The Politics of Citation: An Analysis of Doctoral Theses across Disciplines

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Abstract

Citation is used as a measure to rank academics and institutions on the assumption that the more one is cited, the greater the impact of one's research. For this reason, citations in high impact journals that appear on highly regarded scientific indices are favoured as sites for publishing one's work. There can be no doubt that citation in the academy is a politicized practice. In acquiring advanced academic literacy, students have to master the art of positioning themselves in relation to the work of others, so that they develop their own 'scholarly identity'. Drawing on insights from sociology of knowledge, information science, and critical discourse analysis, in this paper, we examine the reference lists of ten doctoral theses, from three disciplines – Animal, Plant and Environmental Sciences, Literature, and Sociology – in a leading South African university. Four parameters: (1) authorship (2) type of source (3) place of publication and (4) date of publication are used as means of understanding differences in relation to knowledge construction across the different disciplines. The analysis of the reference lists shows that they are a highly politicized discursive site marked by particular values, alliances, allegiances, and dominant forms that are privileged. The findings from this study have important implications for advanced academic literacy, disciplinary discourse studies at doctoral level, and postgraduate supervision.

Key words: politics, citation, doctoral theses, disciplines

1. Introduction

An important feature of academic (and hence doctoral) research is the recognition of the social construction of knowledge. While attention continues to be given to an individual's work (Thompson 2007), the interdependency of scholars in the production of knowledge is recognized in current discussions on academic discourse (Hyland 2000). In fact, the relationship between text and knowledge construction in academic discourse has been the source of much debate among philosophers, literary scholars, and language educators

(Bakhtin 1981; Kristeva 1986; Pennycook 2001), with issues such as intellectual property and plagiarism receiving considerable attention. One particular rhetorical device that enforces this notion of collective construction and ownership of knowledge is citation.

Citation is the reference that a writer makes to another work or a series of works. All sources used by scholars for inspiration or factual, theoretical and methodological content are expected to be cited. In this way, scholars acknowledge their intellectual indebtedness to researchers who preceded them and they enable readers to find the texts that interest them. In general, citation is expressed in forms such as end notes, footnotes, in-text citation, and in reference lists. In this paper, we focus on reference lists, given their potential for highlighting the politics played out in research communities. As in all scholarly writing, entries in reference lists are a salient aspect of a doctoral thesis and a significant marker of academic scholarship. Far from being a mere inventory of source materials pertinent to a discipline and study, reference lists constitute a compelling narrative that underlines the growth and the vicissitudes of a discipline.

The purpose of this study is to examine the extent to which citations in reference lists exemplify politics; that is, a socio-cultural condition that flags choices, allegiances or alliances, and the privileging (or silencing) of dominant forms (e.g. Pennycook 1994) in academic communities. Four parameters namely authorship, type of source, place of publication, and date of publication are utilized in this study as a way of understanding discipline-specific citation practices in doctoral theses. The thesis was chosen because it constitutes the entry qualification to research – serves as the best indicator for academic achievement of doctoral students as well as assists in assessing students' research, the productivity of research, and level of supervision in their department (Abdoulaye 2004).

In what follows, we sketch first the conceptual framework that underpins the study by explaining key notions in the literature and by reviewing studies that have applied citation analysis to students' (including doctoral researchers) reference lists. Thereafter, we describe the institutional context for the study, followed by a discussion of the methodological and analytical procedures adopted. Then, we discuss the results and conclude the study by drawing attention to the implications of the findings for discourse studies, doctoral research education, and advanced academic literacy.

2. Conceptual Framework

2.1 Key Concepts

This paper draws on concepts from sociology of knowledge, critical discourse analysis, and information science.

2.1.1 Sociology of Knowledge

Earlier scholars who attempted to characterize the various knowledges in academia systematically approached it from a cognitive (e.g. Biglan 1973; Kolb 1981) standpoint. Insights from this perspective led to the consideration of dichotomies such as 'hard'/'soft', 'applied'/'pure', and 'convergent'/'divergent',

which continue to be used in the more current sociological perspective. Although Kuhn (1962) is known to have been one of the earliest scholars to have expounded a sociological approach to epistemology, the most influential scholars cited in Applied Linguistics are Bazerman (1981), Becher (1989), MacDonald (1994), and more recently Hyland (2000) who underscore the strong connection between disciplinary culture and disciplinary knowledge.

