SETTING OUT FOR A SUCCESSFUL RESEARCH CAREER: FOUNDATIONAL MASTERY TIPS

Presenter:

Dr. Samuel Eshorame Sanni
Associate Professor, Chemical Engineering

(Deputy Director Research/Research Coordinator, Covenant (University Center for Research, Innovation and Discovery: CUCRID)

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PRESENTATION OUTLINE

- **Research as an Art**
- **Developing a good research culture**
- **Defining your research interests and goals**
- **Familiarity with research and publishing ethics**
- **Codes of conduct and rules of engagement**
- **Exploring and exploiting Journal finders**
- **Prioritizing top-rated journals**
- **Indexing databases**
- **Avoiding predatory journals**
- **Rudiments for publishable research**
- **Preparing a manuscript for submission**
- **Manuscript Organization**

RESEARCH: AN ART

Research- the art of systematically investigating the study of materials and their sources in order to establish facts with dependable conclusions

DEVELOPING A GOOD RESEARCH CULTURE

- Developing a good research culture requires, a suitable environment, time, resources (material, human, financial) and energy as investments

- It requires also defining one's research interests; this needs to be tactically done.

- Research interests must be carefully separated from/crafted into one's area(s) of specialization (simple examples: Catalysis (specialization): fluid-solid reaction (interest 1) systems, Liquid-liquid-reaction systems (interest 2) etc.

- Defining your research goals: Sit for a moment and ask yourself this genuine question; how professional would you be in a 5-10 year projection-plan?

- Short/Long term goals: purpose, scope, depth, strategy,research interest

- The above question helps you define your goals with clearly defined targets and indicators.

FAMILIARIZATION WITH RESEARCH & PUBLISHING ETHICS

Research ethics entail the pros and cons in conducting research:

- being an author/co-author

- integrity test,

- honesty

- avoiding concurrent submissions

- avoiding ill/redundant citations

- adhenece to formatting guidelines, apt reviewer selection, copyright rules, publishing open (green and gold) access and subcription etc.

CODES OF CONDUCT AND RULES OF ENGAGEMENT
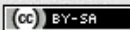
- Copyright licences - CC4.0/NC/C etc.

- Authorship declaration

- Declaration of conflicts of interests

- Defining author-credit roles

- Data authenticaton and availability

- Manuscript submission is like taking an oath (nonredundant submissions)

- Carefully studying author guidelines

- Mandatory components and other inclusions

- Adherence to data/graphics presentation formats, acknowledgement of funders etc.

Copyright License Chart: Four Components in Six Configurations:

- BY- Attribution reqd.
- NC- Noncommercial use
- ND- No derivative works
- SA - Share alike

EXPLORING AND EXPLOITING JOURNAL FINDERS

- Journal finders (JFs) and Journal Pools (JPs) are tools for searching apt journals for submission (use abstract, paper title, keywords)

- Elsevier -JF

- Springer- JF

- Taylor and Francis-JP

- Wiley -JP etc.

PRIORITIZING TOP-RATED JOURNALS & INDEXING DATABASES

- Scopus only (Qs): (Q1, 75th-100th percentile); Q2, 50th-74th percentile); (Q3, 25th-49th percentile) ; (Q4 0th-24th percentile)

- Web of Science only- SCI, SCIE and ESCI

- Journals in WoS & Scopus

AVOIDING PREDATORY/NEAR-PREDATORY JOURNALS

- Joural history

- Editorial board membership

- Alignment of journal aims/subject categories with published articles

- Peer review integrity

- Spontaneous/superfluous peer review and publication cycle/time

- Name duplication/adoption/similitude with a high profile journal

- Very poor journal trends or metrics

RUDIMENTS FOR QUALITATIVE RESEARCH PUBLICATION

- Adopt a good research plan

- Deploy apt research tools

- Conduct quality checks and good experimentation/survey/analysis/investigation

- Subscribe to periodic alerts from top-rated journals that publish related subjects

- Develop a good reading culture

- Play the role of a critic and develop critiques that will improve your manuscript

- Register or be part of early/budding researcher-workshops, webinars, researcher communities etc.

PREPARING A MANUSCRIPT FOR SUBMISSION

- Abstract (Graphical/main abstract)

- Introduction

- Theoretical framework/review of literature

- Materials and method/survey questionaire administration/research questions/interview sessions/secondary and primary data gathering/Analysis

- Results and discussion

- Conclusion

- Recommendation (Future outlook or projections/new wave technologies/current trends, policy directions etc.)

- References

- Supplementary files

CONCLUDING REMARKS

- Acquaintance with the fundamentals of research is necessary for a succesful research career

- Familiarity with research and publishing ethics sets a researcher on a claer path which may be void of pitfalls

- Strict adherence to the codes of conduct of research makes for research integrity void of ill conscience

- Avoiding predatory journals is the channel to charting your way up the rungs of the success-ladder

- Dare to cast your nets in deep waters (top rated journals); big fishes don't swim in shallow waters

Thanks for your audience!