Chapter Seventy-Seven

Ethical Issues in Educational Research Management and Practice

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ABSTRACT

Researches in education are conducted to address educational problems and provide solutions that will stimulate effectiveness within the educational sector. Like other disciplines, educational researches must be conducted without issues or bottlenecks that will hinder the integrity of the study or the researchers. This chapter identifies various issues that are currently practised which are unethical. The chapter also provides insights to the aspects that researchers and scholars must focus in order to ensure that unethical issues are avoided when conducting researches. Conclusions and recommendations were made in order to improve the current practices towards global best practices in educational research management.

Keywords: Ethics, Ethical issues, Issues, Educational research, Management, Educational research management.

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INTRODUCTION

The object of research is to extend human knowledge beyond what is already known. But an individual's knowledge enters the domain of science only after it is presented to others in such a fashion that they can independently judge its validity. Research provides the platform that scholars and scientists need to collect and distribute the findings of their studies, as well as communicate their ideas. The rationale behind research is knowledge creation and/or improvement. Thus, man's existence on earth was made possible through research as experimented by God. It must be noted that the entire process of creation was a research

experiment initiated by God because even he (God), concluded that everything made from the experiment "was very good" on the sixth day of creation before resting on the seventh day (Genesis 1:31). By implication, research conclusions are always made based on the evidence provided from experiments and analysis of data.

Given the importance of research to mankind especially in terms of problem solving and decision making, certain rules and regulations must be maintained and avoided in order to keep the process lively and flowing as expected. These rules and regulations are known as ethical issues in research, generally. However, researches in education are not left out without ethics which must be followed. There are also rules, codes, regulations, and conditions which must be followed in conducting educational research to avoid problems, and to boost integrity of the research results.

Educational research management practice just like other practices or disciplines, requires that effectiveness be assured in every activity within the process. This underscores the need for improved quality in educational research management and practice. Most often, many scholars engage in experimental investigations with accurate empirical results to show from such investigations; however, in reporting such findings, several issues are not given due consideration. When this is done, such a researcher has breached "ethical codes," and the person breaching such ethics could face serious sanctions and/or liabilities if reported to appropriate authorities.

According to Centre for Innovation in Research and Teaching (CIRT) (2019), ethical considerations in research are critical. Ethical standards prevent against the fabrication or falsifying of data and therefore, promote the pursuit of knowledge and truth which is the primary goal of research. Ethical behaviour is also critical for collaborative work because it encourages an environment of trust, accountability, and mutual respect among researchers. This is especially important when considering issues related to data sharing, co-authorship, copyright guidelines, confidentiality, and many other issues. Researchers must also adhere to ethical standards for the public to support and believe in the research. The public wants to be assured that researchers followed the appropriate guidelines for issues such as human rights, animal welfare, compliance with the law, conflicts of interest, safety, health standards and so on. The handling of these ethical issues greatly impacts the integrity of the research project and can affect whether the project receives funding (CIRT, 2019).

Research is a public trust that must be ethically conducted, trustworthy, and socially responsible if the results are to be valuable. All parts of a research project – from the project design to submission of the results for peer review – must be upstanding in order to be considered ethical. When even one part of a research project is questionable or conducted unethically, the integrity of the entire project is called into question (University of Minnesota Center for Bioethics (UMCB, 2003). Knowing what constitutes ethical research is important for all people who conduct research projects or use and apply the results from research findings. All researchers should be familiar with the basic ethical principles and have up-to-date knowledge about policies and procedures designed to ensure the safety of research subjects and to prevent sloppy or irresponsible research, because ignorance of policies designed to protect research subjects is not considered a viable excuse for ethically questionable projects. Therefore, the duty lies with the researcher to seek out and fully understand the policies and theories designed to guarantee upstanding research practices (UMCB, 2003).

Given the importance of ethics for the conduct of research, it should come as no surprise that many different professional associations, government agencies, and universities have adopted specific codes, rules, and policies relating to research ethics. Many different disciplines, institutions, and professions have standards for behaviour that suit their aims and goals. These standards also help members of the discipline to coordinate their actions or activities and to establish the public's trust of the discipline. For instance, ethical standards govern conduct in medicine, law, engineering, and business. Ethical norms also serve the aims or goals of educational research management and apply to people who practice/conduct scientific research or other scholarly or creative activities. There is even a specialized discipline, research ethics, which studies these norms (David & Resnik, 2015).

