

CITATION BEHAVIOURS OF POST GRADUATE PRE-SERVICE TEACHERS

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ABSTRACT

The study aims to investigate citation practices of post graduate student teachers. The citations used by 154 student teachers in a process-based term paper were analyzed. Findings reveal that only 62.24% of the total population included a reference list in their assignment. From the total of 489 citations analyzed, materials from seminar papers and thesis made up to less than 3% of the total sources used. It was found that three most frequently cited authors accounted for a third of the total citations. The numbers of missing and inconsistent citations in the participants' term papers were exceptionally high. The trainees placed the blame on a) lack of emphasis by instructors; and b) ignorance of citation format leading to such errors. The findings suggest a need for deliberate and concerted efforts from teacher trainers to inculcate student teachers to accustom themselves to a variety of reference sources and instill a culture of avoiding citation errors.

Keywords: *citation analysis, information skills, research skills, process-based coursework, pre-service teachers*

ABSTRAK

Kajian ini meninjau pola rujukan yang disenaraikan oleh guru pelatih Kursus Perguruan Lanjutan Ijazah (KPLI) semasa menyediakan kerja kursus. Senarai rujukan 154 orang guru pelatih telah dianalisis. Dapatan kajian menunjukkan bahawa hanya 62.24 % daripada keseluruhan populasi telah menyenaraikan rujukan dalam tugas mereka. Daripada jumlah 489 rujukan yang dianalisis, hanya 3% daripada terdiri daripada bahan kertas seminar dan tesis. Didapati tiga pengarang yang kerap dirujuk menyumbang kepada 1/3 daripada keseluruhan catatan bibliografi. Bilangan catatan bibliografi yang tidak tepat dan tidak lengkap agak tinggi. Guru pelatih menyalahkan kelemahan ini pada a) tidak ada penegasan pensyarah, dan b) kekurangan pengetahuan mereka tentang format catatan bibliografi. Rumusan kajian mendapati bahawa perlu ada usaha yang lebih berkesan daripada pihak pensyarah dan guru pelatih perlu diperkenalkan kepada pelbagai jenis sumber rujukan.

Kata Kunci: *catatan bibliografi, kemahiran mencari maklumat, kemahiran penyelidikan, kerja kursus secara proses, guru pelatih.*

INTRODUCTION

Background

The concept that teachers should become reflective practitioners who are capable of reflecting on their professional knowledge and experience, and not be followers of instructions has lain at the heart of teacher educators for decades. In an effort to foster researching skills among teachers, trainee teachers are expected to write and submit academic papers that reflect their learning skills and research seeking abilities. The trainees are also taught library skills for the duration of seven hours as part of their Education Technology course. However, there is no time allocated for the teaching of citation techniques. It is assumed that these trainees have already been exposed to library search and citation skills during their undergraduate years and such skills will be internalized and trainees therefore will be able to utilize those skills in their later years. This study aims to look at postgraduate trainee teachers' strengths and weaknesses when locating, retrieving and citing information in their research. In addition, the study will use the findings to provide implications for further improvements in teaching information skill programs in higher learning institutions.

Literature Review

Citations are references made to previously published work which a researcher uses to support his arguments. They serve to substantiate the claims of the citing author, and help provide pathways towards communicating scientific progress. In addition, it acknowledges intellectual indebtedness (Frost, 1979). It is also used to determine the popularity and impact of specific articles, authors, and publications. Citation analysis is widely applied in areas such as library collection management, knowledge based structure analysis and academic research assessment (Yu, Sullian & Wooddall, 2006). Hence it is an important tool that helps gauge the importance of one's work, and subsequently reflect on the quality, productivity, significance and effectiveness of research. Frandsen (2004) indicates that citation analysis plays a dominant role in science for the perception of quality and prestige. Similarly, Umut Al, Sahiner & Tonta, (2006) state citation statistics can be used to assess the productivity of researchers, and their institutions. Accuracy in citation not only reflects the researchers' integrity, but also provides additional validity and authenticity to the research itself. Current literature in bibliographic citations include, reference falsifications, inconsistent citation styles, inaccurate quotations, misspelled names and incorrect page numberings (Cited by Waytowich, Onwuegbuzie, & Jiao, 2006).

