STUDENTS’ ATTITUDES TOWARDS THE USE OF ZOTERO AS WEB-BASED CITATION MANAGEMENT TOOL IN ACADEMIC WRITING AT UIN SUNAN AMPEL SURABAYA

THESIS
Submitted in Partial Fulfillment of the Requirement for the Degree of Sarjana Pendidikan (S.Pd) in Teaching English

UNIVERSITAS INDAH NEGARA

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ABSTRACT
Rosida, Nur Aifa (2018). “Students’ Attitudes towards the Use of Zotero as Web-Based Citation Management Tool in Academic Writing at UIN Sunan Ampel Surabaya” A Thesis. English Teacher Education Department, Faculty of Tarbiyah and Teacher Training, University of UIN Sunan Ampel Surabaya. Advisors: Dr. Siti Asmiyah, M.TESOL and Rakhmawati, M.Pd.

Keywords : attitudes, web-based citation management tool, Zotero, and academic writing.

Student often find difficulties in citing sources while citing source is an important component in academic writing. Most of the students still use manual citation whereas there are many rules and arrangements in writing citation. That may cause wrong citation when it is done manually. To overcome this problem, students can use Zotero as a web-based citation management tool to ease them in citing sources. For this reason, this research is aimed to reveal students’ attitude towards the use of Zotero as web-based citation management tool in academic writing. The quantitative data were collected in form questionnaire and is distributed to 107 out of the total 113 students as the population using Google form, WhatsApp chat, and direct massage through Instagram. SPSS 16.0 (Statistical Package for the Social Science) is utilized to find the result of students’ attitude from the questionnaire. The result shows that students in 8th semester have positive attitude in term cognitive aspect, affective aspect and negative attitude in behavior aspect toward the use of Zotero in academic writing. In the one hand, their cognitive aspect and affective aspect are positive toward the use of Zotero because they have been familiar, knowledgeable and enthusiastic about Zotero. In the other hand, they have negative attitude in behavior aspect because they do not use Zotero in their academic writing. In brief, cognitive and affective aspect does not affect behavior aspect students’.
ABSTRAK


Kata Kunci: sikap, kutipan berbasis web, Zotero dan akademik writing.

ACKNOWLEDGEMENTS

First of all, all praises and thanks are always to Allah SWT because of his blessing and mercies, the planning, accomplishment and completeness of this thesis entitled STUDENTS’ ATTITUDES TOWARDS THE USE OF ZOTERO AS WEB-BASED CITATION MANAGEMENT TOOL IN ACADEMIC WRITING AT UIN SUNAN AMPEL SURABAYA as partial fulfillment of requirements for degree of teaching English can be finished smoothly. Secondly, the writer also says thanks to parents because they are always patient to educate, manage, and guide the writer from the lower level to the higher level of education. They give affection and love to the writer. Besides, they give many of knowledge to guide the writer become someone who has good morals to everyone. They also support the writer in everything to be successful.

The writer can succeed because many directions who support. Therefore, the writer says thanks very much to:

- Prof. Dr. H. Ali Mas’ud, M.Ag., M.Pd.I as Dean of Faculty of Education and Teacher Training.
- Dr. Muhammad Salik, M.Ag as the Head of Language Department of Faculty of Education and Teacher Training.
- Dr. Siti Asmiyah, M.TESOL as the Head of English Teacher Education Department and as the Advisors of this thesis who always guide and give many advices to the writer.
- Rakhmawati, M.Pd as the Advisors of the thesis who always guide and give many suggestion to the writer.
- The writer’s parents
- The writer’s sisters and brothers
- The writer’s teachers and lecturers
- The writer’s best friends
- All people who help the writer

Finally, the writer hopes may from all good actions or kindness of all directions that is given to the writer get a blessing as good as possible from God Allah SWT, the author of the world. Amiin.
Surabaya, 11 November 2018

The writer,

Nur Aifa Rosida
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CHAPTER I
INTRODUCTION

This chapter gives an overview of the background of the study, research question, objective of the study, significance of the study, scope and limitation of the study, and definition of key terms.

A. Research Background

One of the most important components in academic writing is citing sources.¹ It is used to appreciate an idea, to know the origin of the sources and to understand the point of another person. Kratochvil states references are an integral part of academic writing.² This indicates that citing sources is a step that must be considered carefully in academic writing and the way to cite sources becomes essential in writing academic papers.

However, a study by Homol shows that many students struggle when citing sources in their research papers and repeatedly making some citation mistakes.³ Thus, they should not underestimate the citation since their mistakes potentially affect the quality of their writing. Likewise, citing sources can lead to alternating feelings of confusion and frustration in students.⁴ Such as they get a problem because they do manual citation. According to a Project Information Literacy report, 41 percent of undergraduates surveyed expressed difficulty in knowing how to cite sources.⁵ Furthermore, based on the preliminary research at English Teacher Education Department, a lot

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⁴ Ibid.
⁵ Ibid.
of students face some difficulties in citing sources. Also, their lack of knowledge in citing sources can be accused of being plagiarism. It is because a number of students still do not know the arrangement of citation well. Such a problem may be because they do manual citation.

To overcome this problem, Web-based citation management tools can provide the effectiveness in storing and using information as a citation source. One of them is Zotero. It is one of the popular web-based citation management tools. Zotero are getting popular in academic community and research world. It becomes a well-known application for writing papers since it is a free, open-source research tool that helps students collect, organize, and analyze research and share it in a variety of ways. According to Winslow, Zotero is a digital research tool that assists students in collecting and formatting sources for bibliographies.

Besides, Frank states Zotero is one of several citation management software programs academics can use to organize research, as well as to automatically add citations to their written works. Thus, Zotero can help a student in storing and using information as citation sources. Moreover, it helps the student to insert the component of citation like date, place, author, title, publisher, DOI, easier and it also could capture the reference information from the web.

Most of the students at English Teacher Education Department are familiar with Zotero. As a matter of fact, the students at English Teacher Education Department have got basic knowledge about Zotero in the second semester in Study Hadist course and in the fifth semester in Study Information course. 

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semester in an academic writing course. Besides, most lecturers recommend them to use Zotero in writing papers, whereas a number of students still do not use it in citing sources. It can be seen from preliminary research that some of the students have the tool but they do not install it on their laptop. Furthermore, some others have installed it but they still do not use it in writing papers.

In term of web-based citation management, there have been some previous researches, but they only focused on comparing the accuracy with different web-based citation management tools such as EndNote, Mendeley, RefWorks and Zotero, those done by Homol and Kratochvil. Then the result is that Zotero is suitable management software to manage references rather than others, since Zotero has lower mistake. Other research by Parabhoi focused on comparing between Zotero and Mendeley. Then the result is both software having the same function is used for creating bibliography, citation and storing bibliographical data.

Other research by Lee also focused on the teaching of basic citation and the results were many students find difficulties in writing citation. Then, Noguchi focused on the benefit of web-based citation management tools which explore many benefits of web-based management tool. While Basri focused on exploring students’ perception on Mendeley which many students face difficulties in

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11 Kratochvíl, “Comparison of the Accuracy of Bibliographical References Generated for Medical Citation Styles by EndNote, Mendeley, RefWorks and Zotero”.

12 Lambodara and Susantha, “Citation Management Software Tools: a Comparison with Special Reference to Zotero and Mendeley”, p. 288.


using the tool. However, they miss looking at students’ attitude toward web-based citation management tool.

Based on previous study above, there is something interesting to conduct research related to students’ attitude. They are familiar with Zotero, knowing the advantages and they also know that Zotero is easy to cite source rather than manual. But, they do not use it. Therefore, it is important to conduct the research related students attitudes toward the use of Zotero since the result of previous study showed that Zotero is suitable management software to cite sources. In addition, the software are getting popular among research and academic community. Moreover, it also getting familiar in eight semester students.

For this reason, this study tries to fill the gap by focusing on students’ attitudes towards the use of Zotero as web-based citation management tool in academic writing.

B. Research Question

Based on the background of the study above, the research question of this study is “What is students English Teacher Education Department attitude towards the use of Zotero as web-based citation management tool in academic writing?”

C. Objective of the Study

The objective of this study is to investigate the students’ attitudes towards the use of Zotero as web-based citation management tool in academic writing by eight-semester students of 2017/2018 academic year at English Teacher Education Department of UIN Sunan Ampel Surabaya.

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16 Lambodara and Susantha, “Citation Management Software Tools: a Comparison with Special Reference to Zotero and Mendeley”, p. 288.
D. Significance of the Study

The result of this research is expected to give significant input to the following people:

1. For Lecturers
   After knowing students’ attitudes, it is expected that lecturer is able to choose a suitable web-based citation management tool based on students’ need to help them in citing source more easily.

2. For The Other Researchers
   Hopefully, this research useful as an input for other researchers to conduct further research dealing with the effectiveness of using a web-based management tool for citing the source in academic writing.

3. For English Teacher Education Department.
   The researcher hopes that the major of English Teacher Education Department able to introduce about the use of Zotero as media in storing and citing sources in their academic papers. Besides, it can potentially improve the quality of students writing.

4. For Librarians
   The researcher hopes that this research has a big contribution. Especially for librarians at UIN Sunan Ampel Surabaya. Moreover, if the librarian is able to provide training services to manage references both digital and manual by using a free application such as Zotero for students.

E. Scope and Limitation of the Study

The scope of this study, focus on students’ attitude towards the use of Zotero in academic writing and does not investigate or observe on the process of using Zotero. The researcher investigates the students English Teacher Education Department attitudes toward Zotero particularly in terms of cognitive, behavior, and affective aspects.

The limitation of this study is the students’ attitude toward Zotero. Therefore, the result of this study does not present students ability using Zotero. But, only focus on their attitude toward Zotero.
F. Definition of Key Terms

There are some terms that need to be specified in this research to avoid possible misunderstanding. These include attitude, web-based citation management tool, citation, Zotero and academic writing.