Having explored the importance of ethics in research, this chapter is concerned with the presentation of what constitute ethical issues in educational research management and practice. These must always be adhered when conducting educational and other research experiments.

Conceptual clarification

Ethics

Ethics are the norms or standards for conduct that distinguish between right and wrong. They help to determine the difference between acceptable and unacceptable behaviours (CIRT, 2019). When we talk about ethics in general parlance, we are simply referring to those laws, rules, regulations, dos and don'ts that are guiding a place, profession or thing. In other words, these are simply those norms which must be adhered to. Ethics vary from place to place, culture to culture, profession to profession, and with time.

Research

Research is a systematic and well-planned process of finding out the reality and truths underlying certain problems or phenomena of interest through observation and collection of data (using appropriate tools), analysis of data (using proper quantitative or qualitative techniques), presentation and interpretation of data, and through proper decision making (deductions or inference). The focus of educational research is to solve problems, create new knowledge and modify existing ones to suit the dynamics of the society. Thus, for any exercise to be termed as research in education or elsewhere, it must be characterized by ability to fore hidden truths that can be uncovered by mere intuition, it must also develop new techniques of doing things contextually, it must provide verifiable evidence to back the truth uncovered, and it must also be used to address issues that have raised the eyebrows of many people within an environment.

Educational research Management

Educational research management simply refers to the process of streamlining and tailoring research activities in education and its related disciplines towards realizing their goals. Every research in education has broad and specific goals which they seek to attain. However, not all experiments in education achieve their intended objectives at the end for one reason or the other. Whatever the reason, any research that does not achieve pre-stated goals and objectives cannot be said to have been effectively management. The aim of educational research management or simply research management is to remove all bottlenecks that may hinder the successful completion of any research endeavour in education. This can be achieved through proper planning, organization, budgeting, staffing, directing, coordination, and reporting.

Planning for any educational research activity, is necessary to make future forecast concerning what educational problem you intend to solve; why you intend solving the problem identified; how you intend solving the problem; when you intend solving the problem; where

you intend solving the problem; and who are those to benefit from such a research. Taking these into consideration will give you an idea of the problem of the study/topic, location of the study, population/sample, methods of data collection/analysis, significance of the study, time/duration of the study, and so on. Organizing in educational research management implies that all the necessary information to conduct the study are properly harnessed and integrated. Such materials that needs to be organized include designing research instruments, sourcing for relevant literatures that are related to the study, preparing citations and referencing of other works used, including data collection, processing, presentation and interpretation.

Budgeting is very crucial in every research endeavour because it sometimes predict the scope of studies. It is appropriate to always consider how much resources you can provide to support the research. Budgeting is not only limited to available income, it also includes the willingness to set out resources to enable the conduct of a study, and the publication of research reports. Staffing as educational research management process involves the appropriate selection of individuals required to collect from, or selection of research assistants to support in the data collection process.

Directing involves the process of passing instructions, guidelines, rules and regulations to research participants, research assistants and other members of the research team to enable them to understand their roles, what to avoid, and the care they must demonstrate in order to obtain reliable results. Coordination as a management function is very essential in educational research. It is very useful for studies involving collaboration, because it enables all the members of the research team to work independently and yet collectively to achieve the sole aim of the research. Coordination simply means to ensure that all the sub-units or various individuals work in line with the objectives of the research.

The last aspect of educational research management process is budgeting. Reporting entails that; at the end of any educational research experiment, accurate documentation of the entire process including the aims, problem statement, hypothesis (for quantitative studies), methods and results, be presented. The reason behind reporting research is to enable information sharing and for problem solving. This must also be done according to prescribe rules as may be determined by the publishers or institution. Another aspect of reporting in educational research management is the act of giving feedback to research grants providers on the extent to which the proposed research study has been carried out, including the strengths, weaknesses, opportunities and threats facing the study.