Within the sociological approach, Becher's description of academic disciplines as 'territories' each with their own 'tribes' is well known because of his use of striking anthropological metaphors. According to him, academic territories form the basis for the social life of every discipline. There are typical modes of action, interaction, publication patterns, core values and beliefs of the tribe. Becher further postulates that academic tribes have their own traditions, taboos, and rituals as well as their own ways to control and to punish their members.

From this view, these tribes can reasonably be classified into three broad knowledge domains: the Sciences at one end of the continuum and the Humanities at the other with the Social Sciences positioned in the middle (MacDonald 1994). Although such a classificatory system risks the charge of reductionism, it offers a useful platform for us to consider the extent to which each exemplifies different epistemological and rhetorical dispositions. In this study, theses from Animal Plant and Environmental Sciences, Literature, and Sociology were the disciplines selected to represent the Sciences, Humanities, and Social Sciences respectively.

2.1.2 Critical Discourse Analysis

The second concept that underpins the present study derives from Critical Discourse Analysis (CDA). Various methods in CDA exist (Wodak and Meyer 2001). What these methods share is a view of writing as a social practice which differs in different discourse communities and the attention they draw to the dynamics of power and ideology. In order to demonstrate mastery of the discourse practices of their disciplines, doctoral students may be enacting these dynamics of power and ideology.

Foucault's (1980) work on the legitimation and dominance of certain forms of knowledge is appropriate here. Foucault uses the term 'legitimation' to show the power of certain groups ('experts') to control the production of certain kinds of knowledge. By such power/knowledge configurations, 'outsider' or unofficial knowledge is dismissed as non-rigorous, undisciplined, and unprofessional. Also, Agger (1991) who develops the term 'disciplinary hegemony' to analyze Sociology textbooks, found hegemonic features of Sociology such as the dominance of quantitative research methods, complex statistical analysis, positivism, emphasis on research rather than theory, and preference for applied and policy research. He invites readers to question the naturalized assumptions of disciplinary practices. Concerning the ideological underpinning in CDA approaches, we define it as social cognition, a view of looking at a phenomenon that guides, regulates, and shapes the practice and thinking of a group of people. For example, because internet sources are not subject to peer review, they are less valued than peer reviewed articles in some discipline-specific communities. Further, what journal an article is published in produces a further layering of this hierarchy. Sharing the concerns

expressed above, we adopt a critical stance towards citation practices and the in-built hierarchy of privileged academic sources.

From a CDA perspective, we argue reference lists are not neutral. Since the doctoral theses discussed in this research have all been examined and passed in the selected educational institution, we can assume that they demonstrate the standard reference lists of different disciplines. In doing so, the work conforms to the disciplinary rules for generating new knowledge.

2.1.3 Information Science

Citation analysis is an established research tool in Information Science. It is used to interpret citations used by authors, citations received by an article authors, institutions and other authors. It fundamentally involves counting citations used by researchers. In Information Science, citation analysis is the preferred method to determine the kind of resources used most frequently, because it is unobtrusive (Sylvia 1998). According to Buttlar (1999: 221), citations are 'an indirect, uncontaminated source of data' as their analysis does not require the participation of a respondent. Citation studies are based on the principle that the actual use of sources is an indication of their relevance to current research and is, therefore, capable of producing empirical data to support research (Heidenwolf 1994) – the kind of information that enables one to gauge the impact of a scientific article. Often, as expressed by Smith (1981), citation analysis of materials including theses has implications for both collection development and user service design. As a result of its emphasis on citation analysis, Information Science has in recent times been able to provide useful insights on scholarly production, research direction, and the rhetoric of citation.

In this study, characteristically we analyze the kind of materials cited, date of the publication, authorship, and the place of publication. In addition, we study the frequency of use in order to establish trends, patterns, and relationships within and across the different disciplines with the overall objective to ascertain whether power and ideology are played out.

2.3 Previous Studies

While citation studies of reference lists are popular in Information Science, they have only recently been receiving attention in English for Academic Purposes (EAP) and Higher Education (HE). This is, as already indicated, because of its significance for knowledge construction, trends in knowledge production, rankings of academics and institutions, league tables, accountability, and global competition.