1. Attitude

Attitude is defined as a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor.\(^\text{17}\) In this research, attitude refers to students’ psychological tendency of favor or disfavor toward Zotero as citation management tool for their academic papers.

2. Web-based citation management

Web-based citation management is a tool that enables any import and export of online and offline database informing both visual and audiovisual information.\(^\text{18}\) In this research, web-based citation management is a tool used to import and export online and offline references named Zotero.

3. Zotero

Zotero is a free reference manager that permits collecting, organizing, and citing documents.\(^\text{19}\) Zotero in this study is free web-based citation manager that can be used by students in citing a source for their academic papers.

4. Academic writing

Academic writing is one of academic papers that deal with areas of languages, text type, academic convention, and the writing process.\(^\text{20}\) In this research academic writing is defined as


academic paper developed by English Teacher Education Department at UIN Sunan Ampel Surabaya in form of thesis proposal.
CHAPTER II
REVIEW OF RELATED LITERATURE

The literature review in this chapter gives a brief explanation about some theories that support this research. The theories are related to students’ attitude toward the use of Zotero as web-based citation management tool in academic writing.

A. Theoretical Framework

1. Definition of Citation

There are many definitions of citation. Garfield considers citation as not just a list of data extracted from the citation index, but an expression of the intertextuality relationship in citing and cited work.\(^{21}\) Precisely, citation is the way to tell the readers that expresses the intertextuality which comes from another source. In the other word, Neshat, cited in Teymourikhani, states that citation expresses the relationship between the previous, nowadays, and the future is written reference.\(^{22}\) In addition, Dilorio argued that a citation is a tool for disseminating and exploring research.\(^{23}\) In short, a citation is a tool or system used to appreciate a written paper. Besides, it can provide the truth of writing through its source. Moreover, a paper is more easily evaluated by citation to show its validity. This is consistent with a quote which is stated that after going through the evaluation process.\(^{24}\)

Based on several definitions of citation by some theories above, it can be translated that citation is the way of connecting one text with another and as a rule used to maintain norms and values in the world of writing, especially those related to the academic world. Furthermore, citation is used as a legal means to


\(^{22}\) Ibid., p. 3.


\(^{24}\) Ibid., p. 234.
avoid plagiarism perpetrators, because people today are more afraid of criminal than showing the appreciation of people's ideas.

According to Lee, there are three reasons why writers should cite sources. These include: (a) To avoid unintentional plagiarism. It means that to avoid the same sentences or ideas that are written by the researcher. (b) To give credit to other authors’ hard work and show our respect for their intellectual property. Citation is used to show the origin of the sources and to appreciate their intellectual ideas in the academic world. (c) To provide complete bibliographic information about sources so that readers can locate the full text of the sources whenever they want. Since citation ideally provides complete bibliographic references, it also makes the readers more easily look for the original source work cited in the paper.25

2. Web-based Citation Management Tool

In the era of rapid movement of technology, the way researchers cite a source in academic writing has been developing. In the past, citing references was done manually by identifying authors, years, titles, city and publisher, then written based on rules that have been the convention by each region. However, in the modern era, a reference can be written automatically using various web-based citation management tools or reference management software such as Zotero, Mendeley, RefWorks, and EndNote. These reference management tools are well known in the scientific community.26 Moreover, web-based citation Management tool was born in the early 1980s that allowing people to organize bibliography and references in scholarly documents.27

Recently, people use web-based citation management tool to collect, to save the data reference from the internet and to

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transform it into footnote or in-note. Moreover, researchers use the web-based management tool to manage their records and to utilize their bibliographic citations. In addition, the use of citation management software to avoid unnecessary errors for citation references.\textsuperscript{28} Furthermore, they use web-based citation because they often write academic papers which always require many sources. By using the web-based citation management tool, researchers can easily re-detect their sources that have been used previously and simply recite the sources.

Web-based citation management tools provide the effectiveness in storing and using information as a citation source. As Noguchi states in his research that the benefits of web-based citation management facilitate the writer to export and import the data citation record from the online database. It can also save the citation data such as title, author, time, publisher, and link automatically on web-based management tool.\textsuperscript{29} Besides, this tool is designed to capture audio and visual information. It is the main function of retrieving metadata. Additionally, the form of web-based is simple and available for free. It could be shared with other easily and it also has some guidance on how to use it. So students could learn it faster.

3. The Function of Web-based Citation

It has been mentioned that the function of a citation is to prove the original source of writing so that what is written can be accounted for. Bowers presents the benefits of citation as follows:\textsuperscript{30} (1) providing easy in book qualification from author name, book description from title, and book search, (2) finding the appropriate source of data validity and searching for the appropriate source which eases searchers to do more research, and (3) facilitating the identification of the source of the book, so

readers can pick up appropriately reference books to their field of study. While according to APA (American Psychological Association), citing reference is important to acknowledge someone else’s ideas or words that have been used in other written work.\textsuperscript{31} Furthermore, when someone uses or paraphrases information without mentioning the author, it can be accused of as plagiarism. In addition, correct citation enables the markers or readers to know the location of the source of the information. Thus, correct citation is not only to locate information but also to discover further views or ideas discussed by the author.\textsuperscript{32}

4. Zotero

The origin name of Zotero from Albinian language which means to master or acquire.\textsuperscript{33} Zotero is one of popular web-based citation management tool. It becomes a well-known application for writing papers since it is a free, open-source research tool that helps users to collect, organize, cite and share research in a variety of ways.\textsuperscript{34} In addition, Zotero also works with browser, such as Google scholars and Firefox extension.\textsuperscript{35} Moreover, Zotero can add citation through online and offline condition. According to Winslow, Zotero is a digital research tool that assists users in collecting and formatting sources for bibliographies and notes.\textsuperscript{36}

Besides, Frank states that Zotero is one of several academic citation management software programs that is used to organize research, as well as automatically add citations to their written


\textsuperscript{32} Ibid., p. 7.

\textsuperscript{33} M Dingemanse, \textit{The etymology of Zotero} (2008), http://ideophone.org/zotero-etymology/.


Based on the explanation above, it can be concluded that Zotero is a free digital software manager for managing, collecting and organizing sources in academic papers.

It is suitable for people who teach, publish or write academic papers. Such as for lecturers, students and researchers since they often write papers. Moreover, the process of saving the reference in Zotero is quite simple and efficient. Besides, it can be connected to any websites and library catalogs which make it easy for users to save references with a single click.

There are three main features in Zotero. Those make Zotero has more efficiency than other web-based citation management tool.

First, Zotero can scan the website and surf the source of reference. For example, the author has one or some e-book have been inserted to Zotero, it will be saved automatically with the detail of reference have been written. When the data is needed, the author only needs to type the title or the author of the e-book, it will be showed and could be opened in pdf or another document format. It likes the picture below.

Picture 2.1. Zotero can scan the website

Second, Zotero is able to add some journal, e-book, an article by typing ISBN, DOI or PMID. Zotero will automatically search an input the reference data detail. Then it will be saved. This

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feature only used to download and write a reference source in detail such as e-book, article, journal and etc.

Picture 2.2. Zotero can add some journal

The last but not least, Zotero can save the PDF online data. The user simply needs to drag and drop the file found in the browser tool to the Zotero. Then, the file will be automatically downloaded, and Zotero will retrieve the detail of source data reference. It also could be used in the other way. When offline document has been inserted to Zotero, it just needs to click the file and choose "retrieve metadata for PDF", Zotero will search the detail source and if the detail source not found, it can be written automatically.

Picture 2.3. Zotero can retrieve metadata for PDF
Furthermore, Zotero able to insert bibliography automatically in document.\textsuperscript{39} Therefore, students do not need to type bibliography manually and arrange the authors name from A-Z because it is exhausting.

5. Academic Writing

Academic writing is a required task for Students University. Academic writing is different from creative writing since it is an academic work which is related to education, especially in a college or university.\textsuperscript{40} It is a kind of writing which has an academic purpose, in which this writer has to follow the rules in accordance with the agreement.\textsuperscript{41} As an example, dissertation thesis, research reports, essays, examination and so on.\textsuperscript{42} This research focus on academic papers students in term of thesis proposal that has been done by the seventh semester at major English Teacher Education Department at UIN Sunan Ampel Surabaya.

Academic papers or academic writing is different from other writing. Because academic writing itself has steps and rule to write it. According to Anne, there are 10 principles of academic writing:\textsuperscript{43} clear purpose, audience engagement, clear point of view, single focus, logical organization, strong support, clear and complete explanation, effective use of research, correct APA style, writing style and always follow the direction of your instructor.

(a) Clear purpose, the common purpose when writing academic are to analyze/synthesize, to persuade and to inform the readers. (b) Audience engagement is the way writer able to engage the readers with our ideas and catch their interest with our writing style. Moreover, the writer should use appropriate reasoning and evidence to convince the readers. (c) Clear point of view, in academic writing, the writer should show big point what the paper talking about. It is supported by the original idea about the topic. It also includes a thesis statement. (d) Single focus, every paragraph should be supported by thesis statement and supporting sentences. It is for each paragraph has a single focus. (e) Logical organization, there is a pattern for standard organizational writing. There are an introduction, body paragraphs and conclusion. (f) Strong support, each paragraph should have relevant support for the topic. The support consists example, facts, description, personal experience, expert opinion, and quotation. (g) Clear and complete explanations, the writing should be clear and complete explanations for the reader. It is for the readers not difficult to understand the writer ideas. (h) Effective use of research, the writer should have clear academic sources for references. It uses to support ideas when writing academic papers. (i) Correct APA style, Students of the university need to be sure that their writing is written in the appropriate style. It is regarding in-text citation, the references list, and format. (j) Writing style, the writers should use their own language. Writers able to use a conversational style that usually uses in the classroom. Moreover, the writing should be clear, concise and easy to understand the readers. It also should correct in grammar, spelling, and kinds format of writing. (k) Always follow the direction of your instructor, the last but not least, the writer should follow the instructor or lecturer. It causes each lecturer has a different direction in form of writing.

