

Writing scientific thesis/dissertation in biology field: Knowledge in reference style writing

Nahi Y. Yaseen¹, Huda Dawood Salman¹

¹ Iraqi Centre for Cancer and Medical Genetics Research, Al-Mustansiriya University

Abstract:

Thesis or dissertation writing is an important and essential task for postgraduate students that must be performed correctly through following the standard guidelines for scientific writing. Any thesis/ dissertation or articles must involve writing a reference list in the last. References must be written correctly and honestly by following one of the well accepted international reference writing style. Many reference styles have been established worldwide and every style may meet the requirement of particular discipline. However, variation in using specific style within specific discipline is usually noticed in many academic institutes. In Iraq, postgraduate students in the field of biology are supposed to use Vancouver style for reference writing in their theses/dissertations. This study hypothesized that error in reference writing may be demonstrated in those theses/dissertations as previous studies showed deterioration in writing process as general. For a period of twelve years 124 fully performed theses/dissertations were analyzed carefully for that purpose. Moreover, interview with 114 postgraduate students in biology field was performed to discuss reference writing process. The results showed that almost all students had neither any idea about types of reference writing styles nor what style they had used in their reference writing. It seems that their style tended to meet the American psychological Association style mixed with Harvard style rather than the Vancouver style. Almost all theses or dissertation revealed different reference writing styles, and even in the same thesis or dissertation or in the same single reference more than one reference writing style was noticed. Many other different errors in reference writing were noticed in every thesis or dissertation. The interview with the students confirmed the results obtained from theses and dissertation analysis, indicating the deficiency in their ability to write reference correctly.

This article gives evidences that scientific writing practices and abilities of postgraduate students do not reflect expected quality criteria. Postgraduate students severely lacked the skill and knowledge in scientific writing especially in reference writing. It is highly recommended to introduce extensive courses in their curriculum concerning scientific writing in order to improve the writing process to be scientifically well accepted level by following the standard guidelines for writing.

Key words: *thesis, dissertation, writing, reference, style.*

Introduction:

The process of writing thesis and dissertation (TD) or an article in biology or in other science disciplines is a best tool to document the findings, interpretations or conclusions of the authors or researchers to be transferred correctly to the other interesting audiences. Different styles for writing process have been suggested to meet every specific discipline needs or interests. However, researchers, using any writing style,

should use references as bases to interpret or discuss their findings. Reference citation in a text or in the reference list is of great importance (Iverson, 1998, Soles, 2005, Vintzileos and Ananth, 2010, Neville, 2012) and must be written properly following specific systemic style (American National Standards Institute, 1971, UNESCO, 1983,). Different reference writing styles have been established and used by different science fields and disciplines in order to document the researchers' findings and to preserve their rights. Many well known reference systems can be found among writing styles in different fields such as, Modern Language Association (MLA), the American Psychological Association (APA), the Chicago Manual of Style (CMS), the Vancouver system, the Harvard system, the American Medical Association (AMA) Style,

Corresponding Address:

Nahi Y. Yaseen

*Iraqi Centre for Cancer and Medical Genetics Research,
Al-Mustansiriya University*

Email: nahiyaseen@yahoo.com

the American Chemical Society (ACS) Style, the American Institute of Physics (AIP) Style, the American Political Science Association (APSA) Style, the Institute of Electrical and Electronics Engineers (IEEE) Style, the Turabian style, the Modern Humanities Research Association (MHRA) style, Oxford system, and others. Even in the latest computer Microsoft Office many reference style are fixed under the references title including Chicago, APA, MLA, Turabian, International Organization for Standardization (ISO 690), Gost (Russian), Standards for Information of Science and Technology (SIST02) (Japan), and GB7714 (China) styles to facilitate listing of references in the document. Although the styles are different in their application, the basic information is usually the same. It is important to ensure that references are included in all the right places in an article, and acknowledge sincere indebtedness to others for ideas and facts. It is essential to know that consistency is required when using specific reference writing style in writing an article; the same style of citation throughout each piece of work must be maintained. However, the most reference systems used in biology fields are Vancouver, APA, and Harvard systems (Akyol, 2008). Surprisingly, very few research articles published about reference style writing process and their relation to various disciplines (Pecorari, 2008. Neville, 2007, 2012) while most guidelines for reference writing styles were published either in academic or journal websites or as a booklet published by academic institutes or in a textbook (De Montfort University, 2009, Central Queensland University, 2007, American Psychological Association, UCD library, 2011, American Psychological Association, 2010, Monash University, 2007, Commonwealth of Australia, 2000, Birmingham City University, 2010, Turabian, 2007, 2010).