The first citation analysis was reported in 1927 by Gross and Gross who studied the cited sources in the reference lists of articles published in the *Journal of the American Chemical Society* and used the results to develop a journal subscription policy for a college library in the United States. Following this early study, several studies on expert writing (including journal articles and books) using bibliometric features of cited sources such as types, years, and countries of publication and more recently gender (e.g. Davenport and Synder 1995; Hakanson 2005) have been conducted.

In recent times, we have seen a burgeoning of studies devoted to bibliographic citations in student writing, at undergraduate (e.g. Magrill and St. Clair 1990; Sylvia 1998; Fescemyer 2000; Davis and Cohen 2001; Leiding 2005) and postgraduate (e.g. Sylvia and Lesher 1995; Slutz 1997; Waytowich et al. 2006) levels. Of interest to the present study are studies related to postgraduate writing, and in particular, doctoral theses. An analysis of the cited sources in 61 theses of Library and Information Science showed that the *College and Research Libraries* and *Journal of the American Society for Information Science* were among the most frequently cited journals (Buttlar 1999). Monographs were cited more often than journal articles in theses in Music and Philosophy (Herubel 1991; Kuyper-Rushing 1999). This pattern was also observed in Political Science, Psychology, and Sociology (Kushkowski et al. 2003). This contrasts with citation patterns observed in theses of Chemistry, Geology and Biology where more than 80% of all citations were for journal articles (Walcott 1991; Walcott 1994; Gooden 2001). Journal articles received 64% of all citations in a cross-disciplinary study of citations taken from master's and doctoral theses completed at Iowa State University between 1973 and 1992, and some 85% of the cited sources were available in the university library (Kushkowski et al. 2003).

As can be seen, the citation studies on doctoral theses have tended to be characterized in the following ways. First, they have been conducted in single disciplines (Herubel 1991; Walcott 1991; Sylvia and Lesher 1995) as well as multiple disciplines (Kushkowski et al. 2003), with the latter often demonstrating the influence of disciplinary proclivities on reference lists. Second, such studies have proliferated in different contexts such as the USA (Gooden 2001; Kushkowski et al. 2003; Williams and Fletcher 2006), the UK (Brophy et al. 2003), Asia (Zainab and Goi 1997), and Africa (Gupta 1984; Iya 1993; Oyik 2006). Most importantly, bibliographic citation studies have often been conducted within the framework of Information Science catering to diverse needs such as journal evaluation (Herubel 1991; Haycock 2004) and library collection development (e.g. Leideng 2005). These initial purposes for undertaking studies of citations in reference lists are beginning to give way to their importance for calculating a journal's impact factor (e.g. Kroc 1984) which is used by some universities as part of academic staff assessment (e.g. Garfield 1983).

The present study extends the existing body of works on citation studies in two ways. First, it focuses on a leading university in South Africa, not often encountered in the literature. Second, the present study focuses on a multiple-discipline context, and thus has implications for disciplinary variation.

3. *Research Approach and Methodology*

3.1 Research Design

The present study adopts a critical discourse analytical approach with the view to exploring sanctioned citation practices in reference lists across the three selected disciplines. Given that such a study located partly in Information Sciences often has quantitative outcomes, some descriptive statistics such as percentages and central tendencies are utilized to enhance the interpretation

of data. In general, the approach that is adopted in this investigation is critical, qualitative, and quantitative.

3.2 Institutional Context

The context for this study is a leading university in South Africa, which is ranked as one of the top 100 universities in the world in seven defined fields of research according to the 2006 ISI international rankings. A multicultural and multilingual country, South Africa, like many African countries, has a distinct language policy which impacts on higher education; at this leading South African university, English is the language used as the medium of instruction and offered as a subject at both undergraduate and graduate levels. The university aims to increase its doctoral student population to reach 50% within a decade. Currently, with only a third of its 25,000 students being postgraduates, the university, supports vigorous approaches to doctoral research education in all its faculties. For practical purposes, however, three departments, namely Animal Plant and Environmental Sciences, Literature, and Sociology were chosen. Together with other departments in several other schools in the university, these departments strive towards providing quality tertiary education to meet the challenging needs of South Africa and the knowledge economy in the global world.