6. Students Attitude

According to Majid and Nasser, an attitude is responses from an individual or people for all of the factors and event happening to him/her/them. When an individual or people get some events,
they always give a reaction. It can be silent, angry, smile and others. Simply they give a good respond or a bad respond. In other words, attitude is how people response mentally or physically toward the object. Likewise, when students are learning, they express their own attitude according to the stimulus they accept. For example, when they like English they will learn with all their favor. On the contrary, when they dislike English they will learn it carelessly.

Layman states that attitude is a behavior or ethic performed by individuals or societies.\(^{45}\) Whereas according to the scientific point of view, attitude is a hypothesis made by researchers to explain an interest. Human nature is to have a passion for the phenomena or objects around. Because of this basic reason, some characteristics such as behavior and response can be triggered and in a certain period of time can be inferred from some of these indicators. Afterward, a hypothesis can be drawn from the attitude that becomes a reflection of an individual’s or group’s interest. Seven decades ago Allport, as cited in Schwarz, states “How does one know that attitudes exist at all?”. Which in this cases the attitude refers to the mental attitude such as like or dislike and favor or disfavor.\(^{46}\) There must be something to consider for the consistency of the statement which supports the existence of the specific attitude by relying on the indicators needed to measure an attitude that finally used to make an inference.

Furthermore, Allport states that attitude is a mental or neural state of readiness, organized through experience, exerting a directive or dynamic influence on the individual’s response to all objects and situations to which it is related. It can be simply described that attitude is a mental condition or psychology of a person arising as a response toward objects and situations. These conditions can continue to grow and are automatically organized in their mindset. Eventually, a directive or dynamic response


(formed according to experience) will appear in accordance with the events experienced. Thus, a study aims to measure an attitude, the focus explored is must be the behavior. As Pickens quotes “when we were talking about attitude, we talking about someone’s behavior”.47

Pickens mentions that attitudes are a combination of things we tend to call personality, beliefs, values, behaviors, and motivations.48 It is said to be complex because sometimes from the combination there is an attitude that is just the opposite or even aligned. As an example, a person who says to have a good attitude turns out to have a bad past. On the contrary, there is also another expert who experiences a bad past but he also has a bad attitude. This is because of the relationship between emotions and unique habits triggered by the experience of each individual that eventually form an attitude.

Nevertheless, Elisabeth states that attitude has three components. They are a cognitive, an affective (emotional), and a conative (behavioral) component.49 The cognitive component contains perceptions and knowledge of the attitude, typically represented via stereotypes. The affective component represents feelings towards the object, and the conative component deals with questions of reacting towards the attitude. These three components can be developed to investigate the outline of the attitude of every person or society.

It is also supported by Bezen Tuncok.50 He mentions that attitude consists of cognitive, affective and behavioral components. The cognitive component contains thoughts that

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47 Jeffrey Pickens, “Attitudes and perceptions”, Organizational behavior in health care (2005), p. 44.
48 Ibid.
people have about the attitude. It is related to beliefs or perceptions about the objects or situations. The affective component expresses the feelings that arise about the cognitive element and the appraisal (good or bad) of these feelings. Then, the evaluation of the effect is translated into a behavioral component that gives utterance to the attitude which may be used often to face similar situations.
The above ideas can be summarized in the list table below:

<table>
<thead>
<tr>
<th>No</th>
<th>Attitude Aspects</th>
<th>Experts</th>
<th>The Construct of Attitudes</th>
</tr>
</thead>
<tbody>
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<td>√</td>
<td>√</td>
</tr>
<tr>
<td>2</td>
<td>Affective</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Behavior</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>4</td>
<td>Motivation</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Personality</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Values</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Beliefs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Emotional</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2.1. Aspects of attitude.

Based on the table above, the aspects of attitudes mentioned by experts three times or more will be used as indicators of attitudes. For this reason, the indicators of attitudes aspect are cognitive, affective and behaviors.

However, according to Elisabeth, emotion also includes in affective aspect. Similarly, it is also mentioned by Picken that motivation and personality are included in behavior aspect. Besides, Tuncok also mentions that beliefs, perception, and values have the same point with a cognitive aspect. For this reason, this research focuses on 3 aspects of cognitive, affective and behavior because other aspects are actually part of these 3 main aspects.
Diagram 2.1. Aspects of attitude.
B. Review of Previous Studies

The first previous study was conducted by Homol entitled “Web-based citation management tools: comparing the accuracy of their electronic journal citations”. This research was purposed to compare the accuracy of students’ electric journal citations. The sample of student-selected electronic journal articles was collected and MLA and APA citation for these articles were created using RefWorks, EndNote basic, Zotero and EDS. These findings showed that RefWorks had the lowest average error rate for APA citations and EndNote Basic had the lowest error rate for MLA citations. However, many students are using the EDS Cite tool, which was the least accurate of the products examined in this study.

A second study entitled "A Case Study of Web-based Citation Management Tools with Japanese Materials and Japanese Databases" written by Setsuke Noguchi. This study discusses more how these several tools categorized as Web-Based Citation such as RefWorks, EndNote, and Zotero can be utilized for Japanese materials in an efficient and useful manner. The test criteria are accuracy of import and export of Japanese bibliographic information, availability of Japanese characters, and features related to Web 2.0. The findings showed that although these web-based citation tools examined in this article have been used in Japan, it seems that only scholars in science and engineering utilize them, but not scholars in the humanities. This is because the tools were created to manage Roman languages and are not designed for non-Roman languages.

Next is Jiří Kratochvíl's work entitled "Comparison of the Accuracy of Bibliographical References Generated for Medical Citation Styles by Endnote, Mendeley, Refworks, and Zotero". This study includes an accuracy between Endnote, Mendeley, Refworks, and Zotero. But the focus studied is the process of generated URL

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52 Jiří Kratochvíl, “Comparison of the Accuracy of Bibliographical References Generated for Medical Citation Styles by Endnote, Mendeley, Refworks and Zotero”, ELSEVIER (The Journal of Academic Librarianship), vol. 10, no. 4, pp. 1–10.
error on each web tool. The result showed that the lowest number of mistakes was shown by Zotero, while RefWorks had the greatest number of mistakes. However, all programs still had problems especially with generating the URL and the date of access in the reference to online documents.

“It’s Time to Teach Citation Basics”\textsuperscript{53} by Lee is the fourth reference of this study. The study discusses the case of the number of errors in writing citation due to lack of basic knowledge of it. It shows that students do not seem to have basic knowledge of citation to identify different types of sources or precisely the basic element of references. Therefore, the authors conducted an experimental study to teach learners about the basic system of writing citation. The result indicates that students’ feedback to the class is positive, which encourages the researcher to continue teaching this class. They are thinking of taking more measures in the future to promote and improve the class and to incorporate it into other forms of instruction.

The last study from University of Makasar entitled “Exploring Indonesian students” perception on Mendeley Reference Management Software in academic writing” by Basri and Andi. The study was about exploring the students’ perception on Mendeley Reference Management Software (MRMS) focusing particularly with academic honesty as the fundamental aspect in the form of encouraging the academic integrity and avoiding academic dishonesty.\textsuperscript{54} The result indicates that the majority of Indonesian students were in the level of easy and very easy to use the MRMS especially using the feature Reference Manager, Read & Annotate, Add & Organize, Collaborate, Backup, Sync & Mobile, and Network & Discover. Nevertheless some of students still experienced little bit difficult to use the item on flexible formatting.

\textsuperscript{53} Andrew Y. Lee, “It’s Time to Teach Citation Basics”, in \textit{The Reference Librarian} (Routledge, 2013), pp. 55–60.
\textsuperscript{54} Muhammad Basri dan Andi Anto Patak, “Exploring Indonesian students” Perception on Mendeley Reference Management Software in Academic Writing”. 
While previous research done by Homol\textsuperscript{55} and Krachovil\textsuperscript{56} focuses on comparing the accuracy with different web-based citation management tool. Other research by Andrew also focuses on the teaching citation basic.\textsuperscript{57} Noguchi focuses on the benefit web-based citation management tools.\textsuperscript{58} While, Basri focuses on exploring student perception on Mendeley.\textsuperscript{59} However, they miss looking at students’ attitude toward web-based citation management tool. Therefore, this study tries to fill the gap by focusing on students’ attitudes towards the use of Zotero as a web-based citation management tool in academic writing.

\textsuperscript{55} Ibid., p. 552. Homol, “Web-based Citation Management Tools”.
\textsuperscript{56} Kratochvil, “Comparison of the Accuracy of Bibliographical References Generated for Medical Citation Styles by EndNote, Mendeley, RefWorks and Zotero”, p. 1.
\textsuperscript{59} Muhammad Basri dan Andi Anto Patak, “Exploring Indonesian students” Perception on Mendeley Reference Management Software in Academic Writing”.

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CHAPTER III
RESEARCH METHOD

This chapter explains the research method used in this research. The presentation of this chapter is divided into five sections; of research design, population and sample, data collection technique, and data analysis technique.

A. Research Design

This research investigates students’ attitude toward the use of Zotero in academic writing. The most appropriate research design is using survey research. According to Cresswell survey research is a survey of a population of people in order to describe the opinion, behavior, belief, and attitude or the characteristic of a population. Moreover, Cresswell argued survey research also called descriptive quantitative. Descriptive quantitative is a procedure to investigate and to describe the entire population of research. This research, investigates and describe students English teacher Education Department attitude toward the use of Zotero by giving them a questionnaire.

Besides, this research uses survey because the researcher does not give any treatment and does not modify the variable. Creswell states survey research does not experimentally manipulate the variable and does not give any treatment toward students.

B. Population and Sample

1. Population

According to Cresswell, population is a large group of people used as a source of data in representing a certain characteristic of the group. The population in this study is all
students in 8th semester of English Education Department at UIN Sunan Ampel. The population is 113 students with homogenous circumstances because every student has known about Zotero in the same semester and they are in the process of writing a thesis proposal.

