6. REWORKING 'DEFECTIVE ACADEMIC MANUSCRIPTS' IN THE KNOWLEDGE PRODUCTION 'FACTORY' THROUGH THE PEER-REVIEW PROCESS

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ABSTRACT

Manufacturing defects refer to errors in product design or production that can cause harm, injury, or fatality to consumers. Operators on the production line carefully inspect products, and if they find a defective one, they may rework it themselves, knowing that the product maybe returned later for fixing. This manufacturing scenario is so relevant to knowledge production in academic manuscript writing. This article examines how peer-review comments assist academic knowledge manufacturers in reworking their products to meet a journal's production requirements. Data for the study consisted of 30 anonymised research articles from four universities in Zimbabwe. The articles were returned to authors by prospective journals with feedback to revise and resubmit. The articles were written in English by authors who spoke English as their first language or as their second, third, or fourth language. The articles were reviewed using the track changes function of Microsoft Word, accompanied by reviewers' reports and editors' comments. In manufacturing, Defect laws ensure that companies produce safe, well-made products. Academic journals also use the peer review process to ensure that articles meet predefined criteria, quality, completeness, and accuracy of research presented for readers. The study found that although authors sometimes find reviewers' comments offending and making the writing process more daunting, reviewers and editors' comments help enhance the quality of a research manuscript by improving its language, readability, and logical structure, especially when authors write in their second, third, or fourth language.

Key words: *peer-review comments, knowledge production, Zimbabwe*

Introduction

A defect in the manufacturing industry refers to an inaccuracy in a product's design or production that prevents it from functioning as intended, putting customers at risk of harm, injury, or death (Burgoyne, 2023). An employee on the production line may choose to rework a problematic product, knowing it would need to be fixed later. However, even if an inspector finds the flaw, the fastidious supervisor may stop the product as it is about to leave the line and return it to the operator.

This manufacturing-related example is a wonderful illustration of how academic articles are written to produce knowledge. The scenario also emphasises the

numerous participant roles, product correction procedures, and quality control techniques used in the manufacture of industrial goods, which are equivalent to the production of academic information or knowledge.

Given the aforementioned manufacturing environment, this study uses a qualitative research methodology to examine how peer review comments assist academic knowledge producers in changing their academic products to adhere to a journal's production requirements.

Research objectives

The purpose of this study was to investigate how academic knowledge producers can modify their academic works to comply with a journal's production requirements with the help of peer-review comments. The study was guided by the following objectives in order to fulfil this goal:

(a) Examine the types of comments that authors receive from readers and editors;
(b) Consider how the comments help authors alter their manuscripts; and
(c) Analyse how the comments affect the final manuscript's overall quality.

Literature review

Knowledge production and the peer review process

Elman, Gerring, and Mahoney (2020) define knowledge production as the process by which (scientific) knowledge is created. The same authors claim that a cluster of connected activities in a university, a research facility, or an enterprise that are concerned with producing new knowledge are referred to as knowledge production.

Researchers generally concur that academic journal editors decide whether to accept or reject submitted papers based on their own prior evaluation of the intrinsic quality of these papers, supplemented by information in reviewer recommendations (Eynon, 2014; Margalida & Colomer, 2015; Bayar & Chemmanur, 2021; Riding, 2022). The same scholars also concur that the referee system or pre-publication editorial peer review system has been used for many years to critique and thus improve draft academic manuscripts as well as documents like book proposals, internal corporate reports, research grants, and teaching materials (Eynon, 2014; Margalida & Colomer, 2015; Bayar & Chemmanur, 2021; Riding, 2022).

In short, the peer review process involves sending the submitted documents to one or more carefully chosen experts (peers) for them to study and provide feedback. Reviewers are asked to alert the editors to any erroneous claims,

incorrect interpretations, and superfluous results, among other things.