3.3 Data Collection and Analysis

This study was limited to thirty theses, ten in each of the three selected departments at the research site and housed in one of its libraries. After studying the Graduation programmes and performing an online search, the ten most recent doctoral theses from Animal Plant and Environmental Sciences, Literature, and Sociology available at the library were obtained. Photocopies of the reference lists of these theses were then made. Each thesis was coded as DAT (doctoral thesis in Animal, Plant and Environmental Sciences), DLT (doctoral thesis in Literature), and DST (doctoral thesis in Sociology). To differentiate one thesis from another in the same discipline, numbers were assigned, as in DLT 1 and DLT 10. Further, acronyms such as APES, LIT, and SOC were used for the three disciplines of Animal Plant and Environmental Sciences, Literature, and Sociology respectively. The theses obtained were from the period, 2000-2006. (Find Table 1, which presents the total number of theses and citation count in the three disciplines.)

Discipline	Number of theses	Number of citations	Average citation per thesis
APES	10	2176 (25.83%)	217.6
LIT	10	2386 (28.32%)	238.6
SOC	10	3863 (45.85%)	386.3
Total	**30**	**8425 (100%)**	**280.8**

Table 1. Theses and Citations by Disciplines

As shown in Table 1, the entries in the reference lists of 30 theses gave a total of 8425 citations, with the average number of lists per thesis ranging from 217.6 to 386.3 in the three disciplines. The table shows the compositions as follows: 2176 (25.83 %) citations from APES; 2386 (28.32%) from LIT; and 3863 (45.85%) from SOC.

Central to the categorisation used in the present study were two factors. The first concerned the epistemology for each of the three disciplines, especially in relation to primary and secondary data. For instance, whereas it was difficult to label interviews in the SOC reference lists as primary data or secondary data, in general they were excluded from the reference list when no citation features were included. In the LIT citations, as long as there was evidence in the text that both primary and secondary texts had been cited, they were included in the analysis. No serious problems were posed by the APES theses. The categorization thus upholds the principle of inclusivity across all three disciplines. Secondly, we consulted previous studies of citation analysis such as Gooden (2001), and Oppenheim and Smith (2001) on the categories to be adopted. While the categories chosen for this study derive from none of these studies, these studies provided guidance nonetheless. (For the final categorization of materials cited in the reference lists across the three disciplines, see Section 4.1). The analysis itself was conducted manually using the functionality of Excel to count or aggregate results. During analysis, the photocopied reference lists were consulted to clarify and correct entries. As with any intensive data entry endeavour, errors were unavoidable in the collection and recording. All attempts were, therefore, made to correct identified errors and the impact on aggregated results should be minimum.

4. Results and Discussion

The findings of the present investigation are discussed along the four parameters highlighted earlier (see Section 1). These findings show that reference lists are not neutrally constructed; that is, they exemplify alliances, saliencies, dominant forms, and silences, thereby indicating politics at work.

4.1 Type of Documents Cited

Table 2 presents the type of documents cited in the three sets of theses. It shows both the raw total and percentage of type of documents valued in the reference lists of the three disciplines.

Books and journal articles accounted for the majority (61%) of documents cited by doctoral researchers. Books made up the largest category (34%); that is, slightly over a third of the total number of cited documents, followed by journal articles with 24%, and book chapters with 12%. This contrasts with the results of Buttlar's (1999) study of doctoral dissertations, which found that the highest number of references were made to journal articles (46%), followed by books (31%). Similarly, Sylvia's research (1998) also found that journal articles were cited more frequently than monographs. In the present study, the next category of documents to be cited was unpublished reports (4%) and the least number of materials cited was personal communication (0.07%).

Type of material	APES		LIT		SOC	
	Number	%	Number	%	Number	%
Journal article	1537	69.99	375	15.6	934	23.96
Book	161	7.33	1550	64.4	1235	31.7
Book Chapter	184	8.37	349	14.5	554	14.2
Conference Proceedings	110	5.00	4	0.16	11	0.28
Thesis	37	1.68	19	0.79	51	1.30
Government Documents	-	-	1	0.04	201	5.15
Websites	5	0.22	19	0.79	165	4.23
Newspapers/ Magazines	-	-	44	1.8	223	5.72
Submitted/ In press	6	0.27	3	0.12	-	-
Unpublished Report	24	1.09	13	0.54	346	8.87
Personal Communication	6	0.27	-	-	-	-
Others	56	2.55	31	1.3	171	4.38
Total	2126	100	2408	100	3891	100

Table 2. Type of Documents Cited

For ease of reference, Table 3 summarizes the ranking of cited documents shown in Table 2.