2. Sample

In this study, to collect data students’ attitudes, the researcher take all members of the population. Besides, they have an equal and independent chance of being included in the sample.64 In other words, each student of the population has the same opportunity that is taken by the researcher. Nevertheless, only 107 students voluntarily fill the questionnaire. It started from 16 July up to 29 of July 2018. According to Creswell when the population around 100 students the minimum size is 80 students or more.65 For this reason, 107 students who fill the questionnaire has already fulfilled the criteria of Creswell theory.

C. Data Collection Technique

The data collection technique that is used in this study is survey. The participants of this research are 8th semester student in English Teacher Education Department at UIN Sunan Ampel Surabaya. The researcher distributes a questionnaire to students. When there are obstacles in the distribution of manual questionnaire such as because student difficult to meet and rarely come to campus. The researcher uses social media such as Google form because it is easier to answer a questionnaire when they cannot meet directly. However, there are some obstacles when students only have Whatsapp quota and they do not have internet access to open link questionnaire on the internet. The alternative way is researcher administer the sentences of the questionnaire through chat student directly. Then, for students who cannot chat through WhatsApp, the researcher send a direct message through Instagram social account to distribute the questionnaire.

64 Donald Ary et al., Introduction to research in education, 8th ed edition (Belmont, CA: Wadsworth, 2010), p. 150.
65 Creswell, Educational research, p. 376.
Besides, the researcher also calls students’ phone number when they little bit less understanding about the questionnaire.

In the process of collecting data, is done independently by the researcher without helping assistance. In addition, the data collection process was two weeks. It was held on 16 of July up to 29 July 2018. Once data is obtained, the data is processed and analyzed. The data analysis information is explained in the data analysis technique.

D. Research Instruments

The research instrument used in this study is questionnaire adapted from Elisabeth, Nobert, Picken, Abidin, and Tuncok in defining the aspects of the attitude. From the aspects proposed by these experts, this research only takes cognitive, affective and behavior aspects because they are mostly mentioned by the experts. Ary states that the research instrument is a data collection tool used to measure natural and social phenomena.66 It can be concluded that the use of a research instrument is to find complete information about a problem, natural phenomena and social phenomena.

In this study, the researcher breaks down each aspect of attitude into statements in the questionnaire. For aspect cognitive, there are 5 items. Then, for aspect affective there are 13 items and aspect behavior there are 11 items. The example for aspect cognitive is, “I am efficient in language learning” it was broken down in to “I efficiently cite sources by using Zotero in academic writing”. For others (see appendix 6). The questionnaire used in this study is a closed-ended questionnaire. The options for each statement in the instrument are negative and positive responses from strongly disagree to strongly agree.

E. Instrument Validity and Reliability

Instrument validity test is performed to show the suitability for measure variable. According to Ary, validity is a measure that indicates the validity of an instrument.67 The definition of validity

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66 Ary et al., Introduction to research in education, p. 29.
67 Ibid., p. 211.
shows the accuracy and suitability to measure variables attitude toward Zotero. Besides, validity also indicates the extent toward the accuracy of the statement with what is stated in accordance with the coefficient of validity.

In this research, the instrument is tested using internal validity which is divided into the content validity and construct validity. Content validity is a function of how well the dimensions and elements of a concept have been described by items in the instrument. The researcher asked the expert to correct the instrument for content validity testing. The purpose of this is to analyze whether the theories and concepts are the foundation of research has been covered by the items that use to conduct research.

In the next step, the researcher applies the pilot validity to know the construct validity. The validity of the construct means that a measuring instrument is valid if it matches the theoretical constructs in which the test is made. This means that a test is stated to have a construction validity if the items measure every aspect listed on the basic theory. This study has 3 aspects of attitude, namely affective, behavior, and cognitive. The items used for measuring instrument must represent all of these aspects to obtain the construct validity.

To assure the validity test, the following steps were conducted:

1. The instruments adapted from the experts in psychology theories about attitude. The instrument validated by a lecturer to determine items that were administered to the students.

2. The item was administered to 30 students as a volunteer for pilot validity.

3. Then, the result of items was calculated by using the validity test calculation namely Pearson correlation product moment technique. The researcher uses Statistical Package for the Social Science (SPSS) 16.0 application. It is used for helping the researcher to choose the valid and good items.

4. Afterward, the result of SPSS analysis compared with the R table (see appendix 2) If the SPSS analysis result is higher or equal to
the R table, means, the item is valid. However, if the SPSS analysis result is lower than R table, so the item is discarded.

5. The steps 3 and 4 repeated twice

F. Result of Instrument Validity

1) Content Validity

At this stage, the researcher asked a lecturer who is an expert in the modern citation. Based on the results of validation, the researcher made several revisions to compile the instrument in accordance with a theoretical framework based on the direction of the validator. The evidence can be seen in (see appendix 8).

2) Construct Validity

Pilot-validity is applied to get construct validity. The standard error used in this experiment is 0.361 (based on R-Table). As the following conditions:

<table>
<thead>
<tr>
<th>Score</th>
<th>( &gt; ) More than R- Table Value</th>
<th>Valid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score</td>
<td>( &lt; ) Less than R- Table Value</td>
<td>Invalid</td>
</tr>
</tbody>
</table>

Table 3.1. Standard error.

The researcher distributed the instrument to 60 volunteers. 30 volunteers used for Pilot-Validity Test 1 and 30 other volunteers participated in Pilot-Validity Test 2. The results of each Pilot-Validity Test was calculated using SPSS 16.0 by Pearson Correlation Product Moment (PCPM). This is in accordance with the opinion of Sudarmanto that the validity test can be done using PCPM.\(^{68}\)

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3) Pilot-Validity Test 1

In Pilot-Validity Test 1, the number of items in the instrument is 30 (see appendix 7). The researcher is calculated using PCPM (see appendix 3) and compared with R-Table. These following results are obtained.

<table>
<thead>
<tr>
<th>No</th>
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<th>&lt;/&gt;</th>
<th>PCMP Scores</th>
<th>Detail</th>
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</thead>
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</tr>
<tr>
<td>29</td>
<td>B29</td>
<td>0.361</td>
<td>&lt;</td>
<td>0.424</td>
<td>Valid</td>
</tr>
</tbody>
</table>
From the table, it can be concluded that the valid items are all items except number 23. The items are valid because they have a PCPM value more than R-Table value. A total of 29 items are declared valid. (See appendix 6)

a) Pilot-Validity Test 2

After Pilot-Validity test 1 is performed, items that have been proven invalid have been eliminated. There are 29 items tested. Then, the items are calculated using PCPM (see appendix 4). The result of pilot validity test 2 can be seen in the table below.

<table>
<thead>
<tr>
<th>No</th>
<th>Items</th>
<th>R table</th>
<th>&lt;/ &gt;</th>
<th>PCMP Scores</th>
<th>Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>C1</td>
<td>0,361</td>
<td>&lt;</td>
<td>0,372</td>
<td>Valid</td>
</tr>
<tr>
<td>2</td>
<td>C2</td>
<td>0,361</td>
<td>&lt;</td>
<td>0,451</td>
<td>Valid</td>
</tr>
<tr>
<td>3</td>
<td>C3</td>
<td>0,361</td>
<td>&lt;</td>
<td>0,452</td>
<td>Valid</td>
</tr>
<tr>
<td>4</td>
<td>C4</td>
<td>0,361</td>
<td>&lt;</td>
<td>0,582</td>
<td>Valid</td>
</tr>
<tr>
<td>5</td>
<td>C5</td>
<td>0,361</td>
<td>&lt;</td>
<td>0,821</td>
<td>Valid</td>
</tr>
<tr>
<td>6</td>
<td>A6</td>
<td>0,361</td>
<td>&lt;</td>
<td>0,478</td>
<td>Valid</td>
</tr>
<tr>
<td>7</td>
<td>A7</td>
<td>0,361</td>
<td>&lt;</td>
<td>0,487</td>
<td>Valid</td>
</tr>
<tr>
<td>8</td>
<td>A8</td>
<td>0,361</td>
<td>&lt;</td>
<td>0,391</td>
<td>Valid</td>
</tr>
<tr>
<td>9</td>
<td>A9</td>
<td>0,361</td>
<td>&lt;</td>
<td>0,962</td>
<td>Valid</td>
</tr>
<tr>
<td>10</td>
<td>A10</td>
<td>0,361</td>
<td>&lt;</td>
<td>0,433</td>
<td>Valid</td>
</tr>
<tr>
<td>11</td>
<td>A11</td>
<td>0,361</td>
<td>&lt;</td>
<td>0,382</td>
<td>Valid</td>
</tr>
<tr>
<td>12</td>
<td>A12</td>
<td>0,361</td>
<td>&lt;</td>
<td>0,749</td>
<td>Valid</td>
</tr>
<tr>
<td>13</td>
<td>A13</td>
<td>0,361</td>
<td>&lt;</td>
<td>0,682</td>
<td>Valid</td>
</tr>
<tr>
<td>14</td>
<td>A14</td>
<td>0,361</td>
<td>&lt;</td>
<td>0,391</td>
<td>Valid</td>
</tr>
<tr>
<td>15</td>
<td>A15</td>
<td>0,361</td>
<td>&lt;</td>
<td>0,708</td>
<td>Valid</td>
</tr>
<tr>
<td>16</td>
<td>A16</td>
<td>0,361</td>
<td>&lt;</td>
<td>0,462</td>
<td>Valid</td>
</tr>
<tr>
<td>17</td>
<td>A17</td>
<td>0,361</td>
<td>&lt;</td>
<td>0,433</td>
<td>Valid</td>
</tr>
<tr>
<td>18</td>
<td>A18</td>
<td>0,361</td>
<td>&lt;</td>
<td>0,871</td>
<td>Valid</td>
</tr>
<tr>
<td>19</td>
<td>B19</td>
<td>0,361</td>
<td>&lt;</td>
<td>0,393</td>
<td>Valid</td>
</tr>
<tr>
<td>20</td>
<td>B20</td>
<td>0,361</td>
<td>&lt;</td>
<td>0,481</td>
<td>Valid</td>
</tr>
<tr>
<td>21</td>
<td>B21</td>
<td>0,361</td>
<td>&lt;</td>
<td>0,487</td>
<td>Valid</td>
</tr>
</tbody>
</table>
The table shows that all items have PCPM values higher than R-Table, then 29 items are declared valid and can be used for research.

