

# Drivers of Research Misconducts and Strategies to Foster Thriving Research Integrity among Young Scholars in Nigeria

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### **Abstract**

**Background:** Research misconduct tarnishes the reputation, credibility, integrity of researchers and research institutions. The validity and reliability of scientific research depend on research integrity and responsible conduct of individual research safely and ethically. Globally, the desire to report positive results that answered the developed hypothesis, efforts to generate results that aligned with donors' objectives, and the desire to publish perceived quality work that is acceptable in reputable journals were some of the recognized drivers of research misconduct.

**Objectives:** The focus of the study is to determine the drivers of research misconduct and identify the right mix of evidence-based fostering plans among young scholars in Nigeria.

**Methods:** A descriptive cross-sectional study design was adopted in this study. The Leslie Fischer's formula:  $n = Z^2pq/d^2$  was used to calculate the sample size. Four Hundred (428) young scholars undergoing postgraduate diplomas, masters, and PhD programs across two Nigerian Universities were assessed in this study. Data was analyzed with SPSS version 25.

**Result:** Publication's pressure and competitive work environment top the list of the drivers among the respondents (85%) followed by the desire to graduate/get promoted within the record time (81%) while lack of mentorship (60%) and lack of access to quality databases for a thorough literature review (52%) ranked third and fourth respectively. The desire to report positive results that answered the developed hypothesis (15%) and sponsored interest to answer specific research questions of interest (11%) were the least because there are not even enough sponsors/grants available for young scholars in Nigeria. Mentorship to guide young scholars and course-based post-graduate research experiences (CUPEs) were identified as the two major approaches to foster research integrity among the respondents.

**Conclusion:** Institutions should develop a mix of mentorship programs and course-based research-focused experiences to address the drivers of research misconduct and foster a thriving research integrity culture among young scholars.

**Keywords:** Drivers, Research Misconduct; Integrity; Young Scholars, and Postgraduate.

## **Introduction**

Research misconduct tarnishes the reputation, credibility, and integrity of researchers and research institutions. The validity and reliability of scientific research depend on research integrity and responsible conduct of individual research in a safe and ethical manner. Globally, desire to report positive results that answered the developed hypothesis, efforts to generate results that aligned with donors' objectives and desire to publish perceived quality work that is acceptable in reputable journals were some of the recognized drivers of research misconduct. In every facet of human endeavor, research plays an indispensable role. However, research integrity is paramount, as any misconduct within it can have far-reaching and profound consequences. Research misconduct, defined succinctly as the act of fabricating, falsifying, or plagiarizing in any phase of the research process, tarnishes the very essence of research and undermines its credibility (Hofmann et al., 2020; Khadem-Rezaiyan & Dadgarmoghaddam, 2017). The ramifications of such misconduct extend beyond the immediate impact on a specific study or researcher; they reverberate throughout the scientific community, impeding the progress of knowledge and innovation. Misconduct not only misleads fellow researchers but also obstructs the advancement of science, hindering its potential to address pressing societal challenges (Chen et al., 2024). Despite the huge challenges that research, misconduct poses across both public and private sectors fewer previous studies have been done to assess the knowledge and prevalence of research misconduct among post-graduate students in Nigeria. Currently, fostering a good research culture among Nigerian young scholars has no laid down blueprint even though regulatory bodies have been established to investigate this area; they are still setting up various regulatory frameworks and committees. Therefore, upholding research integrity is not merely a matter of ethical obligation but a fundamental prerequisite for knowledge advancement and the betterment of society.

### **Objectives of the study**

The specific objectives of the study are:

1. To determine the drivers of research misconduct among young scholars in southwestern Nigeria
2. To identify the right mix of evidence-based practice fostering research plans among young scholars in Nigeria

### **Methodology.**

This study employed a descriptive cross-sectional design and utilized Leslie Fischer's formula ( $n = Z^2pq/d^2$ ) to determine the sample size (Araoye 2004). The sample comprised 420 young scholars enrolled in a postgraduate program such as Postgraduate Diplomas, Masters and Doctoral Programs at Ekiti State University, Ado-Ekiti, and University of Ilorin, Kwara State, Nigeria. A Purposive non-probability random sampling technique was employed to select 220 participants from each institution. Data collection was conducted using a self-developed questionnaire derived from an extensive literature search. The questionnaire's validity was confirmed through expert evaluation, demonstrating good face and content validity. Additionally, the questionnaire exhibited strong internal consistency, with a Cronbach's Alpha coefficient of 0.76, as verified by a statistician. Data collection was carried out via an online survey using Google Forms, with the link shared to individuals meeting the inclusion criteria of being enrolled in a postgraduate program and willing to participate in the study through emails and WhatsApp messages at either Ekiti State University or the University of Ilorin. Finally, data analysis was performed using SPSS version 25.

