

REFERENCE ACCURACY IN INDIAN LIBRARY AND INFORMATION SCIENCE THESES

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ABSTRACT -

This study examines the accuracy of references in the library and information science theses. Five randomly chosen theses formed the study sample from the Shodhganga repository of east zone universities. The references found in the theses were categorized into verified references and unverifiable references. The referencing errors were categorized into 3 groups such as major bibliographic error, minor bibliographic error, and format errors. There were 915 references, out of which 628 (68.63%) references were verified. There were 1116 (72.94%) errors that correspond to journals. The remaining 27.06% errors were covered in other sources viz., books, book chapters, conference proceedings, websites, theses, social networking sites, etc. The researcher found 1530 errors in five theses, of which 40.98% errors were major, 12.74% minor, and 46.27% format errors

Keywords - Accuracy, Bibliographic errors, Library and information Science, Reference errors

INTRODUCTION

Referencing is an integral part of scientific writing. Arguably it is one of the most neglected areas among academic and research communities. Of late, the discussion on referencing has come to the fore due to the raised concerns of plagiarism. Reference list helps to find the sources. The erroneous references may lead to problems in retrieval. This is the area in which the author has to give importance. But, unfortunately, it is the most neglected area in scientific literature. It is accepted that creating a reference list is a more laborious task, but we can't neglect that, it is an essential area of any scientific writing.

The style or the format of in-text and the end-text citations depend on the style that one chooses to adopt (e.g., APA, Vancouver, MLA, Chicago, etc.).

REVIEW OF LITERATURE

There is a general perception that the references are accurately cited in scientific works. Accurate referencing contributes to the credibility of the authors and publication sources. Contrary to the general belief, the scanty available literature on the field reveals that there exists a high rate of errors in references in various disciplines. The studies on reporting the accuracy of referencing were found far and wide, and that too only in specific disciplines.

One of the earliest and highly cited articles by Evans et al. (1990) reported 48% errors in the authors' names from 150 references checked from three surgical journals. The number of errors found in the author name was generally found to be in the range of 40 to 50%. The title errors range between 30% to 40%. Wyles's (2004) study showed that "the most common error source in a citation is the article title (37%); within this category, the most common type of error is the omission of a subtitle". The percentage of increase of title error between 1990 and 2008 was 30% from 35% to 45.4%. The number of errors in title in psychiatric journals was found to be 9.52% in a study by Lawson and Fosker (1999). Most of the errors were found in the literature in author and title fields (as cited in Gosling et al., 2004).

The error rate in journal names in previous works ranges between 3 to 10%, much less than the author and/or title errors. Unver (2009) reported the errors in the journal name to 8.9% in his study on rehabilitation journals. A few other works had errors in the journal name, which were less than 5% (Davids et al., 2010; Harper, 2008; Spivey & Wilks, 2004; Wyles, 2004).

Previous literature has not given much attention to format errors of references such as uniformity and consistency of style manuals adopted. The focus of this study is to assess the accuracy of both bibliographic and references format in LIS theses in Eastern universities.

METHODOLOGY

The present study considered theses submitted to eastern universities in India as available in Shodhganga, the reservoir of Indian theses provides electronic version of PhD theses submitted in Indian universities. There were ten universities listed in Shodhganga in east zone. Five universities were randomly selected for the present study. One thesis from each university was randomly selected. The references were manually examined with the original sources. The references have verified through browsing the original source page through online, so only online available references are verified. The references were divided into two groups, viz., verified references and unverifiable references. The references which were able to verify with the original source are considered as verified references and references which are not available and accessible are grouped as unverifiable references. All references from theses; journal articles, books, book chapters, conference papers, reports, websites, social networking sites etc., were checked for accuracy. Errors were checked for the elements viz., author name/editor etc., title of book/journal/website/conference etc., title of journal article/book chapter/conference paper etc., volume, issue, edition, pagination etc.

The errors were categorized into two main groups such as bibliographic error and format error. Further, the bibliographic errors were subdivided

into two categories viz., major bibliographic error and minor bibliographic error. Major bibliographic errors include; omission/addition of elements or parts of elements, spelling mistakes etc. Minor errors include; omission/addition of space in title, use of quotation marks for title etc. Format errors include; reference style manual errors, if the references have used any style

manual and declared, if not declared, references may verify through its uniformity and consistency. If the references have missed any rules then they were considered as format errors, such as using ‘and’ between authors name instead of using ‘&’, not reverting the name of author, capitalizing each starting letter of title, abbreviating journal name etc.