Critics of citation analysis argue that citation analysis is product orientated rather than process oriented (Shenton, 2004). According to Shenton, the bibliography only lists items that are actually employed by the student, but does not indicate the actual number of documents consulted during the process of the study. Similarly the bibliography may not reveal whether the item was actually examined or the extent of its use. Hence the numbers of references are independent of the quality of work and cannot be used to grade students' assignments or scholarly efforts.

With the advent of the Web in the 1990s, there has been an increase in the range of freely available Internet resources (e-journals, e-books e-databases, e-thesis, and e-prints of research papers) and students are expected to explore these non traditional resources. Presently, the library collection can no longer be blamed for lack of resources for producing good academic assignments. In fact, the study of Davis (2002) from Cornell University indicated that undergraduate students prefer Internet resources over books. Similarly, in a study on undergraduate engineering students at the University of Queensland, Australia (Yu, Sullian & Wooddall, 2006) showed, first year students cited (67.1% websites; 22.7% books and 8.2% journals) more websites compared to books. However, as students progressed academically and moved on to their fourth year they tend to cite more from books (22.9% websites; 58.8% books and 11.5% journals) than websites.

With the vast amount of resources made available via the Internet, the authenticity of the resources can be questioned. Students should be taught to evaluate Internet resources and have the ability to use them as valid information sources. However, the study of Deborah (Grimes & Boening, 2001) which evaluated the various kinds of resources used in the Introductory English Composition classes found that students often used unevaluated resources and a gap exist between instructor's expectations and what students' use. The study of Davis (2002) looked at the performance of students who followed explicit instructions on factors that constituted good scholarly research. The findings revealed that students often overlooked verbal instructions and relied on intuition and written assignments.

Recency of document is not viewed as very important within the humanities according to a study on Journal dispersion (Zainab & Goi, 1997). In fact some documents used by subjects in humanities were found to be dispersed over 170 years. Books were also found to play a more important role in the humanities and social sciences (Umut Al, Sahiner & Tonta, 2006) while monographs were considered essential within the sciences. In addition, it was also found that post graduate students used more English sources compared to Malay language scholarly literature (Zainab & Goi, 1997). Lack of sufficient resources in the Malay language in the humanities were stated as reason for the lack of preference for the later. This preference has implications for library collections and language use in Malaysia.

Although it could be recognized that many variables influence students' citation behavior, such as nature of research topic, availability of resources, library user education, information seeking and processing skills, students' references are still important to gauge the quality of academic writings and to determine what is relevant, recent, and popular in terms of reference sources in a particular field.

The Study

The study aims to investigate the citation practices adopted by post graduate trainee teachers from a Teacher Education Institution based in East Malaysia. The area of study involved a core subject paper offered by the Education Department, which covers a wide range of topics, notably pedagogy, psychology, learning styles, classroom management, testing and evaluation, and research practices. The trainees are evaluated for this core subject based on a processed based term paper (50%) and examination (50%) that is held at the end of the semester.

For the term paper, students are placed into groups that involve not more than three students each. Each group is assigned a research question

based on a range of available topics. Group members are expected to collect materials based on a topic of their choice and subsequently create a portfolio. In the second phase, every group is expected to present their findings during the class session. The third phase necessitates students to write an individual essay describing their school based experience. The questions are given at the end of January (the first month for the session) and this is followed by four weeks of teaching. Clear instruction on the format of the paper and bibliography are explicitly stated in the task sheet. Trainees are required to submit their paper at the end of their first semester which would be the third week of May. Lecturers are required to supervise the students throughout the term. Since the term paper happens to be a major component of the semester's work, all students are expected to put in their best performance.

Objectives of the study

The objective of this study is to examine citation patterns employed by post graduate trainee teachers and the underlying causes for such patterns, as reflected through their term paper. The study aims to answer the following research questions:

1. What is the average number of citations and variety of sources of citation according to course options? (Why?)
2. What is the distribution of citations according to bibliographic forms? (Why?)
3. What is the domain distribution of web based sources cited?
4. How is the chronological distribution of the citations?
5. Who are the most cited authors?
6. What are the most prolific sources cited? (Why?)
7. What is the language and geographical distribution of the sources used?
8. What are the citation errors and what are the leading causes for such errors?

