

Citation practices amongst trainee teachers as reflected in their project papers

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ABSTRACT

The study aims to investigate errors in citation practices of postgraduate student teachers. This research examines the various types of citations according to bibliographic forms in relation to course options, language use and underlying reasons for the student teachers' citation behaviors. The study involved 154 postgraduate student teachers from a Teacher Education Institution in East Malaysia. The citations used in a process based term paper submitted as part of their final course evaluation submitted to the Education Department were analyzed. Findings revealed that only 62.24% of the total population included a reference list in their assignment, and this was despite being provided with explicit instructions regarding the need to attach a reference page. From the total of 489 citations analyzed, 77.5 % were from text books. Materials from seminar papers and theses made up less than 3% of the total sources used. It was found that 3 most frequently cited authors accounted for a third of the total citations, and the authors were writers of the pedagogy text books used by the course lecturers. More than 83% of the sources employed were from local publications written in the Malay Language. The numbers of missing and inconsistent citations in the participants' term papers were exceptionally high. Only 12.67% of the total citations were found to be correct. The trainees placed the blame on (a) lack of emphasis by course lecturers; and (b) ignorance of citation format leading to such errors. The findings suggest a need for deliberate and concerted efforts from course lecturers or teacher trainers to inculcate student teachers to accustom themselves to a variety of reference sources and instill a culture of avoiding citation errors. Exclusion of reference list in academic writing should not be tolerated as it has implications for the level of professionalism among trainees and their lecturers.

Keywords: Citation analysis; Information skills; Research skills; Pre-service teachers; Student teachers.

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. To ensure that teachers do not remain as mere consumers of information and they become reflective practitioners, the Malaysian Ministry of Education periodically organizes short term as well as long term in-service courses to inform teachers about the latest developments in teaching and learning. Meanwhile, teachers on their own are expected to actively participate in research in order to improve and explore new teaching ideas. In this matter, teacher training institutions play an important role in guiding practicing teachers

Shanmugam A.

in their research and in serving as avenues for teachers to present their findings during seminars. In addition, teacher training colleges make a concerted effort to equip trainees with relevant content and academic knowledge that will help them build on their teaching and researching skills.

In the government's mission to equip all primary schools with graduate teachers in the near future, teacher training institutions in Malaysia are currently focused on training postgraduate students to become teachers. Graduates from recognized local and foreign universities who show interest in pursuing a career in elementary education are recruited and required to undergo a year long pre-service programme in teacher education before they go on to teach. Better known as the Post Graduate Teacher Training Course for Primary Schools (*Kursus Perguruan Lanjutan Ijazah* [KPLI]), it aims to improve the quality of teachers teaching in primary schools.

In an effort to foster information skills among teachers, trainee teachers are expected to write and submit academic papers that reflect their learning skills and research seeking abilities. It is mandatory for all trainees to enrol on a 2 credit (30 hours) course on Resource Management which comprises 3 main components, namely Information and Communication Technology (13 hrs); Educational Technology (10 hrs); and Library and Information Science (7 hrs). The Library and Information Science contents focus mainly on types of reference sources, information agents and basic cataloguing procedures. Teaching of citation techniques are not mentioned in the course content. 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. However, it is left to individual lecturer teaching other courses to guide the trainees with proper citation techniques. 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 programmes 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, citation 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, Sullivan and Woodall 2006). Hence it serves as an important tool that helps gauge the importance of one's work, and subsequently reflects 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 and Tonta (2006) state citation statistics can be used to assess the productivity of researchers, as well as their institutions. Accuracy in citation not only reflects the researchers' integrity, but also provides additional validity and authenticity to the research itself. Current

Citation practices among trainee teachers as reflected in their project papers

literature in bibliographic citations include reference falsifications, inconsistent citation styles, inaccurate quotations, misspelled names and incorrect page numberings (Waytowich, Onwuegbuzie and 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 (such as e-journals, e-books, e-databases, e-theses, 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, Sullivan and 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 sufficient skills to use them as valid information sources. However, the study by Grimes and 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 existed between lecturer'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.

