillars
4. Adapt a scalable and customisable model that can be implemented for K-12 schools or higher education institutions, for staff, teachers or students to build a culture of integrity
5. Foster a culture of integrity within the scope of their own role in the institution

**Time** Training length can vary depending on the size of the participants and content. To make the training effective, sessions should be between 60 and 90 min. Participant size may range from 5 to 50 or 150.

**Prior Knowledge Requirements** There is no expectation of prior knowledge of academic integrity.

**Proficiency** Each participant is expected to be able to foster a culture of integrity within their scope of role (depending on stakeholder) on completion of this training.

**Training Methodology** TREE method—introduction, presentation, clarification, closing.

**Training Material** Handouts to be provided by the trainer along with slides and descriptions of the framework and its constructs.

**Training Location** Training should be possible virtually or face to face at an academic institution's location.

**Training Schedule** Flexible.

**Syllabus** With the four outcomes in hand, the first pillar to be addressed was *Inspiration (I)*. Starting with inspiration when training teachers and students on academic integrity is crucial because it fosters a positive mindset and intrinsic motivation towards ethical behaviour. By instilling a sense of inspiration and purpose, individuals are more likely to internalize the values of academic integrity and embrace them as part of their identity.

The second pillar to follow was *Education (E)*. Education plays a vital role in training both teachers and students on academic integrity as it helps to raise awareness about the concepts and principles of academic integrity, and helps the trainees comprehend the consequences of academic dishonesty.

The third pillar is *Pedagogical Considerations (P)* which highlights the importance of teaching and learning practices that facilitate higher order thinking, considers student environment and influences, including technological advances to ensure effective instructions, active learning, reflection, and self-assessment, set norms and expectations, allow for scaffolding learning, skills development, and continuous improvement.

The fourth pillar considers *Assessment Design (A)*. Assessment design is crucial to building a holistic, inclusive culture of integrity because it helps to align expectations, encourage authentic learning, promote skill development, diversity assessment formats and practices, give importance to authenticity and relevance, allow for formative feedback, reflection, and self-assessment.

The fifth and final pillar is double-sided—*Response and Restorative Practice (R)*. Detecting misconduct, reporting in a systematic and consistent manner, moving away from criminalisation of misconduct, allowing students to recognise victims, highlighting accountability, rebuilding trust, developing empathy and understanding, and so on, leading to learning opportunities.

**The Framework Design** As has been illustrated in Fig. 3, the framework was designed as a honeycomb. Background study into various models or designs led to the decision that a honeycomb would be the most suitable model to use. This is mostly inspired by studies that have used this model such as Morville (2004) who used it to develop frameworks for user experience design and The Institute for Personalised Learning that used it as a change
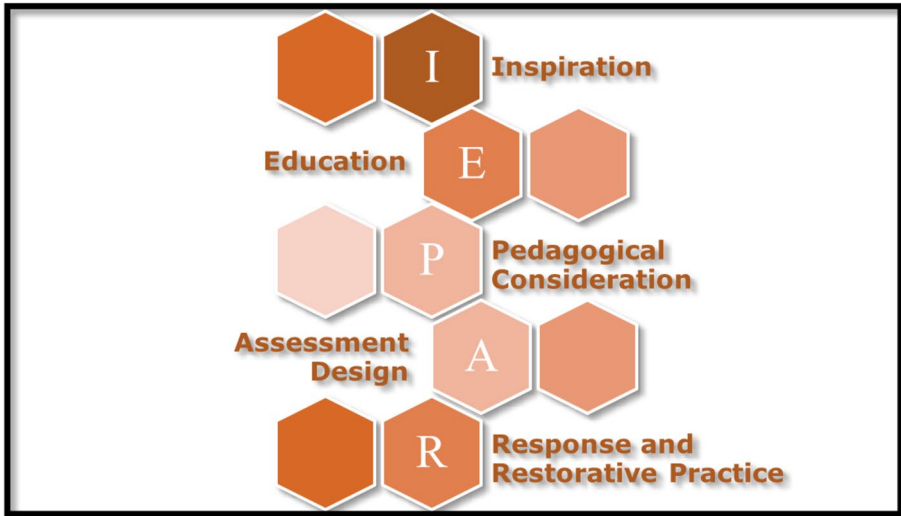
**Fig. 3** IEPAR Framework (Khan, 2021 with permission)

strategy (Digital Promise, 2023). The list below highlights how and why this model design is apt and suitable for the framework:

- Interconnectedness: The honeycomb design emphasizes the interconnectedness of the pillars within the academic integrity framework. Just like the cells of a honeycomb are interconnected, the different pillars of the framework are interdependent and mutually influencing. This design highlights the holistic nature of academic integrity and the need for a comprehensive and integrated approach to consider all stakeholders.
- Flexibility and Adaptability: The honeycomb design allows for flexibility and adaptability in addressing academic integrity issues. Each cell of the honeycomb represents a different aspect of the framework, and adjustments can be made to individual cells without affecting the overall structure. This flexibility enables institutions to tailor the framework to their specific context, needs, and priorities while ensuring that the essential components of academic integrity are addressed.
- Balance and Equity: The honeycomb design promotes balance and equity by giving equal importance and attention to each component of the framework. Just as the cells of a honeycomb are uniform in size and shape, this design ensures that no aspect of academic integrity is overlooked or given disproportionate emphasis. It encourages institutions to allocate resources and efforts equitably across all five pillars.
- Interdisciplinary Approach: The honeycomb design encourages an interdisciplinary approach to academic integrity. Each cell of the honeycomb can represent a different discipline or perspective, such as ethics, pedagogy, assessment, research integrity, and student support. This interdisciplinary perspective fosters collaboration and the exchange of ideas and best practices across different fields, enriching the development and implementation of the framework.
- Scalability and Sustainability: The honeycomb design allows for scalability and sustainability of the academic integrity framework. New cells can be added as emerging issues or challenges arise, ensuring that the framework remains relevant and responsive

over time, hence there is one empty cell with each pillar. Additionally, the interconnectedness of the cells promotes a balanced and self-sustaining system where changes or improvements in one area can positively impact other components.

- Visual Representation: The honeycomb design provides a visually appealing and memorable representation of the academic integrity framework. Its unique structure and geometric pattern make it easy to recognize and understand. This visual representation can aid in communicating the framework to stakeholders, raising awareness, and promoting a shared understanding of the importance of academic integrity.
- Complexity Management: Academic integrity is a complex and multifaceted concept. The honeycomb design helps manage this complexity by organizing and categorizing different aspects within the framework. Each cell represents a specific aspect or domain, allowing for a more systematic and structured approach to addressing academic integrity issues.

**Format** Using the TREE format to develop and fill out Table 1 for each iteration of the training to capture details that will help to customise the session.

**Provider** Typically, either author will be the provider, or any trainer trained in the IEPAR framework.

**Evaluation/Feedback** The training will seek tacit consent from participants (as part of registration), to capture feedback from participants on the effectiveness of the training.

**Cost** The training is intended to be a service to the academic community. While the training material will be provided free of cost, the actual sessions may incur a charge for delivery.

## Results: Feedback on Framework Training

To trial and test the framework, seven workshops/webinars were conducted between 2021—2022. These included K-12 schools and universities from the United Arab Emirates (UAE), and universities from abroad e.g., Mexico.

Participants used a link to register to attend, where they were informed of the opportunity to evaluate and provide informal feedback after the workshop. It was explained that feedback would be used to understand the effectiveness of the framework, without revealing any identifying details of respondents. It was also made clear that participation in the feedback process was voluntary.

Training was developed around the IEPAR framework with the following phases:

- Phase 1: 30-min session on understanding academic integrity and academic misconducts.
- Phase 2: 30/60-min session on IEPAR framework as a workshop
- Phase 3: 5-min session on feedback from the training experience

Feedback was received from $n = 167$ participants. Details are provided in Table 2. It is important to note that this number only reflects those who agreed to provide feedback. Actual number of attendees was 359, bringing the response rate to 46.52%.

