

## **Students' Knowledge and Quality of Citation in Private Institutions in Surigao City**

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**Abstract:** This study determined the students' knowledge in terms of referencing and in-text citation and the quality of citation in research in terms of accuracy and consistency. A descriptive quantitative survey method was used in this study, wherein forty (40) education students at St. Paul University participated in a test comprising a researcher-made questionnaire based on the American Psychological Association's (APA) Manual. Findings reveal that the participant's level of knowledge in citation was good. The research output was also found to be generally satisfactory. The participants' citation skill was found to be significantly associated with citation quality in their research output. This study emphasizes the importance of students' citation knowledge in ensuring the quality and positive citation of their research outputs. The study points to the need for teachers and librarians collaboration to enhance students' skills in making appropriate citations in their research outputs to avoid plagiarism and reduce errors in citing sources.

**Keywords:** Citation, Referencing, In-Text Citation, Citation Quality, Accuracy, Consistency

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### **Introduction**

One of the distinguishing hallmarks of academic research is the use of citation and referencing. A citation is the most unique feature of language used in academic disciplines as citing and referring to other authors serve as the basis for the expressiveness and acceptance of academic arguments (Hewings, Lillis, & Vladimirov 2010). Hence, acknowledging others' works and promoting as well as validating the author's knowledge claims is a prerequisite to academic writing.

At the undergraduate level, appropriate knowledge in citing needs serious consideration. In the first place, the act of citing requires certain norms. Sankaran (2016) observed that thesis writers commonly copy previous students' work without completely understanding the original citing conventions. Copying or directly referencing a source without proper citations can lead to not only a poor grade, but accusations of academic dishonesty.

Many students experience a citation problem that is caused by lack of basic knowledge of citation on how to cite references, how to quote and use direct quotations of sources, how to paraphrase, how to cite in an in-text and how to write a consistent and accurate citation. Kargbo (2010) found that undergraduate students face difficulties in citation in their academic work and that they are inconsistent in the way they cite.

Various studies have been done on proper citation; citation analysis and plagiarism (Sankaran 2016). Yet in the researcher's workplace, fellow teachers and colleagues have time and again shared the observation about students' lack of knowledge and quality of using citations in their research projects and term papers. Recognizing the librarian's role in instructing students about correct citation, this researcher found it necessary to conduct an investigation about students' citation knowledge so that students improve their performance in academic writing. The study also relates this citation quality to make students to be aware of citation quality.

This study determined the relationship between the students' citation knowledge and the citation quality of research output in a private institution in Surigao city. Specifically this study sought to answer the following questions: (1) What is the participants' level of citation knowledge in terms of: referencing, in-text citation, method of citation, and resource format? (2) What is participants' level of citation quality in the following dimensions: accuracy and consistency? Problem 1 & 2 are hypothesis free. On the basis of problem 3, the following hypothesis was tested at 0.05 significance level: Ho1: The student's citation knowledge is not significantly associated with the citation quality of their research output.

### **Theoretical and Conceptual Framework**

This study assumes that citation knowledge of students correlates with citation quality of research output. This assumption is anchored on the Theory of Planned Behavior (TPB) by Ajzen's (1991). This theory is concerned with the human actions that can influence the knowledge of a person when performing specific behavior. Thus, the behavior happens because of the opportunity to engage in decision-making. Jone (2006) suggested that knowledge and decision are highly related: making a decision requires knowledge and the decision itself can become a piece of knowledge.

The theory explains the processes or actions done by students in preparing their course requirements, e.g. research or term papers. These necessitate the knowledge about citation. The students' academic requirement entails the exercise of the cognitive ability of students to discern and decipher their performance in the quality of citation to their research output. In this study, the theory influences the knowledge of the students to perform their actions on the understanding of the students in terms of referencing, in-text citation, method of citation and resource format that can create and produce quality of citation to their research output. *Citation quality*. It has been defined as fitness for use of data. This includes two dimensions: accuracy and consistency. Representation of accuracy and consistency is the extent to which the data presented in the same element and format (Wang, 2009). On this study quality of citation was evaluated through the two dimensions the accuracy and consistency of the citation quality. Accuracy of citation is based on the following: the title, author, date of publication edition, publisher and place of publication and if it is journal include the volume number and pages. The format consistency of the citation is based on punctuation such as commas, periods, semicolon and capitalization of the words. To measure the quality of citation rubric were used for the accuracy and consistency of the citation in the research paper. Knight (2006), explained the importance of creating rubrics for student bibliographies that correlates to their performance in keeping learning objectives and possible outcome.

