Recent Trends in the Quality of Language in Academic Writing: A Review

S.A. Harish Rajaraman[1], Michael Raj. T.F[2]

[1]Department of English, SRC, SASTRA University, Kumbakonam, India
[2]Department of CSE, SRC, SASTRA University, Kumbakonam, India

Abstract- *Nowadays writing a quality article is an essential requirement in the world of science and technology if reaching end-users is going to be one of the main objectives, from an expert's point of view. The research attitude of budding researchers, in most of the cases, either prompts or motivates them to share and express their ideas to the research community in general, resulting in a considerable increase in the number of articles that get published over a period of time. Unfortunately, there is a growing popular discontent among the researchers in terms of the quality of articles that get published and its influence on an author's achievement index, an index which is predominantly a 'number-of-publications-based' one. This paper is an overview of the current trends in the quality of research articles focusing on the language used, in particular, and suggestive of some recommendations. Moreover, it is an attempt to list chosen excerpts from some of the 'faulty academic research papers' to illustrate the crux of the issue. Anyhow, it should be noted that any reader audience should not be misled by the use of 'faulty' since it concerns a certain paper's language quality.*

Keywords: Research article quality, Common errors in research article, Academic writing.

I-INTRODUCTION

Publish reputation in academics is of paramount importance as far as one's opportunities for career advancement is concerned. Interestingly enough, this 'reputation factor' acts as a propellant in forcing the researchers to publish articles in huge numbers. This phenomenon leads us onto a question - among the researchers whether the mass of scientific research output is really growing at all. Consequently, budding researchers and prospective academics would be left with a dilemma in that they would have to concentrate wholly either on the research content and findings, or the language that they use to publish theirs. In a way, this may also be viewed as a sort of quality assessment. With the view that such a quality check would be helpful to examine whether the quality of language used in drafting a research article has any bearing on the actual findings or output, it becomes necessary to understand the spirit of this article, as the objective of the authors may not be misconstrued as an effort to provide a snapshot of the pitfalls in general and trigger a controversy thereby, but to bring to light the fact that research and edification have no limits.

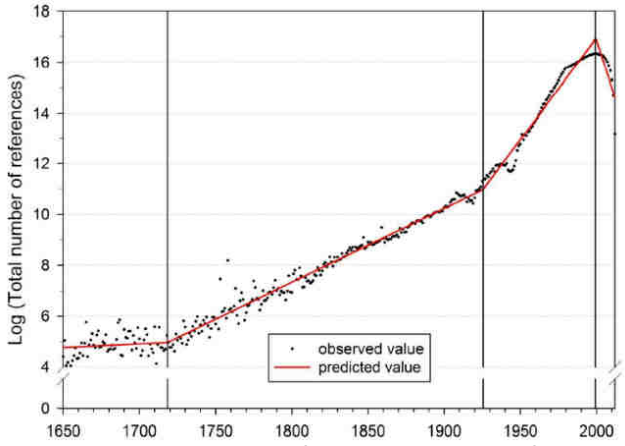

Fig 1:Segmented growth of the annual number of cited references from 1650 to 2012 – Source [2]

Prominent academic databases such as Thomson Reuters Web of Science, IEEE and Springer report a steady increase in its coverage by 3% per year [1] [2] and is described in Figure 1. At the same time, generally, demand for language quality is certainly very high in the case of such standard, reputed journals [5] [6]. But researchers who are Non Native Speakers, who are wanting to get their articles published in any of these journals face an additional challenge when publishing their respective research findings, which in itself is a daunting task, with English enjoying an unquestionable dominance in scientific communication. [3] [4]. This point is substantiated by Miguel Clavero who discussed the quality of journal ranking and publication ratio of NoNES [7]. Thus, it is very clear that the quality of English language does influence

both the article that gets published and the journal ranking, alike.

