

Evaluation of Mendeley Usage in Physics Education Students at Jambi University

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ABSTRACT

This study aims to determine the utilization of the Mendeley application in the scope of Physics Education students at Jambi University where Mendeley is one of the applications that can be used to make it easier for writers to create citations and bibliographies in writing. This study uses a quantitative method that uses numerical data and statistical analysis through surveys to answer research questions. A total of 52 Physics Education students at Jambi University who use Mendeley participated in this study. The data collected was through a Google form in the form of a questionnaire that was submitted online to obtain information from a sample population of Physics Education students. The results of this study indicate that most Physics Education students are active in using Mendeley both in making lab reports and other writing. The use of Mendeley also has many positive impacts on students such as improving the quality of writing and helping to manage references, and can avoid mistakes in compiling bibliographies. Thus Mendeley greatly helps students in efficiency and minimizing errors in writing.

Keywords: Mendeley; Quantitative Methods; Excel

ABSTRAK

Penelitian ini bertujuan untuk mengetahui pemanfaatan penggunaan aplikasi Mendeley dalam ruang lingkup mahasiswa Pendidikan Fisika Universitas Jambi. Mendeley adalah salah satu perangkat lunak yang dapat digunakan untuk memudahkan penulis dalam membuat sitasi dan daftar pustaka pada tulisan. Penelitian ini menggunakan metode kuantitatif dimana menggunakan data numerik dan analisis statistik melalui survey untuk menjawab pertanyaan penelitian. Sebanyak 52 mahasiswa Pendidikan Fisika Universitas Jambi yang menggunakan Mendeley yang ikut terlibat dalam penelitian ini. Data yang dikumpulkan yakni melalui google formulir yang berupa kuisioner yang disampaikan secara daring untuk mendapatkan informasi dari sampel populasi mahasiswa Pendidikan Fisika. Hasil penelitian ini menunjukkan bahwa sebagian besar mahasiswa Pendidikan Fisika aktif dalam menggunakan Mendeley baik dalam membuat laporan praktikum ataupun penulisan lainnya. Penggunaan Mendeley juga banyak memberikan dampak positif bagi mahasiswa seperti meningkatkan kualitas penulisan dan membantu mengelola referensi, serta dapat menghindari kesalahan dalam penyusunan daftar pustaka. Dengan demikian Mendeley sangat membantu mahasiswa dalam efisiensi dan meminimalisir kesalahan dalam penulisan.

Kata kunci: Mendeley; Metode Kuantitatif; Excel

1. INTRODUCTION

When entering college, students are always in contact with scientific works such as papers, articles, reports and many more. So students must have a very good understanding of technology. When writing an article, references that have been read by students are very important and are often included in the article or other people call it citation. This citation is the process of citing or referring to the work of others in writing or research. Pramiastuti et al. (2020), said that citation is a crucial element in creating a scientific paper. In general, novice writers, students, students and academics plagiarize unintentionally. Plagiarism or often called plagiarism is the

activity of copying, taking writings, opinions and so on from other people to be used as if they were their own writings and opinions without asking permission and including the sources cited (Hermawan, 2019).

Most students still do not understand how to cite and find it difficult to manage references. So if there are students who can cite, they do not really understand how to cite properly. In this modern era, an application has been created to make it easier for writers to avoid plagiarism. The application is Mendeley, which was created to make it easier for students to cite and manage references. Arief & Handoko (2016), explained that Mendeley is software that has the ability to process scientific databases in the form of e-journals, e-books and other references. Meanwhile, according to Handayani et al. (2019), Mendeley is a software or software used to connect citations and reference managers into an internet-based social network so that researchers around the world can collaborate and share research data. In Mendeley, there are many citation fonts such as APA, AMA, Chicago, and many more. Asril & Muzdalifah (2024), said that the citation style formats found in Mendeley reference management software include the American Medical Association, American Political Science Association, American Psychological Association, American Sociological Association, Chicago Manual of Style, Harvard, IEEE, Modern Humanities Research Association, Modern Language Association, National Library of Medicine, Nature, Vancouver and many other styles. This font format can be adjusted to the citation style and provisions of the researcher.

By mastering proper citation techniques, students can strengthen their arguments with support from relevant literature, demonstrate a deep understanding of the topic they are discussing, and respect the work of others by giving appropriate credit. In addition, the ability to cite references correctly also helps prevent plagiarism, which is a serious offense in the academic world.