Ethics in educational research management

As earlier stated, ethics are just rules which must be followed in doing a thing in an acceptable manner, or in a manner considered right. Therefore, ethics in educational research management are those ideals, rights, wrongs, and guidelines which scholars conducting educational researches are expected to follow in order to avoid problems in the research process, and to produce research findings that may be used to address the educational concerns of the society.

These ethics are not there to threaten researchers, but to serve as blueprint guiding what should be done, and what shouldn't be done. It is, therefore, expedient that researchers acquaint themselves with ethical issues governing the conduct of research in education and beyond. This chapter thus, provide such ethical issues and how they can be checked effectively.

Ethical issues in educational research management and practice

Ethical issues in educational research management and practice refers to those problems resulting from the breaching of prescribed ethics that ought to be followed when conducting educational research, or when managing the educational research process and activities. Below are some ethical issues in educational research management and practice.

Copyright infringement issues

Copyright means granting exclusive right to a research or other scholarly work for use, publication or sale. When documents are copyrighted, it means that such documents are protected under copyright laws are not meant to be used by anyone without prior permission from the author, creator or copyright owner. The use of such protected works by copyright laws constitute what is known as copyright infringement. Therefore, copyright infringement simply refers to a situation where individuals make use of copyrighted files for personal or commercial purposes without receiving prior access from the copyright owners. It is a serious offence that is punishable by law.

However, in educational research management or practice, it is common to see many students, lecturers, researchers and scholars make use of other peoples' work that are copyrighted without gaining prior consent form the authors or copyright owners of such work. It does not even matter whether only a small part of such protected files has been used. Copyright policies applies to both copying in parts or in whole. To avoid this, it is very important to identify copyrighted documents either online and/or offline, then gain proper access from those concern, before using them as instructed.

Fabrication issues

American Speech-Language-Hearing Association (ASHA) (2018, p3.), defines fabrication as "making up data or results and recording or reporting them." Examples of fabricating research data or results and recording or reporting them include creating spreadsheets that contain demographic information and performance results for research participants who do not exist and creating figures for public presentation that contain results of physical measures of sound outputs for auditory devices that cannot produce these levels.

It is common to find many researchers and scholars who fabricate in educational research. Areas where fabrication usually occur include: data collection/generation, citations, literature review, and in data analysis. Many researchers do not go to the field to collect data, they stay indoors and generate (cook) data that are not true. In terms of citations, it is also common to see researchers cite authors who did not actually made such statements, just because of inability to get the real author of the work. In literature review, many scholars have been observed developing empirical studies that do not exist. They do this most often to provide a base in the literature review of their studies to aid in the discussion of their results. This is usually done by highly experienced researchers who design empirical studies that do not exist and make them look so real.

Falsification issues

Falsification issues simply refers to a situation where researchers intentionally manipulate people ideas, research data, and citations to suit the context of their studies. ORI as cited in ASHA (2018), defines falsification as "manipulating research materials, equipment, or processes, or changing or omitting data or results such that the research is not accurately represented in the research record." Examples of falsifying research data and/or reporting such data include:

- Reporting data that were not collected
- Altering data collected to achieve a particular outcome
- Reporting only data that support your hypotheses and/or interests, and
- Making false claims in promotional materials about what one's research has demonstrated or supported.

Many scholars in the course of writing, may change the dates in old studies by putting in new dates in order to make the work appear current. Some researchers also manipulate research data by constantly modifying data and tuning them to the direction that suits their intentions and positions. It is also common to see many researchers who deliberately add their own comments and ideas (even after appropriate citation) to other peoples' ideas in other to make such ideas support their point of view. Changing the location of a study to make it look different or modifying another person's research topic in parts or in full while retaining the person's work in parts or full as your own is falsification. All these, and many more, are unethical in educational research and should be avoided for effective problem-solving.

Plagiarism

Plagiarism is the act of passing off somebody else's ideas, thoughts, pictures, theories, words, or stories as your own (UMCB, 2003). ORI as cited in ASHA (2018 p5.), defines plagiarism as "the appropriation of another person's ideas, processes, results, or words without giving appropriate credit." Representing any part or parts of another's work as one's own is considered plagiarism. Plagiarism takes many forms. On one end of the spectrum are people who intentionally take a passage word-for-word, put it in their own work, and do not properly credit the original author. The other end consists of unintentional (or simply lazy) paraphrased and fragmented texts the author has pieced together from several works without properly citing the original sources.