Scientific articles or TDs must document the citation and reference writing process correctly, honestly and credibility (Pecorari, 2008. Neville, 2007, 2012) because this process is very necessary and important for a number of reasons.:

- 1- To give clear idea about the ability of the researcher to collect and present information from other sources.
- 2- To give clear picture about the identity of the writer through manifestation the depth and scope extent of the researcher readings, investigation, education and knowledge into a specific topic.
- 3- To give readers a quick guide for reference address and location through making easy access to get the original source of data so they can consult it when they need.
- 4- To classify the information from many references in to groups according to their coincidence or not. This will offer good impression and weight to any academic discussions that have been performed on specific field..
- 5- To give a proper idea about the findings and knowledge of the work of others to establish links across knowledge.
- 6- Making separation between author's idea and others work.
- 7- To attribute a specific data to the authors who reported them.
- 8- To preserve the right of authors who firstly reported the documented data.
- 9- To establish the honesty, credibility and good manners to

others who will write articles to follow acceptable right principles and behave well through reservation the right of others. 10- To avoid and prevent plagiarism of someone else's work.

11- To offer good tool to for reader to trace the line of research of other researchers.

12- To provide a good start for any researcher to study the wanted subject through using any reference to open wide gate for further related references in the same subject.

13- To offer a reasonable tool to measure the importance and value of specific subject through the number of references about that subject and through the heavy of authors' names.

14- To reflect the morals, honesty, credibility, trust, and behaviours of researchers as they deserve to build up the civilization.

Unfortunately there is no standard unique style used among academic institutes or universities in the world. Some countries try to use specific styles and in even in the same country each discipline uses specific reference style differ from the others (Cronin, 1981, Angéilil-Carter, 2000). This difference can be found when comparison done between humanitarian and pure science disciplines; requirements of each discipline sometimes impose using specific style for reference writing. However, there is no universally adopted reference style for all academic writing.

Vancouver system is usually used in most medical and biological sciences articles or TDs. This system is also called as author-number system. It was adopted for the first time in Canada, Vancouver in 1978 when a group of editors met informally in Vancouver, British Columbia, in 1978 to establish guidelines for their journals. The group became known as the Vancouver Group. This group expanded to join the International Committee of Medical Journal Editors (ICMJE) (Uniform requirements for manuscripts submitted to biomedical journals. International Committee of Medical Journal Editors, 1991; Uniform requirements for manuscripts submitted to biomedical journals. International Committee of Medical Journal Editors. 1995; Uniform requirements for manuscripts submitted to biomedical journals. International Committee of Medical Journal Editors. 1997; International Committee of Medical Journal Editors (ICMJE). Uniform Requirements for Manuscripts Submitted to Biomedical Journals: writing and editing for biomedical publication, 2004). However, many versions for Vancouver style have been developed in many Universities and scientific journals (Citing & Reference Guide: BMJ Vancouver Style, 2009). According to the International Committee of Medical Journal Editors (ICMJE) (2003) the main instructions of Vancouver system are:-

- 1- The reference list should appear at the end of TDs or article with the entries listed numerically and in the same order that they were cited in the text.
- 2- References appear in the order in which they have been appeared in the text and Arabic numerals with parenthesis (brackets).
- 3- It is very important to use the right punctuation and that the order of details in the reference is also correct.
- 4- No use of & between author names.

5- Book and journal titles are not italicised or placed in quotation marks. However BMJ Vancouver style uses italic font for book and journal title (Citing & Reference Guide: BMJ Vancouver Style, 2009).

6- Abbreviate page numbers to a letter (p). eg p. 12-25.

7- Only first words of the article title and words that normally begin with a capital letter are capitalised.

8- Journal titles are abbreviated.

9- More than 6 authors, first 3 authors are listed; thereafter an et al. is added after the third author.

10- If the journal has continuous page numbering, month/issue number will be omitted.

11- Superscript reference number is placed after commas and full stops and before colons and semi-colons – unless the superscript is attached to authors name or title of book/database – then always before punctuation.

12- If the reference number is connected to a year or number, a space between the number and the reference number is placed for clarity.

