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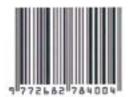*APB, UITM KEDAH*

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FREE ONLINE CITATION GENERATORS: WHICH SHOULD UNDERGRADUATES USE WITH CONFIDENCE?

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ABSTRACT

With the introduction of research management software, most academic libraries recommend programs such as EndNote or Mendeley but undergraduates may not want to use these products if they need to document only a limited number of sources. In such cases, they may take advantage of the numerous free online citation generators such as Citation Machine, EasyBib and CiteFast. However, these programs are not always accurate. Therefore, students who are unfamiliar with the referencing style required by their course may be unable to detect errors in the generated references. This paper reports the author's search for a free, reliable and easy-to-use citation generator to recommend to her first-year undergraduate students. Three free citation builders, ZoteroBib, CiteMaker and Cite This For Me, were evaluated using actual sources used by students. It was found that the most frequent problem for all three programs was formatting citations such as capitalisation, punctuation and indentation. Although results showed that ZoteroBib outperformed the other two, it was still not perfect. Thus, it is imperative to remind students to check the generated citations carefully and correct any errors. The availability of citation generators certainly does not replace the necessity of learning to prepare citations manually.

1. Introduction

The importance of academic writing to undergraduates is an undeniable fact. To succeed academically, they must have the skill to not only effectively use sources but also cite

them correctly (Greer & McCann, 2018). According to Faunce and Soames Job (2001), as the credibility of authors will be questioned if their citations are incorrect, it is very essential to ensure all citations are accurate. Serenko et al. (2021) noted that in every discipline, it is common to find problems with citations. They stressed that "problematic citations are a symptom of poor scholarly research practices that can devalue the paper, thus raising questions about the reliability, validity and ethical conduct of the entire research project" (p. 1315).

Research has shown that when writing their research papers, students often find the task of documenting sources daunting and frustrating (Antonijević, & Cahoy, 2014; Stevens, 2016). A study involving 135 faculty members who mainly taught undergraduate courses at a teaching-oriented institution in the United States reported that the dominant concern of the respondents was their students' problems with citing and referencing (Mandernach et al., 2016).

The difficulty students face in creating references is well-established (Blicblau et al., 2016; Stevens, 2016). As early-career students usually struggle with the when and how of documenting sources using a particular style such as APA, MLA, Chicago, IEEE or Vancouver, citation tools such as reference management software (RMS) and citation generators (CGs) have been developed to help with citing and referencing various sources. With the availability of these citation tools, university libraries will normally have a site licence for the use of RMS such as EndNote and RefWorks.

A survey of the library websites of the 2022 top ten universities according to the THE World University Rankings revealed that EndNote, Mendeley and Zotero are the most widely recommended RMS. Only one university library suggested a CG, Cite This For Me (refer to Appendix 1). In Malaysia, the result of a quick survey of the twenty public university library websites similarly found that EndNote and Mendeley are the commonly recommended RMS while only two academic libraries suggest the use of CGs (see Appendix 2).

Which citation tool is used depends on the needs of the users. In a recent case study analysis of ten social sciences faculty members in the United States and Canada, it was found that faculty utilised RMS such as EndNote, Zotero and Mendeley for information management, knowledge management and scholarly communication (Ince et al., 2022). In their earlier study of eight doctoral students in the US and a European university, Ince et al. (2020) reported that the participants also used those three RMS but they required additional help with citation management. However, some stopped using the RMS due to the time needed to familiarise themselves with the software. In contrast, in a study of fourteen graduates and faculty, Rempel and Mellinger (2015) found that the participants used RMS as they deemed the effort to learn the usage of the software was worth it.

According to Penn State University Libraries (2021), while RMS are suitable for researchers, academics and students working on larger projects, CGs would better serve the needs of undergraduates who refer to only a handful of sources for a short paper. Stevens (2016) in her research on strategies to teach students to cite sources correctly concurs, noting that the steep learning curve of RMS may not be suitable for lower division undergraduates needing to cite three to five sources. Similarly, Brander et al. (2019) also opined that the most likely users of CGs were students studying in shorter programmes for certificates, advanced certificates and apprenticeship programmes. In their research on the likelihood of undergraduates using their university's RefWorks licence or the campus version of EasyBib, Salem and Fehrmann (2013) determined that the students did not adopt the RMS because their immediate needs were not complex enough to warrant the use of the program.

The foreign and Malaysian academic library website surveys mentioned above indicate that students who do not require the use of RMS will have to self-select a suitable CG to help with citing and referencing their sources. Would these students know which tool is the best? As the references submitted by the author's first-year undergraduate students from a Malaysian public university were riddled with errors, she thought that with the wide availability of citation generators nowadays, perhaps a suitable citation builder should be recommended to her future students.

Which free online CG is not only convenient but reliable or accurate enough to be used with confidence by undergraduates? In an attempt to find the answer to this question, the author conducted a small-scale study to assess the suitability of three free online CGs: ZoteroBib, CiteMaker and Cite This For Me.

2.   Literature Review

Literature on citation tools (RMS and CGs) include reviews, comparisons, and evaluations. Childress (2011) suggested that RMS would be suitable for graduates and faculty members who have to collect, organize and share citations or bibliographies for collaborative projects or research. However, according to her, for undergraduate students writing short papers with the need to cite only a few sources, CGs would be preferable as such tools are quick and convenient to use compared to a RMS which requires them to invest some time due to a steeper learning curve. Even graduates face difficulty in learning to use RMS. In a study involving graduate students, Speare (2018) reported that graduate users of RMS cited one of their main problems was inaccurate citations and a steep learning curve.

In 2010, Cooke, the editor of the Internet Resources column *of Public Services Quarterly* reviewed a collection of RMS, namely Zotero, Endnote, RefWorks, Mendeley and CiteULike, and CGs such as BibMe, NoodleBib and OttoBib. Butros and Taylor (2010) also reviewed and compared EndNote, RefWorks, Mendeley and Zotero. They concluded that instead of using subscription-based RMS, the alternative products would be Mendeley and Zotero.

A study by Gilmour and Cobus-Kuo (2011) who compared four RMS, namely RefWorks, Zotero, Mendeley and CiteULike revealed that in terms of citation accuracy, RefWorks was the best while CiteULike was the worst. In another study, Homol (2014) examined the citations for electronic journals generated by three citation managers, Zotero, EndNote Basic and RefWorks, and EBSCO Discovery Service (EDS). She concluded that although none of the products was able to generate error-free citations, students should avoid using the EDS Cite tool due to its high error rate. Furthermore, students should be cautioned about blindly accepting the generated citations as correct and the importance of checking the output conscientiously.

In a recent survey of 394 students from the Faculty of Information Management in a Malaysian public university, it was found that the preferred reference tools were EndNote, Mendeley and EasyBib. Most students indicated that they checked the accuracy of generated citations and only 1.3% never did. Moreover, 160 respondents spent about 10-15 minutes checking for accuracy while 133 used 30 minutes or more to do so (Mohamad Rahimi et al., 2022). The results suggest that students in the field of information management are aware of the problems associated with citations generated online.