Reviewer feedback, according to Ali and Watson (2016), aids editors in deciding whether to publish a manuscript, with or without changes, or not at all. Peer reviews may be required of all researchers with experience in a particular field. There are two uses for a peer review of a submitted academic work. One is done by the author to polish their unfinished work, while the other is done by the editors to decide whether to accept, alter, or reject a manuscript that has been submitted (Rowland, 2002; Ware, 2008).

All facets of the peer review process have been extensively covered in the literature (e.g. Rowland 2002; Ware 2008; Ali and Watson 2016). The researchers examined some of the peer review process's detractors in this part as well as how the peer review system actually operates. The researchers also examined what makes for a strong review from the perspectives of both editors and reviewers. This body of material is largely intended to assist beginning researchers in comprehending the review procedure, handling peer reviews of their publications, and providing guidance when they are presented with their first review requests.

According to Riding (2023), peer review usually results in some revisions being needed, whether slight, moderate, or significant. This is very normal, and authors should not feel discouraged in the least by having to make revisions as suggested by the editors and reviewers to their beloved first copy. A manuscript writer should first read and consider all the criticism they have received before deciding which reviews to address first. In general, it is not a good idea to complete them all at once. Instead, one review at a time is encouraged to manuscript writers.

Additionally, academics often urge article writers to use track changes from the beginning so that you can send annotated and clean versions to the editor (e.g. Riding, 2023; Margalida & Colomer, 2015; Kelly et al, 2014). This procedure is crucial since it makes it simple for the editor to understand exactly how you have updated your work; the track changes feature makes this possible. Additionally, authors of the paper are encouraged to provide the editor a supplemental report outlining their revisions.

Riding (2023) emphasises the importance of carefully evaluating each argument presented by reviewers, as they may not possess all the necessary knowledge. Authors should not hesitate to refute ideas they disagree with, but if they choose not to make changes, they must explain their decision to the editor. Editors are sympathetic and will consider rebuttals, especially if persuasive. Although substantial revisions may not be desirable, they can significantly improve the

document if the process is successful.

The peer review process in the knowledge production factory

Scholars use two primary peer review models: peer review before publication and peer review after publication (Ali & Watson, 2016; Amaral, 2022; Riding, 2022). Prior to publication, peer review is the most common and respected method for evaluating academic endeavours (Riding, 2022). Post-publication peer review is growing in popularity as its benefits are increasingly recognised. Both models are essential for assessing the quality of academic work.

Peer review is a common method for evaluating article quality before publication. The editor conducts a rapid editorial audit to check formatting, phraseology, relevancy, and style. If deemed as having potential, the paper is forwarded to peer reviewers for evaluation. If the authors address the feedback, the editor may accept the manuscript. If rejected, another round of peer review is available, and the paper may not be released until approved by another journal (Riding, 2022).

Before the late 1990s, reviewers were required to be aware of authors' names and affiliations, unless they consciously chose to remain anonymous. This was a variation of the single blind pre-publication closed peer review system, which is still popular today. The open pre-publication peer review procedure is a more recent system.

The closed pre-publication peer review process

Most journals now use peer review, with reviewers being anonymous or both authors and reviewers. The most common technique is single blind review, where the author is unaware of the reviewers' identity, while reviewers are given the complete article and authors' names and affiliations. This approach has been criticised for potential power imbalances, particularly bias against writers based on factors like gender, region, institution, native language, race, religion, seniority, and sexual orientation (Riding, 2022). Single blind review allows reviewers to submit harsh, excessively critical, passive-aggressive, and subjective comments, potentially leading to manuscript rejection. This has led to criticism and potential abuse of power in peer review.

Reviewers and authors often work in the same field, leading to delays in publication. This unfairly allows the reviewer to publish on the same subject and creates the possibility of plagiarism. An extreme example is when an editor distributes a manuscript authored by two 'warring factions' in a contentious scientific field to the opposing side, potentially leading to dishonest review practices to silence the other side.