Significance of the Study

The findings of this study will be useful to facilitate an understanding of information seeking skills and patterns of pre-service teachers. Based on the variety of items cited it would enable college resource centers to be better equipped. It would be beneficial for updating resources, provide useful clues for library management, acquisition of materials according to subject areas and also to identify collection and libraries which might contain specific resources outside the institution. Evidence from this study would help teacher trainers and teacher training curriculum planners to redesign existing library science courses. The study would also show a need for reinforcement in citation skills of trainee teachers acquired during their undergraduate years. The study would also provide valuable information to assess the effectiveness and quality of the current teacher training programmes in producing research orientated pre-service teachers at the end of the course.

METHOD

Subjects

The subjects in this study were pre-service teachers enrolled in the Post Graduate Teacher Training Course for Primary Schools, better known as *Kursus Perguruan Lanjutan Ijazah* (KPLI). The subjects comprise of 8 groups of pre-service teachers majoring in various disciplines. The disciplines include Mathematics; English; Special Education; Preschool; Physical Education; Malay Language; Living Skills and Chinese Language (2 groups). Each group comprise of an average of 20 students. All trainees have obtained their basic degree in their respective discipline either from a local or foreign university.

Data Collection

The data in the study consists of citations used in the bibliographies of the trainees' term papers. Their citations were coded, based on type of reference used: books, journals, magazines, newspapers, Webs, and others. All web resources were classified based on their source domains.

Data Analysis

To determine correct usage of citation style, all the citations were typed in manually into Microsoft Excel. Then the outputs in terms of percentages and demographic information of the respondents were coded and analyzed using SPSS. To study the underlying reasons behind the trainees' citation habits, 11 respondents were randomly selected and interviewed based on a questionnaire.

RESULTS

1. Citation Patterns According to Course Options

A total of 154 post graduate teacher trainees' term papers from 8 course options were studied. It was found that only 96 (62.34%) of the trainees had included a list references at the end of their assignments. The 96 term papers contributed to a total of 489 citations. As shown in Table 1, more than 80% of the trainees who came from the Chinese Studies programme, had their citations recorded in the reference page. Meanwhile only 14.26 % of the pre-school trainees had recorded their citations. It is interesting to note that trainees from certain course options such as Living Skills, Physical Education, Pre-School and Chinese Studies Group 1 had avoided the use of all forms of bibliographic sources except books. This trend may raise doubts on the quality of assignments and the level of supervision.

Table 1

Trainees and their Citations by Course Options

	Course option	Mathematics	Malay Studies	Physical Education	TESL	Preschool	Living Skills	Chinese Studies Group 1	Chinese Studies Group 2	Total
No. of Trainees in each option	n	21	22	18	17	21	19	18	18	154
No. of term papers with citation	f	11	16	9	12	3	12	15	18	96
	%	52.38	72.73	50	70.59	14.29	63.16	83.33	100	62.34
No. of trainees who cited books according to course option	f	11	16	9	12	3	12	15	18	96
	%	11.5	16.7	9.4	12.5	3.1	12.5	15.6	18.8	100

Note. f = frequency

To determine the underlying reasons as to why such large number of student teachers failed to include the bibliography with their assignments, 11 participants were randomly selected and interviewed. When asked about the importance of bibliography in academic writings, 81% saw it as important and admitted that they normally included a reference page during their undergraduate years. In response to the question on purpose of a bibliography 54% of the student indicated that it was to validate their study and for instructor's reference. Only 25% of the trainees commented that a bibliography was for obtaining higher marks and they would include it solely to comply with the needs of the lecturer in charge. About 30% of the trainees blamed their lackadaisical attitude for not attaching a bibliography list with their assignment. Another 19% blamed their lecturers for not emphasizing on the importance of bibliography for the particular term paper. Incidentally, it must be noted that the task requirement explicitly mentioned the need to include a bibliography list following the alphabetical order based on author's name.

2. Distribution of Citations According to Bibliographic Forms

Books were regarded as the most important resource by the trainees in completing the term paper. The books generally cited were class text books. Out of 489 citations, 77.51% were from books and only 10.43% came from

Internet sources. As shown in Table 2, materials such as seminar papers and theses made up less than 3% of the total sources used.

When the respondents were asked as to why they preferred books over other materials, 45% of them stated that books were easily available and the information needed were presented directly. Of the total, 18% of the trainees felt that the information obtained from books were reliable. An additional 18% of the student teachers related that their lecturers' had not requested them to refer to other sources. Only 23% of the student teachers said that their lecturers had given them a reading list for the term paper.