### **Results**

Table 2 below describes the assessment of drivers of research misconduct among young scholars. The most prominent drivers of research misconduct as identified in this study were lack of mentorship (85.0%), competitive work environment and publication pressures (80.4%). The desire to graduate or get promoted in record time (74.9%), desire to report positive results that answered the developed hypothesis (73.8%), sponsor interest to answer specific research questions of interest to them (73.8%), personal interest to support similar publications (70.3%) and desire to publish perceived quality work (64.7%).

Table 2: Assessment of drivers of research misconducts among respondents

Variable	Frequency N = 428	Percentage (%)
<b>Drivers of research misconduct (multiple responses)</b>		
The desire to report positive results that answered the developed hypothesis	316	73.8
Personal interest to support similar publication	301	70.3
Sponsor interest to answer specific research questions of interest to them	316	73.8
Competitive work environment/Publication Pressures	344	80.4
Lack of mentorship	364	85.0
Desire to graduate within the record time/ get promoted within the record time	340	79.4
Desire to publish perceived quality work	277	64.7

Table 3 presents evidence-based practice fostering research plans among young scholars. The evidence-based practice fostering research plans that young scholars in this study found most appropriate were schools introducing research integrity and conduct early in undergraduate (65.7%), and schools setting up policies, procedures, and processes to address research misconduct (59.8%). In addition, the clear explanation of what constitutes research integrity and culture at the inception of their course (58.2%), assigning a researcher mentor to each of the students from the inception of their courses to guide them till graduation (57.5%). Similarly, lecturers supporting students in defining appropriate student learning objectives (50.9%), lecturers recommending research textbooks and courses for self-learning (50.5%), introducing course-based undergraduate research experiences (CUREs)(48.8%) and punishing those who breach of research integrity (48.4%).

Table 3: Evidence-based practice fostering research plan among young scholars.

Variable	Most Appropriate n (%)	Appropriate n (%)	Not Appropriate n (%)
<b>Evidence-based practice fostering research plan among young scholars</b>			
Lecturers supporting students to define appropriate student learning objectives	218 (50.9)	202 (47.2)	8 (1.9)
Lecturers recommending Research textbooks and courses for self-learning	216 (50.5)	192 (44.9)	20 (4.6)
Schools setting up policies, procedures, and processes to address research misconduct	256 (59.8)	168 (39.3)	4 (0.9)
Schools introducing research integrity and conduct early in undergraduate	281 (65.7)	143 (33.4)	4 (0.9)
Clear explanation of what constitute a research integrity and culture at the inception of their courses	249 (58.2)	171 (40.0)	8 (1.9)
Introducing course-based undergraduate research experiences (CUREs	209 (48.8)	204 (47.7)	15 (3.5)

Assigning a researcher mentor to each of the students from the inception of their courses to guide them till graduation	246 (57.5)	170 (39.7)	12 (2.8)
Punishing those who breach of research integrity	207 (48.4)	197 (46.0)	24 (5.6)

### **Discussion of findings**

Research misconduct is a global concern, especially among postgraduate students. Hence, our study examines the drivers of research misconducts and strategies to foster thriving research integrity among young scholars in Nigeria. The study found out that the major driver of research misconducts among young scholars remained lack of mentorship, competitive work environment and publication pressure. This result is consistent with the findings of Olesen, Amin, Mahadi and Ibrahim (2020) which revealed that mentorship is one of the major drivers of research misconducts. This could be true because younger scholars need mentoring to translate knowledge in universities and research environments (Wekullo et al., 2024). Similarly, the findings of Yeo-Teh and Tang (2022) also found that the pressure to publish encourages research misconducts and questionable research practices among scholars and researchers. This could be due to the notion of "publish or perish" in academic parlance, which may push young scholars to engage in academic misconducts. The study also found that evidence-based practices such as introduction of research integrity, research policy formulation and research institutions defined what constitutes research integrity. For instance, the study of Ford (2018) revealed that one of the best strategies for ensuring research integrity among researchers is the ability of research institutions to put in place policies that would be a guide for young academic researchers.

### **Conclusion**

The study concludes that lack of mentorship especially remains the major driver of research misconducts and integrity among young scholars at universities. Unless the experienced researchers are ready to take the responsibility of mentoring the young scholars on academic research integrity, the issue of research misconducts may persist. It is therefore important for institutions to formulate research policies and provide conducive learning environments to ensure research integrity among young scholars.

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