Type of Documents	Ranking		
	APES	LIT	SOC
Journal Article	1st	2nd	2nd
Book	3rd	1st	1st
Book Chapter	2nd	3rd	3rd
Government Doc	-	10th	6th
Thesis	7th	6th	9th
Conference Proceed	4th	8th	10th

Table 3. Ranking of Cited Documents

Tables 1 and 3 indicate the preferences of the three disciplines concerning the types of cited documents that are valued. According to Table 3, the Science doctoral researchers, consistent with the literature (e.g. Buttlar 1999; Gooden 2001; Williams and Fletcher 2006), prefer citing journal articles. This can be traced to the quick turnaround of knowledge construction in the Sciences which is best reported in journal articles as against the other two disciplines which rely on book chapters and books. Equally interesting is the place that 'Conference Proceeding' occupies as a source of information for the APES doctoral researchers, given its 'respectable' fourth position, following the more 'traditional' source types. This is probably due to the fact that conference proceedings take less time to publish than journal articles (Glanzel et al. 2006), making them a useful source of information for new findings. The use of conference proceedings as an emerging source of information for Sciences (herein APES) doctoral students corroborates Glanzel et al. (2006) who found that Applied and Technical Sciences (that is, Computer Sciences and Engineering) students often cited conference proceedings literature.

Also, consistent with the literature (e.g. Iya 1996; Okiy 2003), the SOC and LIT doctoral researchers value books as a mode of reference. In this study, the percentage of books used by the SOC students (31.7%) is about half that of the LIT students (64.4%), while the percentage of the journal articles by the SOC students (23.96%) is nearly a half of the combined percentage of the book and book chapters (45.9%) whereas the percentage of journal articles used by the LIT doctoral researcher is low (15.6%), about one fourth of their combined book and book chapters. A closer look at this pattern of usage, however, indicates a trend towards an increasing use of journal articles by the SOC doctoral researchers; thus, in terms of the citing of journal articles, the SOC researchers seem to be closer to the APES students than the LIT researchers. This pattern confirms the sociology of knowledge literature which tends to place the Social Sciences closer to the Sciences (Becher 1989). It is also possible that institutions and in particular those in Sub Saharan Africa are beginning to make use of electronic facilities, which in turn makes it easier and convenient for students to access journal articles. In this sense, the Humanities doctoral researchers can be said to be more 'conservative' than their Social Sciences counterparts.

A further point about the privileged or dominant practices of the doctoral researchers in citing documents relates to the almost even spread of sources used by SOC researchers in the present research. Government documents, websites, newspapers and magazines, unpublished report, and 'others' (brochures, memos, and minutes) seem to be important for the SOC researchers. Again, this may have to do with issues of epistemology as what counts as knowledge differs from one discipline to another (Becher 1989; Hyland 2000). One source material whose use was of minimal percentage to all three sets of doctoral researchers was the thesis. We found this surprising and interesting, given its relative importance in doctoral research education. The almost non-existence or 'silence' of theses in the cited documents of all three groups of doctoral studies may be due to the notion of originality expected to be demonstrated in a thesis; students do not want to cite theses lest their own theses be considered 'unoriginal'. It could also mean that students do not regard the thesis as a high-stake material worth consulting in writing their own thesis. Not even the inter-loan library facility in the home

university is likely to change this attitude towards the citing of other doctoral theses. It is equally interesting that given the increasing access to electronic materials by several universities including the present research site, materials from the internet or website received minimal attention. This may be traceable to the scepticism that most academic often express over such materials (Speier et al. 1999), though Oppenheim and Smith's (2001) study of undergraduate bibliographic entries showed an increasing use.

Clearly, the privileged and dispreferred practices, in terms of the types of sources used by doctoral students across the three selected disciplines, highlight politics at work. This indicates unconscious or conscious choices being made with regard to what is acceptable and highly rated in the three communities.