As more citation generators were introduced, studies comparing several of these programs naturally followed. In a comparative study of sixteen free CGs, Paojangul and Margam (2017) ranked EasyBib as the best online CG followed by BibMe, Citation Machine and Cite This For Me.

Another study by Brander et al. (2019) involving fifty-three RMS and CGs concluded that three RMS, RefME, Zotero and Mendeley, and three CGs, CiteFast, Citation Machine and EasyBib were the best for their polytechnic students.

Ample research on the accuracy of citation generators have been conducted over the years. Stevens (2016) noted that the generated citations by online citation builders are often error-ridden although they are fast and easy to use. In a study comparing EasyBib and NoodleBib with EndNote, Kessler and Van Ullen (2005) found that NoodleBib was the most accurate while EasyBib had the highest error rate. In a later study, Kessler (2007) reviewed SourceAid and revealed that it was inaccurate and due to lack of input instructions, users unfamiliar with a particular style may generate incorrect citations. In Chang's (2013) study comparing the accuracy of eight CGs including Citation Machine, EasyBib, BibMe, NoodleBib Express and Source Aid, the conclusion was that NoodleBib and EasyBib were the most reliable tools.

The autocite function in citation generators make short shrift of referencing sources. Users just need to insert a DOI, URL or title of the source and the tool will generate the in-text citation as well as the reference. In the case where a particular source cannot be located by the generator, students can manually create the citation because CGs have an input template which enables them to produce citations in a fast and effortless way. They just have to choose (1) the type of source such as books, journals, magazines and newspapers; (2) print or online format; and (3) preferred citation style such as APA, MLA or Chicago (Chang, 2013). However, the problem is students often identify the source type incorrectly. In a case study involving 160 research papers by undergraduates, Rodi and Kalinowski (2018) noted that most students failed to identify sources correctly. This means that they would probably generate an incorrect citation because they selected the wrong template. In a more recent study using focus group methodology, Dawe et al. (2021) also found that undergraduates faced difficulty in categorising sources.

Although EasyBib was one of the most accurate citation generators in a comparative study of eight CGs (Chang, 2013), was ranked high in a comparative analysis of sixteen online CGs (Paojangul & Margam, 2017) and was the most popular tool among both students and research scholars (Margam, 2016), the author decided not to include this product in her review. It is because free access is only for MLA style; to generate APA style references, subscription is required. As the author's students are required to use the APA style, EasyBib would probably not be their preferred tool due to the cost factor.

The author had also wanted to evaluate another program, Citation Machine which was ranked third best out of sixteen generators by Paojangul and Margam (2017) and was among the three tools recommended by Brander et al. (2019) but found that it was not fast and easy to use. For example, to cite a journal article, although users can search using its DOI, they have to fill in missing information such as publication date, indicate whether it was originally in print but found online, or published directly online. Finally, users have to view a sponsored message before the citation is created.

While citation generators are not recommended by most Malaysian public university libraries, two libraries suggest CiteFast (see Appendix 2), so the author had initially wanted to evaluate its accuracy but decided against it as this program is unable to perform a search using a DOI which makes it very unuser-friendly. The DOI is now commonly found in scholarly journal articles or documents and the latest APA style requires its inclusion, if available. Another reason was because research has shown that when undergraduate students have to key in the elements manually, the generated citation will normally be incorrect (Rodi & Kalinowski, 2018).

In the end, ZoteroBib was selected for this study as there is little literature on its accuracy although it was released in 2018. The next chosen product was CiteMaker. Developed by Michael Hargreaves in 2009, there is also scarce research on this tool. CiteMaker was ranked fourth best out of sixteen tools by Paojangul and Margam (2017). The third chosen generator, Cite This For Me (CTFM), launched in 2010, is the sole CG suggested by a university in the top ten 2022 THE World University ranking. None of the other universities in the THE list recommended a CG (refer to Appendix 1).

3.   Methodology

The author's first-year undergraduate students had submitted their portfolios which included a minimum of two references in APA style (7th edition). As the university was using the open and distance learning (ODL) mode due to the Covid-19 pandemic, students referred to online sources such as journal articles, online news articles and conference proceedings. Surprisingly, no one read ebooks. The author selected six sources used by her students to generate citations via three free online CGs: ZoteroBib, CiteMaker and Cite This For Me.

Each source was located via the university library databases, Google Scholar or Google. The documents were downloaded and the citation elements were copied exactly from each document. If a pre-formatted citation was available, it was copied as well (refer to Appendix 3). Citations in APA format were then generated for all six sources using the three CGs. For comparison purposes, the author referred to the American Psychological Association's APA Style and Grammar Guidelines which was last updated in January 2022 to produce a citation for each source. The type of source and citation elements found in each document are presented below together with the author's manually prepared citations:

Source 1 (Journal article with DOI – Chinese authors)

Citation Elements:
- Shaohai Jiang and Annabel Ngien
- The Effects of Instagram Use, Social Comparison, and Self-Esteem on Social Anxiety: A Survey Study in Singapore
- Social Media + Society
- April-June 2020
- 1-10
- DOI:10.1177/2056305120912488

Source 1 is a journal article with an assigned DOI. To format the author element, APA style instructs writers to "invert all individual authors' names, providing the *surname* [emphasis added] first, followed by a comma and the author's initials" (https://apastyle.apa.org/style-grammar-guidelines/references/elements-list-entry).

In addition, the APA style guide states that if there is no volume, issue, and/or article or page numbers, these elements are omitted from the reference (https://apastyle.apa.org/style-grammar-guidelines/ references/ examples/journal-article-references).

Furthermore, according to APA style, if a journal article does not have a page range but has an article number instead, writers should include the word "Article" before the article number (https://apastyle.apa.org/style-grammar-guidelines/references/examples/journal-article-references#2).

Based on the above requirements, the author's manually produced citation for Source 1 is:

Jiang, S., & Ngien, A. (2020). The effects of Instagram use, social comparison, and self-esteem on social anxiety: A survey study in Singapore. *Social Media+ Society*, 1–10. https://doi.org/10.1177/2056305120912488

Source 2 (Journal article with DOI – Western authors)

Citation Elements:
- Betul Keles, Niall McCrae and Annmarie Grealish
- A systematic review: the influence of social media on depression, anxiety and psychological distress in adolescents
- INTERNATIONAL JOURNAL OF ADOLESCENCE AND YOUTH
- 2020
- VOL. 25, NO. 1
- 79–93
- https://doi.org/10.1080/02673843.2019.1590851

Although Source 2 is also a journal article with a DOI assigned, it was chosen for two reasons:
a) the article title has two parts separated by a colon and therefore, according to the APA style and grammar requirement, the first word after the colon should be capitalised (https://apastyle.apa.org/style-grammar-guidelines/capitalization/sentence-case).
b) the publication name contains two non-significant words, "of" as well as "and." APA states that if a publication name contains minor words, they should not be capitalised (https://apastyle.apa.org/style-grammar-guidelines/capitalization/title-case).