Double blind closed pre-publication peer review is gaining popularity as an alternative to single blind peer review (Ali & Watson, 2016). This system involves anonymous authors and reviewers, reducing the likelihood of biased reviews. Nield (2015) cited Mulligan et al.'s 2013 76% approval rating for this technique. However, some reviewers may be hostile towards those in their field and offer harsh comments, regardless of the writers' identities.

The open pre-publication peer review process

Open pre-publication peer review requires full disclosure of authors, reviewers, and institutional connections from the beginning. The final version of the article may include the names of authors, reviewers, and referee reports. This transparency and protection of authors' intellectual property are key arguments for open peer review. However, open reviews cannot eliminate bias or an overly rigorous approach. Referees may be hesitant to tolerate authors due to fear of peer criticism or author response. Open peer review aims to promote academic rigor and reduce the tendency of reviewers to be overly critical (Ware, 2008). Overall, open peer review is a valuable tool for ensuring the integrity of academic work.

The editorial team requests professional referees to assess drafts/preprints, which are then posted online. During the review process, community comments are also submitted for authors' consideration (Ali & Watson, 2016; Riding, 2022). The editors decide on acceptance or rejection based on authors' responses to peer reviewers' and community comments. This process is similar to pre-publication peer review, with all comments, letters, manuscript drafts, reviews, and correspondence saved and available for inspection.

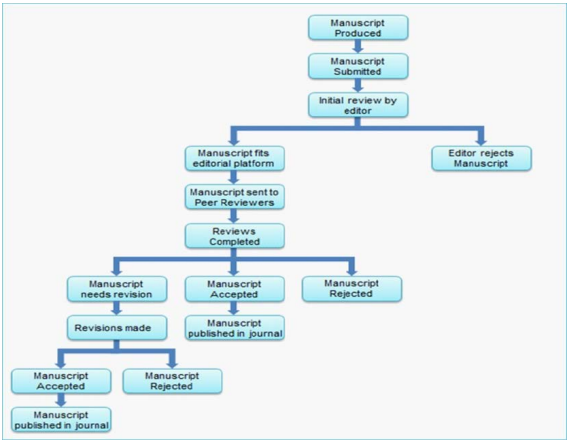

Figure 1: Overview of the review process (**Adopted from:** Kelly et al, 2014)

Post-publication peer review

Post-publication peer review, a new concept introduced in the early 2000s, involves partially or completely peering an article post-publication (Markie, 2015; O'Sullivan & Doran, 2021). Initially used in open/closed pre-publication, this strategy is more common in open access, online-only publications (Ware, 2008). There are various variations, including primary and secondary post-publication, which ensure quick publication. The standard open/closed pre-publication peer review technique was the only one used when post-publication peer review was first introduced.

Barczak and Griffin (2021) propose a practice called primary post-publication peer review, where manuscripts are published online after formatting and initial editorial audits to prevent ethical issues like copyright violations, image manipulation, libel, and plagiarism. These manuscripts are marked as preprints and are then assessed by experienced referees, who then post their evaluations online (Riding, 2022). During the review process, community comments are also submitted for authors' consideration. The editors decide whether to accept or reject a manuscript based on the authors' responses to peer reviewers and community feedback. All comments, letters, drafts, reviews, and correspondence are saved and available for inspection.

Secondary post-publication peer review publishes submitted publications after initial editorial reviews, with unpaid referees reviewing the articles (Ali & Watson, 2016). Some journals require volunteer reviewers to have written or co-written a significant number of publications or adopt other standards for possible referees (Ali & Watson, 2016). Work is only added to databases like Scopus once the final version of the record has been accepted after review and correction, similar to primary post-publication peer review.

While primary and secondary post-publication are the most popular types of post-publication, additional varieties of post-publication peer review exist, primarily employing blogs and, in some cases, social media for debate, according to researchers (e.g. Ali & Watson, 2016; O'Sullivan & Doran, 2021).

How has the peer review process evolved over time?