Writing a reference in bibliography list in a scientific journal by using Vancouver style can be done as follow:-

Author

Title of journal article

Title of journal (this should be in italics)

Year (and month) of publication

Volume number

Issue number

Page numbers of the article

Example:

Yaseen N, Salman HD. Colon Cancer: Prevalence and Control. *Iraq J ca. Med. Genet.* 2005 Apr; 2(4):89-97.

The reference when it is a book, written as follow:-

Author/Editor (if it is an editor/editors always put (ed./eds.) after the name)

Title (this should be in italics)

Series title and number (if part of a series)

Edition (if not the first edition)

Place of publication (if there is more than one place listed, use the first named)

Publisher

Year of publication

Example

Yaseen NY, Salman HD. *Writing Scientific Paper.* 2nd ed. Baghdad: Green Land; 2010.

For more information the reader is advised to read many documents about references styles released by Universities of journals.

Postgraduate students in the field of biological sciences in Iraq are supposed to use Vancouver style in their reference writing when they write their TDs or articles. In Iraq the Ministry of Higher Education and Scientific Research (MHESR) has issued specific guidelines for research article and TDS writing process and imposed all Universities and institute to restrictedly follow them. However, it seems that these guidelines have been forgotten gradually that made many academic staffs, who supervised postgraduate students or who per re-

viewed scientific article, complain such problem. This problem has been explored as a main problem facing students elsewhere when they deal with reference writing (Abasi et al., 2006, Pecorari, 2008). Preliminary study on these TDs showed that frustrating writing errors can be found in almost all of them (Salman, 2009). This study suggests that this problem extends to involve reference writing within TDS of postgraduate students. No such studies have performed for this purpose yet particularly in the biology fields. Therefore this study was designed to show the accuracy of using reference writing style in TDs in biology through TDs analysis and interviewing postgraduate students.

Methods:

Theses/dissertation study

Reference writing process was carefully studied in 124 TDs in the field of biology which include medicine, biological sciences, veterinary medicine, pharmacy, dentistry, agriculture and other minor related branches. The study was conducted on TDs performed in Iraqi Centre for Cancer and Medical Genetics Research (ICCMGR) for a period of twelve years (2001-2012). All those TDs were written under the supervision of different academic staff from different Colleges and from different Universities in collaboration with ICCMGR researchers. Every reference list in each TD was matched to the standard guidelines for reference style. Because Vancouver style was supposed to be followed by those students the matching process focused mainly on this style with attention to other styles if they were used.

Interview Study

Interview was carried out with 114 postgraduate students (Master and Doctor of Philosophy) from different biology fields as mentioned above. All those students agreed to do that interview. The questions that were requested to be answered by the students were:-

- 1- Have you any idea about reference writing styles in TDs or article?
- 2- Did you know an idea about reference style in your TDs?
- 3- Have you ever read about the guidelines of reference writing in your TDs?
- 4- Were you obliged to use specific style?
- 5- What were the principles you used to write references?

Results:

The results from this study were as following TDs studying

Investigation the style of reference writing in 124 TDs revealed that all references lists were written in a way compatible neither with Vancouver style nor with other known reference style. No reference writing consistency noticed in any TD in which even in the same TD different forms of reference writ-

ing could be well identified. Most of references listing in most TDs tended to be more compatible with APA or Harvard style. Moreover, the results revealed that references were listed in alphabetical order in the list of references at the end of 121 TDs while only three TDs showed that references were listed numerically and in the same order that they were cited in the text; that is also refers to be more meet with APA or Harvard style. Deep investigations were performed in this study in order to classify the major mistakes in reference writing. However in some cases TDs showed mixed complicated mistakes that cannot be counted or arranged. Therefore the most prominent mistakes can be listed as follows:-

Journal reference

1- Year of publication was found immediately after authors name in 92 TDs , among them 63 TDs showed the year between two brackets while 29 TDs showed them without brackets. In the remaining 32 TDs the publication year was found after journal name, 22 of them showed the year between two brackets while the other 10 TDs showed them without.

2- Author names, surname followed by comma then initials, were written properly in 79 TDs. However, 21 TDs showed full names written instead of initials after surname, whereas 12 TDs showed first name instead of surname and the surname was written as initial. In three TDs the references started with initials followed by surname, while the other nine TDS exhibited mixed no consistent author name writing.