There are many areas in which research are liable to commit plagiarism intentionally or unintentionally. Conducting a review of the literature that fails to acknowledge the contributions of other people in the field or relevant prior work (David & Resnik, 2015) is plagiarism. Using data, figures or charts from other peoples' work without acknowledging also constitute plagiarism. Plagiarism ranges from unreferenced use of others published and unpublished ideas, including research grant applications to submission under "new" authorship of a complete paper, sometimes in different language (Jenn, 2006).

According to ASHA (2018), the following acts in research constitutes plagiarism. Failing to recognize students or any other contributors as authors of research or scholarly work or assigning authorship credit to an individual who has not contributed to research or scholarly work, may result in violation of research principles. Using direct quotes or paraphrasing published research to suggest that the author(s) of the research endorsed a product, treatment, or

product is plagiarism and may violate research principles and rules (ASHA, 2018). Therefore, it is important to disclose all sources of information, and if large amount of other people's written or illustrative materials is to be used, permission must be sought (Jenn, 2006).

To avoid plagiarism, it is also pertinent to: cite all ideas, data and information that are of other people and not your own knowledge/ideas; always use quotation marks if you are using someone else's ideas that are below 40 words, or indent such long quotations that are above 40 words to show they are not your words or ideas; at the beginning of a paraphrased section, show that what comes next is someone else's original idea (for example, according to John) and at the end of a paraphrased section, place the proper citation. In support of appropriate practices expected of researchers, "individuals shall reference the source when using other persons' ideas, research, presentations, results, or products in written, oral, or any other media presentation or summary. To do otherwise constitutes plagiarism" (ASHA, 2018 p8.).

Citations/Referencing issues

Citations and referencing issues are related to issue of falsification and plagiarism. Citation is simply a process where authors give credit to the appropriate source from where an information used in their work that is not theirs, was collected. A lot of facts ranging from ideas, quotations, data, figures, tables, comments, findings, and many more can be cited in order to explain, present or clarify an idea, or to provide evidence and/or justification to a point the scholar is trying to make.

Referencing on the other hand, is simply a list showing all the various authors/sources that were cited in the body of the work. The aim is to provide details of the sources from where information was gotten in order to enable other scholars verify or locate such sources as their own needs may demand. Citation and referencing are intertwined because cited works are expected to all appear in the referencing list; and all the authors or sources found in the referencing list, will be believed to have been cited in the main work. In regular research practice, many undergraduates, post graduates, and even scholars do not seem to be aware of this relationship between citation and referencing. Consequently, it is possible to pick up many research studies and discover that works have been referenced in the list, that were not cited in the main work; or that citations have been made without listing them in the references.

Publication issues

Publication issues refers to those unethical practices that occur during the publication of scholarly works, and which must be avoided to guarantee effective educational research management and practices. Such issues include: submitting the same paper to different journals without telling the editors; publishing the same paper in two different journals without telling the editors; bypassing the peer review process and announcing your results through a press conference without giving peers adequate information to review your work; publishing research works without proper peer review (David & Resnik, 2015).

Other unethical issues pertaining to publication include: collecting monies from authors without publishing their works; announcing the publication of a work in a different month/volume/issue from when it was supposed to be published; charging authors for vetting fees without any review of their manuscript; have your papers reviewed in open access journals and sending same to another Journal for publication; publishing works online or in print without

sending hard copies or publishing them online after charging publication fees for both online and print; and many others are issues usually faced in the process of publication.

For effective management of educational research, all these issues highlighted above must be strictly avoided including the issue of redundant publication. According to Giles (2005), redundant publication occurs when two or more papers, without full cross reference, share the same hypothesis, data, discussion points, or conclusions. However, previous publication of an abstract during the proceedings of meetings does not preclude subsequent submission for publication, but full disclosure should be made at the time of submission. This is also known as self-plagiarism. In the increasing competitive environment where appointments, promotions and grant applications are strongly influenced by publication record, researchers are under intense pressure to publish, and a growing minority is seeking to bump up their CV through dishonest means (Giles, 2005).