With the APA requirements in mind, the author's manual entry for Source 2 is shown below:

Keles, B., McCrae, N., & Grealish, A. (2020). A systematic review: The influence of social media on depression, anxiety and psychological distress in adolescents. *International Journal of Adolescence and Youth, 25*(1), 79–93. https://doi.org/10.1080/02673843.2019.1590851

Source 3: (Journal article with DOI – Indian authors)

Citation Elements:
- Neha Kulkarni, Dr Sairaj Patki
- A Study of Emotional Intelligence, Experienced Bullying and Psychological Well-Being among Secondary School Students from Boarding Schools
- The International Journal of Indian Psychology
- July-September 2016
- Volume 3, Issue 4, No. 68,
- DIP: 18.01.193/20160304
- DOI: 10.25215/0304.193

Source 3, also a journal article with an assigned DOI, was included for testing because in the article, the second author's name includes his professional title, Dr. APA style states that academic credentials or professional titles should not be in the reference list but can be included in the text itself if it is important to the topic discussed (https://blog.apastyle.org/apastyle/author-names/).

Taking this requirement into account, the author's manually prepared reference for Source 3 is presented below:

Neha Kulkarni, & Sairaj Patki. (2016). A study of emotional intelligence, experienced bullying and psychological well-being among secondary school students from boarding schools. *International Journal of Indian Psychology, 3*(4), 12–27. https://doi.org/10.25215/0304.193

Source 4 (Journal article without DOI)

Citation Elements:
- June F. Chisholm, Ph.D.
- Review of the Status of Cyberbullying and Cyberbullying Prevention
- Journal of Information Systems Education
- Vol. 25(1)
- Spring 2014
- 77-87
- https://jise.org/Volume25/n1/JISEv25n1p77.html

Source 4 is a journal article with a URL instead of a DOI. According to APA, "if the journal article does not have a DOI but does have a URL that will resolve for readers (e.g., it is from an online journal that is not part of a database), include the URL of the article at the end of the reference" (https://apastyle.apa.org/style-grammar-guidelines/references/examples/journal-article-references#1).

As per the above requirement, the manual entry for Source 4 is presented below:

Chisholm, J. F. (2014). Review of the status of cyberbullying and cyberbullying prevention. *Journal of Information Systems Education, 25*(1), 77–87. https://jise.org/Volume25/ n1/JISEv25n1p77.html

Source 5 (Conference Proceedings – Malay authors)

Citation Elements:
- Saadiah Ghazali, Nor Intan Saniah Sulaiman, Nerda Zura Zabidi, Mohd Faizal Omar, and Rose Alinda Alias
- The Impact of Knowledge Sharing through Social Media among Academia
- The 4th International Conference on Quantitative Sciences and Its Applications (ICOQSIA 2016)
- AIP Conf. Proc. 1782,
- 030003-1–030003-6
- doi: 10.1063/1.4966060

Source 5 is a conference paper published in a serial, not a journal, and it is not a book chapter. To use Cite This For Me (CTFM), a user has to first identify the type of source such as website, journal or book. Therefore, to generate the citation for this source, the author searched using journal as the source type. As CTFM failed to capture two required elements, volume number and complete page ranges, they had to be added manually.

The citation prepared manually for Source 5 following the APA requirement is as shown below:

Saadiah Ghazali, Nor Intan Saniah Sulaiman, Nerda Zura Zabidi, Mohd Faizal Omar, & Rose Alinda
   Alias. (2016). The impact of knowledge sharing through social media among academia.
   AIP Conference Proceedings, 1782, 030003-1–030003-6. https://doi.org/10.1063/1.4966060

Source 6 (Article from a news website)

Citation Elements:
- Muireann Duffy
- More than half of young adults turned to social media for mental health support during
  lockdown
- breakingnews.ie
- 17/01/2022
- https://www.breakingnews.ie/ireland/more-than-half-of-young-adults-turned-to-social-
  media-for-mental-health-support-during-lockdown-1243921.html

The last source, Source 6 is an article which appeared in a news website. As this news website
does not have a daily or weekly newspaper, it should be cited following the APA example below:

Bologna, C. (2019, October 31). *Why some people with anxiety love watching horror movies*.
   HuffPost. https://www.huffpost.com/entry/anxiety-love-watching-horror-
   movies_l_5d277587e4b02a5a5d57b59e

(https://apastyle.apa.org/style-grammar-guidelines/references/examples/webpage-website-
references#1)

Using the APA example reference as a guide, the author's manual citation for Source 6 is
presented below:

Duffy, M. (2022, January 17). *More than half of young adults turned to social media for mental
   health support during lockdown*. BreakingNews.ie.
   https://www.breakingnews.ie/ireland/more-than-half-of-young-adults-turned-to-social-
   media-for-mental-health-support-during-lockdown-1243921.html

All the eighteen citations for the six sources generated by the three tools were carefully reviewed
for accuracy by referring to the APA Style and Grammar Guidelines which contain instructions
and explanations as well as reference examples of each type of source. All generated citations
were meticulously checked against the manually prepared citations by the author to determine
the number of errors in each reference.

Based on the error categories used by Chang (2013, p. 62), Homol (2014, p. 553) and Stevens
(2016, p. 717), each output was scrutinised for the following errors:

> a. Author name(s)
> b. Date of publication
> c. Title of article
> d. Title of publication
> e. Volume number
> f. Issue number
> g. Page range/eLocator
> h. DOI/URL
> i. Retrieval statement

       j.   Formatting issues:
- Capitalisation
- Punctuation
- Italicisation
- Indentation

If a CG managed to locate the source but required information such as author, publication date or complete page ranges, each missing element was counted as an error. The number of errors were then tabulated for each output.

4.   Results

To assess the accuracy of the three chosen citation generators, ZoteroBib, CiteMaker and Cite This For Me, a total of eighteen APA style citations were generated using six actual sources submitted by students. The generated citations and the number of errors identified for each source are shown in Tables 1-6.

Table 1 presents the number of errors found in each generated citation for Source 1. ZoteroBib and CiteMaker produced three errors each while Cite This For Me had four. All three programs provided an eLocator but this element was not found in the article itself. However, although the eLocator was included, every tool failed to include the word "Article" in front of the article number as required by APA 7.