According to Spier (2002) and Riding (2022), the peer review system emerged in the late 20th century, before the digital revolution. Before the 1990s, journal editors used paper copies of submissions and questionnaires to peer reviewers (Riding, 2022). Today, the entire process is conducted electronically, with reviewers receiving all correspondence and a single PDF file via email. This shift has significantly impacted the peer review process.

Currently, peer review is conducted in two ways: pre-publication peer review and post-publication peer review (Ware, 2008; Riding, 2022). Pre-publication peer review is the most widely used method for evaluating scholarly work, while post-publication peer review is growing in popularity due to its benefits. The peer review process has evolved from informal requests to a highly formalized and systematic system with various variations.

Criticisms against the peer review process

While pointing out some of the advantages of the peer review process, the literature that is currently accessible also highlights some of the drawbacks. Scholars have criticised the peer review process, pointing to its slowness, bias, and fraud (e.g. Riding, 2023; Kelly et al, 2014; Margalida & Colomer, 2015). Below is more information on these criticisms.

Delays in the process

Peer review is a process that typically takes at least two months, but may take longer if editors struggle to get reviewers to agree or if a manuscript needs multiple rounds (Kelly et al., 2014). After submission, a manuscript is evaluated by editors and sent to at least two reviewers. The editors then evaluate each reviewer before deciding whether to accept, amend, or reject the manuscript (Riding, 2022). Authors may resent waiting for months for a decision, as they have worked hard on their work.

Favouritism

Peer review is criticised for its power imbalance, which often leads to biased and unduly critical reports (Amaral, 2022; Riding, 2023). Anonymous reviewers submit excessively critical, punishing, and subjective assessments to delay or suppress articles. The peer review system also upholds academic tradition while stifling cutting-edge research. Conservative, experienced academics may dislike younger researchers who challenge the current quo, contributing to groupthink. Leading researchers providing conservative reviewer reports for work thought to be from young or future researchers is an example of this issue (Nield, 2007).

Peer review deceit

Riding (2023) highlights the interest of peer review supporters in recent revelations of deceit in peer review. Prior to 2012, online manuscript submissions allowed authors to suggest multiple reviewers and provide email addresses, and suggest editors avoid using specific individuals due to conflicts of interest or other similar reasons.

The reviewers' recommendations method was once highly effective, allowing authors to expedite paper processing and assist editors in finding qualified

reviewers. However, this method was limited in 2012 due to a devious scheme. According to Fountain (2014), a South Korean researcher was accused of setting up phony email accounts to assess their own articles, each with a reputable professor's name and a South Korean employee's phony email account slightly diverging from the real one. Some bogus referees were proposed by the researcher when submitting a manuscript, allowing them to self-review and deliver lenient referee reports. This tactic led to over 30 papers being retracted after the deception was uncovered.

Both Fountain (2014) and Buckeridge (2015) mention a similar scam in which a Taiwanese researcher uncovered a scam involving 130 fictitious reviewers, leading to an editor alerting the employer. This exposed the fraudsters, rendering the ability for authors to nominate their own reviewers invalid. However, authors can still suggest reviewers in their cover letter and advice editors not to request specific people in the formal submission process (Buckeridge, 2015).

The methodology

The study applied a qualitative methodology to understand how academic knowledge producers alter their output to meet journal production requirements, analysing 30 anonymised research articles provided by academic staff from four Zimbabwean universities for analysis.

Potential journals returned manuscripts to authors for alteration and resubmission, which were the data sources shared with researchers for analysis. The articles were chosen after passing the initial review stage and then forwarded to reviewers for the double-blind review process. Editors and reviewers suggested modifications, ranging from minor to significant changes, resulting in a range of changes from one submission to another.

The 30 articles subjected to analysis ranged between 4000 and 6800 words each and were written in English by authors who spoke English as their first, second, third, or fourth language. Out of the manuscripts, 76.6% were written by authors who spoke English as a second, third, or fourth language, while 23.3% were written by authors who spoke English as their first language. This distribution aligns with the academic population in Zimbabwe's universities, where most academics are national citizens or fellow Africans from the SADC region. The majority of these academics speak English as their native tongue, despite generally subpar salaries and working conditions. The few European and American academics working in Zimbabwe's universities speak English as their native tongue, primarily as visiting or exchange employees.