3- All TDs revealed proper subject title position that followed authors' names. However 96 of them showed that titles started with capital letter only and other words were with small letters, while the remaining 28 TDs used capitalization for ever first letter of all title words.

4- Journal title was written after subject title in all 124 TDs but 106 of them revealed that the journals were written in abbreviation and the remaining 18 were written in full words.

5- The journal volume was documented after journal title in all TDs but not immediately after the title. In 42 TDs, the year of publication was written after journal title then the volume number was fixed, while in 82TDs the volume number was written immediately after journal title. The font of volume number was bold in 69 TDs while it was normal in the remaining TDs. In 21TDs, the students wrote the word volume abbreviation (vol.) before volume number while in the remaining 121 TDs it was just a number. Fewer (24) TDs used italic font for volume number, some of them was with bold letters and some were with normal.

6- Journals usually published in volumes and each volume released with many journal issue numbers. In this study not all TDs mentioned the number of the journal issue, and even in the same TD the student sometimes wrote the number and sometimes not. Therefore it is difficult to count the right TDs numbers that possess the journal number or not.

7- Page numbers were reported in all TDs, in 101Ts the students frequently wrote all page numbers i.e. the first page of the article followed by dash then the last page (first-last page). The remaining TDs showed frequently the first page of the

article. However, both former cases were sometimes noticed in the same TD in 119 TDs.

8- Concerning the punctuation, comma (parenthesis) and dot (full stop or period) that might be printed to separate the words or phrases in a reference, all TDs showed wrong pattern of using them. It is difficult to count and arrange these mistakes in a way that separated conclusion cannot be obtained. Even in the same TD different forms of using commas or dots were used.

9- Italic font for journal title was noticed in 74 TDs and the remaining 50TDs revealed non italic fonts, two of them showed underlined journal title instead of italic font. Italic font was used to write subject title in some references but not all in 12 TDS. As mentioned above even in the same TD, subject title sometimes written with italic and sometime with normal font.

10- Some TDs exhibited even the Digital Objective Identification (DOI) of the article that should be from the paper published journal not from electronic one. In another hand some TDs fixed even the month of publication for specific journal. These cases were noticed in some references in the list of bibliography but not in all. In few references in some TDs strange words could be seen refers to website or other internet symbol that have not by anyway link with the reference writing style.

Books references

Book writing as a reference in the reference list in the present study revealed marked complicated mistakes. No consistent writing style could be noticed in all TDs regarding the author (s) name writing, position of publication years, page number, publishers, city or country of publication, edition number, commas or dots using and other punctuation tools. Absence of consistency was clearly noticed even in the same TD. More than one reference style can be seen even in a single reference. Therefore it is so difficult to classify and arrange the results to illustrate all these mistakes. Furthermore, differentiation between editors and authors of a book was most prominent error appeared in most TDs.

References in the text

Studying writing style of references within the text of TDs revealed that author's name-year style was noticed in 121 TDs and only three TDs showed that the references were listed numerically. Wrong punctuation within a reference was detected frequently in most TDS such as using of commas or semicolon within a single reference or between different references in the same place. The most obvious error was detected in the et al writing, it was noticed that in 56 TDs the students put dot between et and al, while 37 TDs showed no punctuation between et al and the year. Punctuation between different references in a parenthesis showed different forms, in 102 TDs the students used mainly commas while 22 TDs exhibited semicolons; however in some of TDs both comma and semicolon were used between references in a parenthesis.

Interview Result

Consistent results were obtained from the 114 postgraduate students who involved in the interview. Their answer can be

summarized as follow:-

- 1- All students showed their lack of knowledge about reference writing styles. No one of them was able to count even three styles, and very few of them referred to Vancouver style with no idea about this style, just a name.
- 2- Most of students (106) did not have an idea about reference style in their TDs while eight students just mentioned the name of style.
- 3- All students confessed that they hadn't read anything about reference writing guidelines.
- 4- All students mentioned that they weren't obliged by their supervisors or administration authorities to write specific reference style in their TDS.
- 5- All students announced that they wrote references in their TDS according to what was written in the previous TDS of other graduated postgraduate students. Few students confessed that they used copy past feature of some references from other electronic or website sources to write some of their references as they were regardless of their style.