Table 1

Comparison of Accuracy of Generated Citations for Source 1

Citation Generator	Generated Citation	No. of Errors	Comments	
ZoteroBib	Jiang, S., & Ngien, A. (2020). The effects of **instagram** use, social comparison, and self-esteem on social anxiety: A survey study in **singapore.** *Social Media + Society, 6*(2), 205630512091248. https://doi.org/10.1177/2056305120912488	3	1)	Proper noun not capitalised.
			2)	Missing the word "Article" before the eLocator.
			3)	No hanging indentation.
CiteMaker	Jiang, S., & Ngien, A. (2020). **The Effects of Instagram Use, Social Comparison, and Self-Esteem on Social Anxiety: A Survey Study in Singapore**. *Social Media + Society, 6*(2), 205630512091248. https://doi.org/10.1177/2056305120912488	3	1)	Incorrect capitalisation of article title.
			2)	Missing the word "Article" before the eLocator.
			3)	No hanging indentation.
Cite This For Me	Jiang, S., & Ngien, A. (2020). **The Effects of Instagram Use, Social Comparison, and Self-Esteem on Social Anxiety: A Survey Study in Singapore**. *Social Media + Society, 6*(2), 205630512091248. https://doi.org/10.1177/2056305120912488**.**	4	1)	Incorrect capitalisation of article title.
			2)	Missing the word "Article" before the article number.
			3)	Unnecessary punctuation after DOI.
			4)	No hanging

	indentation.

Table 2 reveals that Cite This For Me was the only CG that failed to capitalise the first word after a colon as required in APA style and incorrectly capitalised the two minor words, "of" and "and" in the journal name. Both ZoteroBib and CiteMaker were able to generate the citation accurately except for not indenting the reference as required by APA (https://apastyle.apa.org/style-grammar-guidelines/paper-format/paragraph-format).

Table 2

Comparison of Accuracy of Generated Citations for Source 2

Citation Generator	Generated Citation	No. of Errors		Comments
ZoteroBib	Keles, B., McCrae, N., & Grealish, A. (2020). A systematic review: The influence of social media on depression, anxiety and psychological distress in adolescents. *International Journal of Adolescence and Youth*, 25(1), 79–93. https://doi.org/10.1080/02673843.2019.15908511	1	1)	No hanging indentation.
CiteMaker	Keles, B., McCrae, N., & Grealish, A. (2020). A systematic review: The influence of social media on depression, anxiety and psychological distress in adolescents. *International Journal of Adolescence and Youth*, 25(1), 79-93. https://doi.org/10.1080/02673843.2019.1590851	1	1)	No hanging indentation.
Cite This For Me	Keles, B., McCrae, N., & Grealish, A. (**2019**). A systematic review: **the** influence of social media on depression, anxiety and psychological distress in adolescents. *International Journal **Of** Adolescence **And** Youth*, 25(1), 79-93. https://doi.org/10.1080/02673843.2019.1590851	4	1) 2) 3) 4)	Incorrect publication date. Non-capitalisation of the first word after the colon. Incorrect capitalisation of minor words in publication name. No hanging indentation.

From Table 3, it is clear that all three tools failed to cite the second author's name correctly. Surprisingly, CiteMaker wrongly capitalised the article title although it did not have this problem with Source 2. Similarly, Cite This For Me also capitalised the article title incorrectly but not for Source 2.

Table 3

Comparison of Accuracy of Generated Citations for Source 3

Citation Generator	Generated Citation	No. of Errors		Comments
ZoteroBib	Neha Kulkarni & **Dr** Sairaj Patki. (2016). A study of emotional intelligence, experienced bullying and psychological well-being among secondary school	3	1)	Inclusion of academic credential or professional title.

Citation Generator	Generated Citation	No. of Errors	Comments	
	students from boarding schools. *International Journal of Indian Psychology, 3*(4). https://doi.org/10.25215/0304.193		2)	Missing page range.
			3)	No hanging indentation.
CiteMaker	**Kulkarni, N., & Patki, D. S.** (2016). **A Study of Emotional Intelligence, Experienced Bullying and Psychological Well-Being among Secondary School Students from Boarding Schools**. *International Journal of Indian Psychology, 3*(4). https://doi.org/10.25215/0304.193	4	1)	Incorrect authors' names.
			2)	Incorrect capitalisation of article title.
			3)	Missing page range.
			4)	No hanging indentation.
Cite This For Me	Neha Kulkarni, & **Dr** Sairaj Patki. (2016). **A Study of Emotional Intelligence, Experienced Bullying and Psychological Well-Being among Secondary School Students from Boarding Schools**. *International Journal Of* Indian Psychology, 3*(4), **12-27**. https://doi.org/10.25215/0304.193	5	1)	Captured incomplete information – had to manually add page range.
			2)	Inclusion of academic credential or professional title.
			3)	Incorrect capitalisation of article title.
			4)	Incorrect capitalisation of minor words in publication name.
			5)	No hanging indentation.

The details in Table 4 reveal that the citation created by ZoteroBib contained only two errors whereas CiteMaker made five. Only ZoteroBib cited the author's name accurately while CiteMaker made a very a serious mistake with the author element and failed to locate the publication date. It again wrongly capitalised the article title, just like for Source 3.

As for Cite This For Me (CTFM), it was the least accurate with twelve errors. On top of that, this tool is not user friendly as it can only search for a journal article using either the article title or DOI. As Source 4 has no DOI, the author searched using its article title but CTFM was unable to locate the journal article. Therefore, all required information had to be added manually. Disappointingly, CTFM still could not produce an accurate citation as it actually left out the author's middle initial although the information had been entered correctly. Another glaring error was the inclusion of the retrieval statement. This was unnecessary because APA instructs writers to only include a retrieval date "if the work is unarchived and designed to change over time" (https://apastyle.apa.org/ style-grammar-guidelines/references/elements-list-entry).

Table 4

Comparison of Accuracy of Generated Citations for Source 4

Citation Generator	Generated Citation	No. of Errors	Comments	
ZoteroBib	Chisholm, J. F. (2014). Review of the status of cyberbullying and cyberbullying prevention. *Journal of Information Systems Education, 25*(1), **77**. https://jise.org/Volume25/n1/JISEv25n1p77.html	2	1)	Incomplete page ranges.
			2)	No hanging indentation.
CiteMaker	Chisholm., **& F., J.** (**n.d.**). **Review of the Status of**	5	1)	Incorrect author's

Citation Generator	Generated Citation	No. of Errors		Comments
	Cyberbullying and Cyberbullying Prevention. *Journal of Information Systems Education, 25*(1), **77**. https://jise.org/Volume25/n1/JISEv25n1p77.html		2) 3) 4) 5)	name. Missing date of publication. Incorrect capitalisation of article title. Incomplete page ranges. No hanging indentation.
Cite This For Me	Chisholm, **J.** (2014). Review of the status of cyberbullying and cyberbullying prevention. *Journal Of Information Systems Education, 25*(1), 77-87. **Retrieved 27 February 2022, from** https://jise.org/Volume25/n1/JISEv25n1p77.html**.**	12	1) 2) 3) 4) 5) 6) 7)	Not user-friendly - it can only search for a journal article using article title or DOI. Was unable to locate source via article title. Had to manually add (a)author, (b)year (c) article title, (d) journal title, (e)volume, (f) issue number, (g) page range and (h)URL. Missing author's middle initial: Chisholm, J. **F.** Unnecessary retrieval statement. Unnecessary punctuation after URL. No hanging indentation.