G. Instrument Reliability

Reliability test is performed to find the stability aspects of an instrument in measuring the same phenomena even at different times. According to Ary, reliability is an instrument which used multiple times to measure the same object and always produce the same data.\(^{69}\) The measurement that has a high degree of reliability is able to provide reliable results. The high reliability of the instrument is shown by a number called the reliability coefficient. If an instrument is used twice to measure the same phenomena and the results are consistent, so the instrument is reliable.

In this study, the researcher has measured the instrument using Pilot-Validity Test twice with the same result that the items have a value equal or higher than 0,361, it means valid items. The result is 29 valid items. It can be determined that these items are reliable.

H. Data Analysis Technique

Ary states that Likert Scale is used to measure an attitude, opinion, and perception of a person or group of people about a social phenomenon.\(^{70}\) In this study, the researcher uses questionnaire with

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\(^{70}\) Ary et al., *Introduction to research in education*, p. 209.
ranked as follows: point 5: Strongly Agree, point 4: Agree, point 3: Neutral, point 2: Disagree, point 1: Strongly Disagree.

After collecting the responses from the students through a questionnaire, the researcher analyzes the data using SPSS 16.0. The steps are as follow:

1. The data obtained is classified based on the attitude aspects (cognitive, affective and behavior).
2. The researcher inputs the data to SPSS and is analyzed using descriptive statistic calculation in the SPSS.
3. The items were analyzed descriptively by finding the mean of each item. According to Al Nouh, there is three rank of mean used to divide the level of the agreement.71
4. Low mean value $= 1.00 – 2.33$
5. Medium mean value $= 2.34 – 3.66$
6. High mean value $= 3.67 – 5.00$
7. The researcher displays classified data in form of tables and diagram.
8. The data are explained according to the table have been presented.
9. The researcher interpreted classified data to address the research question.

CHAPTER IV
RESEARCH FINDING AND DISCUSSION

This chapter presents and discusses the result of the research about the students' attitudes towards the use of Zotero in academic writing. This chapter is divided into two sections of research finding and discussion of the finding.

A. Finding

This sub-heading describes the finding of survey questionnaire about students’ attitude towards the use of Zotero as a web-based citation management tool in academic writing. The data has been calculated using SPSS 16.0 (see appendix 5). The data are presented based on cognitive, affective and behavior aspects adapted from Elisabeth, Nobert, Picken, Abidin, and Tuncok in defining the aspects of attitudes. Then, the researcher used a mean value to classify the data. This classification is based on Al Nouh in defining mean value. The details are as follow:

- Low mean value = 1.00 – 2.33
- Medium mean value = 2.34 – 3.66
- High mean value = 3.67 – 5.00.

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1. Cognitive

The first aspect of attitude is cognitive. It contains perception and knowledge of the attitude object. It shows that the cognitive aspect related to students thought about the object. These the statement in the questionnaire about cognitive aspect are the following:

a) Students efficiently cite sources by using Zotero in academic writing.

b) Students consider that they have capacity to learn how to use Zotero.

c) Students have an ability in using Zotero.

d) Students are able to cite faster by using Zotero than using manual citation.

e) Students believe that they have technical skill for using Zotero in academic writing.

f) The finding on the cognitive aspect is presented in table below;

<table>
<thead>
<tr>
<th>No</th>
<th>Item Code</th>
<th>Statement</th>
<th>Mean</th>
<th>Mean Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>C1</td>
<td>I efficiently cite sources by using Zotero in academic writing.</td>
<td>3.73</td>
<td>high value</td>
</tr>
<tr>
<td>2</td>
<td>C2</td>
<td>I consider that I have capacity to learn how to use Zotero.</td>
<td>3.89</td>
<td>high value</td>
</tr>
</tbody>
</table>

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>C3</td>
<td>I have an ability in using Zotero.</td>
<td>3.52</td>
<td>medium value</td>
</tr>
<tr>
<td>4</td>
<td>C4</td>
<td>I am able to cite faster by using Zotero than using manual citation</td>
<td>3.90</td>
<td>high value</td>
</tr>
<tr>
<td>5</td>
<td>C5</td>
<td>I believe that I have technical skill for using Zotero in academic writing.</td>
<td>3.53</td>
<td>medium value</td>
</tr>
</tbody>
</table>
Chart 4.1. Efficiency of Zotero

The C1 item in table 4.1 has high mean value of 3.73. It indicates that most of the students agree that the use of Zotero in academic writing is very efficient because it saves time. It can be seen from the graphic that 55 students agree and 19 students strongly agree. It can be concluded that they cognitively have a positive attitude in C1 (efficiency of Zotero) item.
Chart 4.2. Capacity to use

The majority of students agree with statement C2 (capacity to use). The score is 3.89 high mean value with number 59 students agree and 21 students strongly agree. The item is about students have capacity to learn how to use Zotero. It shows, most of the students have capacity how to learn the use of Zotero. Furthermore, they are familiar and have basic knowledge about the use of Zotero. From that, it can be one of their reason in the result of the C2 item. It can conclude that they cognitively have a positive attitude in the C2 item.

![Chart 4.2. Capacity to use](image)

Chart 4.3. Ability

Based on the graphic above, 53 and 10 students agree that they have the ability in using Zotero. However, item C3 has medium mean value 3.52 which is some of the students do not believe that they have the ability in using Zotero. Even, they have the capacity to learn the use of Zotero. Besides, the other reason is they do not believe in their ability in using Zotero.

![Chart 4.3. Ability](image)
because they still using the manual citation in their academic writing. It can be concluded that C3 item is undecided or they neutral about their ability in using Zotero.

Chart 4.4. Cite faster

On C4 item, 43 students agree and 31 students strongly agree that Zotero helps them write academic paper faster rather than using a manual citation. It is supported by 31 students strongly agree with C4 item. Besides, C4 item obtain high mean value 3.90 which indicates students have cognitively positive respond toward Zotero.
Item of C5 has score 3.53 medium value which shows some students do not believe that they have technical skill for using Zotero in academic writing and some of them believe that they have technical skill for using Zotero in academic writing. However, they are familiar with the use of Zotero in an academic paper. Besides, it is because some of them still do not use in their academic writing. But, some of them realize by using Zotero they are able to cite faster rather than using manual. It also supports with C4 item.
The meaning of overall data of cognitive aspect is student strongly show cognitively positive toward the use of Zotero. Even, not all students using Zotero when doing academic writing assignment. But they have a good attitude, particularly in term of cognitive aspect. It can be seen in the graphic of the cognitive aspect that the majority of students cognitively agree toward the use of Zotero.
2. Affective

The second aspect of attitude is affective aspect. According to Elisabeth, affective aspect represents feeling toward the object. It is also supported by Tuncok. He argues affective aspect also expresses the feelings that arise about the cognitive element and the appraisal good or bad of feelings. The affective aspect in this research is related with students feeling toward the use of Zotero in citing a source in academic writing.

These kinds of statement about affective are the following; (see p. 39)

a) Zotero makes my academic writing citation arrangement good.

b) If Zotero is helpful in citing sources, I will use it.

c) Using Zotero is important in academic writing.

d) Zotero is important to learn because it can collect, organize, and cite sources in academic writing.

e) The more I know Zotero, the more I easily cite sources in academic writing.

f) I feel sympathy toward students who struggle when citing sources because of using manual citation.

79 Tunçok, “A case study”, p. 41.

g) It is impossible to understand Zotero if you do not use it in academic writing.

h) In the academic life, one rule of writing academic ethic is citing sources.

i) I consider that Zotero is very useful in academic writing.

41
j) In academic writing, it is important to know kind of citation rule such as footnote and in-note.

k) The enthusiasm of lecturers recommending Zotero influences my attitudes towards academic writing.

l) My ability in citing sources influences my attitude in academic writing.

m) The attitudes of the lecturer who is using Zotero influence my attitudes towards Zotero in academic writing.

Items above are kinds of affective statement that is explained below, by finding the mean value each item.

Table 4.2 Affective Aspect

<table>
<thead>
<tr>
<th>No</th>
<th>Item Code</th>
<th>Statement</th>
<th>Mean</th>
<th>Mean Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>A6</td>
<td>Zotero makes my academic writing citation arrangement good. (well arranged)</td>
<td>4.03</td>
<td>high value</td>
</tr>
<tr>
<td>7</td>
<td>A7</td>
<td>If Zotero is helpful in citing sources, I will use it. (helpful)</td>
<td>3.96</td>
<td>high value</td>
</tr>
<tr>
<td>8</td>
<td>A8</td>
<td>Using Zotero is important in academic writing.</td>
<td>3.75</td>
<td>high value</td>
</tr>
<tr>
<td>9</td>
<td>A9</td>
<td>Zotero is important to learn because it can collect, organize, and cite sources in academic writing.</td>
<td>3.97</td>
<td>high value</td>
</tr>
<tr>
<td>10</td>
<td>A10</td>
<td>The more I know Zotero, the more I easily cite sources in academic writing. (feasibility)</td>
<td>3.99</td>
<td>high value</td>
</tr>
<tr>
<td>11</td>
<td>A11</td>
<td>I feel sympathy toward students who struggle when citing sources because of using manual citation. (Sympathy)</td>
<td>3.73</td>
<td>high value</td>
</tr>
<tr>
<td>12</td>
<td>A12</td>
<td>It is impossible to understand Zotero if you do not use it in academic writing. (usage)</td>
<td>3.52</td>
<td>medium value</td>
</tr>
</tbody>
</table>
In the academic life, one rule of writing academic ethic is citing sources. (ethic) 4.43 high value

I consider that Zotero is very useful in academic writing. (useful) 4.00 high value

In academic writing, it is important to know kind of citation rule such as footnote and in-note. 4.46 high value

The enthusiasm of lecturers recommending Zotero influences my attitudes towards academic writing. 3.75 high value

My ability in citing sources influences my attitude in academic writing. (ability) 3.55 medium value

The attitudes of the lecturer who is using Zotero influence my attitudes towards Zotero in academic writing. (influence) 3.47 medium value

<table>
<thead>
<tr>
<th>Chart 4.7. Well arranged.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A 6</td>
</tr>
</tbody>
</table>

In Table 4.1 item A6 obtains a mean score of 4.03 (high value). It indicates that students have a point of view that Zotero able to make a good citation arrangement in their academic writing. Besides, the result using Zotero in the academic paper looks good. From that students do not need to think twice, whether their
arrangement correct or not. Because Zotero already system it. Moreover, it is supported by 53 students agree and 30 students strongly agree. It can conclude that they have positive affective in C6 item.