The anonymised articles, including reviewer reports, adjudication reports, and editor comments, were reviewed using Microsoft Word's track changes

tool. The selection included five academic disciplines: arts and humanities, social sciences, earth and natural sciences, medicine and health sciences, and engineering sciences.

The study evaluated the quality of a contribution, its contribution to the subject body, and the appeal of the paper using three criteria: the contribution, the paper's appeal, and the errors made by the writers. The errors were categorised into three groups: low-importance (micro-grammatical errors), moderate-importance (moderate but insignificant errors), and severe errors (significant modifications in figures, results, or conclusions). These errors affected the three criteria and were further divided into three groups: mild errors (typographical or minor grammatical), moderate-importance errors (moderate but insignificant), and severe errors (major changes).

Analytical framework

Data from the investigation were analysed using Manufacturing Defect Laws (Burgoyne, 2023). According to Burgoyne (2023), laws prohibiting manufacturing faults ensure that companies produce items that are reliable and well-made. Most people assume that the goods they purchase and use are safe. Customers also assume that the products they purchase have undergone safety and quality inspections, and they anticipate that any issues will be fixed as soon as feasible and in a manner consistent with the seriousness of the defects.

For instance, companies in the United States of America are strictly accountable for any injury or accidents caused by their products (Burgoyne, 2023). Any company that developed, produced, or occasionally even advertised or sold the product might be held accountable under stringent product accountability even if it had no intention of endangering consumers.

In the context of this study, academic journals also have mechanisms in place to ensure that their publications meet specific standards for quality, completeness, and accuracy. One such mechanism is the peer review process, which involves subject matter experts in the same field evaluating an author's scholarly output (Kelly et al, 2014). Editors of scientific journals base their decisions on their assessment of submitted papers' inherent quality, supported by specifics in reviewer proposals (Bayer & Chemmanur, 2021).

Peer review is a crucial process in academic writing, ensuring that unfounded claims, inappropriate interpretations, or personal opinions are not published without expert review (Kelly et al., 2014). It encourages authors to uphold high standards in their discipline and acts as a filter to prevent the submission of low-quality articles. In the scientific community, peer review is a critical component

of the academic writing process, ensuring that articles published in scholarly journals offer insightful findings and trustworthy inferences from expertly conducted research (Kelly, et al. 2014).

Findings and discussion

The study established that reviewers' and editors' comments can improve a research manuscript's quality by enhancing language, readability, and logical structure, especially when authors write in their second, third, or fourth language. The categories in Figure 2 represent the comments editors and reviewers provided to authors regarding their articles, which were common among various editors and reviewers. Further information is provided in Figure 2 below.

Area of study	Number of manuscripts analysed	**NATURE OF ERRORS**		
		Mild errors (typographical or minor grammatical errors)	***Moderate errors*** (errors in figures, results, or references)	***Severe errors*** (which required modifications in figures, results or conclusions etc.)
Arts & Humanities	9	*Reviewers requested revisions related to:* a. careless usage of different varieties of English in the same manuscript b. typographical errors, wrong numbering of sections and sub-sections c. redundancy, unnecessarily long sentences d. lack of lexical variety	*Reviewers requested revisions related to:* a. inaccurate, inconsistent, missing citations and references b. Reviewers recommended use of references management tools (EndNote, Mendeley and Zotero) e. different referencing styles were used f. figures were used but not referred to during analysis of results presented in the figures	*Reviewers requested revisions related to:* a. lacked novelty- contribute new information, confirm, refute, or extend previous research findings, and improve research methodology in Arts and Humanities
Social Sciences	7	a. unexplained concepts and abbreviations- b. ambiguity- due to poor pronoun reference, poor word choice and order	a. Similar to observations made for articles from the Arts and Humanities	a. Similar to the above observation about manuscripts from the Arts and humanities