As can be seen from Table 5, all three tools produced citations riddled with errors. Surprisingly, the reference generated by ZoteroBib contained the most errors while Cite This For Me had the fewest, possibly due to the author's manual input of the two missing elements, volume number and complete page ranges.

Table 5

Comparison of Accuracy of Generated Citations for Source 5

Citation Generator	Generated Citation	No. of Errors		Comments
ZoteroBib	**Ghazali, S., Sulaiman, N. I. S., Zabidi, N. Z., Omar, M. F., & Alias, R. A.** (2016). *The impact of knowledge sharing through social media among academia*. 030003. https://doi.org/10.1063/1.4966060	6	1) 2) 3) 4) 5) 6)	Incorrect authors' names. Malay names should be written in full. Article title should not be italicised. Missing proceedings title. Missing volume number. Missing the word "Article" before eLocator. No hanging

				indentation.
CiteMaker	**Ghazali, S., Sulaiman, N. I. S., Zabidi, N. Z., Omar, M. F., & Alias, R. A.** (**n.d**.). The impact of knowledge sharing through social media among academia. *AIP Conference Proceedings*. https://doi.org/10.1063/1.4966060	5	1) 2) 3) 4) 5)	Incorrect authors' names. Malay names should be written in full. Missing publication date. Missing volume number. Missing page ranges. No hanging indentation.
Cite This For Me	**Ghazali, S., Sulaiman, N., Zabidi, N., Omar, M., & Alias, R.** (2016). The impact of knowledge sharing through social media among academia. *AIP Conference Proceedings*, *1782*, 030003-1–030003-6. https://doi.org/10.1063/1.4966060	4	1) 2) 3)	Had to select journal as source type – added (a) volume number and (b) page range. Incorrect authors' names. Malay names should be written in full. No hanging indentation.

Table 6 shows that when citing a news story, ZoteroBib produced the least number of errors (4) while for CiteMaker and Cite This For Me, each made nine and eleven errors, respectively. Both CiteMaker and CTFM were unable to capture sufficient information and manual addition of the required elements was required.

Table 6

Comparison of Accuracy of Generated Citations for Source 6

Citation Generator	Generated Citation	No. of Errors	Comments
ZoteroBib	*More than half of young adults turned to social media for mental health support during lockdown*. (**n.d.**). BreakingNews.Ie. **Retrieved February 15, 2022, from** https://www.breakingnews.ie/ireland/more-than-half-of-young-adults-turned-to-social-media-for-mental-health-support-during-lockdown-1243921.html	4	1) Missing author's name. 2) Missing publication date. 3) Unnecessary retrieval statement. 4) No hanging indentation.
CiteMaker	**Duffy, M.** (**2022,**. January). **More than half of young adults turned to social media for mental health support during lockdown	BreakingNews.ie.** *BreakingNews.ie*. https://www.breakingnews.ie/ireland/more-than-half-of-young-adults-turned-to-social-media-for-mental-health-support-during-lockdown-1243921.html**.**	9	1) Failed to capture sufficient information – had to add (a) author and (b) publication date. 2) Publication date not specific. 3) Incorrect punctuation of publication date. 4) Article title not italicised. 5) Publication title appeared twice. 6) Publication title should

				6) ...not be italicised. 7) Unnecessary punctuation after URL. 8) No hanging indentation.
Cite This For Me	**Duffy, M.** **(2022).** **More than half of young adults turned to social media for mental health support during lockdown.** *Breakingnews.Ie.* **Retrieved 17 February 2022, from** https://www.breakingnews.ie/ireland/more-than-half-of-young-adults-turned-to-social-media-for-mental-health-support-during-lockdown-1243921.html**.**	11		1) Failed to capture sufficient information - had to enter (a) author, (b) article title, (c) publication title, (d) publication date and (e) URL. 2) Incorrect publication date. 3) Article title not italicised. 4) Publication title should not be italicised. 5) Unnecessary retrieval statement. 6) Unnecessary punctuation after URL. 7) No hanging indentation.

After analysing the types of errors and tallying the number of errors for each generated citation, ZoteroBib had the smallest number of errors (18) while CiteMaker made thirty-one errors. Cite This For Me was the most error-prone with forty errors altogether. As Table 7 clearly shows, the most frequent problem for all three programs was formatting citations such as capitalisation, punctuation and indentation.

Table 7

Overall Performance of ZoteroBib, CiteMaker and Cite This For Me

Type of Error	ZoteroBib	CiteMaker	Cite This For Me
Author name(s)	3	4	5
Publication date	1	4	4
Article title	0	4	2
Publication title	1	1	2
Volume number	1	1	2
Issue number	0	0	1
Page range/eLocator	3	4	4
DOI/URL	0	0	2
Retrieval statement	1	0	2
Formatting	8	13	16
Total number of errors	**18**	**31**	**40**

5.   Discussion

Based on the analysis of the above data, ZoteroBib was the most accurate citation generator while Cite This For Me was the worst performer. However, although ZoteroBib was the

most reliable tool, it was not error-proof as it did not consistently generate perfect citations. Comparing the errors produced by all three tools, it is clear that none is able to generate a 100 per cent accurate citation that conforms to the APA style guidelines. The finding that citation generators were error-prone is similar to those of other studies (Chang, 2013; Kessler, 2007; Kessler & Van Ullen, 2005; Stevens, 2016).

Specifically, this study reveals that all three tools had difficulties with formatting citations according to APA standards. This result supports the findings of other studies. In her study of four citation tools, Homol (2014) had noted that formatting errors was the largest type of error. In the current study, formatting errors were divided into four sub-categories: capitalisation, punctuation, italicisation and indentation.

(a) Incorrect capitalisation was common in citations generated by both CiteMaker and Cite This For Me (CTFM). These two CGs are inconsistent in capitalising article titles (see Tables 2 and 3). The finding that capitalisation of article title is problematic is similar to the results of other researchers. Homol (2014) reported that incorrect capitalisation was the biggest source of errors in formatting besides issue number.

(b) Punctuation errors were common in citations generated by CTMF. In fact, CTFM added a period at the end of the DOI/URL for three sources (see Tables 1, 4 and 6). According to APA style, this punctuation mark should not be there because it may cause the link to malfunction (https://apastyle.apa.org/style-grammar-guidelines/references/dois-urls).

(c) The problem with hanging indentation was apparent in all three programs. None of them was able to indent references as required by APA 7 which states that the first line of a reference is flushed left, while the second and subsequent lines are indented (https://apastyle.apa.org/style-grammar-guidelines/paper-format/paragraph-format). This means that users will have to be familiar with the APA requirement and ensure that their reference list has hanging indents.

(d) Problems with italicisation were rare. It only occurred in the citation for Source 6, a news story from an online-only news website. APA style requires the title of a news story to be italicised instead of the news website name but both CiteMaker and CTFM italicised the two elements the other way round. ZoteroBib correctly italicised the article title but did not capture the name of the news website.