Table 2

Distribution of Citations According to Bibliographic Forms

Ranking	Bibliographic form	No. of Citations	Percentage
1	Book	379	77.51
2	Website	51	10.43
3	Magazine	24	6.38
4	Newspaper	22	4.5
5	Journal	9	1.84
6	Seminar	4	0.82
	Total	489	100

Though the students had been exposed to advanced Internet search strategies in their library science lecture at the beginning of the semester, only limited web resources were quoted. Findings showed that 81% of the respondents knew how to search and locate information from the web. About 30% of the trainees complained that the college Internet service was not reliable, inaccessible from their hostel rooms, and lacked sufficient facilities to print out Internet articles. It is interesting to note that 30% of the students agreed that the resource from the Internet had to be reorganized and were not very accurate based on their requirement.

Another 18% of the student teachers agreed that due to time constraints, they had failed to refer to other sources. They said sources like journals were not readily available in the college library and the college did not subscribe to any online journals. The reasons given by student teachers for avoiding journals and periodicals are summarized in Table 3.

Table 3

Reasons given by Respondents for Avoiding Journals and Periodicals

Percentage	Reasons for Avoiding Journals and Periodicals
27	Lazy to refer
27	Have to pay for the journals.
18	Lots of time is needed
9	Not familiar with journals
9	Difficult to understand
9	Difficult to access
9	Too many irrelevant materials

3. Domain Distribution of Web Based Sources Cited

Of the 489 citations, only 51 citations came from web based resources. In this study, four different types of website domain were identified. They are a) .edu; b) .gov; c) .org; and d) .com. Most of the citations were from .edu (66.7%) domain. However 19.91% of the URLs were of .com type domains, followed by .gov (7.84%) and .org (5.88%). A close look at the .com articles revealed that these resources were posted by institutions that do not own .edu domains but used free private hosting service providers such as tripod.com and geocities.com. This clearly indicated that the trainees who used web resources were able to search and locate credible web-based sources on educational materials.

4. Chronological Distribution of Citations

Table 4 shows the chronological distribution of citations within a 5 year intervals effective 1965 to 2007. The oldest resource cited was from the year 1965. Results indicate that 52.66% of the articles were from the year 2000 and above. This showed that the majority of student teachers referred to current articles. It should be noted that of the 489 citations counted 58 (11.86%) had incomplete data in terms of year of publication. These were mostly web based resources. As such these citations were excluded from the count.

Table 4

Chronological Distribution of Citations

Range (Years)	No. of Citations	Percentages
2005-2007	101	20.65
2000-2004	157	32.11
1995-1999	91	18.61
1990-1994	48	9.82
1985-1989	20	4.09
1980-1984	8	1.64
1975-1979	2	0.41
1970-1974	6	1.23
1965-1969	2	0.41
Sources without date	58	11.86
Total	489	100.00

5. Most Cited Author According to Ranking

As shown in Table 5, out of the 489 citations obtained, 242 (49.54%) were from 10 authors. It should be noted that 11 citations with missing authors were included in the count. The most frequently cited authors were Mok Soon Sang, Ee Ah Meng and Ragbir Kaur, whose works collectively accounted for a third (36.41%) of the total citations. All the authors were found to be writers of pedagogy text books. In addition, a learning module prepared by the Teacher Education Division, Ministry of Education ranked fourth in the order of importance.

Table 5

Most Cited Authors Based on Ranking

No.	Rank	Author	No. of citations	Percentage	Cumulative percentage
1	1	Mok Soon Sang	75	15.34	15.34
2	2	Ee Ah Meng	59	12.07	27.41
3	3	Ragbir Kaur	44	9.00	36.41
4	4	Bahagian Pendidikan Guru	16	3.27	39.68
5	5	Ainon Abdulah	12	2.45	42.13
6	6	Arthur P Llyod & Aminah	10	2.04	44.17
7	7	Hj. Hashim	8	1.64	45.81
8	8	Ibrahim Ahmad	6	1.23	47.04
9	8	Aziah Lebai	6	1.23	48.04
10	8	Mohd Daud Hamzah	6	1.23	49.54
		Murugiah Velayutham	6	1.23	49.54

When the students were asked about their basis for selecting the authors, they related it to their instructors. Their instructors had repeatedly referred to these books in class. Of the total, 36% admitted that they looked for content

that was relevant to their task rather than considering the popularity of the author.