II-REVIEW

Graham Hall states that articles-writing is not uncomplicated. In his view, the challenges an author faces when writing a research article range from choosing the appropriate words/expressions packed with meaning to serve the purpose to writing a new style of language, for a different skill set is required to write, when compared to speaking or making a presentation to an audience, explaining one's research ideas [4]. Also, it's obvious that we won't be able to ascertain, of the excerpts taken from various journal articles, which article of a certain author was the first and which was the nth. However, as we are aware, such a survey would only prove exhaustive, incomplete and inconclusive at the most, and never can this be considered a standard excuse on grounds that authors can compromise with the quality of language or expressions employed.

It is believed that publication of scientific research articles contribute to the overall development of a country. The viewing dimension of the quality of the research article varies between Non Native English Speakers (NoNES) and Native English Speakers (NES). Considering the fact that experts have done research on the common mistakes and published extensive reports, this language related study isn't out of place, and in fact assumes greater significance in the context of selection and publication of articles.

Any discussion on 'faulty' research articles would be incomplete without analyzing experimental errors, which occur as a result of the researcher's limited knowledge of the chosen research domain, and language errors which occur as a result of lack of language-knowledge. Glenn T et al listed the common mistakes which occur in clinical research [8]. It is found that many language-errors which occur in scientific research articles originate from the NoNES authors' location. For analysis, generally, common mistakes which one encounters in scientific research journals can be classified as in Figure 2.

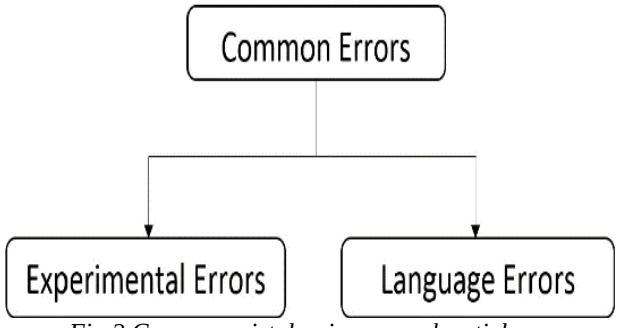

Fig 2 Common mistakes in research articles

The NoNES researchers find it very hard to write quality research articles. Some of their articles, measured by Springer or IEEE standards, fail to get accepted for publication. Looking into some of the common errors which get discussed in [9] and listed in Table 1 and Table 2 will be of help in assessing the probability of their research articles submission getting accepted.

Table 1 Experimental errors

S. No	Experimental Error Types	Description
1.	Poor Literature Review	Positive and negative outcomes of prior studies
2.	Improper research specification	Limitations and research domain may not well defined
3.	Insufficient statistical data	May produce partial results
4.	Experimental methods are inadequate	Inefficient in achieving the objective of the research
5.	Insufficient knowledge in scientific language	May not able implement the methods

Table 2 Excerpts from faulty articles

S.No	Journal-National/ International	Excerpts from published articles

1.	International Journal	…extracting the words from the WSDL file of ***the give Web*** service.
2.	International Journal	the ***tport*** elements are regulatory, response time, availability, performance, and security level.
3.	International Journal	[6] Bilenko, R. Mooney, W. Cohen, P. Ravikumar, and S. Fienberg. "Adaptive name matching in information integration" IEEE Intelligent Systems, 18(5):16-23, Sep/Oct 2003. [7] AUTHORS PROFILE xxxxxxx received the BE in computer sci. & engg. from xxxxx College of Engg., xxxi in 1995.
4.	International Journal	***Despite of these*** obstacles as well as opportunities and advantages, cloud computing raises several security issues and hence security is still the primary concern of many customers who want to leverage public cloud services.
5.	International Journal	An article with 17 references but without 16 citations
6.	International Journal	In statistics, the mean absolute error (MAE) is a quantity used to measure how close for each forecasts or pre-dictions are to the eventual ***outcomes as reult.***
7.	International Journal	The MAE and the RMSE can be used together to diagnose the variation in the errors in a set of forecasts here we ***refered*** to prediction.
8.	International Journal	Our finding clearly indicates which algorithm does what and ***how to use*** in effective and appropriate manner.