### Research Method

This study utilized descriptive correlation design. It is considered as the most appropriate design in this current study about the citation knowledge and citation quality of research outputs of the students. Descriptive design was defined by Best and Khan (2006) as a design which attempt to discover overviews that deal the present condition. Descriptive correlation research design was used to this study to obtain the significant relationship between citation knowledge and citation quality.

The participants of this study were the forty (40) 4th year education students enrolled in Thesis Writing 1 in a private Institution in Surigao City during the academic year 2018-2019.

There were two (2) instruments used in this study. The first was a test consisting of 40 multiple choice items to determine the student's knowledge on citation. It was adapted from Publication Manual of American Psychological Association .The second instrument evaluated the quality of citation in their research output using the modified rubric which contained the following criteria: accuracy and consistency of citation.

The questionnaires went through a validation process through consultation with professional experts in Library and information Science. Their suggestions were incorporated into the instruments.

To establish the reliability of the instruments, those were pilot tested to participants who did not take part of the actual study. The purpose of the pre-test of the questionnaire was to improve the items included in the instrument. The data from the pilot test were treated with the Kuder-Richardson 21 (KR21) to determine the internal consistency of the items. The coefficients were the following: referencing got a KR 21 valued of 0.70; in-text citations 0.95, method of citation 0.81, resource format 0.82 reliable. Based on the result of the KR 21 test, the questionnaires was reliable.

### Result and Discussions

The succeeding discussions reveal the results of the study as postulated in the introduction of this paper.

Presented in Table 1 is the frequency and percentage distribution of participants' level of citation knowledge in terms of Referencing. The overall mean of 6.48 indicates that students' knowledge about referencing was "good." This means that they possess certain knowledge about referencing. Specifically, fifty percent (50%) of the participants claimed to have a good level of knowledge about referencing while (7.5%) of the participants had fair level of knowledge.

The data imply that students had a basic knowledge about referencing to include identifying the title, the author, the place of publication and the year published. They also had knowledge about arranging the entries. This finding resonated with the statement of Ojedokun (2007) who explained that referencing is necessary to avoid plagiarism; to help support a scholar's arguments; to add credibility to their writings; to trace the origin of ideas; and to spread knowledge by looking at the list of sources cited. Moreover, proper referencing is a sign of respect to the ideas and works of others by acknowledging them to ensure best practices in academic research.

Table 1 Frequency, Percentage and Mean Distributions of Participants' Level of Citation Knowledge (Referencing)

Range	Interpretation	F	%
9-10	Outstanding	7	17.5
7-8.99	Very Good	10	25
5-6.99	Good	20	50
3-4.99	Fair	3	7.5

1-2.99	Poor	0	0
<b>Total</b>		40	100.0
<b>Overall Mean</b>			6.48
<b>Interpretation</b>			Good
<b>SD</b>			1.74

Table 2 shows the frequency and percentage distribution of participants' level of citation knowledge in terms of in-text citation. The overall mean of 6.23 indicates that students' knowledge about in-text citation was generally "good". The highest percentage of them (50%) had a good level of knowledge in an in-text citation while the lowest percentage (12.5%) had outstanding level of knowledge.

The finding indicates that students had a good knowledge of in-text citation. The data indicates that students are exerting their effort in in-text citation to include proper format in citing within the text. The data further show that students know that crediting author's ideas are important in acknowledging other's work. . Moreover, Putman & Phelps (2017) revealed that authors use in-text citations to provide support for their claims and to acknowledge the works of others.