6. Most Prolific Source Cited According to Ranking

In order to determine the most prolific source cited, 10 most frequently cited sources were selected. As seen in Table 6, these 10 sources collectively ranked as the 8 most prolific reference cited. It was not surprising to know that 9 of the sources were text books and one was a learning module prepared by the Teacher Education Division, Ministry of Education. The book titled “Panduan Ulangkaji Ilmu Pendidikan” (Revision Guide) authored by Ragbir Kaur was the single source that accounted for a total of 44 (9%) of the total 489 citations.

Table 6

The Most Prolific Source Cited According to Ranking

Rank	Author	Source	No. of citations	%	Cumulative percentage
1	Ragbir Kaur	Panduan Ulangkaji Ilmu Pendidikan untuk Kursus KPLI Sekolah Rendah	44	9.00	9.00
2	Mok Soon Sang	Siri Pendidikan Perguruan: Ilmu Pendidikan untuk KPLI Komponen 3	24	4.91	13.91
3	Mok Soon Sang	Siri Pendidikan Perguruan: Ilmu Pendidikan untuk KPLI Komponen 1 & 2	15	3.07	16.98
4	Ee Ah Meng	Psikologi Pendidikan 1: Psikologi Perkembangan	15	3.07	20.05
5	Ee Ah Meng	Educational studies 3: Professionalism of teachers	11	2.25	22.30
6	Mok Soon Sang	An Education Course for KPLI	10	2.04	24.34
7	Mok Soon Sang	Siri Pendidikan: Perguruan untuk KPLI, Sek. Men., Sem 1 & 2	9	1.84	26.18
8	BPG	Ilmu Pendidikan: Pengajian Profesional Modul	8	1.64	27.82
8	Mok Soon Sang	Ilmu Pendidikan untuk KPLI	8	1.64	29.46
8	Ibrahim Ahmad	Bimbingan dan Kaunseling di Sekolah Rendah	8	1.64	31.10

When the students were asked, as to why they depended on text books, 36% of them said it was recommended by their lecturers and multiple copies were available in the college library. In addition, another 18% of the pre-

service teachers answered that the information was complete and suited their immediate needs and they admitted to being lazy when it comes to referring to other sources. About 90% of the trainees said all their peers used them and there were not many text books available in the college library.

7. Language and Geographical Distribution of Sources Used

As shown in Figure 1, 83.23% of the sources used were from text written in the Malay Language and at the same time 86.09% were from local publications. A large percentage of the foreign sources used were web-based articles written in the English language. When the trainees were asked as to why there were few citations from text written in the English Language, 27% said that they could not understand English and felt more comfortable with text written in the Malay Language. However 18% of the students said that references in English were useful, widely available and contained lots of information. About 36% of the trainees felt that materials in the Malay Language were easy to understand. Besides, they admitted that they were not good at translating, a process which was considered tedious and time consuming. Table 7 summarizes the responses of the students.