College libraries play an equally important role in providing a flexible circulation of recent reference sources. However, with the rapid increase in Internet materials and online journals, more and more libraries are finding it necessary to discard older journals to optimize existing space and promote efficient management. However, in making the necessary selection according to learners' needs and criteria, it is necessary for library administrators to be aware of the distribution and spread of journals between science and humanities. Recency of document is not viewed as very important within the humanities based on a study of journal dispersion (Zainab and 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 and Tonta 2006) while monographs were considered essential within the sciences. In addition, it was also found that postgraduate students

Shanmugam A.

used more English sources compared to Malay language scholarly literature (Zainab and Goi 1997). Lack of sufficient Malay language resources in the humanities was stated as reason for the lack of preference for the academic discipline. This preference has implications for library collections and language use in Malaysia.

In terms of attitudes, students were found to use the Internet to find general information. This trend was much more evident than the use of scholarly databases from journal articles (Yu, Sullivan and Woodall 2006) despite the students being familiar with the various forms of information sources such as books, journals and websites. It was also found that students in general were able to find a variety of relevant information but they were often not so successful in citing the information. The study showed that all students had problems in citing information accurately. This included missing sections of the authors' names and inaccurate order of listing. Similarly, students faced difficulty in (a) citing personal communication; (b) citing specialized document; (c) determining what needs to be included in the content; and (d) determining what needs to be omitted.

Although it could be recognized that many variables influence students' citation behavior, such as nature of research topic, availability of resources, library user education and information seeking and processing skills, students' references are still important for gauging the thoroughness and rigour 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 postgraduate trainee teachers from a Teacher Education Institution situated in East Malaysia. The context of study involves 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 process based term project (weightage 50%) and examination (weightage 50%) that is held at the end of the semester.

For the term project, students are placed into groups that are made up of not more than three students. 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 its findings during the class session. The third phase necessitates students to write an individual essay describing their school based experiences. 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 project and bibliography are stated in the task sheet. Trainees are required to submit their project at the end of their first semester which is in the third week of May. Lecturers are required to supervise the students' efforts throughout the project. Since the project 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 postgraduate trainee teachers and the underlying causes for such patterns, as reflected through their project paper. The study aims to answer the following research questions:

- a) What is the average number of citations and variety of sources of citation according to course options? This question would analyze the average number of citations used according to programmes.
- b) What is the distribution of citations according to bibliographic forms? This would explore the different genres (e.g. books, and journals) selected.
- c) What is the domain distribution of web based sources cited? This question would look at the trainees' ability to source information from different search domains (such as .edu, .gov, .org, and .com) for their assignment.
- d) How is the chronological distribution of the citations? This question would analyze the range of citations used to determine currency and relevance of materials for the topic.
- e) Who are the most cited authors? This would summarize the authors cited.
- f) What are the most prolific sources cited? The most frequently cited authors would be selected and ranked.
- g) What is the language and geographical distribution of the sources used? This question would consider trainee teachers' choice of language when looking for materials.
- h) What are the citation errors and what are the leading causes for such errors? This would investigate accurate and appropriate use of citations styles and examine the reasons for trainees' failure to integrate certain features in their citations.

The findings of this study would be useful to facilitate an understanding of information seeking skills and patterns of pre-service teachers. It would be beneficial for updating library resources, provision of useful clues for library management, acquisition of materials according to subject areas, and also for identification of collection and other libraries which might contain specific resources. 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.

RESPONDENTS

The subjects in this study are postgraduate pre-service teachers enrolled in the KPLI programme at a Teacher Education Institution in East Malaysia. The subjects comprise 8 groups of postgraduate pre-service teachers from the January 2007 intake, majoring in various disciplines. The disciplines include Mathematics; Teaching of English as a Second Language (TESL); Preschool Education; Physical Education; Malay Studies; Living Skills

Shanmugam A.

and Chinese Studies (2 groups). Each group comprises an average of 20 students. All trainees have obtained their bachelor degree in their respective disciplines either from a local or foreign university. During the two semesters in the college, the trainee teachers, who are targeted to teach in primary schools, have to undergo twelve weeks of practical teaching in the middle of their second semester.

METHOD

All the citations extracted from the project papers were typed onto an electronic spreadsheet to analyze citation patterns. The data was entered according to author, title, bibliographic form, year of publication, and the number of times it was cited. This data would enable the researcher to answer research questions (a), (b), (c), (d), (e) and (f). To determine the average number of citations in relation to course option (question [a]) the data was analyzed using the Statistical Product and Service Solutions (SPSS).