Earth & Natural Sciences	5	a. avoidable language errors b. reviewers and editors requested most authors to seek services of professional language editors c. reviewers and editors encouraged authors to self-edit their work using online editing and paraphrasing applications (e.g. Grammarly and Quillbot)	a. authors did not follow the journal guidelines and instructions for submission, such as the number of figures, tables (and how to present them) and referencing style	a. The frequent use of Figures and Tables required manuscript authors to re-interpret their results and revise their conclusions.
Medicine & Health Sciences	5	a. Length far beyond journal expectations b. Too many tables and figures yet only 3–4 tables and figures are accepted. c. Too long discussion and introduction sections	a. Omission of important and relevant references b. Figures – annotations small/illegible c. Images – identity of patients/participants not masked. d. Inadequate protection of human subjects – lack of ethics committee approval/written informed consent e. Insufficient information about the patient population f. Authors did not state the importance of the study. g. Inadequate description of methodology	a. lacked novelty-contribute new information and improve understanding of concepts of health and disease or medical practice or research methodology b. Poor conceptualization of problem, inadequate control of variables, biased and inadequate sample, and inappropriate statistical tests
Engineering Sciences	4	a. language – poor grammatical writing and poor flow of ideas b. manuscripts lacked lexical variety e.g. transition words and reporting verbs c. low register d. some abstract did not accurately reflect the content of the article	a. a. Repetition of data in tables, figures and graphs	a. Graphs – wrong type, lack of data labels, not plotted to scale etc.

Figure 2: Types of errors and revisions suggested by reviewers

The researchers discuss their findings on how the flaws in Figure 2 affected the articles submitted for review.

Impact of the different types of errors on the appeal of the manuscript

Holschuh (1998) and Bhatt (2021) emphasise the importance of a manuscript's appeal in determining reader interest. Riding (2022) identifies elements such as writing quality, journal fit, and maintaining early impressions. Journal fit questions include the article's topic and methodological approach, the author's understanding of reader expertise, whether it's written for an international audience, and whether the article builds on previous discussions. Appeal generally evaluates if the manuscript achieves the goals outlined in the title and abstract.

Riding (2022) suggests that an article's success in download and citation counts depends on its title and abstract, but it must also perform well in the body. The content's readability is a final component of appeal, requiring authors to consider well-structured work, convincing arguments, stylish writing, and clear and helpful tables, figures, and illustrations. Overall, appeal refers to the overall level of writing in the work (Eynon, 2014).

The study found that language and organisational mistakes significantly impact an article's appeal, even if all flaws were present. Editors and reviewers expressed concerns about the impact of language, structure, and writing style on publications across disciplines. Arts and Humanities reviewers criticised authors mixing multiple English dialects in a single paper, sometimes going against the journal's recommended English dialect. Additionally, manuscripts from the same discipline were sent back for changes due to numerous typos and incorrect header and subheading numbering.

Reviewers criticised authors who used the same transition words repeatedly within sentences and paragraphs, and haphazardly used transitional phrases. The overall coherence and cohesion of a text are affected by the use of transition words (Halliday & Hassan, 2014). They also criticised authors who used the same reporting or attribution verbs repeatedly in their articles, indicating a lack of linguistic variety. The majority of manuscripts with language problems were produced by researchers whose first language was not English, according to an analysis of their linguistic characteristics.

The majority of grammatical mistakes made by authors in the social sciences were comparable to those found in authors in the Arts and Humanities, but reviewers also noted the issue of unclear concepts, phrases, and abbreviations. In light of this, raised concerns such as: *Do your readers understand what this*

term means? Don't take your readers' attention for granted; define this phrase for the advantage of your audience; start by writing SRH in full; etc. Although this mistake was frequent in the Social Sciences, it was also discovered to be widespread among writers from other fields, therefore it could not be linked to authors with a specific linguistic background.