Table 1 : No. of References

Sr. No.	Universities	No. of References		Total
		Verified	Unverifiable	
1	Gauhati University	151 (64.53%)	83 (35.47%)	234 (100%)
2	Jadavpur University	114 (63.33%)	66 (36.66%)	180 (100%)
3	Manipur University	72 (47.68%)	79 (52.32%)	151 (100%)
4	Mizoram University	111(93.28%)	8 (6.72%)	119 (100%)
5	North-Eastern Hill University	180 (77.92%)	51 (22.078%)	231 (100%)
		628 (68.63%)	287 (31.37%)	915 (100%)

Table 1 shows the total number of references taken for the study for verification. There were 628 (68.63%) references verified for the study out of 915 references. Each of these sources was available online, and the researchers have checked for the accuracy of the references online. On the other hand, a few were not verified

because the original sources were not accessible to the researchers for verification. Many of those are printed sources, reference materials, technical reviews, conference proceedings, websites, books, book chapters, theses, etc., and they were not available to the researchers in the local libraries.

Table 2 : Categories of Error

Sr. No.	Universities	No. of References		Total
		Correct	Incorrect	
1	Gauhati University	8 (5.29%)	143 (94.70%)	151
2	Jadavpur University	9 (7.89%)	105 (92.10%)	114
3	Manipur University	1 (1.38%)	71 (98.61%)	72
4	Mizoram University	13 (11.71%)	98 (88.28%)	111
5	North-Eastern Hill University	23 (12.77%)	157 (87.22%)	180
		54	574	628

Average incorrect references 114.8; SD 31.2179

In Table 2 the references were categorized into two groups; correct references and incorrect references. Only 54 (8.6%) of references were found to be correct without any referencing errors. Whereas 574 (91.40%) references had one

or the other referencing errors. The error rate varied significantly among the universities. The number of incorrect references of Manipur University falls outside the range of standard deviation.

Table 3 : Classification of References

Sr. No.	Types of Documents	No. of References		Total
		Correct	Incorrect	
1	Journal Article	20 (4.69%)	406 (95.30%)	426 (67.83%)
2	Book	19 (33.93%)	37 (66.07%)	56 (8.91%)
3	Book Chapter	04 (26.66%)	11 (73.33%)	15 (2.38%)
4	Reference Book	01 (50%)	01 (50%)	2 (0.32%)
5	Conference	03 (5.88%)	48 (94.12%)	51 (8.12%)
6	Thesis	00 (0%)	2 (100%)	2 (0.32%)
7	Website	03 (5.88%)	62 (94.12%)	65 (10.35%)
8	Social Networking Site	00 (0%)	02 (100%)	02 (0.32%)
9	Report	04 (44.44%)	5 (55.55%)	09 (1.43%)
	Total	54 (10.47%)	563 (89.53%)	628

There were 628 references to nine different document types from the five theses considered in this study. It is natural to expect references to journal articles more than other types of documents. Table 3 shows references to different documents types in the theses considered in this study. The overall incorrect references were nearly 90%. The percentage of incorrect

references was found to be more (>90%) in journals, conferences, and theses than other document types. It appears that the researchers rarely cite the social networking sites in their theses and only two such instances were found in the study, and there were referencing errors in both cases.

Table 4 : Document Type-wise Classification of Errors

Sr. No.	Types of Document	Major Bibliographic Error	Minor Bibliographic Error	Format Error	Total no. of Errors
1	Journal Article	395 (35.39%)	142 (12.72%)	579 (51.88%)	1116
2	Book	34 (40.96%)	15 (18.07%)	34 (40.96%)	83
3	Book Chapter	26 (59.09%)	6 (13.64%)	12 (27.27%)	44
4	Reference Book	01 (50%)	01 (50%)	00 (0%)	2
5	Conference Paper	94 (50.54%)	14 (7.52%)	78 (41.93%)	186
6	Thesis	01 (50%)	01 (50%)	00 (0%)	2
7	Website	69 (80.23%)	15 (17.44%)	2 (2.32%)	86

8	Social Networking Site	04 (100%)	00 (0%)	00 (0%)	4
9	Report	03 (42.86%)	01 (14.28%)	03 (42.86%)	7
	Total	627 (40.98%)	195 (12.74%)	708 (46.27%)	1530

Table 4 indicates the document type-wise errors. There were 1530 errors from 628 references accounting for 2.44 errors per reference. For analysis purposes, the errors have been categorized into three categories: major bibliographic error, minor bibliographic error, and format error. The format error – non-adherence to the formatting standards – was present (46.27%) more than the other two categories. The overwhelming formatting errors suggest that the Indian LIS researchers give scant attention to the referencing standards.

RESULTS AND DISCUSSION

Of the five theses, 628 references were verified. The result shows that 91.40% of references were inaccurate (found to have one or more errors), and only 54 (8.60%) of references were accurate. The low accuracy level of references by the Indian LIS researchers is of concern.

The bibliographic elements author (27.77%) and title (24.50%) were found to have errors prominently than other elements. For the convenience of comparison, the researchers have taken only theses that have followed APA standards. A study into the references vividly demonstrates the lack of skills in following the APA standards.

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