To determine correct usage of citation style, the following criteria were observed: (a) layout of bibliography; (b) accuracy of citation format; (c) consistency of citation style; (d) usage of capitalization and (e) usage of italics. These details were coded using SPSS and their outputs in terms of percentages were obtained to answer research question (g). To study the underlying reasons behind the trainees' citation habits, 11 respondents were purposively selected and interviewed based on a semi-structured questionnaire.

DATA ANALYSIS AND RESULTS

Citation Patterns According to Course Options

A total of 154 postgraduate 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. This amounts to an average of 5 citations per term paper. As shown in Table 1, more than 80% of the trainees 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 Education and Chinese Studies (Group 1) had avoided the use of all forms of bibliographic sources except books.

To determine the underlying reasons as to why such large numbers of student teachers failed to include a bibliography in their assignments, 11 participants were purposively selected and interviewed. When asked about the importance of bibliography in academic writings, 81% perceived it as important and admitted that they normally included a reference page in assignments during their undergraduate years. In response to the question on the purpose of a bibliography, 54% of the trainees indicated that it was to validate their study and for the lecturer's reference. A total of 25% commented that a bibliography is needed for obtaining higher marks and they would include it solely to comply with the needs of their lecturers. About 30% of the trainees confessed not attaching a bibliography list with their assignment and blamed it upon their lackadaisical attitude, to the focus of the assignment. Another 19% blamed their lecturers for not

Citation practices among trainee teachers as reflected in their project papers

emphasizing on the importance of bibliography for the 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.

Table 1: Trainees and their Citations, by Course Options.

	Course option	Mathematics	Malay Studies	Physical Education	TESL	Preschool Education	Living Skills	Chinese Studies Group1	Chinese Studies Group2	Total
Trainees in each course option	n	21	22	18	17	21	19	18	18	154
Trainees who included citations	f	11	16	9	12	3	12	15	18	96
	%	52.38	72.73	50.00	70.59	14.29	63.16	83.33	100.00	62.34
Trainees who cited books	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

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 course 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 journal and seminar papers made up less than 3% of the total sources used.

Table 2: Distribution of Citations According to Bibliographic Forms

Ranking	Bibliographic form	No. of Citations	Percentage
1	Book	379	77.51
2	Website / Internet sources	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

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 was clearly and directly presented. Of the total, 18% of the trainees felt that the information

Shanmugam A.

obtained from books was reliable. An additional 18% of the student teachers reported that their lecturers had not requested them to refer to other bibliographical sources. Only 23% of the student teachers said that their lecturers had given them a reading list for the term paper.

Though the students had been exposed to Internet search strategies in their library science lectures at the beginning of the semester, only limited web resources were cited in the trainees' project reports. Findings revealed 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 either not reliable or inaccessible from their hostel rooms. Some also reported the lack of facilities to print out articles from the Internet. Incidentally, most of the students did not have their own printers. It is interesting to note that 30% of the students agreed that the information from the Internet resources were not very accurate based on their requirement. Another 18% of the student teachers agreed that due to time constraint, they had failed to refer to other sources. The general feelings being that sources such as journals were not readily available in the college library. Furthermore, the college does not subscribe to any online journals. The reasons given by student teachers for avoiding journals and periodicals in terms of percentage are as follows: laziness (27%); reluctance to pay for the journals (27%); lots of time needed (18%); lack of familiarity with journals (9%); difficulty in understanding the journal content (9%); difficulty in accessing (9%); and the presence of irrelevant materials (9%).

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.

Chronological Distribution of Citations

Figure 1 shows the chronological distribution of citations within a 5 year intervals effective from 1965 to 2007. Out of the 486 citations, 52.66 % were from the year 2000 and above. The oldest resource cited was from the year 1965 (only 2 citations). This showed that the majority of student teachers referred to articles that were published within the last 5 years. It should be noted that of the 489 citations, 58 citations (11.86%) were incomplete in terms of year of publication. These were mostly web-based resources.