Reviewers from other disciplines requested writers to revise their in-text and out-of-text citations due to errors, inconsistencies, or missing sources. These mistakes diminished the manuscript's appeal. In Social Sciences, frequent use of in-text citations and footnotes necessitates errors in citations. Various referencing formats, such as the Modern Languages Association (MLA), American Psychologists Association (APA), and Harvard, were sometimes used in the same manuscript.

Reviewers noted that annotations, tables, and figures in medicine and health sciences were often too small or unintelligible, while in Engineering Sciences, data repetition was found. They expressed concern about writers who did not adhere to journal criteria and author instructions, such as line spacing, font size, alignment, numbering, and numbering of figures and tables which all affect a manuscript's overall appeal (Ng & Peh, 2009). Journal guidelines also provide acceptable referencing practices.

Reviewers recommended using free online reference management systems to avoid citation errors. Authors who shared their manuscripts with researchers requested assistance from other authors to use programmes like EndNote, Mendeley, and Zotero. These techniques have assisted authors in improving citation precision and uniformity. Authors now make it a habit to write manuscripts with a printed copy of journal guidelines, reducing the disregard for guidelines.

Additionally, reviewers found unclear phrases, references, and sentences difficult to understand, leading to some suggesting improvements. However, others did not understand the difference between ambiguity and vagueness. Researchers analysed the reviewers' remarks and found that some constructions were actually ambiguous. They investigated how linguistic ambiguity influences text clarity. If authors, particularly those writing in English as a second, third, or fourth language, understood lexical, referential, and syntactic ambiguity, these complexities would be clearer to them.

Most Earth and Natural Sciences manuscripts were deemed flawed due to grammatical errors that could have been avoided. Reviewers suggest hiring qualified language editors and self-editing with internet editing and paraphrasing programs like Grammarly and Quillbot to improve article quality.

These suggestions aim to reduce errors and enhance the quality of Earth and Natural Sciences articles.

Manuscripts from Engineering Sciences were returned for changes due to bad grammar and poor idea flow, just like papers from Earth and Natural Sciences. The manuscripts also showed a lack of lexical variety and a low register, the majority of whom were authored by English second language writers. The following are some of the track adjustments reviewers' comments that were made: *Instead of the research that was **done at**…use **conducted;** Register low; Is this the only word you can use? This word is overused etc.*

Finally, manuscripts from the fields like Medicine and Health Sciences had to be returned to the knowledge creation factory because some of them were deemed to be excessively long—for example, with overly long introductions and debates. However, the majority of publications in this field demand that articles be roughly 3000 words long (Bhatt, 2021). Additionally, some submissions were rejected because they contained an excessive number of figures and tables, frequently exceeding the limits set by the discipline's journals (Bhatt, 2021).

Impact of different types of errors on the quality of the manuscript

Eynon (2014) argues that a manuscript's quality is influenced by various factors, including the use of relevant literature, the application of methodology, and the researcher's analysis and interpretation of results. Figure 3 provides a summary of these main factors.

	Key aspect of manuscript quality	**Examples of questions to ask?**
1	Use of pertinent literature	Were key texts consulted? Was the literature review up- to- date? Is the theoretical foundation sound? Does the study build on earlier research? etc.
2	Methodological merit	Was the research conducted properly? Has all necessary information been given? Were the approach and plan suitable? Were the difficulties of research acknowledged? etc.
3	Analysis and interpretation	How thorough was the data analysis process? Was the standard of interpretation high? Were the findings enlightening? Were there clear links between the evidence and the theory? etc.

Figure 3: Eynon's (2014) list of factors that affect a manuscript's quality

Reviewers asked for changes of manuscripts because, among other problems shown in Figure 2 above, they had errors that would have harmed the quality of the manuscripts. For instance, reviewers in the Social Sciences remarked that certain additional numbers were used but not cited throughout the analysis of results shown in the figures. This absence clearly had an impact on the interpretation and analysis of the data. Additionally, some articles failed to address ethical issues adequately or totally, which had an impact on the study's methodological strength because not all pertinent data was presented. Iphofen (2020) asserts that a crucial aspect of the quality of any form of research is how thoroughly a researcher handles ethical issues when using human subjects (Iphofen, 2020).