Authorship issues

Authorship is the process of shortlisting individuals whose names should appear as developers, creators and owners of research work. Authorship like many other terms, have no universal definition due to variations in the opinions and mindset of scholars. However, it is generally agreed that an author should have made substantial contribution to the intellectual content, including conceptualising and designing the study; acquiring, analysing and interpreting the data (Jenn, 2006). For someone or people to be referred to as authors, they need to indicate that their work is original, valid, and has not been published elsewhere by either them or any other party. An author must also be involved in drafting or revising the manuscript, as well as approving the submitted manuscript for publication. Those who assisted in the collection of data, vetting, and typesetting of scholarly works do not deserve to be included as authors. However, their efforts may be acknowledged. According to Jenn (2006), it is crucial to decide early in the planning of a research who will be credited as authors, as contributors, and who will be acknowledged. It is also advisable to read carefully the "Advice to Authors" of the target journal which may serve as a guide to the issue of authorship (Jenn, 2006).

Some unethical issues in authorship that are commonplace in educational research include: not informing a collaborator of your intent to file a patent in order to make sure that you are the sole inventor; including a colleague as an author on a paper in return for a favour even though the colleague did not make a serious contribution to the paper; acquisition of funding, the collection of data, or general supervision of the research group, by themselves, do not justify authorship. (David & Resnik, 2015). Others include: struggling to lead a paper in a research work because you are higher in authority even when your efforts are not as compared to others who are lower in ranks. Leading a paper summarized from a student's work as a lecturer; changing the order in the list of authors during publication correspondence; paying monies for publication of articles only without any significant contribution in the development of the research work does not also qualify one for authorship.

Based on the foregoing, it is necessary to observe and shun all these unethical behaviours pertaining to authorship and ensuring that only acceptable conducts are practiced. UMCB (2003) warned that, all the contributing co-authors of an article must jointly decide the order of the listing of names. The first person listed should be the person most closely involved with the

research. The authors should then decide the order of the remaining authors in accordance with the criteria of the publishing journal and be prepared to answer questions about why the order is as it appears (UMCB, 2003).

Confidentiality issues

Confidentiality issues arise when information that ought to be concealed are revealed to the public through any means. During the research process, certain personal and identifiable information of research participants, authors, and reviewers need not be exposed for any reason. This is to offer protection to the subjects and ensure that they are free in providing the desired information sought after. During peer review, it is also important for the editor to remove all personal and identifiable data of authors from manuscripts before sending them to for review. Details about who is reviewing a paper should not also be disclosed to authors.

People participating in research are entitled to confidentiality even if the results of research are made public. Information should not be divulged to anyone outside the research team unless prior authorization has been obtained. In most cases, anonymity is guaranteed, and participants may be assigned code names or numbers. This enables the researchers to quote people without revealing their identity (Alzheimer-Europe, 2009). Moreover, any personal/private information that researchers learn of in the course of the study, which is not related to the study, should not be disclosed to anyone. Discussing with your colleagues, confidential data from a paper that you are reviewing for a journal (David & Resnik, 2015). Sharing information that can be used to identify a research participant is a violation of research ethics (ASHA, 2018).

Even disclosing minimal information (e.g., initials of participant's name, disorder, address of participant, aspects of treatment) through any form of communication, including social media, may allow others to identify the participant and may be a violation of research principles (ASHA, 2018). No extra personal data should be gathered that is not immediately pertinent to the study. The personal data will be carefully organized and managed to ensure that no unauthorized use is made of them (Dooly, Moore & Vallejo, 2017).

Researchers should also take into consideration how they are going to ensure privacy and confidentiality of the participants. It is reasonable for anyone taking part in a study to expect a certain level of anonymity, although some participants may not feel this is too much of a concern for them (especially among the younger generation of 'public-face' social media users). Whether or not identities will be revealed and how images and other identifying factors might be used must be carefully negotiated with the subjects of the study. Subjects in a study have a right to know enough about the study in order to decide whether they want to participate in the study. In the case of minors, parental permission (often through the schools) should be obtained (Dooly et al., 2017). Protect confidential communications, such as papers or grants submitted for publication, personnel records, trade or military secrets, and patient records (David & Resnik, 2015).