![Chart 4.8. Helpful.](image)

The item on A7 with statement If Zotero is helpful in citing sources, students will use it. It has score of 3.96. It indicates high value. It means most of the student assumes that Zotero very helpful in citing sources in their academic paper. It supports by A6 item, that the result citing sources using Zotero is good. Besides, 45 and 31 students agree toward A7 statement. It can conclude they have positive affective in A7 item.
Chart 4.9. Useful.

Most of the students agree that Using Zotero is important in academic writing. It is shown by A8 item. They have a positive opinion towards the use of Zotero in academic writing. They agree that using Zotero is important. Because, they do need insert source manually, such as name, date, title, city, and publisher. Moreover, it is complicated and wasting the time when students do manually. It supports by 45 and 20 students agree with A8 statement. It can be concluded that their affective is positive in A8 item.

Chart 4.10. The function of Zotero.
The item A8 is supported with item A9 with high-value score 3.97 that Zotero is important to learn because it can collect, organize, and cite sources in academic writing. It means students recognize that Zotero really important for citing a source in their paper. It is shown by 55 and 25 students agree with A9 items. In brief, they have positive affective in A9 item.

Chart 4.11. Feasibility.

The more students know Zotero, the more students easily cite sources in academic writing. It shown by A10 item that obtains 3.99. Most of them strongly agree with the statement. When they know Zotero well, they will be easily citing sources in their academic writing. This finding also indicates that some student still do not know how to use Zotero well. Besides, the lecturer should introduce the way using Zotero when they teach academic writing in the class. It is for student familiar. Not only familiar but also understand well, the way use of Zotero. It supports by 59 and 24 students agree. It can conclude that students have positive affective towards A10 item.
The A11 statement is “I feel sympathy toward students who struggle when citing sources because of using manual citation”. With high value 3.73. Even the students do not use Zotero in an academic paper, actually, they have sympathy for themselves. They realize that citing source manually often make them struggle. It supports by 50 and 19 students agree with A11 item. In brief, the students have positive affective toward A11 item.
The result of item A12 is medium with score of 3.52. With statement, it is impossible to understand Zotero if the students do not use it in academic writing which means although students familiar with Zotero. It is impossible to understand Zotero well. Furthermore, if we do not practice using it, in citing source in academic writing. Besides, some of the students argued that eventhough they do not use it in academic writing, they are still able to understand Zotero because being familiar with Zotero is enough for them eventhough they little bit understand Zotero. Although, 47 and 13 students agree. It does not show high mean value. But the result of mean value shows medium. It means that some of them shows positive and negative affective toward A12 item.

![Chart 4.14. Academic ethic.](image)

The item A13 most student strongly agree with “in the academic life, one rule of writing academic ethic is citing sources”. It is shown by 4.43 score with high value. It is supported by 43 and 55 students choosing strongly agree. Moreover, it can be one of the requirements in the university when students write academic writing even though each university has different rules for citing a source. It can conclude, that students have positive affective toward A13 item.
Chart 4.15. Useful.

A14 item has high value mean by obtaining 4.00 mean. Based on the mean value, 61 and 24 students agree that Zotero is very useful in academic writing because it helps them when citing source in their academic writing. This item is also supported by A7 item, that Zotero is helpful. In can conclude students have positive affective toward A14 item.

Chart 4.16. Citation rule.
A15 item is about it is important for students to know kind of citation rule such as footnote and in-note in academic writing. With high value 4.46. It means when students write academic writing they should know kind of citation such as footnote and in-note, especially when they use a manual citation. Besides, it can conclude that the majority of the students have positive affective toward A15 item.

A16 item has high value mean by obtaining 3.75 mean. Based on the mean value, the students agree that the enthusiasm of lecturers recommending Zotero influences students’ attitudes towards academic writing. It shows that students attitude toward Zotero also influences by lecturer when recommend using Zotero in academic writing. It is supported by 56 and 15 students agreeing toward A16 item. It can be concluded that students have positive affective toward A16 item.

Chart 4.17. Recommend Zotero.
A17 item has medium mean value by obtaining 3.55. with the statement “my ability in citing sources influences my attitude in academic writing”. It means some of the students do not believe that their ability in citing sources influence’s their attitude in academic writing. It is because the students still use a manual citation. However, some of students have opposite argument. That their ability in citing sources influences their attitudes in academic writing.

Medium mean value of 3.47 is shown on item A18. With statement the attitudes of the lecturer who is using Zotero influence my attitude toward Zotero in academic writing. It means the attitude of a lecturer who uses Zotero gives sufficient influence toward students’ in using Zotero in academic writing. But, some of the students does not influence by a lecturer who using Zotero. However, if a teacher recommends Zotero and explains how to use Zotero and the advantages of using the tool, the students will also use Zotero and they have similar attitude. But, the mean value shows the medium, it can be concluded there are some students have positive and some students have negative argument toward A18 item.
Based on the explanation above, the chart 4.20 summaries the finding on the chart below:

![Chart 4.20. Affective aspect.](image)

The diagram shows that the majority of the students strongly agree particularly in term of affective. It means their affective toward Zotero is positive. It can be seen in the graphic. That 657 and 332 students in total, they strongly agree with the statement of affective item.

3. Behavior

The third aspect is behavior. As Picken quotes “when we were talking about attitude, we talking about someone’s behavior”.\(^{80}\) Besides, behavior aspect deals with the question of reacting towards the attitudes.\(^ {81}\) It supports by Tunçok, he argued that behavior aspect is an evaluation of the effect that gives utterance to the attitude which may be used often to face a similar situation.\(^ {82}\) Based on experts above, behavior aspect in this

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\(^{80}\) Pickens, “Attitudes and perceptions”, p. 44.
\(^{81}\) Donat, Brandtweiner, and Kerschbaum, “Attitudes and the digital divide”, p. 29.
\(^{82}\) Tunçok, “A case study”, p. 41.
research is students’ reaction and their attitude toward the use of Zotero.

There are 10 items behavior aspect. These kinds of statement about affective aspect are the following; *see p.51*

a) I’m confident when using Zotero in academic writing.

b) I feel some degree of obstacles when using Zotero.

c) I’m efficient using Zotero because it saves time than I write manual citation for my academic writing.

d) I like using Zotero because it can insert bibliography automatically in academic writing.

e) I often use Zotero for citing sources in academic writing.

f) I prefer using Zotero than manual citation.

g) I feel difficult when citing source manually from different sources such as book, internet, journal, and etc.

h) When there is a way to cite sources easier, I can focus on my writing rather than focus on citing sources.

i) I use Zotero because it is useful in my academic writing.

j) I make little bit mistake when using Zotero.

k) I’m facilitated when citing sources using Zotero.
Items above are kind of behavior aspect that is explained below, by finding the mean value each item.

**Table 4.3 Behavior Aspect.**

<table>
<thead>
<tr>
<th>No</th>
<th>Item Code</th>
<th>Statement</th>
<th>Mean</th>
<th>Mean Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>19</td>
<td>B19</td>
<td>I’m confident when using Zotero in academic writing. (confidence)</td>
<td>3.59</td>
<td>medium value</td>
</tr>
<tr>
<td>20</td>
<td>B20</td>
<td>I feel some degree of obstacles when using Zotero. (obstacles)</td>
<td>3.80</td>
<td>high value</td>
</tr>
<tr>
<td>21</td>
<td>B21</td>
<td>I’m efficient using Zotero because it saves time than I write manual citation for my academic writing. (time saving)</td>
<td>3.95</td>
<td>high value</td>
</tr>
<tr>
<td>22</td>
<td>B22</td>
<td>I like using Zotero because it can insert bibliography automatically in academic writing. (automation)</td>
<td>3.79</td>
<td>high value</td>
</tr>
<tr>
<td>23</td>
<td>B24</td>
<td>I often use Zotero for citing sources in academic writing. (usage)</td>
<td>2.07</td>
<td>low value</td>
</tr>
<tr>
<td>24</td>
<td>B25</td>
<td>I prefer using Zotero than manual citation. (preference)</td>
<td>3.25</td>
<td>medium value</td>
</tr>
<tr>
<td>25</td>
<td>B26</td>
<td>I feel difficult when citing source manually from different sources such as book, internet, journal, and etc. (difficulty in manual)</td>
<td>3.90</td>
<td>high value</td>
</tr>
<tr>
<td>26</td>
<td>B27</td>
<td>When there is a way to cite sources easier, I can focus on my writing rather than focus on citing sources. (focus)</td>
<td>3.93</td>
<td>high value</td>
</tr>
<tr>
<td>27</td>
<td>B28</td>
<td>I use Zotero because it is useful in my academic writing. (useful)</td>
<td>3.60</td>
<td>medium value</td>
</tr>
<tr>
<td></td>
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<td></td>
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</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---------------</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>28</td>
<td>B29</td>
<td>I make little bit mistakes when using Zotero. (flaw)</td>
<td>3.38</td>
<td>medium value</td>
</tr>
<tr>
<td>29</td>
<td>B30</td>
<td>I’m facilitated when citing sources using Zotero. (facility)</td>
<td>3.93</td>
<td>high value</td>
</tr>
</tbody>
</table>

Based on table 4.3. Item B19 obtained 3.59 medium mean value. It indicates that half of the students are confident using Zotero in academic writing, while others may not be confident using Zotero in academic writing. It can be assumed that students are confident because they really use Zotero in academic writing. Nevertheless, some students are not confident because they do not use Zotero in academic writing. Another assumption is that they use Zotero, but they do not know well the function of Zotero. They are worried about doing mistakes when citing the source using Zotero. Although the graphic shows 46 students agree, the mean is medium. It means they have positive and negative behavior in item B19.
The high mean value is shown by item B20 that students feel some degree of obstacles when using Zotero by obtaining score of 3.80. It means students agreed that they face some difficulties when using Zotero in citing source. It is suitable that some of the students are not confident in item B19 because they feel some degree of resistance when using Zotero. It can be concluded that students have negative behavior in B20 item.