Citation practices among trainee teachers as reflected in their project papers

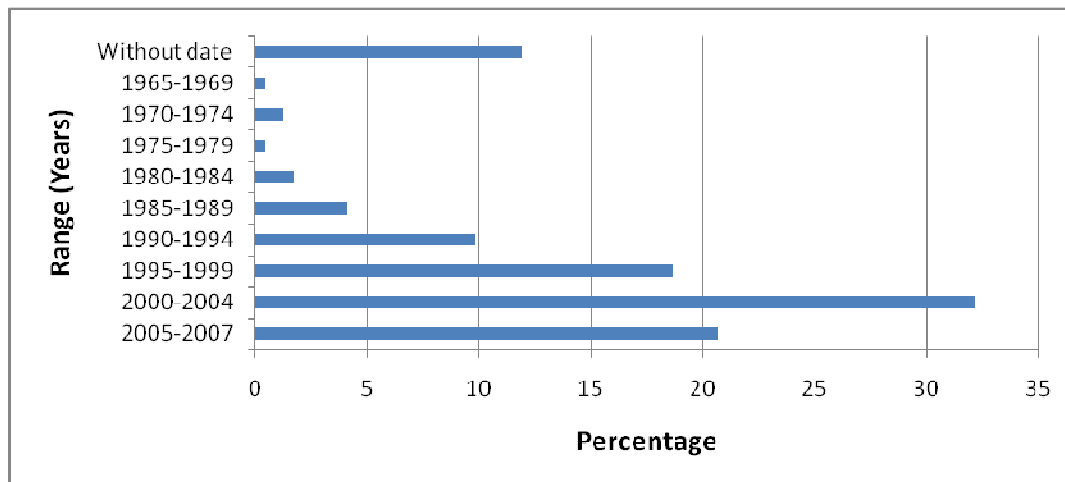


Figure 1: Chronological Distribution of Citations

Most Cited Authors and Sources

As shown in Table 3, of the 489 citations obtained, 254 (51.98%) were from 12 authors. It should be noted that 11 citations with missing authors were included in the count. The most frequently cited authors were Mok Song Sang, Ee Ah Meng and Rabir Kaur, whose works collectively accounted for a third (36.41%) of the total citations. All the authors happened to be writers of pedagogy text books. In addition, a learning module prepared by the Teacher Training Division, Ministry of Education ranked fourth in the order of importance.

Table 3: Most Cited Authors Based on Ranking

No.	Rank	Author	No. of citations	Percentage	Cumulative percentage
1	1	Mok Song Sang	75	15.34	15.34
2	2	Ee Ah Meng	59	12.07	27.41
3	3	Rabir 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 Hj. Hashim	10	2.04	44.17
7	7	Ibrahim Ahmad	8	1.64	45.81
8	8	Aziah Lebai	6	1.23	47.04
9	8	Mohd Daud Hamzah	6	1.23	48.04
10	8	Murugiah Velayutham	6	1.23	49.54
11	8	Sufean Hussin	6	1.23	50.75
12	8	Sulaiman Md. Yassin & Mohd Salleh Lebar	6	1.23	51.98

Shanmugam A.

When the student teachers were asked about their basis for author selection, they related it to their course lecturers. Their lecturers 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 considered the popularity of the author.

In order to determine and list the most prolific source cited, 10 most frequently cited sources were selected (Table 4). These 10 sources were collectively ranked as the 8 most prolific references cited. The findings revealed that 9 of the 10 sources were popular text books used by lecturers and one was a learning module prepared by the Teacher Educating Division, Ministry of Education. The book entitled “Panduan Ulangkaji Ilmu Pendidikan” (Revision Guide) authored by Rabir Kaur was the single source that accounted for a total of 44 (9%) of the total 489 citations.

When the students were asked, as to why they depended on text books, 36% of them said that the source was recommended by their lecturers and multiple copies were available in the college library. In addition, another 18% of the teacher trainees answered that the content 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 text books and there were not many of them available in the college library.

Table 4: Most Prolific Sources Cited

Rank	Author	Source	No. of citations	Percentage	Cumulative percentage
1	Rabir Kaur	Panduan Ulangkaji Ilmu Pendidikan untuk Kursus KPLI Sekolah Rendah & Menengah	44	9.00	9.00
2	Mok Song Sang	Siri Pendidikan Perguruan: Ilmu Pendidikan untuk KPLI Komponen 3	24	4.91	13.91
3	Mok Song 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 Song Sang	An Education Course for KPLI	10	2.04	24.34
7	Mok Song Sang	Siri Pendidikan: Perguruan untuk KPLI, Sekolah Menengah, Sem 1 & 2	9	1.84	26.18
8	Teacher Training Division	Ilmu Pendidikan: Pengajian Profesional Modul	8	1.64	27.82
8	Mok Song Sang	Ilmu Pendidikan untuk KPLI	8	1.64	29.46
8	Ibrahim Ahmad	Bimbingan dan Kaunseling di Sekolah Rendah	8	1.64	31.10