Discussion:

This study was originally conducted to demonstrate mainly the ability and knowledge of Iraqi postgraduate students, in biology field, only in references writing in their TDs but not in using entire requirements for a specific system to write other parts of TDs. The study focused mainly on the accuracy of using specific reference writing style in these TDs and on general details of reference writing errors. If this study was going for analyse every fine error, this would lead to use complicated statistical methods that need further deep studies. Therefore this study was limited to illustrate only the main features of using reference writing style in those TDs. Recent advances in electronic journals and internet sources have formed new needs to be used by specific reference styles; however, these entries were not included in this study because they need further study.

Generally the present study revealed that postgraduate students complain sever defect in their ability and knowledge in writing the reference in their TDs. Both TDs' investigation and student interview clearly gave disappoint result about the way of reference writing inside the text and in the reference list at the end of the TDs. The results showed obviously that postgraduate students did not pay attention for writing style at all where the process of research writing is so important to the extent that research in writing and communication has been strongly demanded and proposed to be focused on (Miller and McCardle, 2011). That was very clear when every single TD showed inconsistency in using a specific reference system. For sake of fairness and not put the blaming on students only, It is important to mention that increasing of referencing writing styles that have been used in academic institutions may cause high confusion for the students in write consistent proper style (Neville, 2012).

All students should use Vancouver system as they said that

and their supervisors confirmed that. However, concerning the reference from the journals, all TDs showed that students although they haven't any idea about reference style writing, they tended to use APA mixed with Harvard style in both reference list and in referring to the reference in the text and that was noticed in 121 of 124 TDs. In Vancouver system, the referring to the reference is represented by Arabic number whereas the result revealed that almost in all TD the reference was printed as surname and year and this is the feature of APA and Harvard styles rather Vancouver style. In reference list most references year was written after the author(s) name immediately some with parenthesis and some didn't. Furthermore, author(s) name started with surname in most TDs but most of them put dot between initials. These forms of writing again meet with APA style rather than Vancouver style.

Capitalization of the first letter of article title words in most references in most TDs were found randomly and inconsistently written. Most (106) TDs showed capitalization of the first word of the article title but in some of them it was inconsistent in which, in addition to that, sometimes the same TDs showed capitalization of the first letter of every word in the title in some references as well. Fewer (18) TDs showed capitalization of the first letter of every word of article title. Therefore the results revealed that most students again have a tendency to use reference writing style other than Vancouver; it seems more likely go with APA style. The APA style guidelines recommend using sentence-style capitalization for the titles of books or articles, therefore capitalization should involve only the first word of a title and subtitle. The exceptions to this rule would be periodical titles and proper names in a title which should be always capitalized.

The journal volume in 82 TDs was located immediately after article title while in the remaining TDs the year of publication was fixed prior to volume number. Some other features of volume number writings were identified as well, such as bold letter, using italic font and presence of the word (vol) before volume number. These features were written inconsistently among all TDs and even in the same TD. Some versions of Vancouver system specify using italics for the volume number and some not while the in APS it is italicized.

Abbreviation of journal title in most of TDs and only 28 TDs reported journal title in full words. Although Vancouver system recommends using abbreviated journal title, the other styles such as APA style specifies using that as well. Giving that this study was not concerned with journal title abbreviation but it is interesting to mention that most students randomly wrote the abbreviation without went back for the international guidelines for this reason. Even in the same TD the student sometime wrote the full journal title and sometimes wrote its abbreviation. It is most likely that the students didn't have any idea about the system they use, they just accidentally wrote the abbreviation for journal title because it is easier to do that. This was clearly shown in how they abbreviated journal titles; different styles of abbreviation for the same journal could be detected in most TDs and even in the same TD. Although a list of abbreviations for the journal titles is available

online at either List of Journals in Medline with abbreviations or Medical Journal Abbreviations (Internationally recognized abbreviations for journal titles), the students had no interest to go through these website to have an idea about abbreviation rather they went quickly through website to copy desired data to be pasted as it is in their TDs.

Variation in writing issue number for journals was obviously shown in most TDs and even in the same TD. Almost in every TD the results showed that the students sometimes mentioned the issue number after the volume number and sometimes not. This indicates clearly that using copy past feature from different sources plays a big role in the appearance of such errors in TDs. Furthermore, the students proved they were unaware of reference writing style in one hand and they didn't pay any attention or efforts to modulate reference writing according to the style they suppose to be used. This matter was noticed in page number writing as well; although most students wrote full page number in the references, all these TDs and even the same TD showed both references the full page number and with only first page number. Almost all reference writing styles recommend to use first-last page number of an article but sometimes for unknown reason many published articles in international journal hold only the first page number when they are used as a reference.