4.2 Authorship Pattern

An analysis of the authorship pattern of citations was limited to journals, books, book chapters, and conference proceedings, given their importance in the present research. From the database of reference lists, a total of 6, 953 personal authors' names were retrieved from the 8, 425 citations. Where the doctoral researcher indicates 'no date' or fails to provide the author, or indicates 'Author *A* et al.', these were considered as 'others'. The citing of corporate entities and institutions were excluded from the analysis. Table 4 summarizes the authorship patterns in the present research.

Number of authors	APES		LIT		SOC	
	Number	%	Number	%	Number	%
1	672	34.02	2151	93.88	1926	71.94
2	643	32.55	130	5.67	532	19.87
3	323	16.35	8	0.34	141	5.26
4	170	8.60	2	0.08	42	1.56
5	74	3.74	-	-	18	0.67
6	44	2.22	-	-	3	0.11
7	25	1.26	-	-	4	0.14
8	10	0.50	-	-	3	0.11
More than 8	9	0.45	-	-	-	-
Others	5	0.25	-	-	8	0.29
Total	1975	100	2291	100	2677	100

Table 4. Authorship Pattern of Documents Cited by Doctoral Researchers

Table 4 indicates three key findings. First, 67% of documents cited by APES doctoral researchers are multi-authored. Second, in contrast, the documents cited most frequently in the LIT theses – 2,151 (93.88%) and SOC theses – 1926 (71.94%) – were single-authored. Third, whereas both the SOC and

APES doctoral researchers cited documents of up to 8 authors in varying degrees, the LIT doctoral researchers cited documents of up to four authors.

The authorship pattern in the reference lists of the APES theses corroborates the finding in similar studies (e.g. Usha et al. 1993) which reveals multiple authorship as a dominant and valued feature in cited documents in the Sciences. In fact, Bahr and Zemon (2000: 417) have noted the increasing multiple-authorship among Sciences and Social Sciences scholars, arguing "As research becomes more quantitative, collaboration increases". Granted the veracity of this claim, it is not surprising to find the minimal multiple-authorship found in documents cited by the Humanities doctoral students. Besides, other studies by Garfield (1980) and Slutz (1997) found that Humanities scholars tend to work alone. As well, the percentage of single authorship for the Humanities in the present study is higher (93%) than that reported by Zainab and Goi (1997) whose work involved 104 master's degree and doctoral dissertations submitted to the University of Malaya between 1984 and 1994 in the Humanities (Religion and Philosophy; History; Language, and Literature), which was 89.4%.

The data summarized in Table 4 indicates that multiple authorship in the Sciences is the norm in contrast to authorship patterns among Humanities researchers. This suggests that researchers in the Humanities undertake less collaborative research. Indeed, Stone (1982) has postulated that this may be due to the fact that Humanities scholars have problems in communicating their exact needs. But perhaps a more plausible way will be to allude to the myth of the autonomous researcher, which is so much a part of the 'socialization' process in the pedagogies adopted by Humanities doctoral supervisors. The underlying politics embedded in such citation practices is clear: the Sciences favor an even spread of multiple authorship in cited documents as part of their disciplinary ethos whereas the 'individualistic' orientation of the Humanities is foregrounded. We find the Social Sciences researchers occupying a middle position between the Sciences and the Humanities researchers as they seem to be encouraging multiple authorship.

From the above, the issue of single/multiple authorship dichotomy represents a useful lens through which we are able to see the preferred norms or values in reference lists of doctoral researchers in three disciplinary communities. We now consider place of publication as revealed in the reference lists investigated.

4.3 Place of Publication

The analysis of the geographical distribution of citations was limited to journals, books, book chapters, theses and conference proceedings. Additionally, based on a preliminary analysis, it was also limited to five theses as it was noted that a pattern was observable. Table 5 summarizes the geographical distribution of cited documents in the bibliographic entries across the thirty theses.

As shown in Table 5, publications from the USA and U.K. accounted for more than half (67.12%) of the citations. Following the USA and the UK are cited documents from South Africa, the home country where the doctoral researchers conducted their research, representing about 20% of the entire

citation database considered here. The publications from Europe accounted for the next highest percentage (6.13%), followed by publications from 'Other African Countries' (3.26%). Citations originating from Australia/New Zealand, Asia, and South America were present to a very small degree.