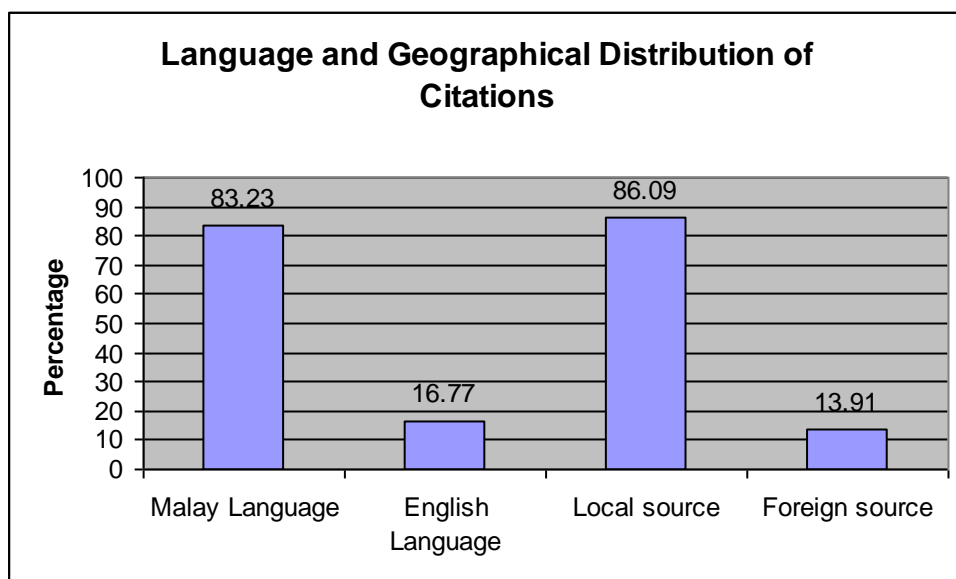


Figure 1. Language and Geographical Distribution of Sources Used

Table 7

Citation Analysis of Bibliographies by Pre Service Trainee Teachers

Citation	Analysis	Frequency	Percentage
Accuracy of citation style	Correct use of MLA format	52	10.63
	Correct use of APA format	10	2.04
	Incorrect citation style	427	87.32
Total		489	100.00
Major citation errors. (Excluding Web sources)	Capitalization	251	57.30
	Italicizations omitted	174	39.72
	Incorrect placement of place of publication	181	41.32
	Incorrect placement of publisher	190	43.37
	Errors in stating author	71	16.01
	Place of publication missing	89	20.31
	Year of publication missing	28	6.39
	Publisher missing	25	5.70
	Author missing	11	2.51
Total		438	100.00
Excluding web sources			

The following reasons for avoiding sources in English were given by respondents:

- Unable to understand English (27%)
- Not interested in English (27%)
- Similar reference were available in the Malay Language
- Books in Malay Language were actually summarized from English (9%).

8. Usage of Citation Style

To analyze correct usage of citation styles, the participants' citations were first analyzed in-terms of accuracy of format. Punctuation errors were not taken into account for this study. No cross references were made with the citations and the contents of the term paper as a check for validity. Of the 489 citations, only 62 (12.67%) were found to be correct. Although the instructions in the term paper explicitly stated that the trainees were required to arrange their bibliography in alphabetical order based on the author, only 36 trainees followed the instructions. No specific citation format was stated in the task, though the trainee teachers were required to use APA style citation format. Only 10 (2.04%) citations based on the APA format were correct. At same time only 52 (10.63%) of the references that used MLA style format were found to be accurate. It was found that a sizeable number of trainees were confused between the formats.

As the numbers of missing and inconsistent citations in the participants' project papers were exceptionally high, the researcher found that analyzing the accuracy of citation alone was insufficient and a detailed analysis of the citation errors would provide a clearer picture. As for the detailed analysis, all web sources were excluded. It was found that from a total of 51 web

source cited, only 8 had the author and year of publication mentioned. The trainees merely quoted the URL of the sources.

There were a total of 438 citations excluding web resources. As shown in Table 8, the detailed analyses of the citations showed that errors related to capitalization (57.30%) and italicization (39.72 %) were the most prominent among the citation errors committed by the trainees. It was observed that the majority of students who committed these errors were confused between APA and MLA citation formats. Another major error was incorrect placement of place of publications (41.32%) and publishers (43.37%). In this case, the students' tendency to quote the publisher was preceded by the place of publication, and this was similar to an address format.

Missing information in the citation was related to place of publication, year of publication, name of publisher and author. Incidentally, 89 (20.31%) and 25 (5.70%) of the non-web sources cited omitted place of publication and name of publisher respectively. Consequently, there was 11 (2.51%) and 25 (5.70%) cases of missing authors and year of publication, out of the total of 438 citations. However it should be noted that there was 71 (16.21%) cases where authors were quoted incorrectly. The most prominent mistakes in this case were the inclusion of the title of authors and wrong placement of authors.

When the pre-service teachers were interviewed regarding the importance of accuracy of citation, 81% said that it was important. At the same time 90% of them agreed that they have been exposed to citation formats during their undergraduate studies through various means. Only 18% related that they were exposed to citation practices by their tutors, while the rest said they had been given photocopies of samples, but the format had not been emphasized in detail. When the trainees were asked whether their instructors had given them any guidelines related to citations for this term paper, only 55% agreed. They said that their lecturers had a) distributed some samples but, b) had not emphasized and c) they were not corrected for their mistakes. Meanwhile 54% of the trainees agreed that they did refer to text books and senior's assignments for accurate citation formats. More than 90% of the trainees interviewed wanted a refresher course in citation formats due to the fact that there had been no clear citation formats during their undergraduate years. Table 9 provides the reasons for students' citation errors.