Chart 4.23. Time saving.
The high mean value also is shown by item B21 with score of 3.95. It indicates that students are efficient using Zotero because it saves time instead of writing manual citation for their academic writing. It is supported by C4 item that the students are able to cite source faster than manual. Thus, most of the students agree that Zotero saves time and make them easier when citing source instead of writing citation manually. In brief the students have positive behavior in B21 item.


The mean value of B22 is high, with score of 3.79. Most students agree that Zotero can insert bibliography automatically. Therefore, students do not need to type bibliography manually because it is exhausting. Besides, when they write manually, students should arrange the name of authors from A until Z then reverse the name. It is supported by A7 item that Zotero is helpful. Besides, it is also supported by A14 item that Zotero is useful. It can be concluded that they have positive behavior toward B22 item.
B24 item is about “students often use Zotero for citing sources in academic writing”. It shows low mean value score of 2.07. It means that most of the students still do not use Zotero in their paper. They still use manual citation. However, they have positive behavior in item B21 that Zotero saves time. Furthermore, it is supported by item B22 that Zotero can insert bibliography automatically. Furthermore, they also have cognitive and affective positive toward the use of Zotero. In brief, the students have negative behavior toward B24 item.
Students prefer using Zotero than manual citation, shown by item B25 with medium mean value 3.25. This medium value mean indicates that the students’ agreement is moderate. As the result, 52 students answer neutral. It means their behavior is neutral toward the use of Zotero. Nevertheless, 29 students and 8 students answer agree with B25 statement and some others disagree. However, the mean value shows medium score. It indicates that the students are still reluctant in using Zotero in their academic writing because they often use manual citation. It is supported by B24 item. In brief, students’ behavior in B25 item is Neutral.
Chart 4.27. Difficulty in manual citation.

B26 item has high mean value by obtaining 3.90 score. The statement is about “students feel difficult when citing source manually from different sources such as book, internet, journal, and etc”. It is indicated that students often feel difficult when citing a source from different sources. Moreover, if they cite a source using manual way. It can cause alternate confusing feeling and students struggle when writing academic writing. In short, students have positive behavior toward B26 item.
The item B27 is about “when there is a way to cite sources easier, students can focus on their writing rather than focus on citing sources” by obtaining high mean value of 3.93. It is actually about students’ preference in citing source with an easier way that is using Zotero rather than citing source manually because they can focus more on their academic writing rather than focus on citing source. It can be concluded that students have positive behavior toward B27 item.
B28 item is about “students use Zotero because it is useful in their academic writing”. It obtains 3.60 medium mean value. It indicates that some of the students do not believe that Zotero is useful for their academic writing while others believe that Zotero is useful in academic writing. This item is supported by A14 that Zotero is very useful and it obtains high mean value. However, B28 item has medium mean value. It can be concluded, students have positive and negative behavior in B28 item.

Chart 4.30. Flaw.

The item is about “students make little bit mistakes when using Zotero with score 3.38 medium mean value”. It indicates that a moderate of students still make little bit mistake when using Zotero while others are the opposite. It is because they still find some difficulties in the technical skill using Zotero. From that, they assume if they cannot operate Zotero well, they may make many mistakes. In short, students have positive and negative behavior toward B29 item.
The last item is B30 that “students are facilitated when citing sources using Zotero” by obtaining high mean value of 3.93. It means that most of the students agree that Zotero facilitates them in citing source in their academic paper. It shows that they have positive behavior toward Zotero.

The meaning of overall data of behavior aspect is students strongly have positive behavior toward the use of Zotero. Although not all students often use Zotero when writing...
academic writing assignment but they have a good attitude, particularly in term of behavior aspect. It can be seen in the graphic of behavior aspect that 551 and 168 students answer agree toward the use of Zotero. It indicates that the majority of students have a positive behavior aspect toward the use of Zotero.

B. Discussion

This sub-heading is discussing the findings and reflecting some of the theories related to the result of the study of the students’ attitude toward the use of Zotero in academic writing. According to the theory, attitude consists of 3 aspects. They are cognitive aspect, affective aspect, and behavior aspect.

![Chart 4.33. Attitude aspects.](image)

This chart presents the overall aspect of attitude. The cognitive aspect is presented in red color. The yellow part of the chart belongs to the affective aspect and the green part of the chart belongs to the behavior aspect. In the findings, the result of the study shows that students have positive cognitive aspect.
They also have positive affective and positive behavior. It shows that salient finding based on attitude aspects chart 4.33 indicates that students have a positive attitude toward the use of Zotero in academic writing. The discussion each aspect of attitude is explained below;

1) Cognitive aspect

Chart 4.33, shows that the students have positive attitude in cognitive aspect toward the use of Zotero in academic writing. It is proven by 49 and 17 percent of the students answering agree in cognitive aspect. With 3 items obtained the high mean value (C1, C2, and C4) and 2 items (C3 and C5) obtained medium mean value. According to Donat, cognitive aspect contains perception and knowledge of the attitude object. For this reason, cognitive in this research is students perception and their knowledge toward the use of Zotero in academic writing.

In addition, students efficiently cite sources by using Zotero in academic writing because it saves time. Based on the research conducted by Basri the use of Zotero in academic writing is the one of important aspect in the form of encouraging academic integrity. It means by using Zotero students able to encourage their writing ability, especially in writing academic paper. However, some students do not believe towards their selves. Students do not believe that they have ability in using Zotero (C3), whereas the majority of Indonesian students are in the level of easy and very easy to use Zotero. The current finding on C2 item supports studies by Basri, that students have capacity to learn how to use Zotero.

From above explanation, students have capacity to learn and to use Zotero in academic writing. Furthermore, they are familiar and have basic knowledge about the use of Zotero. Besides, most of the students agree that they able to cite faster

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85 Ibid.
by using Zotero rather than manual citation. The students’ cognitive aspect have positive response that Zotero able to cite faster in their academic writing. Besides, students have simply perception that Zotero able citing sources faster. It can conclude they knowing by using Zotero, students able to cite source more easier and not complicated.

Nevertheless, they do not believe that they have technical skill for using Zotero in academic writing. Additionally, some of student still experienced somewhat difficult in formatting manual citation. Thus, citing sources can lead alternating feelings of confusion and frustration in student. Since, there are many rules and arrangements in writing citation. As an example the name of the Author, title, city, publisher, and date. Furthermore, students feel stressful when citing source manually from different sources such as book, internet, journal, and etc. Furthermore when students collaborate citation on bibliographies and the citation arrangement. In the opposite, the students know the advantages of using Zotero in academic writing. Besides, students realize by using Zotero they are able to cite faster and more efficient for citing sources rather than manual citation.

In brief, students’ attitudes towards the use of Zotero in academic writing is strongly positive. Although, many students do not use Zotero in their academic writing. However, they have a good attitude toward the use of Zotero. Besides, they have been familiar with Zotero and have previous knowledge about it. Even, they know that Zotero is efficient, saves time, helpful and useful in citing sources. Thus, it can be assumed, although they do not use Zotero but they have a good attitude, particularly in term of cognitive aspect. It shows they have a positive perception toward the use of Zotero in academic writing.

2) Affective aspect

Based on the finding chart 4.33, the majority of students show strong positive respond in term of affective aspect. It is

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proved by 47 and 24 percent student answer strongly agree toward the use of Zotero. With 10 items obtained high mean value (A6, A7, A8, A9, A10, A11, A13, A14, A15, and A16) and 3 items (A12, A17, and A18) obtained medium mean value. Affective aspect in this research deals with students feeling toward the use of Zotero. In the affective aspect, most students have positive arguments. In addition, students agree that Zotero makes their academic writing citation arrangement good. Besides, the result of citing sources using Zotero in the academic paper looks good. From that students do not need hard thinking to arrange the source whether their arrangement of footnote correct or not. Because Zotero already system it. However, a study by Homol shows that citing sources can lead feeling frustration and confusion in students. Perhaps, it causes students using manual way when citing sources. Since citing sources is complicated and systematically.

Nevertheless, Zotero help students to collect, organize, cite and share research in a variety of ways. This is supported with A8 item that using Zotero is important in academic writing. It means students are interested in using Zotero in their academic writing. They feel Zotero is helpful when citing sources because it can help students to collect, organize and cite sources in academic writing. Not only helpful but also useful when citing sources using Zotero in academic writing. According to Lisbon Zotero is useful citation management software in the academic life which is automatically added citations in students’ written works.

However, students also feel disappointed with their selves because of using manual way in citing sources. Since the

88 Bezen Tuncok, A case study: Students’ attitudes towards computer assisted learning, computer assisted language learning and foreign language learning (Turkey: Middle East Technical University, 2010), p. 41.
case of the number error in students writing citation is caused by lack of basic knowledge of citation.\textsuperscript{92} Such as students do not know the arrangement of citation well and students still use manual citation.