The punctuation was so badly written in all TDs that no explainable results could be concluded from them. The positions of commas, dots, semicolons and colons were mostly wrongly used or in some cases the punctuation was not found. Moreover, results from interview analysis concerning this task uncovered the real situation of students' knowledge in this field, most students were not able to distinguish between many punctuation tools.

Every TD showed other different reference writing errors which cannot be classified and tabulated in groups such as some TDs fixed DOI, ISBN (International system for book numeration), and some other symbols usually appeared in electronic journal or books. Availability of recent computer program copy past feature has made the student to take easier method to transfer or copy references from different sources to their TDs regardless of the style of reference used in these sources. It seems that most students if not all haven't tried to revise the validity of these reference style for their TDs style and they even didn't try to remove the extra not used data that may be found in electronic internet sources. This study although doesn't interest in the scientific data of those TDs, copy-past feature was noticed frequently even in writing the review of literature chapter, students copied many paragraphs from other sources and pated them as they are in their TDs without any modification. This problem may need further extended studies to measure the extent of this phenomenon.

Writing the books as references in the references list revealed so complicated results that could not be analysed or organized. The findings showed every TD had errors in writing the book as a reference to a level that more than one reference style can be seen simultaneously in one reference. It is obvious that students either wrote these references randomly or more likely

they rely to copy them from different TDs, journals, books or other sources without any attempt to unify writing style.

Further lack of knowledge in reference style writing was detected inside the text of the TDs. Almost all TDs used author-year style as reference rather than listed numerically indicating that the student tended to use APA style instead of Vancouver style. Punctuation between different references and with et al was found wrongly written as well giving an impression that the students couldn't distinguish between comma, semicolon and dots. Although papers in conference proceedings as a reference were very few in all TDs, all students wrote them in different styles; most students copied the reference from other source and pasted as it was without any concern to the style they used. While other students reported the papers in conference in a way that cannot be matched with any acceptable reference style.

As mentioned above this study obviously uncovers the disappointing impression about the level of reference writing styles. The interview with students strengthened this conclusion because the students clearly complain their knowledge lack in reference writing styles. The interview gave answer for the deterioration of students' level in writing scientific article or TD. Almost all students wrote their reference by using two sources, either they mimic what was written in published TDs of previous postgraduate students or they used copy-past feature from online electronic journals, book or other sources. This was confirmed by many students during interview and during their TD examination discussion. This result uncovers that postgraduate students don't have even little knowledge about the meaning, ethical consequences and riskiness of plagiarism where every researchers or scientist must consider plagiarism as prohibited immoral matter (Lester, 1995, Neville, 2012). This matter can be markedly avoided if those students are informed correctly how to deal with references writing process.

Some students announced that some postgraduate administration authorities oblige them to follow what was written in previous TDs even they were not properly written instead of advice them to adopt accepted international guidelines for reference writing. This indicates that most academic institutions focused on technical requirements for TDs rather than on underpinning guidelines for reference and other parts of TD writing (Neville, 2012). Surprisingly, the most important announcement of students was their illiteracy in types of reference writing styles, almost all students confessed that they had no any idea about reference writing styles even they sometimes hardly were able to pronounce Vancouver system. Further announcement appeared from these students revealed that most students considered the reference list writing process was not as important as other parts of their TDs therefore they didn't show high concern with reference writing because they didn't have any opinion about reference style. Such writing patterns will definitely lead to deterioration of scientific writing level (Roland, 2009) which reflects wrong impression about Iraqi postgraduate students although they are so active and hard workers. Reference writing problem may extend to involve some local scientific journal in the field of biology,

those journals sometimes do not revise reference style in the articles so different reference writing style can be noticed in the same journal; this needs further study.