Table 8

Reasons for Citations Errors

No.	According to the pre-service teachers' order of importance
1	lack of emphasis by instructors– assumed contents of project more important
2	ignorance
3	lackluster attitude
4	lack of practice/forgetful
5	confused with too many format
6	last minute assignment
7	lack of correct exposure
8	did not bother to keep reference beforehand

DISCUSSION

The findings from the study revealed that the majority of the post graduate student teachers (37.6%) failed to include a reference list in their term paper. It is possible to observe a lackadaisical trend among trainee teachers who do not see referencing skills to be important once they have graduated. The task called for the inclusion of a bibliography and trainees teacher seem to ignore it, especially when its requirement was not insisted upon by their lecturers and when it was not made into a prerequisite condition for obtaining higher grades. As a norm of academic writing, exclusion of a reference list should never be tolerated. This has implications for the level of professionalism among trainee teachers who expect to be reminded at every step.

The poor accuracy of citation styles (12.67%) is extremely disturbing. The findings call for the formal and more deliberate emphasis on the part of instructors who must realize the importance of instilling students with the culture of avoidance of citations errors. Though most trainees have prior exposure to citation formats during their undergraduate years, such skills are not followed through and students appear vague over certain conventions. It is evident that students are not being scrutinized for their bibliographic errors during their undergraduate program and there is a lack of continuous emphasis on this matter by university lecturers. The lack of motivation among trainees to refer to citation manual is even more disturbing, since a typical citation guide line can be downloaded from many websites. Previous studies have shown that penalizing students for committing bibliographical errors would not deter them adequately (Waytowich, Onwuegbuzie, & Jiao, 2006). It is suggested that students should be trained to high levels of self-orientated perfectionism characterized by a strong internal motivation to commit the least number of citation errors. However the level of perfectionism can only be gotten through regular monitoring and close supervision from all responsible educators.

The findings also showed over dependency on selected textbooks. Previous studies have reported a tendency among researchers in the field of education to depend on books and monographs (Okiy, 2003). However this study reveals that a third of the total sources cited were from eight text books and half the citations were from eleven authors. Hence there is need for instructors to acculturate trainees to look beyond their class text books when sourcing for materials. Recent studies have indicated there is an increasing tendency among undergraduate student using Internet citations (Davis, 2002). The lack of use of electronically available web resources such as e-journals among trainees raises questionable doubts about trainees' undergraduate information seeking habits. The onus is perhaps on the part of instructors who need to encourage trainees to go online and explore the freely available scholarly full-text documents. The findings also indicate a dire need for Teacher Education Institutions to subscribe to online databases. Lack of time was the major excuse given by the trainees for poor bibliographic performance. The study showed 81% of the student teachers spent less than a week (45% within 2 to 3 days) to complete their project though the duration of the task was 5 weeks. This may indicate lack of supervision among instructors for a process based term paper.

Universities are expected to equip students with general study skills, research skills, complimented with library and information seeking skills. As students progress from their undergraduate study towards their final year dissertation, they should have acquired research skills together with high quality information and bibliographic skills. Thus it is likely that students who a) do not have their reference skills scrutinized by their instructors during their degree program; or b) are not corrected for their citations errors, are most likely to carry forward these habits into their post graduate years. Teacher training colleges on the other hand are focused on developing pedagogical skills of these beginning teachers. While the importance of teaching library skills cannot be ignored, there seems to be a number of other equally important skills that seem to take priority due to time constraints. The situation becomes even more difficult when university students who are assumed to have undergone such training through the system seem to ignore simple library skills such as missing authors in their citations and dismiss it as unimportant just because lecturers failed to address them in each assignment.

CONCLUSION

The conclusion which flows from the discussion has implications for both the research community and teaching community. An obvious starting point would be an exploration of what constitute good academic papers in addition to content and findings. To elevate academic writings, there are specific conventions that must be observed or the quality of the paper deteriorates and reflects poorly on the institution that generates it. Another obvious point is that there is a scarcity of reading materials in the libraries and trainees are using this as a convenient excuse to limit their search, despite having existing knowledge about Internet usage. There is also the question of how well higher learning institutions have trained their progenies in the academic conventions. At a more detailed level, it is possible to state that there is a lack of pride in students' efforts. It also suggests the notion of a language aptitude where students are not able to source latest research material and write efficiently due to the lack of language skills.

In sum, it is hoped that this study will provide impetus for further investigations into ways to enhance post graduate trainee teachers referencing skills and for those who wish to improve the education of students who are at risk of committing bibliographic errors.

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