Geographical Areas	APES		LIT		SOC		Total #	% of Total #
	No	%	No	%	No	%		
USA/Canada	550	53.50	416	36.71	453	27.14	1419	37.04
UK	181	17.60	462	40.77	536	32.11	1179	30.78
Other European Countries	103	10.01	60	5.29	72	4.31	235	6.13
Australia/ New Zealand	26	2.52	6	0.52	4	0.23	36	0.93
Asia	21	2.04	10	0.88	6	0.35	37	0.96
Middle East	1	0.09	-	-	-	-	1	0.02
South America	20	1.94	-	-	3		23	0.60
South Africa	107	10.40	89	7.85	579	34.69	775	20.23
Other African Countries	19	1.84	90	7.94	16	0.95	125	3.26
Total	1028	100	1133	100	1669	100	3830	100

Table 5. Geographical Distribution of Documents Cited Across three Disciplines

Three issues can be gleaned from the above findings. The first is how they relate to previous studies. In all three groups of scholars in the present research, the UK and the USA, which represent the 'powerhouse' of academic enterprise, had the most published materials cited. This contrasts, however, with the work of Zainab and Goi (1997) which shows the Humanities scholars citing about 42 % of the monographs from Asia as against 21.9% and 22% from the USA and the UK, while the journal citations from Asia was 37% as against the USA's 44.9%, reflecting probably the source needs of the doctoral students rather than a deliberate choice to choose the local over the global materials or vice versa.

Taking the issue of the local and the global dimension of cited documents further, we find that the percentage of publications from South Africa (20%) seems surprisingly modest. (But whether this percentage is adequate can be matter of personal opinion.) This could be due to a number of reasons. One clear reason could be the choice of disciplines involved in this study, especially LIT and SOC, which in many universities tend to focus on the 'local' with a reasonable recourse to materials from the 'centre' regions, though. In particular, the topics or themes chosen for investigation (as reflected in the thesis titles from both disciplines (refer to appendix) emphasised the local. There is also a case to be made for the epistemological disposition of the various disciplines which allows the recognition of government documents, newspapers magazines and 'other's (that is, including memoirs, brochures) as essential in SOC (refer to Table 2). These are decidedly mainly local, thus leading to the high number of publications from South Africa. Still on the

issue of the local and global, to the extent that the APE theses drew on sources from all regions in the world (including the 'centre') as indicated in the table, it can be said that the Sciences tend to be more global than the Humanities and the Social Sciences. In other words, the local availability rate for the Sciences was the lowest.

Although for lack of space, it is not possible to provide specific information on the geographical spread of the various source materials, a cursory look at the composite data suggests that apart from disciplinary differences, the inability of the Humanities and Social Sciences to include more journals and monographs could be the high cost, which makes the students, therefore, depend on the few available journals that the various institutions can afford, lack of supervisors who are interested in issues pertaining to other countries, convenience of gathering data, scarcity of research materials, financial constraint, and time.

We now turn to the date of publication of cited documents, the last feature.

4.4 Date of Publication

As in Section 4.3, an analysis of the geographical distribution of citations was limited to journals, books, book chapters, theses and conference proceedings. Additionally, it was limited to five theses for a similar reason offered in Section 4.3. The citations are sorted in accordance to the year of publication and then banded in 12 five-year categories (Table 6).

The total citations of the elected materials covered are 7038. According to Table 6, no document in 2006 was cited. In addition, for both SOC and the Sciences scholars, (68.34%) and (54.42%) of the cited documents respectively were located in the period, 1991-2005 (a fifteen year period). Fifty-eight percent of cited documents by the Humanities researchers were located farther in time, within the period, 1986-2005 (a twenty-year span). The final observation is that the materials written before 1956 accounted for 4.11% of the materials cited by the Humanities doctoral researchers with the Social Sciences researchers citing only 0.98% of materials in this year range.

The above findings are interesting in terms of their being related to the extant literature. Previous studies had always indicated that the Humanities favor older materials. The findings from the present study do not seem to warrant the continuing holding of this view, given that all three disciplines seem to have cited majority of their sources in the last fifteen years. It is possible that in a leading university of South Africa, which has seen tremendous increase in its doctoral programs in the last ten years and hence an increase in its library facilities, doctoral students can now access several recent materials including on-line journals and books from the library. Another reason, especially from the Humanities could be faculty intervention, which must have contributed to students citing 'recent' documents to a great extent.