In some studies, particularly small-scale qualitative studies or action research, researchers may decide to show the preliminary results to the participants and invite them to comment. This gives them the opportunity to confirm or query anything that has been written about them as well as to be more fully involved in the study. This is very important in studies which have involved very personal contact or with participants who have shared very personal information about themselves (Alzheimer-Europe, 2009).

Data management issues

Data management is a cycle which spans from data generation to data shredding. It encompasses several activities that must be carried to ensure that research data are used for the purpose in which they were collected, and for future use. With respect to research ethics, UMCB (2003) disclosed that data management references three issues: the ethical and truthful collection of reliable data; the ownership and responsibility of collected data; and, retaining data and sharing access to collected data with colleagues and the public. Each issue contributes to the integrity of research and can be easily overlooked by researchers.

Oftentimes, researchers will downplay the importance of data management because the details can be time consuming and they assume they can "figure it out" as they go along. It is not adequate research practice to assume issues involved in data collection will work themselves out on their own. Instead, a clear, responsible, ethically sound, and carefully outlined plan for data management is required at the beginning of research to prevent all manners of conflicts and inappropriate research methods (UMCB, 2003).

Ethical data collection refers to collecting data in a way that does not harm or injure someone. Harm and injury could range from outright physical injury to harmful disclosure of unprotected confidential health information. In comparison, truthful data collection refers to data that, once collected, are not manipulated or altered in any way that might impact or falsely influence results (UMCB, 2003). Assigning and ensuring responsibility for collecting and maintaining data is one of the most important ethical considerations when conducting a research project. In contrast to the straightforward concepts underlying truthful and ethical data collection issues, the issue of data sharing is complicated by personal emotions, motives, obligations, and ownership. Despite its complexities, data sharing is a hallmark of the scientific community, particularly in academia.

Other data management practices that must also be given due consideration in educational research practice include: data protection, data analysis, data preparation, data cleaning, data storage/retrieval, data citation, data backup, and so on. However, in popular practice, most scholars do not pay attention to these data management activities. They make use of data and discard them without any records for future references and re-use. Some scholars also have poor data storage system that cannot guarantee safety and confidence to research data. Failing to keep good research records and failing to maintain research data for a reasonable period is a bad data management practice (David & Resnik, 2015).

Data analysis issues

According to Jenn (2006), it is the responsibility of the researcher to analyse the data appropriately. Although inappropriate analysis does not necessarily amount to misconduct, intentional omission of result may cause misinterpretation and mislead the readers. Fabrication and falsification of data do constitute misconduct. For example, in an educational research which assesses the performance of male and female students, it is possible for a male analysist to increase the scores of male students just to ensure that he reaches the conclusion that; males are more brilliant than females. Issues like this are misleading because they provide erroneous results. There is a tendency for the researchers to under-report negative research findings (Smith, 2005), and this is partly contributed by pressure (Jenn, 2006). Trimming outliers from a data set without discussing your reasons in paper and using an inappropriate statistical technique in order

to enhance the significance of your research (David & Resnik, 2015) are other issues involved in data analysis.

Against all these issues, Dooly et al. (2017) advised that, researchers should also try to be as ethical as possible when interpreting the study results. Researchers should do their best to not over-interpret or misinterpret the data and represent the possible conclusions as closely as possible. To do so, researchers can use triangulation techniques or corroborate their conclusions with the participants themselves through interviews and other techniques proposed in qualitative methodologies (Dooly, et al., 2017). To ensure appropriate data analysis, all sources and methods used to obtain and analyse data should be fully disclosed. Failure to do so may lead the readers to misinterpret the results without considering possibility of the study being underpowered. The discussion section of a paper should mention any issues of bias and explain how they have been dealt with in the design and interpretation of the study (Jenn, 2006).

Research supervision issues

Supervision of research staff, collaborators, and students is an integral part of scholarly activity and research (ASHA, 2018). All individuals involved in research must be held to the highest levels of ethical conduct. Supervisors must ensure that all individuals involved in the research project receive appropriate training and are competent to conduct assigned research activities.