Language and Geographical Distribution of Sources Used

Sources of local origin in the Malay Language were highly popular among the trainees. As shown in figure 2, 83.23% of the sources used came from text written in the Malay

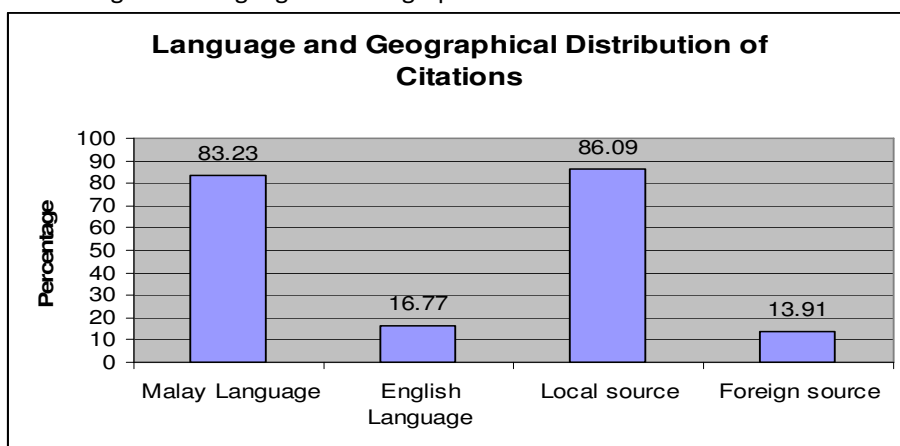
Citation practices among trainee teachers as reflected in their project papers

Language and at the same time, 86.09% were from local publications. A close scrutiny of the foreign sources used revealed that they were mainly web-based articles written in the English Language. Out of the 379 books cited, only 18 were found to be written in English. When the trainees were asked as to why there were few citations from text written in the English Language, 27% said that they were not proficient in 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.

On the other hand, 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. 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%).

Figure 2: Language and Geographical Distribution of Sources Used



Usage of Citation Style

To analyze correct usage of citation styles, the respondents' citations were first analyzed in-terms of accuracy of format. Punctuation errors were not taken into account for this study. No cross references was 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's name, 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. However, 52 (10.63 %) of the references that used the MLA format were found to be accurate. It was found that a sizeable number of trainees were confused between the two formats.

Shanmugam A.

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

There were a total of 438 citations excluding web resources. As shown in Table 5, 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 the 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. This is indicated in Table 5. The most prominent mistake was the inclusion of the title of authors (such as Dr, Prof, and Mr.) in their citations.

Table 5: Accuracy and Error Analysis of Bibliographies

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 (excluding web sources)		438	100.00

When the pre-service teachers were interviewed regarding the importance of citation accuracy, 81% said that it was important. At the same time 90% of them agreed that they had been exposed to citation formats during their undergraduate studies through various means. Only 18% related that they were exposed to citation practices by their course lecturers, while the rest said they had been given photocopies of sample citations, but the format had not been emphasized in detail. When the trainee teachers were asked whether their lecturers had given them any guidelines related to citations for the term paper, only 55% said "Yes". When probed further, the consistent response was that "the lecturers distributed some samples of citations, but had not emphasized

Citation practices among trainee teachers as reflected in their project papers

the format in detail, and students were not corrected for their mistakes". Meanwhile 54% of the trainees indicated that they did refer to text books and past years students' 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. In general, the reasons given by the student teachers for their citation errors are listed in order of importance:

- lack of emphasis on citation format by course lecturers
- assumption that content of project is more important than citation
- ignorance of citation practices
- lackluster attitude
- lack of citation practice and forgetful
- confused with too many formats
- last minute assignment
- lack of correct guidance and exposure
- having trouble to keep reference list in advance