Medical and Health Sciences manuscripts faced methodological issues similar to ethical issues. These included not concealing patient identities, not adequately protecting subjects, lacking written informed consent or clearance from ethical committees, not adequately describing the patient population, and leaving relevant research material out. Reviewers sent these papers back to the knowledge factory for changes due to these issues.

Impact of the different types of errors on the contribution to knowledge of the manuscript

Selwyn (2014) argues that each peer-reviewed manuscript a researcher creates should contribute to the understanding of the field's current conceptual and methodological underpinnings, generalise beyond the specific research topic, and validate the proposed theoretical framework. Selwyn believes that all types of research should advance knowledge in a field and influence policy and practice decisions, thus contributing to our understanding of the subject.

The researchers examined manuscripts from various disciplines and recommended revision in the knowledge factory due to their lack of significant contribution or unclear nature. Some articles in Social Sciences, Medicine, and Health Sciences lacked innovation, and were returned to the authors. The reviewers found that the manuscripts did not meet any or all criteria.

(a) The research did not have potential to add new knowledge;
(b) Extend or corroborate the results of other studies; and
(c) Deepen our understanding of relevant area concepts or research methodology in the field.

In addition, the study's ability to advance the field of Medicine and Health Sciences was negatively impacted by issues such as poor conceptualisation of the research question, poor variable control, insufficient and biased sample,

and incorrect statistical tests, which led to their return to their authors.

Finally, reviewers suggested revising manuscripts for Earth and Natural Sciences submissions due to the careless use of figures and tables, leading to ambiguous contributions and questionable conclusions and results, resulting in a belief that the manuscript's findings are questionable.

Conclusion

The study reveals that the peer review process aims to improve academic articles submitted for publication. It reveals that reviewers can identify errors in submitted papers and suggest necessary adjustments. However, the study found that manuscripts with various errors negatively impacted their appeal, quality, and contribution to knowledge, as evidenced by the examination of manuscripts shared with researchers.

The manuscript authors acknowledged the importance of peer review in knowledge production, considering reviewers' feedback. Peer review is widely used and generally effective. It has evolved from informal ideas to a highly codified system with various variations, confirming its effectiveness in various versions.

The study found that errors in a paper's appeal were primarily due to writers who wrote in English as their second, third, or fourth language, but errors affecting the paper's quality and contribution to knowledge were attributed to writers from all linguistic backgrounds. This suggests that all writers, regardless of their language exposure, are vulnerable to mistakes that could impair a manuscript's quality and contribution to knowledge.

The study also revealed that despite criticisms of peer review, such as potential dishonesty and tardiness, it remains favoured by the user community. Researchers agree that peer review is the best approach to uphold standards and ethics in science and the arts. Users are sceptical of articles without peer review, indicating that detractors have not yet proposed a viable alternative.

Peer review in academic publishing is constantly evolving, and it is often criticised for not compensating reviewers for their work. Cope (2018) proposed official recognition for reviewers, despite the fact that many highly educated individuals dedicate their time to impartially assessing peer work for commercial purposes. Despite this, few publishers offer cash incentives, instead offering temporary free access to magazines or online resources. This raises questions about the

Finally, the researcher established that while authors, particularly those writing in their second, third, or fourth language, received critical feedback that often

exceeded the contributions of some co-authors, reviewers were often not even acknowledged in acknowledgements. They advise authors to express gratitude to their anonymous reviewers and caution potential reviewers that reviewing is a free community outreach activity that all academics and researchers conduct for free. Therefore, it is crucial to remember that someone will need to review your work at some point value of these individuals' time and the potential for commercial benefits in academic publishing.

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