Common issues in research supervision which must be avoided include: giving the same research project to two graduate students in order to see who can do it the fastest; overworking, neglecting, or exploiting graduate or post-doctoral students and promising a student a better grade for sexual favours (David & Resnik, 2015); publishing a supervisee work as your own; forcing students to pay for data analysis against their own interest; delaying students' work unnecessarily for selfish reasons; assessing students' works only after financial, sexual or other dubious obligations have been met; and so on. Thus, the research supervisor should maintain professional supervisor–supervisee relationships and assign credit appropriately, and failure of individuals in supervisory or administrative roles to delegate research responsibilities appropriately to students or staff may result in violation of research principles (ASHA, 2018).

Peer review issues

Peer review is the process in which an author (or authors) submits a written manuscript or article to a journal for publication and the journal editor distributes the article to experts working in the same, or similar, scientific discipline. The experts, otherwise called the reviewers, and the editor then enter the peer review process. The entire process may involve several rounds of communication between the editor, the reviewers, and the original author (or authors) before an article is fully ready for publication. The two most important ethical concepts in the peer review process are confidentiality and protection of intellectual property. Reviewers should not know the author (or authors) they are reviewing, and the author (or authors) should not be told the names of the reviewers. Only by maintaining strict confidentiality guidelines can the peer review process be truly open and beneficial. Likewise, no person involved in the peer review process – either the editor, reviewers, or other journal staff – can publicly disclose the information in the article or use the information in a submitted article for personal gain (UMCB, 2003).

Peer reviewers, in addition to maintaining confidentiality, can be neither conflicted nor political in their review. Conflicts may take the form of financial conflicts with the results,

conflicts if the research is too similar to their own research endeavors, and conflicts due to personal relationships with the author (or authors). Political motivations that might interfere with the peer review process include competition to publish with other scientists and inaccurate reviews designed to "punish" a competing colleague or Journal (Lawrence, 2003).

Editors may find it difficult to guarantee a conflict-free peer review process, because reviewers must be experts with knowledge unique to the field to which the article pertains. Therefore, many reviewers may find themselves faced with an article concerning research that is very similar to their own. Peer reviewers should disclose all conflicts of interest that may unduly influence their review to the journal editor and disqualify themselves when appropriate (UMCB, 2003).

Editors of Journals should maintain an open and ethical peer review process, and all submitting authors and readers should be fully aware of a journal's process of peer review. Editors do retain flexibility in assigning the number of peer reviewers and what to do with the peer review information once completed. One method is for an editor to approach two or three reviewers and then ask an author (or authors) to change the article to satisfy all the reviews. On the other hand, an editor may take all the reviews and consolidate the advice to help guide the author (or authors) when making changes, clarifications, and corrections (UMCB, 2003). Editors must not relinquish too many of their own responsibilities to peer reviewers. The peer review process represents one step in the publishing process and editors need to take full responsibility for their decision to include an article in their journal. This means that editors must review the content and character of a submitted article, using all the criteria listed for reviewers above, and should rely on the reviewers primarily to catch errors that lie outside the editor's area of expertise and technical understanding (Lawrence, 2003).

Discrimination issues

A foundational principle of research is the inclusion of the varied demographics of the population under study. An additional foundational principle is the fundamental respect for individual differences by those who design, execute, and report research. Discrimination in the selection and treatment of human participants may be the result of explicit or implicit bias. One example would be excluding a specific group (e.g., individuals who identify as bisexual) because of personal bias when that variable (sexual orientation) would not influence the research study's outcome(s) (ASHA, 2018). Therefore, it is necessary to avoid discrimination against colleagues or students based on sex, race, ethnicity, or other factors not related to scientific competence and integrity (David & Resnik, 2015).

Informed consent issues

Informed consent constitutes consent by persons served, research participants engaged, or parents and/or guardians of persons served to a proposed course of action after the communication of adequate information regarding expected outcomes and potential risks. Failure to obtain written consent from individuals participating in research, or from the parents/guardians of individuals participating in research, represents an ethical violation of research rules (David & Resnik, 2015).

According to Alzheimer-Europe (2009), different studies involve different levels of risk and inconvenience (e.g. having an interview, filling out a questionnaire, being observed, giving a blood sample, having a scan or taking medication which may have possible side-effects). Part of the process of informed consent involves finding out what is involved in a specific study and then taking the necessary time to decide when that is acceptable.