Table 2 Frequency, Percentage and Mean Distributions of Participants' Level of Citation Knowledge (In-text Citation)

Range	Interpretation	F	%
9-10	Outstanding	5	12.5
7-8.99	Very Good	9	22.5
5-6.99	Good	20	50
3-4.99	Fair	6	15
1-2.99	Poor	0	0
<b>Total</b>		40	100.0
<b>Overall Mean</b>			6.23
<b>Interpretation</b>			Good
<b>SD</b>			1.83

Table 3 shows the frequency and percentage distribution of participants' level of citation knowledge in terms of the method of citation. The overall mean of 5.45 indicates that students' knowledge about method of citation was good. This means that out of 10 items, they answered 5-6 items correctly in relation to the method of citation. Specifically, thirty two point five percent (32.5%) claimed that they have a good level of knowledge about method of citation while five (5%) participants reveal poor level of knowledge.

The findings point out that students have a good idea on how to quote, paraphrase and summarize certain passages. The finding is in consonance with the result of the studies of Choy & SEDhu (2014) which found that the students can paraphrase better with passages that contained main points that were easily identified.

Table 3 Frequency, Percentage and Mean Distributions of Participants' Level of Citation Knowledge (Method of Citation)

Range	Interpretation	F	%
9-10	Outstanding	5	12.5
7-8.99	Very Good	8	20
5-6.99	Good	13	32.5
3-4.99	Fair	12	30
1-2.99	Poor	2	5
<b>Total</b>		40	100.0
<b>Overall Mean</b>			5.45
<b>Interpretation</b>			Good
<b>SD</b>			2.14

Table 4 shows the frequency and percentage distribution of participants' knowledge of citation in terms of resource format. Data reveal that the participants' level of knowledge was rated good (M=5.4). This finding is supported by a good number of students (35%) who had a good knowledge in identifying the format to be cited, while 7.5% of students had poor level of knowledge in using various formats.

The findings reveal that the students fairly understand citation by resource format. These include books, journals, magazine, eBooks, online webpages, dissertations, data set, tweets and even blog posts. This finding does not concur with the study of Park, Mardis & Ury (2011) which revealed that the students frequently

struggle in identifying types of sources listed in database or bibliography citation causing them to create bibliographies filled with errors.

Table 4 Frequency, Percentage and Mean Distributions of Participants' Level of Citation Knowledge (Resource Format)

Range	Interpretation	F	%
9-10	Outstanding	5	12.5
7-8.99	Very Good	4	10
5-6.99	Good	14	35
3-4.99	Fair	14	35
1-2.99	Poor	3	7.5
<b>Total</b>		<b>40</b>	<b>100.0</b>
<b>Overall Mean</b>		<b>5.4</b>	
<b>Interpretation</b>		<b>Good</b>	
<b>SD</b>		<b>2.36</b>	

Table 5 shows the frequency, percentage and mean distributions of participants' level of citation quality in terms of accuracy. Data reveal that the participants level of citation quality in their research in terms of accuracy was rated "satisfactory" (M=3.27). Specifically, one hundred percent (100%) of the students were rated as satisfactory in the quality of their citation. Based on the citation rubrics, the satisfactory rating also indicates that the citation of their research had 1-2 elements in a reference and in-text citation entry are missing or have been incorrectly included

Table 5 Frequency, Percentage and Mean Distributions of Participants' Level of Citation Quality (Accuracy)

Range	Interpretation	F	%
3.51 – 4.00	Exceptional	0	0.00
2.51 – 3.50	Satisfactory	40	100.00
1.51 – 2.50	Substandard	0	0.00
1.00 – 1.50	Unacceptable	0	0.00
<b>Total</b>		<b>40</b>	<b>100.00</b>
<b>Overall Mean</b>		<b>3.27</b>	
<b>Interpretation</b>		<b>Satisfactory</b>	
<b>SD</b>		<b>0.22</b>	

This also indicates that students met difficulties or errors in their citation. This is in consonance to the study of Taylor (2002), who observed that up to 60% of research articles have errors related to citation. The studies of Browne et.al (2004) also reported that there is one error in half of the references.

Table 6 shows the frequency, percentage and mean distribution of participants' level of citation quality in terms of consistency. Data reveal that the participants' citation quality is rated as satisfactory (M=3.40). Specifically, eighty percent (80%) of the students had satisfactory rating on the quality of their citation. A satisfactory rating means that 1-2 of the prescribed formats (indent, punctuation, etc) was not consistently followed...