The above findings are worrisome. Early-career students using CGs may not notice such formatting details and thus submit references riddled with errors. According to Stevens (2016), the students in her study who were taking a credit-bearing information literacy course failed to note errors in capitalisation, italicisation and indentation in the references they had prepared themselves.

Besides formatting errors, publication dates are also frequently found to be missing in the citations produced by CiteMaker and Cite This For Me. It is especially perplexing that although the specific date for a news story (Source 6) had been carefully added, CiteMaker and Cite This For Me still did not generate the date of publication correctly. As the error could not be due to user error, it is probably a software error. For a news story published in an online-only news website, the APA style guidelines state that the date should be the exact date the story was published (https://apastyle.apa.org/style-grammar-guidelines/references/examples/webpage-website-references#1). This means that users will need to check for accuracy and make the necessary correction with regards to the date element.

Another important problem to note is that all three CGs cited Malay names incorrectly (see Table 5). As Malay authors do not have a surname, their names should be given in full. Similarly, Indian names should also be completely cited. ZoteroBib and Cite This For Me did provide the full names but incorrectly included the academic credential of the second author (see Table 3). Only CiteMaker failed to provide complete author names. This indicates that when using citation tools, users will need to double-check the author element carefully especially for authors without a surname and edit as necessary.

An unexpected finding was that all three programs included the eLocator of a source although the element was not found in the article itself (Source 1). However, although the eLocator was given instead of the complete page ranges, all three tools left out the word "Article" before the article number, and, therefore, the generated citation was not in accordance with the APA style requirement.

Of the three citation builders, Cite This For Me was the most unuser-friendly. This tool frequently failed to capture sufficient information and required the user to provide the missing elements to generate a citation. Out of the six sources, the author had to manually input elements for four of them, specifically Sources 3 to 6. A program that requires the user to add missing information manually should be avoided. This is because research has shown that when students have to key in the missing elements themselves, they tend to produce citations that are inaccurate (Rodi & Kalinowski, 2018). This is a classic case of rubbish in, rubbish out because incorrect input will lead to inaccurate output.

Moreover, users have to select the relevant source type before CTFM can create a citation. Source 5 was a case in point. A tool that needs the user to identify the document type would not be a viable choice. As research has revealed, categorising sources correctly is a struggle for students who are starting their academic journey (Dawe, 2021; Rodi & Kalinowski, 2018).

To create a reference for Source 5, a CTFM user would first have to decide whether to select the source type as conference proceedings or journal. Source 5 is actually a conference paper published in a serial, not a journal. Unfortunately, this tool does not have this option, so students must choose journal as the closest source type to generate the citation. However, most students will probably choose conference proceedings because those words are in the title of the publication and they will therefore generate an inaccurate citation.

Generating the citation for a conference proceeding in CTFM is a tedious process as the user has to painstakingly add seven elements: (a) authors, (b) paper title, (c) publisher, (d) page range, (e) conference year, (f) conference name, and (g) URL. After doing so, the citation created by CTFM is shown below:

Saadiah Ghazali, Nor Intan Saniah Sulaiman, Nerda Zura Zabidi, Mohd Faizal Omar, & Rose Alinda Alias. (2016). The impact of knowledge sharing through social media among academia. In *The 4th International Conference on Quantitative Sciences and Its Applications (ICOQSIA 2016)* (pp. 030003-1 - 030003-6). AIP Publishing. Retrieved 27 February 2022, from https://doi.org/10.1063/1.4966060.

The generated citation appears to follow the format for conference proceedings published as *a book chapter*. The following is a reference example from APA:

Bedenel, A.-L., Jourdan, L., & Biernacki, C. (2019). Probability estimation by an adapted genetic algorithm in web insurance. In R. Battiti, M. Brunato, I. Kotsireas, & P. Pardalos (Eds.), *Lecture notes in computer science: Vol. 11353. Learning and intelligent optimization* (pp. 225–240). Springer. https://doi.org/10.1007/978-3-030-05348-2_21

(https://apastyle.apa.org/style-grammar-guidelines/references/examples/conference-proceeding-references#2)

By comparing the above APA example with the citation generated by CTFM, the following errors were detected:
   a) Missing editor name(s).
   b) Missing book title.
   c) Unnecessary inclusion of conference name.
   d) Missing volume number.
   e) Unnecessary retrieval statement.
   f) Unnecessary punctuation after URL.
   g) No hanging indentation.

Therefore, the CTFM citation contained a total of fourteen errors which is very disappointing. As stated by Van Ullen and Kessler (2012), "multiple errors … are completely unacceptable because citations are all about the details" (p. 22). They rightly warned that users should meticulously check the generated references by comparing them with the required style guide.

The findings from this study underline the importance of thoroughly checking the accuracy of citations generated by free online citation builders. At the current stage of development, none can produce a perfect reference. Users probably have to edit common formatting errors such as capitalisation, punctuation and indentation.

6.   Conclusion

In order to determine which free online citation generator to recommend to early-career students, a small-scale study was conducted to examine the accuracy of three tools, namely, ZoteroBib, CiteMaker and Cite This For Me. Using six sources submitted by a group of first-year undergraduates, a total of eighteen citations were generated and analysed for ten types of errors.

The citation generators made the task of referencing less laborious and time consuming but they were not error-free. Based on the accuracy of references generated, ZoteroBib emerged as the most reliable tool to produce accurate references with minimal effort. However, as Chang (2013) cautioned, "even the best free programs are not completely without errors and limitations" (p. 66). In their study of two CGs and one RMS, Kessler and Van Ullen (2005) stressed that users of citation tools should still learn to document sources according to the required citation style. Recent researchers continue to offer the same advice although students are using more advanced tools (Childress, 2011; Lanning, 2016; MacMillan, 2012). If they are unfamiliar with the citation rules of the required style, students will be unable to detect any errors produced by these programs. As Lanning (2016) explained, "citation generators are like calculators; they are a tool to make the process easier, but you still need to know what you are doing to get the most out of them" (p. 25).

There is a possibility that students may notice the section "How to cite" or "Recommended citation" in a journal and just copy the suggested citation. However, it should be noted that the

citations by journals may be according to other styles such as MLA, Harvard, Chicago or IEEE instead of the APA style required by their course. For students who use the Cite function in Google Scholar to generate an APA citation, they should be cautious as the output is generally imperfect (see Appendix 3). Researchers such as Van Ullen and Kessler (2012) found that pre-formatted citations and even citations generated on demand by built-in generators of databases such as Scopus and EBSCO Academic Search Premier are inaccurate. For libraries that provide chat assistance, Wilkinson et al. (2021) warned that if users are referred to citation generators, they should be given a word of warning due to the numerous research that have proven their inaccuracy.

It is therefore prudent for students to learn the specific citation format for their discipline before using any citation tool (MacMillan, 2012). Furthermore, students should not hesitate to consult their librarians regarding source citation when in doubt. For lecturers who recommend the use of these products to their students, it is advisable to remind them to spend some time checking the generated citations for accuracy with the prescribed style manual before submitting their work for grading. Citation tools are useful but not infallible; therefore, user beware.