This article gives evidences that scientific writing practices of postgraduate students do not reflect expected quality criteria. It seems that students' writing and communication practices are very often in total contradiction with the norms and standards the scientific community has established. The present result clearly indicates that most postgraduate students have no any idea about the importance and philosophy of reference writing; they write the reference within their TDs just to fulfill the requirements of writing the TD to obtain the required degree rather than to perceive that reference write may express

the authorship ability of students. Deficiency in TD writing ability reaches a level that each University possesses specific instructions for writing process. Marked differences in writing style can be seen also among faculties in the same University and even in the departments of the same faculty and sometimes between researchers in the same departments. Unless students can improve their writing skill and guarantee quality and integrity of the sources, the level of scientific writing will be threatened and deteriorated. All academic institutes are invited to perceive this problem deeply and advised to involve obligatory courses in the field writing style in postgraduate curriculum in order to obtain scientifically correct writing for TDs or articles.

References:

1. Abasi ,A.R., Akbari, N., Graves, B.(2006) Discourse appropriation, construction of identities, and the complex issue of plagiarism: ESL students writing in graduate school. *J.Second Lang. Writ.* 15:102–117.
2. Akyol, A. (2008). How to write a paper for publication. *Intern. J. Hum. Sc.* [Online]. 5:1-9. Available: <http://www.insanbilimleri.com>
3. American National Standards Institute. (1971). American national standards for writing abstracts. New York: Author.
4. American Psychological Association. (2010). *The Publication Manual of the American Psychological Association* (6th ed.). Washington, DC: American Psychological Association.
5. Angéilil-Carter, S. (2000). *Stolen language? Plagiarism in writing*. Harlow: Pearson education.
6. Birmingham City University.(2010)., How to Write References. Library and Learning Resources, <http://library.bcu.ac.uk>
7. Central Queensland University. (2007). Harvard (author-date) referencing guide. Division of Teaching & Learning Services, Rockhampton, Queensland. Australia.
8. Citing & Reference Guide. (2009). BMJ Vancouver Style. www.imperial.ac.uk/library , www.southampton.ac.uk/library
9. Commonwealth of Australia. (2000). *Style manual for authors, editors and printers*, 6th edn., prepared by Snooks & Co., John Wiley & Sons, Brisbane.
10. Cronin, B.(1981). Agreement and divergence on referencing practice. *J. Inf. Sci.*3:27-84.
11. De Montfort University. (2009). *The Harvard system guide of referencing*. www.library.dmu.ac.uk
12. International Committee of Medical Journal Editors (IC-MJE). (2003). *Uniform Requirements for Manuscripts Submitted to Biomedical Journals: Writing and editing for biomedical publication* [document on the Internet]. IC-MJE; <http://www.icmje.org/>
13. International Committee of Medical Journal Editors (IC-MJE) .(2004). *Uniform Requirements for Manuscripts Submitted to Biomedical Journals: writing and editing for biomedical publication*. *haematologica* 89:264.
14. Iverson, C., Flanagan, A., Fontanarose, P.B., Glass, R.M., Glitman, P., Lantz, J.C., Meyer, H.S., Smith, J.M., Winker, M.A., & Young, R.K. (1998). *American Medical Association manual of style: A guide for authors and editors* (9th ed.). Chicago: Williams and Wilkins.
15. Lester, J.D. (1995). *Writing research papers: A complete guid.* 7th edition, , New York, Harper Collins College Publisher.
16. Miller,B., McCardle,P. (2011). Reflections on the need for continued research on writing. *Read Writ.* 24:121–132.
17. Monash University. (2007). *A guide to referencing styles*. www.monash.edu.au/lls/llonline/quickrefs/
18. Neville, C. (2007). *The complete guide to referencing and avoiding plagiarism*. Maidenhead: Open University Press.
19. Neville, C. (2012). *Referencing: Principles, Practice and Problems*. *RGUHS J. Pharm. Sci.* 2:1-8.
20. Pecorari, D.(2008). *Academic Writing and Plagiarism: a Linguistic Analysis*. London: Continuum.
21. Roland, M.C. (2009).Quality and integrity in scientific writing: prerequisites for quality in science communication, *J.com.* 8:A04.
22. Salman,H.D (2009). *An analysis of certain English linguistic errors committed in written theses/dissertations in the field of biology*. M.A. thesis, College of languages, Baghdad University.
23. Soles, D. (2005). *The academic essay. How to plan, draft, write and revise*. 2nd ed. UK, Blackerville Press Ltd.
24. Turabian, K. L. (2007). *A Manual for Writers of Term Papers, Theses, and Dissertations*. 7th ed. Chicago: University of Chicago Press.