Besides, in the academic life, one rule of writing academic ethic is citing sources.\textsuperscript{93} Whitaker argued that one of the most important components in academic writing is citing sources. Furthermore, it becomes essential to know kind of citation rule such as footnote and in-note when students writing academic paper.

According to Basri Indonesian students are in the level of easy and very easy to use reference management software Zotero in citing sources.\textsuperscript{94} But, based on finding A12 item, students feel that it is impossible to understand Zotero if students do not use it in their academic writing. Perhaps, It can cause that student feel difficult and reluctant when using Zotero in academic writing. Moreover, the enthusiasm of the lecturer recommending Zotero in the class influences students’ attitudes towards academic writing. This supports Lee’s statement that students’ feedback in the class is always positive.\textsuperscript{95} It means when lecturer asks students for use Zotero in the class, it also influences students’ attitude in academic writing. But, based on finding item A18 the lecturer attitude who is using Zotero do not influence students’ attitude toward the use of Zotero in academic writing. Perhaps, students have a positive response when the lecturer asks to use Zotero and recommend it in the class which is can help lecturer in teaching writing in the class. Especially in writing sources.\textsuperscript{96}

\begin{itemize}
\item Andrew Y. Lee, “It’s Time to Teach Citation Basics”, \textit{The Reference Librarian}, vol. 54, no. 1 (2013), p. 55.
\item Anne Whitaker, \textit{Academic Writing Guide} (City University of Seattle, 2009), p. 3.
\item Lee, “It’s Time to Teach Citation Basics”, p. 56.
\item \textit{Ibid.}, p. 60.
\end{itemize}
3) Behavior aspect

Based on chart 4.33 focusing on behavior aspect, the researcher recognizes that the students have positive behavior toward the use of Zotero in academic writing. It is proven by 47 and 14 percent of the students answering agree in behavior aspect. With 6 items obtained high mean value (B20, B21, B22, B26, B27, and B30) and 4 items (B19, B25, B28 and B29) obtained medium mean value, also B24 item obtained low mean value.

The behavior aspect is manifested by cognitive aspect and affective aspect. According to the Picken quotes “when we were talking about attitude, we talking about someone’s behavior”. Similarly, behavior is students’ reaction on their attitude toward the use of Zotero.

Students efficient using Zotero because it saves time than they write manual citation for their academic writing. Moreover, students like using Zotero because it can insert bibliography automatically in academic writing. Therefore, students do not need to type bibliography manually because it is exhausting. According to Noguchi, web-based citation management tool Zotero provide the effectiveness in storing and using information as a citation source. It can also save the citation data such as title, author, time, publisher, and link automatically on web-based management tool. In addition, students are facilitated when citing sources using Zotero.

However, based finding on B24 is students do not use Zotero for citing sources in academic writing. According to Noguchi, only scholars in science and engineering utilize references manager. One of the reason is students feel some degree of resistance when using Zotero. Perhaps, they still cannot operate Zotero well. It supports with item B19 that students do not confident when using Zotero in academic writing.

98 Ibid.
in addition, they still use manual citation whereas students feel difficult when citing source manually from different sources such as book, internet, journal, and etc.\(^9\) It shows that students do not seem to have basic knowledge of citation to identify different types of sources or precisely the basic element of citation. Hence citing sources becomes essential in writing academic paper.

In the other hand, students know that Zotero is useful for their academic writing. The use of Zotero make little bit mistake in students’ paper in citing sources. When there is a way to cite sources easier, students can focus on writing rather than focus on citing sources. Which is students writing is expected to lead students to improve their academic writing skills.\(^10\)

In short of behavior aspect, the majority of students show positive response. Some of them are confident when using Zotero in academic writing. In addition, students feel Zotero is efficient because it saves time. Furthermore, Zotero can insert bibliography automatically, cite sources easier, make little bit mistake and help students in academic writing. In short, students are facilitated when citing sources using Zotero. Even though they have positive behavior, but many students do not use Zotero in academic writing.

Based on the overall aspect of attitude above. It can be concluded that students have strongly positive attitude toward the use of Zotero in academic writing.

Because their cognitive aspect and affective aspect are positive. While in behavior aspect is negative. In addition, in the behavior aspect students do not use Zotero for citing sources in academic writing. It is proven by B24 item with statement students often use Zotero for citing sources in academic writing. But, it gets low score which means students do not use Zotero in academic writing. This is different from the result study by Tuncok. The result is affective component expresses the

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feelings that arise about the cognitive aspect. Then, the result of evaluation cognitive and affective aspect is manifested in behavior aspect. When students’ cognitive aspect is positive, affective aspect is positive, automatically their behavior is positive. However, the finding is different with this research which is student have a positive response in term of cognitive aspect and affective aspect. But the students’ behavior is low that most of the students do not use Zotero in their academic writing. According to Noguchi, only scholars in science and engineering utilize references manager. The other reason is, most of the students feel some degree of obstacles when using Zotero. Therefore, they are reluctant to use Zotero. While the majority of Indonesian students are at the level of easy and very easy to use references manager Zotero. Moreover, students recognize that they have capacity to learn how to use Zotero. In addition, students realize that by using Zotero they feel efficient, saves time and able to cite faster by using Zotero rather than manual citation.

Not only cite faster, but also Zotero able to insert bibliography automatically in academic writing. Therefore, students do not need to type bibliography manually because it is exhausting. According to Noguchi web-based citation management tool Zotero provide the effectiveness in storing and using information as a citation source. It can also save the citation data such as title, author, time, publisher, and link automatically on web-based management tool. Thus, it makes citation arrangement students is good. In addition, students are facilitated when citing sources using Zotero. Thus make

Nevertheless, based on the result on C3 item students do not believe that they have ability and technical skill for using Zotero in academic writing. Although, they are familiar and have basic knowledge about the use of Zotero. On the contrary, students feel sympathy toward their selves who struggle when citing sources using manual citation. Homol states many students struggle when citing source using manual way in their research paper. Because, they feel difficult when citing sources manually from different sources, as an example from book, internet, journal and etc. Hence, students should not underestimate the citation since their mistakes potentially affect the quality of their writing.

In the opposite, the enthusiasm of the lecturer recommending Zotero in the class influences students’ attitudes towards academic writing. It supports by Lee that students’ feedback in the class is always positive. It means when lecturer asks students for use Zotero in the class, it also influences students’ attitude in academic writing. Indirectly, students’ attitude is influenced by lecturer in the class and their environment such as from their friend when their friends using Zotero in writing academic paper.

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106 Homol, “Web-based Citation Management Tools”, p. 552.
107 Lee, “It’s Time to Teach Citation Basics”, p. 56.
CHAPTER IV
CONCLUSION AND SUGGESTION

In this chapter, the researcher presents some general conclusion and suggestion as briefly taken from the result findings and discussion. The result of findings and discussion can be concluded as the following;

A. Conclusion

This sub-heading explains the conclusion of the research of the students’ attitude toward the use of Zotero as web-based citation management tool in academic writing at UIN Sunan Ampel Surabaya. This section is divided into three parts, there are cognitive aspect, affective aspect, and behavior aspect.

1. Cognitive

Students’ perception regarding the use of Zotero in academic writing is strongly positive although, many students do not use Zotero in their academic writing. However, they have a good attitude toward the use of Zotero. Besides, they have been familiar with Zotero and have previous knowledge about it. Even, they know that Zotero is efficient, saves time, helpful and useful in citing sources. Thus, it can be assumed, although they do not use Zotero but they have a positive attitude toward the use of Zotero.

2. Affective

Affective aspect in this research deals with students feeling toward the use of Zotero. In the affective aspect, a lot of students have positive attitude. It means students are interested using Zotero in their academic writing. Students assume that Zotero make their citation arrangement good. They feel Zotero is helpful when citing sources because it can collect, organize and cite sources in academic writing. However, students also feel disappointed with their selves because of using manual way in citing sources. Besides,
students’ affective aspect also are influenced by the enthusiasm of lecturer in recommending Zotero.

3. **Behavior**

   In the behavior aspect, the majority of students show positive response. Some of them are confident when using Zotero in academic writing. In addition, students feel Zotero is efficient because it saves time. Furthermore, Zotero can insert bibliography automatically, cite sources easier, make little bit mistake and help students in academic writing. In short, students are facilitated when citing sources using Zotero. But many students do not use Zotero in academic writing. It shows that students have negative behavior aspect.

   In this research instrument is questionnaire with quantitative data interpretation. As the consequence, the result revealed in this research need further exploration to get in-depth understanding toward students’ attitude in using Zotero. Furthermore, the sample size of this research is limited to single semester members in English Education Department. Consequently, the result of the research does not represent all members of English Education Department or even for larger scale, UIN Sunan Ampel Surabaya.
B. Suggestion

Related to the result of this research, the researcher provides a suggestion as follows;

1. For Lecturers

Dealing with students’ attitude toward the use of Zotero, researcher suggests that lecturer is able to introduce Zotero in writing class, as an example in Written English class, Academic Writing class and Seminar Proposal class. It will facilitate students in writing paper. Furthermore, they will do not waste the time only for citing source manually. Besides, students can focus on their writing, rather than focus on citing sources.

2. For Further Researcher

This study is carried out to investigate students’ attitude toward the use of Zotero as web-based citation management tool in academic writing. For the further research, it is expected to conduct research dealing with the effectiveness of using web-based citation management tool for citing source in academic writing. Similarly, it is suggested to find the correlation between students’ attitude toward the use of Zotero and their academic writing achievement. Since the finding of this research shows students attitude is strongly positive toward the use of Zotero.

3. For English Teacher Education Department.

It is recommended for English Teacher Education department major to conduct seminar and training related with Zotero which shows the student the way how to use and operate Zotero appropriately in academic writing. In this case, student association (HIMA) can represent English Teacher education
Department major to conduct the seminar since HIMA has weekly agenda or meeting with English Education Department students to discuss and share about current technology and software. As a result, a lot of students will be interested to use Zotero in their academic writing. Therefore, students do not feel difficult and confuse when citing sources because cite sources using Zotero.
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