**Table 1** Training Syllabus (adapted from ILO, 2023)

| Pillar | Item/Construct | Potential engaging questions | Skills requirements | Related knowledge | Resource | Teaching Method | Key highlights |
|---|---|---|---|---|---|---|---|
| Inspirations | 1 | | | | | | |
| | 2 | | | | | | |
| | 3 | | | | | | |
| Education | 1 | | | | | | |
| | 2 | | | | | | |
| | 3 | | | | | | |
| Pedagogical Consideration | 1 | | | | | | |
| | 2 | | | | | | |
| | 3 | | | | | | |
| Assessement Design | 1 | | | | | | |
| | 2 | | | | | | |
| | 3 | | | | | | |
| Respons and Restorative Practice | 1 | | | | | | |
| | 2 | | | | | | |
| | 3 | | | | | | |

**Table 2** Distribution and demographic details of participants who provided tacit consent

| Sr | Country | Institute Coded | Type of institute | Total consenting to feedback |
|---|---|---|---|---|
| 1 | UAE | 1 | Higher Ed | 20 |
| 2 | UAE | 2 | K-12 school | 40 |
| 3 | UAE | 3 | Higher Ed | 22 |
| 4 | UAE | 4 | K-12 school | 45 |
| 5 | Mexico | 5 | Higher Ed | 25 |
| 6 | Unknown/Not consented to reveal | Unknown/Not consented to reveal | Higher Ed | 15 |

One question asked during the feedback was "***how would you use or assess the IEPAR framework?***".

The answers were provided in the following manner:

- on the chat of the web conferencing tool used (e.g., Webex, Zoom or Microsoft Teams), or
- spoken verbally which was jotted down by the facilitator if the speaker gave consent, or
- some provided one-word answers, or
- some delved into sharing lived experiences.

To analyse the feedback a word cloud was developed to showcase the most common answers (see Fig. 4).

Some constructive feedback received included:



**Fig. 4** Word cloud to show generic feedback received

- engaging new staff is easy, but seasoned or senior staff may be difficult
- any nuances if any when applying to diverse student demographics such as international students with English as second language
- construct under "Education" which reads "Acknowledge there is a problem"—may not be the best starting point; why not consider learning as the first headline?
- have you looked at co-creation of assignments with students?
- consider the alignment between the course learning outcomes, the assessment strategy, and the academic integrity skills that students need to develop

## Discussion and Conclusion

Creating and fostering a culture of integrity in campuses is a crucial undertaking that holds significance regardless of the learning environment. Whether in traditional face-to-face settings or virtual online platforms, cultivating an atmosphere that upholds the values of honesty, trustworthiness, and ethical conduct is essential for promoting academic integrity among students. Establishing such a culture involves a multifaceted approach that encompasses various elements. Recognising that educators and other stakeholders play a pivotal role in modelling integrity and consistently reinforcing its importance through explicit discussions, examples, own behaviour, and expectations, is a cornerstone to the successful development of a culture of integrity. However, with faculty's lack of expertise or preparedness in the face of a crisis, the mushrooming of essay mills, explosion of GAI and answer providing services and other malice in the digital space, during the pandemic and beyond, have sharply brought into focus the need to be able to develop a culture of integrity that is holistic in nature, scalable and all-encompassing. All stakeholders should be able to uphold integrity irrespective of where and how teaching, learning and assessment takes place.

This paper aimed to bring to light some key concerns raised by K-12 schoolteachers and university faculty and management that they faced during and immediately after the pandemic. These concerns led to the question:

> "*How can we establish a campus culture that fosters integrity and cultivates values of academic honesty, regardless of the circumstances surrounding the time, location, and mode of learning?*".

To answer this question, the author used qualitative approach to conduct literature survey, followed by TREE method of developing training programs to create the IEPAR framework (Inspiration, Education, Pedagogical Consideration, Assessment Design and Respond + Restorative Practice), a holistic model to help institutions build a culture of integrity, irrespective of size, type of institution, or the type of stakeholder participating in the training.

It is believed that the IEPAR model emerges as a distinctive and robust paradigm, differentiating itself from prevalent K-12-centric methodologies. In contrast to extant models predominantly focused on preventive, detective, or instructional facets, IEPAR synthesizes insights from diverse sources, including the Spectrum of Prevention (Cohen & Swift, 1999) and the Three-Level Model of Intervention (Stephens, 2016), to present a comprehensive perspective. While the Three-Level Model concentrically addresses K-12 educational environments, IEPAR transcends these boundaries, ensuring scalability and tailoring to diverse stakeholders within both K-12 and higher education institutions. Existing

resources, exemplified by the Academic Integrity Toolkit (Wangaard & Stephens, 2011) and Academic Seminars (Stephens & Wangaard, 2016), exhibit a pronounced emphasis on K-12 contexts. In contrast, IEPAR not only confronts academic misconduct in higher education but also surpasses conventional focuses on prevention and detection. Acknowledging the universal pertinence of academic integrity, IEPAR aligns itself with the foundational tenets delineated in models such as the Four Stages of Institutionalizing Academic Integrity (Bertram Gallant, 2011) and the AWARE Model (Rogerson, 2016), underscoring the necessity for proactive, institution-wide interventions.