Table 6 Frequency, Percentage and Mean Distributions of Participants' Level of Citation Quality (Consistency)

Range	Interpretation	F	%
3.51 – 4.00	Exceptional	8	20.00
2.51 – 3.50	Satisfactory	32	80.00
1.51 – 2.50	Substandard	0	0.00
1.00 – 1.50	Unacceptable	0	0.00
<b>Total</b>		<b>40</b>	<b>100.00</b>
<b>Overall Mean</b>		<b>3.40</b>	
<b>Interpretation</b>		<b>Satisfactory</b>	
<b>SD</b>		<b>0.39</b>	

This implies that the citation of students in their research had not completely followed the standard format adapt and practice by the institution. The result in this study is similar with the study conducted of Delhi (2016), which showed that students have understanding about citation consistent with recognized citation style and format

Table 7 Result of the Test of Relationship between Participant’s Citation Knowledge and Citation Quality of Research Outputs

Citation Quality	Citation Knowledge								Overall Citation Knowledge	
	Referencing		In-Text Citation		Citation Methods		Resource Format		r	Sig.
	r	Sig.	r	Sig.	r	Sig.	r	Sig.		
Reference Accuracy	.015	.929	.069	.672	.024	.885	.021	.896	.030	.855
In-Text Accuracy	.091	.578	.051	.755	-.032	.843	-.091	.576	.009	.956
OVERALL ACCURACY	.059	.716	.068	.676	-.005	.977	-.039	.811	.022	.892
Reference Consistency	.378*	.016	.520**	.001	.403**	.010	.449**	.004	.565**	.000
In-Text Consistency	.301	.059	.471**	.002	.311	.051	.374*	.017	.471*	.002
OVERALL CONSISTENCY	.348*	.028	.511**	.001	.366*	.020	.423**	.007	.532**	.000
Overall Citation Quality	.425**	.006	.596**	.000	.370*	.019	.623**	.000	.611*	.000

\*. Correlation is significant at the 0.05 level (2-tailed).

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Table 7 shows the result of the test of relationship between citation knowledge and the citation quality of the research output. Data reveal that there were significantly associated between the citation quality and citation knowledge in terms of referencing ( $r=.425$ ), in-text citation ( $r=.596$ ), method of citation ( $r=.370$ ) and resource format ( $r=.611$ ). This indicates that the students are responsive to their actions that influence their performance to have a quality outputs. This is not only for the grades but for the aspect of acknowledge the works and ideas of others that help to prove and support to their academic requirements especially in research. The data also reveal that citation knowledge and citation quality particularly on consistency ( $r=.532$ ) were significantly associated .But, specifically in terms of accuracy there was no significant association ( $r=.022$ ). In general there were significant associations between citation knowledge and citation quality ( $r=.611$ ) therefore the study provides statistical evidences to reject the null hypothesis.

The finding implies that the students’ have good citation knowledge that may influence to their citation quality of their research outputs. These also indicate that students know the norms and conventions required of a quality research output. It also points out that students are paying attention to what is missing or incomplete in their citation. The result of this study similar with the study conducted by Miller et. al (2011) which found out that the effort of faculty in disseminating the knowledge may have resulted of greater research outputs done by the students for their academic requirements.

### Conclusion

Based on the findings of the study, students have good citation knowledge and satisfactory citation quality in their research output. This points out that student is aware of the norms and conventions of citation practice. The satisfactory rating of citation quality emphasizes the missing elements and errors that may need further interventions. The study underscores the important role of teachers in disseminating the value of citation knowledge and citation quality, not only for course requirements purposes but lifelong learning. It also emphasize out to the crucial role of librarians in developing more dynamic information literacy sessions that will lead to upgrading their citation knowledge and citation quality.

### Recommendations

Based on the findings and conclusion derived from the study, the following recommendations are hereby offered: 1.That students may participate in institutional activities related to research writing.2.Faculty members may develop innovative instructional strategies in improving their performance from good to higher level. 3. That librarians consider developing guides and tutorials on citation and expand research service to include citation literacy; and collaborate with faculty members in conducting information literacy sessions using team-teaching approach not only APA but also other citation guides.4. Administrators may enhance policies on

academic integrity, e.g providing incentives and awards for quality research output. 5. That future researchers may conduct citation metrics and consider other variables related to quality of research outputs.

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