	APES		LIT		SOC		Total	% of
	Number	%	Number	%	Number	%	Number	Grand Total
Before 1956	43	2.15	95	4.11	27	0.98	165	2.34
1956-1960	13	0.65	39	1.68	16	0.58	68	0.96
1961-1965	35	1.75	69	2.98	16	0.58	120	1.70
1966-1970	40	2.00	145	6.27	33	1.20	218	3.09
1971-1975	82	4.10	169	7.31	89	3.25	340	4.83
1976-1980	153	7.66	182	7.87	115	4.21	450	6.39
1981-1985	245	12.26	250	10.82	212	7.76	707	10.04
1986-1990	299	14.97	376	16.27	356	13.03	1031	14.64
1991-1995	408	20.43	427	18.48	610	22.33	1445	20.53
1996-2000	433	21.68	410	17.74	849	31.08	1692	24.04
2001-2005	246	12.31	148	6.40	408	14.93	802	11.39
2006-	-	-	-	-	-	-	-	-
Total	1997	100	2310	100	2731	100	7038	100

Table 6. Distributions of Citations by Year across Disciplines

Despite the above interpretations, we notice that it is the Humanities doctoral researchers who cite the highest percentage (4.11) of materials before 1956. This shows that humanities researchers are not likely to ignore documents because of their age since their works are less susceptible to obsolescence (Koenig 1978; Frost 1979; Weintraub 1980). While the issue of 'recency' may not be a strong differentiating factor among the three disciplines in this research, there is a sense in which it can be argued that they do influence their choices in varying degrees.

5. Conclusion and Implications

Using a critical perspective in exploring bibliographical citations along the four selected parameters (see Section 2), the present study set out to examine the practices in reference lists with the view to unravelling the choices, allegiances, and preferences (dispreferences) practised in three selected disciplines.

Based on the analysis of data, four key findings emerged in relation to the research questions. The first unsurprisingly indicates the Science's preference for journal articles and the preference of the Social Sciences and Humanities for books, consistent with the literature (Buttlar 1999; Gooden 2001). Surprisingly, all three groups did not show any keen interest in citing other doctoral students' theses. Second, the Science researchers evinced multiple authorship in contrast to the preferred sole-authorship of both the Humanities and Social Sciences doctoral researchers. The third finding relates to the local and global dichotomy, with the Science theses being more global

than the other two disciplines although materials from the 'centre' dominated in all three groups of researchers. The final point concerns the use of more 'recent' materials across all three disciplines, with the Humanities showing 'unwillingness' to abandon older materials.

The above findings have implications for critical discourse studies, doctoral research education, and advanced academic literacy. First, the present research contributes to the scholarship on critical discourse studies at doctoral level. Increasingly, there is a body of literature that is emerging on various rhetorical aspects of doctoral writing such as acknowledgement section, title, table of content and the 'body' of the doctoral thesis. The present study has shown how insightful knowledge on the construction of reference lists can enhance and contribute to the emerging consciousness-raising activities in many doctoral writing programs and thus enhance advanced academic literacy. Secondly, the present study makes a valuable contribution to the extant work on citation analysis by adopting a more critical perspective. The present research argues that a reference lists represents a key rhetorical site where doctoral students display politics, that is, saliencies and silences, in their various disciplines. This study, therefore, calls on all who are involved in doctoral research education such as supervisors, examiners, professors that serve on committees regarding doctoral education to re-examine such bibliographic citation practices in various disciplinary communities and whether these are all worth holding on to in light of changes in doctoral programs, the nature of knowledge production itself, and technological advancement.

While these findings and implications are significant in contributing to the scholarship on critical discourse studies, doctoral research education/ advanced academic literacy, and citation studies, there is still much research that needs to be carried out. For instance, because of the occluded nature of gender, which is not easily discernible in the reference lists, gender, an important variable for critical discourse analysts and feminists, does not feature in this study. Further studies could unravel the issue of gender politics in citations. Replicating the study across other disciplines or focusing on theses from particular disciplines in different contexts will extend our understanding of the politics of citation.

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