DISCUSSION AND CONCLUSION

Citation is often considered as an important tool when assessing the quality of a research (Yu, Sullivan and Woodall 2006). Studies (Middleton 2005) have also shown that students with scholarly bibliographies are successful in obtaining higher grades in their term paper. This is despite the fact that the nature of the task happens to be the most important factor when determining the quality of the bibliography. Analyzing students citations can also depict the information searching skills employed by them (Davis 2002). Though the nature of the task given by the lecturers or teacher educators in this study warranted extensive reading, the actual findings revealed that the majority of the postgraduate student teachers (37.66%) did not include a reference list in their term paper. An obvious starting point for this trend could be due to a lack of awareness of its importance and lack of knowledge, rather than the lack of emphasis by individual lecturers who supervised them. In this matter, the onus is on the researchers who must be more ready to take responsibility for their own research rather than shift the blame on the lecturers. It is possible to observe a lackadaisical trend among trainee teachers who do not see referencing skills to be important. The task called for the inclusion of a bibliography and trainee teachers seem to ignore it, especially when this requirement was not emphasized upon by individual lecturers. A similar attitude exists when such requirements are not made into a prerequisite condition for obtaining higher grades and this trend is worrisome considering the fact that including references in academic writing happens to be a norm.

With regards to upgrading the quality of academic research within higher learning institutions, there is the need for closer scrutiny of the accuracy of citations by individual lecturers. There is also the need for greater collaboration among library staff and academics in order to ensure that students and researchers continuously remain aware of citation styles and reference procedures. In fact, there are many fine examples of collaboration in existence, and new ones are created every day. While faculty-librarian collaboration may be a relatively new educational trend, with practice and

Shanmugam A.

demonstrations of success, it can be made into a tradition (Hollander, Herbert and Stieglitz 2004).

The poor accuracy of citation styles (12.67%) is extremely disturbing especially when considering the large number of project works that did not include a reference lists. Students with lowest expectation levels have been found to commit the highest rate of citation errors (Waytowich, Onwuegbuzi and Jiao 2006) and the findings from this study showed similar trends. The results call for a formal and more deliberate emphasis on citations and references on the part of lecturers who need to realize the importance of instilling students with the culture of avoiding citations errors. Though most trainee teachers have prior exposure to citation formats during their undergraduate years, such skills are not followed through and the trainees appear to be vague over certain conventions. There seems to be a discontinuity between what they have learnt and what is being practised. It is evident that these student teachers believe that they were not scrutinized for their bibliographic errors during their undergraduate years for some courses and this belief may be carried through to the present. The lack of intrinsic motivation among trainees to refer to citation manual is far more disturbing, since a typical citation guideline can be easily downloaded from reliable websites. Previous studies have shown that penalizing students for committing bibliographical errors does not deter them adequately (Waytowich, Onwuegbuzie and Jiao 2006). It is suggested that students 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 acquired through regular monitoring and close supervision from all responsible educators and learners going on to develop the awareness within themselves.

The findings also showed over dependency on selected text books. Previous studies have reported a tendency among researchers in the field of education to depend on books and monographs (Okiy 2003). However this study revealed that a third of the total sources cited were from eight text books and half the citations were from eleven authors. Hence there is a need for lecturers to acculturate trainee teachers to look beyond their class text books when sourcing for materials. Though there is free wireless access in certain designated areas in the college grounds, trainees quoted few web-based articles (10%). The World Wide Web provides a fast and efficient means of disseminating and accessing scholarly materials and a large amount of open access resources are readily available in public domains throughout the world. Recent studies have indicated there is an increasing tendency among undergraduate student to cite Internet resources (Davis 2002). The lack of use of web resources such as from e-journals among the trainees raises questionable doubts about their undergraduate information seeking habits. The onus is perhaps on the part of lecturers who need to encourage trainees to go online and explore the freely available full-text scholarly documents. The findings also indicate a dire need for Teacher Education Institutions to subscribe to online databases. The study also revealed that 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. Lack of time was the major excuse given by the trainees for poor bibliographic performance. This may indicate lack of supervision among lecturers for a process-based term paper.

Citation practices among trainee teachers as reflected in their project papers

As students progress from their undergraduate study towards their final year dissertation, they were assumed to have acquired research skills together with high quality information and bibliographic skills. Thus it is likely that students who (a) lack referencing skills during their degree programme; or (b) are not corrected for their citations errors, are most likely to carry forward these habits into their postgraduate years. 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.

The findings from this study have implications for both the research community and teaching community. An obvious starting point would be an exploration of what constitute as 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 would deteriorate and reflect 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 the latest research material and write efficiently due to the lack of language skills. In other words, the details may not be in the lack of available resources, rather the lack of proficient language to comprehend authentic texts in the target language.

In sum, it is hoped that this study will provide impetus for further investigations into ways to enhance postgraduate 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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Shanmugam A.

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