Using feedback processes and analysing the lived experiences shared by participants who provided consent, the author was able to identify emerging themes as lessons learned such as:

- level of faculty in universities—this was rather interesting feedback that claimed it was much easier to invite and train new faculty but not the senior, more seasoned faculty.

Reflecting on the sessions conducted, it was rather an interesting finding that the senior faculty only participated in the training when the invitation to the session came from senior management. This merits further investigation to understand this barrier to the holistic and inclusive aim of IEPAR.

- issue of student diversity when it relates to language

This was an interesting observation particularly because most of the sessions were hosted within UAE. UAE is a young nation with 80% of the population representing expatriates from over 200 countries (WFB, 2023). Some of these expats make up the workforce in schools and universities, and some are students. This also means most of them do not speak English as their first language and would have taken TOFEL or IELTS as part of admission criteria in the universities. So, when trialling the framework within the UAE, diversity of students may not necessarily mean the same as other places where the primary population of the country is not expatriates.

The remaining feedback was related to the alignment with curricula and assessment designs. As the framework was designed to be scalable and flexible, these suggestions will be taken on board when further developing the training materials for use with different stakeholders.

Overall, the feedback shows participants who attended and consented to provide some feedback were satisfied with the training and believed the framework to be "comprehensive", "very good" and "efficient". This implies that by explicitly addressing the significance of integrity in academic pursuits, such as designing activities by applying the IEPAR framework, teachers, management and students can all benefit from proactive interventions that contribute to building a culture of integrity. As the framework suggests, this may involve providing resources, conducting workshops, or integrating integrity-focused activities into the curriculum. It is believed that the IEPAR's effectiveness as seen from participants' feedback lies in its ability to adapt to challenges posed by disruptive events such as the COVID-19 pandemic. With reports from Lancaster and Cotarlan (2021) showing a 200% increase in the use of platforms such as Chegg, and findings from Curtis et al. (2021) highlighting alarming rates of undetected student misconduct, the need for a nuanced and comprehensive framework has become more urgent. IEPAR positions itself at the center of this academic challenge, providing not just a model but a solution that can be adjusted and tailored for various stakeholders,

including students, educators, librarians, administrators, policymakers, leaders and others, in different educational settings. Essentially, IEPAR reimagines how we approach academic integrity frameworks, offering a flexible and inclusive approach to address the complex dimensions of integrity in today's educational landscape.

The IEPAR framework brings to light the importance of making efforts to create an environment that encourages open communication and support, allowing students to seek guidance and clarification when facing ethical dilemmas. Collaborative efforts involving students, parents, and administrators are also encapsulated in the framework as a shared value. The IEPAR framework sheds light on the importance of having a comprehensive toolset that addresses not only the needs of students, but also other stakeholders. It can also be used to explore institutional policies and consequences related to academic misconduct and help to find ways of consistently enforcing them.

Ultimately, by fostering a culture of integrity, regardless of the learning environment, educational institutions can instil lifelong values of honesty, integrity, and ethical behaviour in students, preparing them to become responsible contributors to academia and society.

It is important to note here that it is not known how effective the framework is in reducing academic misconduct, because no quantitative study has been conducted so far to test the framework. The author acknowledges the need to conduct a comprehensive effectiveness study, which looks at pre and post IEPAR training to record and tests participants' understanding, practices and behaviour. This future study will provide concrete evidence about the use of the framework and help to establish its effectiveness. It is anticipated that the IEPAR framework can provide a crucial step towards developing a culture of integrity on campus.

## Declarations

**Ethics Approval** Tacit consent and approval from institutions that requested for the workshops were received.

**Consent to Participate** "By registering to attend the workshop, you provide us with tacit consent to use any written or spoken feedback provided during the workshop and while answering any questions answered for publication purposes in an anonymous manner. If you would not like your feedback to be recorded, please inform us immediately."

**Consent for Publication** Yes.

**Conflicts of Interest** No conflicts of interest.

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