Participants should be fully informed of the purpose and approach of the research. Also, how the data will be collected and processed should be explained fully. The researcher and/or research team should always obtain informed consent from all parties involved in the research prior to implementing the research project. This should include full disclosure of any anticipated risks to the subjects, whether the respondents should be compensated in any way, the methodology to be used and data treatment (Dooly, et al., 2017).

Conflicts of interest issues

This happens when researchers have interests that are not fully apparent and that may influence their judgments on what is published. These conflicts include personal, commercial, political, academic or financial interest. Financial interests may include employment, research funding, stock or share ownership, payment for lecture or travel, consultancies and company support for staff. This issue is especially pertinent in biomedical research where a substantial number of clinical trials are funded by pharmaceutical company (Jenn, 2006; ASHA, 2018). Even if a researcher is offered, or receives, gifts or incentives — even something as minor as a free lunch — there may be a conflict of interest (ASHA, 2018).

Such interests, where relevant, should be discussed in the early stage of research. The researchers need to take extra effort to ensure that their conflicts of interest do not influence the methodology and outcome of the research. It would be useful to consult an independent researcher, or Ethics Committee, on this issue if in doubt. When publishing, these conflicts of interest should be declared to editors, and readers will judge for themselves whether the research findings are trustworthy (Jenn, 2006).

Grant issues

Grants are financial supports offered to researchers and scholars who have identified a unique problem, and have mapped strategies in solving the problems, to enable them to conduct such investigations without challenges. Grants are provided without interest nor return by organisations and individuals. For instance, a researcher may want to address the issues of security challenges in Northern Nigeria without having adequate funds to produce research instruments that will serve all the states in the north or to travel from place to place to collect data and to publish the research findings in reputable Journals. Thus, interested organisations may support by providing funds that will ensure the smooth conduct of such a study.

However, ethical issues concerning research grants have also emerged. These issues range from grants allocation to grants utilization. It is unfair to give grants to people because of their personal ties with an organization even when the problem they intend to address is not as pressing as those of other competing grants seekers. For social, economic, political and religious reasons, grants are usually given to unproductive researches against the novel ones. On the hand, most researchers and scholars do not make use of research grants for the execution of the actual research. Some see it as an opportunity to alleviate poverty by spending such funds in solving household problems without conducting the proposed study. In other cases, researchers intentionally use part of the grants for other private investment, while only channelling an insufficient part of the grant to the actual study. Consequently, the research is not conducted as supposed, leading to fabrication and falsification of data and other truths. Issues related to research grants can be avoided through honesty in the allocation of grants, and in the utilization of grants.

CONCLUSION

Research in education cannot be successfully conducted without paying attention to the ethical issues bordering around it. In time past, several scholars have made one mistake or the other intentionally, due to ignorance or through lack of awareness. There are numerous ethics that must be followed for effective educational research management and practice. These have been explained exhaustively, the onus is now on students, researchers, and scholars to abide by such ethics for improved problem solving and effective decision making in researches conducted in education and beyond.

RECOMMENDATIONS

The following recommendations have been drawn in line with the foregoing in this chapter: Government and other Non-Government Organisations should provide grants to researchers to enable them carry out large-scale studies that will solve a wide range of educational problems. Grant should also be used for their intended purposes only by scholars without any form of diversification and misappropriation for any reason.

Misconduct such as data fabrication, falsification, and plagiarism should be totally avoided by researchers and scholars.

All documents, ideas, files, and figures adopted or adapted from external sources other than the author(s) ideas, opinions and observation, should be appropriately cited and listed in the references. In educational research, the current format of American Psychological Association (APA) should be studied and used as guidelines for citing and referencing another person's work.

Issues pertaining to confidentiality, conflict of interest and authorship, should be avoided by authors, scholars, reviewers and editors. This will help ensure that private information of the respondents, authors and reviewers are kept away from the public and will make research in education more effectively managed than it is currently practiced.

All research supervisors should always conduct themselves in a manner that follows ethical procedures and understanding, in order to ensure that only best and acceptable practices are maintained.

Research students, at all levels, should also study ethical guidelines in research to keep them informed with the rules in the conduct of research. Researchers should also check properly for documents that are copyrighted and seek due permission from the copyright owners before using them.

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