According to Vaidhiya.S there are two cardinal principals of research [10]:

- Quality of publication
- Scientists accuracy and their willingness to get corrected whenever they go wrong

The quality of language becomes important in the light of recent developments in the form of new venues, as the general trend is to encourage research community's readiness to address the issue of non-reporting research failure. Already quite unmindful of the quality of language, many experiments come out in print. This being the case, reporting research failure would only add to the already existing publications. Consequently, at least proportionately if not to a greater extent, language quality should improve.

But unfortunately, going by the recent trends, language quality takes a back seat, which means, a greater effort on the part of the research community in general and reviewers and authors in particular, is required to set the records straight. Even as countries boast of their research output chiefly based on the number of research papers that get published, by turning a Nelson's eye to some of the language inadequacies that get discussed in this study, these countries only make a backward progress, or, are plagued by academic regression in terms of contributing to research. The usual practice of publishing positive results and the need to report negative results is represented in figure 3.

- Two Instances are testimony to the fact that the quality of language used in most of the research articles needs some fine tuning. The need for assessing language quality in publications dates back to 1998 when the then editor of British Medical Journal conducted an experiment in which he received no negative reply from as many as 200 reviewers to whom he had sent an article with eight mistakes. Similarly, in another sting operation conducted by Harvard biologist Dr. John Bohannon, it was found that 51.6% of the journals to which he had sent a certain faulty, erroneous research article, accepted the same for publication.
- The above instances prove that the successful combination of authors and reviewers working in tandem determines the language quality of any research article.

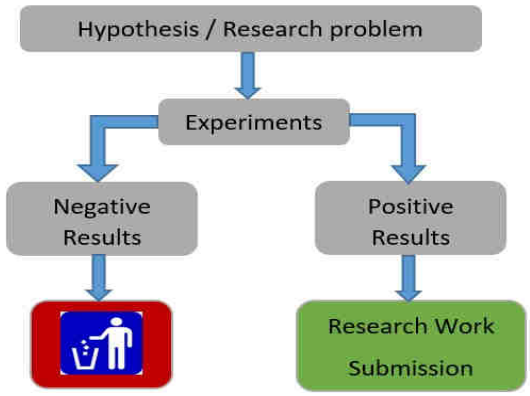

Fig 3 The usual practice of publishing positive results and the need to report research failures

III-CASE STUDY

We have conducted a survey among the graduate students to complete this review. Some 133 research articles were given to the students to determine their quality in-terms of both language and research observations. Figure 4 is a depiction of the types of errors and their distribution. This study was conducted to justify the following:

- Language quality
- Journal(s)-standard in maintaining the quality
- Research trends in academia
- International research needs

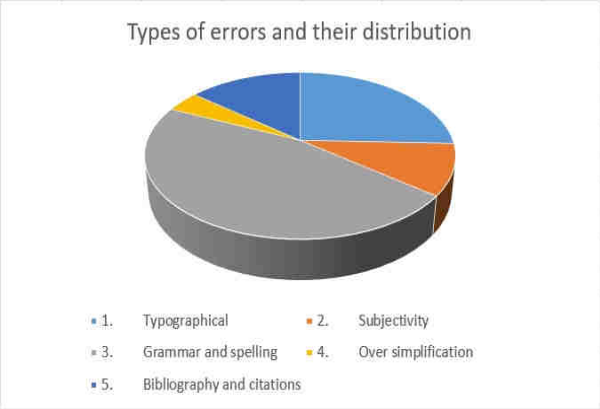

Fig.4:Error Distribution

IV-CONCLUSION

In the world of science and technology, idea-sharing is very essential. The ultimate aim of this article is to highlight the need to review the quality of research articles and explore the recent research trends in academics. The authors have also pointed out how research-articles-quality suffers at the hands of those journals that pay hardly any attention to sending the faulty articles back to the respective authors for editing or proofreading. Additionally, this paper envisions the need to evolve an automated tool to ascertain and maintain the quality of research articles submitted for publication. This study provides enough scope to develop a semantic based tool to integrate all the research articles so that the research community could get a wealth of the latest trends in any designated approach. Though this review is not country-specific, on analysis, statistically speaking, India has an edge over her competitors when it comes to research diversity. Therefore, in a way, growing number of publications every year is in fact a healthy trend, notwithstanding the number of faulty research articles that get published.

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