25. Turabian, K.L.(2010). Student's Guide to Writing College Papers. 4th ed. Chicago: University of Chicago Press.
26. UCD library, Dublin. (2011). Chicago Referencing Style. MLA Referencing Style. www.UCD.ie/library.
27. UNESCO (1983). Guide for the preparation of scientific papers for publication. Paris, May, PGI-83/WS/10.
28. Uniform requirements for manuscripts submitted to bio-medical journals:
29. International Committee of Medical Journal Editors. (1997). Ann. Intern. Med. 126:36-47.
30. Uniform requirements for manuscripts submitted to bio-medical journals:
31. International Committee of Medical Journal Editors. (1991). BMJ 302:338-41.
32. Uniform requirements for manuscripts submitted to bio-medical journals: International Committee of Medical Journal Editors.(1994). Can. Med. Assoc. J. 150 :147-154
33. Vintzileos, A.M., Ananth, C.V.(2010). How to write and publish an original research article. Am J Obstet Gynecol 202:344-346.

كتابة الاطاريح والرسائل العلمية في حقل علوم الحياة: معرفة كتابة انظمة المصادر

ناهي يوسف ياسين¹، هدى داود سلمان¹

¹ المركز العراقي لبحوث السرطان والوراثة الطبية/ الجامعة المستنصرية

الخلاصة:

عملية كتابة الاطاريح والرسائل مهمة واساسية لطلبة الدراسات العليا يجب ادائها بشكل صحيح باتباع التعليمات القياسية للكتابة العلمية. لا بد لأي رسالة او اطروحة او مقال علمي ان تشمل كتابة قائمة بالمصادر في النهاية. يجب ان تتم كتابة المصادر بشكل صحيح وبامانة باتباع الانظمة العالمية المقبولة لكتابة المصادر. هناك عدة انظمة عالمية تم اخالها لكتابة المصادر وكل نظام يلبي متطلبات اختصاص معين. وبالرغم من ذلك فانه تم ملاحظة حدوث تباين في استخدام نظام محدد ضمن الاختصاص الواحد في عدة مؤسسات اكااديمية. من المفترض ان يستخدم طلبة الدراسات العليا لتخصص علوم الحياة في العراق نظام فانكوفر لكتابة المصادر في اطاريحهم او رسائلهم الجامعية. تفترض هذه الدراسة امكانية وجود اخطاء في كتابة المصادر لديهم لان الدراسات السابقة لتلك الاطاريح او الرسائل وجدت ترددي في عملية الكتابة بشكل عام. تم دراسة 124 اطروحة ورسالة جامعية بعناية المنجزة خلال فترة 12 سنة لهذا الغرض. فضلا عن ذلك تم اجراء مقابلة مع 114 طالب دراسات عليا في علوم الحياة لمناقشة عملية كتابة المصادر. كشفت النتائج انه على الاكثر كل الطلبة ليست لديهم اي فكرة حول انواع انظمة كتابة المصادر وعن ما استخدموه من انظمة في كتابة المصادر في اطاريحهم او رسائلهم. يبدو ان معظم الطلبة كانوا يميلون لاستخدام نظام الجمعية النفسية الامريكية بالتداخل مع نظام هارفارد اكثر من ميلوهم لاستخدام نظام فانكوفر. كل الاطاريح والرسائل كشفت عن استخدام انظمة مختلفة لكتابة المصادر، وحتى في نفس الاطروحة او الرسالة يمكن ملاحظة اكثر من نظام لكتابة المصادر وحتى في نفس المصدر الواحد. فضلا عن ذلك تم ملاحظة العديد من الاخطاء المتنوعة الاخرى في كتابة المصادر. اكدت المقابلة مع الطلبة نتائج دراسة الاطاريح والرسائل مشيرة الى وجود نقص كبير في قابلية الطلبة على كتابة المصادر بشكل صحيح. اعطت هذه الدراسة دلائل على ان قابلية وخبرة طلبة الدراسات العليا في الكتابة العلمية لا تتفق مع معايير الجودة المتوقعة. فالطلبة يعانون كثيرا من نقص في معرفة وهارة الكتابة العلمية خصوصا في كتابة المصادر. وعليه فانه ينصح بادخال دروس مكثفة ضمن المناهج تتعلق بالكتابة العلمية من اجل تحسين عملية الكتابة لتكون اكثر مقبولة علميا متبعة الاسس المبادئ القياسية العالمية للكتابة.