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References

American Psychological Association. (2022, January). *APA style and grammar guidelines*. https://apastyle.apa.org/style-grammar-guidelines

Antonijević, S., & Cahoy, E. S. (2014). Personal library curation: An ethnographic study of scholars' information practices. *Portal: Libraries and the Academy, 14(2)*, 287–306. https://doi.org/10.1353/pla.2014.0010

Blicblau, A., Bruwer, M., & Dini, K. (2016). Do engineering students perceive that different learning and teaching modes improve their referencing and citation skills? *International Journal of Mechanical Engineering Education*, *44*(1), 3–15. https://doi.org/10.1177/0306419015624186

Brander, G., Langman, E., Maddison, T., & Shrubsole, J. (2019). Evaluating bibliographic referencing tools for a polytechnic environment. *Evidence Based Library and Information Practice, 14*(2), 4-32. https://doi.org/10.7939/DVN/7PMKTO/EX8VFM

Butros, A., & Taylor, S. (2010). Managing information: Evaluating and selecting citation management software, a look at EndNote, RefWorks, Mendeley and Zotero. In D. Barr (Ed.), *Netting Knowledge: Two Hemispheres/One World: Proceedings of the 36th IAMSLIC Annual Conference* (pp. 53–66). IAMSLIC.

Chang, H. F. (2013). Cite it right: Critical assessment of open source web-based citation generators. *LOEX Conference Proceedings 2011*(10), 61-66. https://commons.emich.edu/loexconf2011/10

Childress, D. (2011). Citation tools in academic libraries: Best practices for reference and instruction. *Reference & User Services Quarterly, 51*(2), 143–152. https://doi.org/10.5860/rusq.51n2.143

Cooke, N. A. (Ed.). (2010). Internet resources - Citation management 2.0. *Public Services Quarterly, 6*(4), 360–372.

Dawe, L., Stevens, J., Hoffman, B., & Quilty, M. (2021). Citation and referencing support at an academic library: Exploring student and faculty perspectives on authority and effectiveness. *College & Research Libraries, 8*(7), 991–1003. https://crl.acrl.org/index.php/crl/article/view/25198/33070

Faunce, G. J., & Soames Job, R. F. (2001). The accuracy of reference lists in five experimental psychology journals. *American Psychologist, 56*(10), 829–830. https://doi.org/10.1037/0003-066X.56.10.829

Gilmour, R., & Cobus-Kuo, L. (2011). Reference Management Software: a Comparative Analysis of Four Products. *Issues in Science and Technology Librarianship, 66,* 63-75. https://doi.org/10.5062/F4Z60KZF

Greer, K., & McCann, S. (2018). Everything online is a website: Information format confusion in student citation behaviors. *Communications in Information Literacy, 12*(2),150-165. https://doi.org/10.15760/comminfolit.2018.12.2.6

Homol, L. (2014). Web-based citation management tools: Comparing the accuracy of their electronic journal citations. *The Journal of Academic Librarianship, 40*(6)*,* 552-557. https://doi.org/10.1016/j.acalib.2014.09.011

Ince, S., Hoadley, C., & Kirschner, P. A. (2020). Research workflow skills for education doctoral students and postdocs: A qualitative study. *The Journal of Academic Librarianship, 46*(5), 1-9.102172. https://doi.org/10.1016/j.acalib.2020.102172

Ince, S., Hoadley, C., & Kirschner, P. A. (2022). A qualitative study of social sciences faculty research workflows. *Journal of Documentation*. https://doi.org/10.1108/JD-08-2021-0168

Kessler, J., & Van Ullen, M. K. (2005). Citation Generators: Generating bibliographies for the next generation. *Journal of Academic Librarianship, 31*(4), 310-316. https://doi.org/10.1016/j.acalib.2005.04.012

Kessler, J. (2007). SourceAid Citation Builder Pro PE. *Charleston Advisor, 8*(4), 44-46.

Lanning, S. (2016). A modern, simplified citation style and student response. *Reference Services Review, 44*(1), 21-37. https://doi.org/10.1108/RSR-10-2015-004

MacMillan, D. (2012). Mendeley: Teaching scholarly communication and collaboration through social networking. *Library Management, 33*(8/9), 561-569. https://doi.org/10.1108/01435121211279902

Mandernach, B. J., Zafonte, M., & Taylor, C. (2016). Instructional strategies to improve college students' APA style writing. *International Journal of Teaching and Learning in Higher Education, 27*(3), 407-412. https://eric.ed.gov/?id=EJ1093747

Margam Madhusudhan. (2016). Use of online citation tools by students and research scholars of Department of Library and Information Science, University of Delhi. *DESIDOC Journal of library & information technology, 36*(3), 164-172. https://doi.org/10.14429/djlit.36.3.9428

Mohamad Rahimi Mohamad Rosman, Nik Nur Izzati Nik Rosli, Amira Idayu Mohd Shukry, Noor Masliana Razlan, & Noor Azreen Alimin. (2022). Referencing paradigm in the new norm: What do students want? *Proceedings of the First Multidiscipline International Conference (MIC 2021), Jakarta, Indonesia*. https://doi.org/10.4108/eai.30-10-2021.2315819

Paojangul Misao, & Margam Madhusudhan. (2017). Online citation tools: A comparative study. *World Digital Libraries: An International Journal,10*(2), 113-131. https://doi.org/10.18329/09757597/2017/10209

Penn State Libraries. (2021, December 1). *Citation and writing*. https://guides.libraries.psu.edu/citationstyles/tools

Rempel, H. G., & Mellinger, M. (2015). Bibliographic management tool adoption and use: A qualitative research study using the UTAUT model. *Reference & User Services Quarterly 54*(4), 43-53. https://doi.org/10.5860/rusq.54n4.43

Rodi, A., & Kalinowski, A. (2018). Strengthening undergraduate research through collaborative efforts with the library: A case study of an elective course. *Issues in Information Systems, 19*(3), 160-167. https://doi.org/10.48009/3_iis_2018_160-167

Salem, J., & Fehrmann, P. (2013). Bibliographic management software: A focus group study of the preferences and practices of undergraduate students. *Public Services Quarterly, 9*(2), 110-120. https://doi.org/10.1080/15228959.2013.785878

Serenko, A., Dumay, J., Hsiao, P.-C. K., & Choo, C. W. (2021). Do they practice what they preach? The presence of problematic citations in business ethics research. Journal of Documentation, 77(6), 1304-1320. https://doi.org/10.1108/JD-01-2021-0018

Speare, M. (2018). Graduate student use and non-use of reference and pdf management software: An exploratory study. *The Journal of Academic Librarianship, 44*, 762-744. https://doi.org/10.1016/j.acalib.2018.09.019

Stevens, C. R. (2016). Citation generators, OWL, and the persistence of error-ridden references: An assessment for learning approach to citation errors. *The Journal of Academic Librarianship, 42*(6), 712-718. https://doi.org/10.1016/j.acalib.2016.07.003

Van Ullen, M., & Kessler, J. (2012). Citation help in databases: The more things change, the more they stay the same. *Public Services Quarterly, 8*(1), 40-56. https://doi.org/10.1080/15228959.2011.620403

Wilkinson, J., Denneler, A., Nay, L., & Johnson, A. M. (2021). Constructing citations: Reviewing chat transcripts to improve citation assistance as a service. *Reference Services Review, 49*(2),194-210. https://doi.org/10.1108/RSR-03-2021-0007

Appendix 1

Recommended Citation Tools by Top 10 Universities in the World

Rank	University	Citation Manager	Citation Generator
1	Oxford	RefWorks; EndNote; EndNote online; Zotero; Mendeley	-
2	California Institute of Technology	Zotero; EndNote; Mendeley; Read Cube	-
2	Harvard	EndNote; Zotero	-
4	Stanford	EndNote; EndNote online; Mendeley; RefWorks; Paperpile; Read Cube	Cite This For Me
5	Cambridge	Zotero; Mendeley; EndNote	-
6	Massachusetts Institute of Technology	Mendeley; Zotero	-
7	Princeton	Zotero	-
8	University of California, Berkeley	RefWorks; Zotero; Mendeley; EndNote	-
9	Yale	Zotero; EndNote; EndNote online; Mendeley; RefWorks	-
10	University of Chicago	EndNote; EndNote online; Zotero	-

Note. The list is based on THE World University Rankings 2022.
(https://www.timeshighereducation.com/world-university-rankings/2022/world-ranking#!/page/0/length/25/sort_by/rank/sort_order/asc/cols/stats)

Appendix 2

Recommended Citation Tools by Malaysian Public University Libraries

No.	University Library	Citation Manager	Citation Generator
1.	Perpustakaan Universiti Malaya, UM	EndNote	-
2.	Perpustakaan UKM, UKM	EndNote; Mendeley	-
3.	Perpustakaan UTM, UTM	EndNote	-
4.	Perpustakaan Sultan Abdul Samad, UPM	Mendeley	-
5.	Perpustakaan Hamzah Sendut, USM	Mendeley	-
6.	Perpustakaan Tun Abdul Razak, UiTM	EndNote; Mendeley	-
7.	Perpustakaan Tunku Tun Aminah, UTHM	Mendeley	-

8.	Perpustakaan Universiti Sains Islam Malaysia, USIM	-	-
9.	Perpustakaan Tun Abdul Rahman Ya'kub, UNIMAS	EndNote	-
10.	Perpustakaan Tuanku Syed Faizuddin Putra, UniMAP	EndNote	-
11.	Perpustakaan Tuanku Bainun, UPSI	-	CiteFast
12.	Perpustakaan Universiti Malaysia Sabah, UMS	Mendeley	-
13.	Perpustakaan Sultanah Bahiyah,UUM	Mendeley; RefWorks	-
14.	Perpustakaan UTeM, UTeM	Mendeley	-
15.	Perpustakaan Sultanah Nur Zahirah, UMT	Mendeley	
16.	Perpustakaan Jeneral Tun Ibrahim, UPNM	Mendeley	-
17.	Perpustakaan Universiti Malaysia Pahang, UMP	Mendeley	
18.	Perpustakaan Universiti Malaysia Kelantan, UMK	EndNote; Mendeley	-
19.	Dar al-Hikmah Library, IIUM	Mendeley; Zotero	-
20.	Perpustakaan Sultan Zainal Abidin, UniSZA	EndNote; Mendeley	BibMe; EasyBib; ZoteroBib; Citation Machine; CiteFast; Scribbr

Appendix 3

Pre-Formatted Citations for Sources 1-5

Source	*Recommended Citation by the Journal*	*APA Citation by Google Scholar*
1	Jiang, S., & Ngien, A. (2020). The Effects of Instagram Use, Social Comparison, and Self-Esteem on Social Anxiety: A Survey Study in Singapore. *Social Media + Society*. https://doi.org/10.1177/2056305120912488	Jiang, S., & Ngien, A. (2020). The effects of Instagram use, social comparison, and self-esteem on social anxiety: A survey study in Singapore. *Social Media+ Society*, 6(2), 2056305120912488.
Comments	Not APA style.	(a) Missing the word "Article" before eLocator. (b) Missing assigned DOI.
2	Betul Keles, Niall McCrae & Annmarie Grealish (2020) A systematic review: the influence of social media on depression, anxiety and psychological distress in adolescents, International Journal of Adolescence and Youth, 25:1, 79-93, DOI:10.1080/02673843.2019.1590851	Keles, B., McCrae, N., & Grealish, A. (2020). A systematic review: **the** influence of social media on depression, anxiety and psychological distress in adolescents. *International Journal of Adolescence and Youth, 25*(1), 79-93.
Comments	Not APA style.	(a) First word after colon not capitalised. (b) Missing assigned DOI.

3	N Kulkarni, S Patki (2016), A Study of Emotional Intelligence, Experienced Bullying and Psychological Well-Being among Secondary School Students from Boarding Schools, International Journal of Indian Psychology, Volume 3(4),DIP:18.01.193/20160304,DOI: 10.25215/0304.193	**Neha, K., & Sairaj, P.** (2016). A study of emotional intelligence, experienced bullying and psychological well-being among secondary school students from boarding schools. *The International Journal of Indian Psychology, 3*(4), 12-27.
Comments	Not APA style.	(a) Author names incomplete. (b) Missing assigned DOI.
4	Chisholm, J. F. (2014). Review of the Status of Cyberbullying and Cyberbullying Prevention. Journal of Information Systems Education, 25(1), 77-87.	Chisholm, J. F. (2014). Review of the status of cyberbullying and cyberbullying prevention. ***Journal of information systems education***, *25*(1), **77.**
Comments	Not APA style.	(a) Publication title not capitalised. (b) Incomplete page ranges. (c) Missing URL: https://jise.org/Volume25/n1/JISEv25 n1p77.html
5	Saadiah Ghazali, Nor Intan Saniah Sulaiman, Nerda Zura Zabidi, Mohd Faizal Omar, and Rose Alinda Alias, "The impact of knowledge sharing through social media among academia", AIP Conference Proceedings 1782, 030003 (2016) https://doi.org/10.1063/1.4966060	**Ghazali, S., Sulaiman, N. I. S., Zabidi, N. Z., Omar, M. F., & Alias, R. A.** (2016, **October**). The impact of knowledge sharing through social media among academia. In *AIP Conference Proceedings* (**Vol.** 1782, **No.** 1, p. **030003**). AIP Publishing LLC.
Comments	Not APA style.	Incorrect – cited as conference proceedings published as a book chapter. (a) Incomplete author names. (b) Addition of month in publication date. (c) Missing editor(s). (d) Addition of "Vol." and "No." (e) Incomplete page ranges. (f) Missing assigned DOI.

Note. As Source 6 is a news story, no pre-formatted citation was available. Errors found in the APA citations by Google Scholar are in bold.