Jambi University is one of the State Universities in Jambi Province located in Muaro Jambi Regency. Jambi University has various Study Programs, one of which is the Physics Education Study Program. Nasari & Dharma (2015), explained that the general understanding of students is the highest role in the world of education that regulates human behavior patterns from adolescence to their real roles, it can be said that students are a process where thought patterns lead to higher or more serious in carrying out these roles. Physics Education students at Jambi University have a lot of assignments to do, one of which is articles and scientific papers. An article is a writing that discusses various topics with certain themes. According to Herianto (2020), an article is a complete factual composition with a certain length that is made to be published in online or print media (through journals, newspapers, magazines, bulletins, blogs, preprints, etc.) and aims to convey ideas and facts that can convince, educate, and entertain. Meanwhile, scientific papers are an important means of conveying research results and thoughts that can contribute to the development of science and technology. According to Hanafiah, R. Supyan Sauri (2021), scientific papers are works produced from writing activities, by applying scientific principles, prioritizing aspects of rationality, carrying objective and factual problems. However, many still have difficulty in organizing references, managing bibliographies, and referring to sources used appropriately (Falah, 2019).

Students can access online learning resources and search for references easily. Current articles can be easily downloaded from the internet, which results in many new citations used by authors in their scientific works, similar to expressions on social media. Students can also add new references from journals to be cited. Usually students of the Physics Education Study Program use the Mendeley application. According to Ramadhan (2015), Mendeley is also an academic social network, so that in Mendeley, they can share with fellow students or other authors around the world regarding the references used. In fact, authors can also use the web importer facility in Mendeley, in order to automatically import various references from various leading scientific work indexing sites (eg Google Scholar). Mendeley is software that functions to search for reference sources, create citations and bibliographies, manage libraries, including developing academic social networks to collaborate with other researchers (Ramadhan, 2015). This Mendeley application is very much needed for students to create new things so that they can reduce the existence of unclear sources.

Jambi University students already know a lot about the use of Mendeley, especially in the Physics Education Study Program. Physics Education students are already able to quote both directly and indirectly, which means that some or all students are better at using Mendeley. In Physics education, students are required to be able to use Mendeley to create a bibliography or citation so that it is easier and faster to make final assignments or others. This encourages students to have more references to their citations. So that students no longer need to do it manually to make citations because there is an easier and more efficient way. The development of technology makes it easier for students to get information today. However, many students, especially at the local level, face difficulties in accessing, managing, and utilizing scientific information properly. Where students must be able to keep up with today's developments in providing or conveying information to all levels of students, that today's technology has developed rapidly so that it is easier to access and search for reference sources.

2. METHOD

The research method is the procedure and scheme used in research (Waruwu, 2023). According to Nugroho Dwi Yunianto et al. (2023), it allows research to be carried out in a planned, scientific, neutral and valuable manner.

Quantitative research according to Moh & Kasiram (2009), is a process of finding knowledge that uses numerical data as a tool for analyzing data. This study was conducted to determine the utilization of the Mendeley application for Physics Education students at the University of Jambi using quantitative methods. Quantitative methods are related to numbers or nominals that are often used in survey or opinion poll research (Fikrina et al., 2023). In this study, data was collected by filling out a questionnaire that had been distributed to all Physics Education students at the University of Jambi. In this study, a questionnaire was distributed in the collaborative WhatsApp group of all Physics Education students at the University of Jambi in the form of a Google Form. The questionnaire data was in the form of questions about how broad their knowledge was about the use and benefits of using Mendeley.

The time of this research was conducted on February 22, 2025 until a week after the distribution of Google Forms. This study aims to help students, especially Physics Education students at Jambi University, in making citations for an article, scientific work, lab report or paper. The subjects in this study were all Physics Education students at Jambi University who had difficulty in taking citations and bibliographies in a, they can use the Mendeley application to make it easier. In managing the data obtained, researchers input data using the Excel application. The use of Mendeley, in addition to making it easier to take citations and bibliographies, can also help with plagiarism in a quote.

3. RESULT AND DISCUSSION

3.1. Result

Table 1. Results of calculating evaluation data on the use of Mendeley by students

Statement	Percentage
Ever heard of the Mendeley application?	100%
Ever used the Mendeley application	98%
Ever made a citation using the Mendeley application?	96%
Ever used Mendeley to organize a bibliography/reference list	98%

Based on the data obtained from the survey results that have been conducted, the table above shows that most physics education students at Jambi University are already familiar with the Mendeley application. In this study, from the results of the questionnaire analysis that has been distributed to Physics Education students at Jambi University, as many as 52 students filled out the questionnaire and it was found that 100% of the 52 students had heard of the Mendeley application, this proves that Mendeley is very well known among students, especially Physics Education students at Jambi University, especially in the academic world. 98% have used Mendeley, this shows that Mendeley is very popular and useful in writing scientific papers. Although there are 2% of students who have never used Mendeley due to lack of knowledge in using the application. In addition, 96% stated that they had made citations using Mendeley, this also shows that Mendeley is very helpful for students to simplify the citation or citation process according to the desired format. However, there are 4% of students who have never made citations using Mendeley, this is because these students are not familiar with operating Mendeley, they are used to listing citations manually and find it difficult to install and install Mendeley on their devices. Finally, 98% of students have used Mendeley to organize their bibliography. This number is quite good considering that almost all students can use the Mendeley application in their writing, although 2% of the percentage do not use Mendeley in organizing their bibliography.

Based on the description of the data above, it can be concluded that the use of Mendeley is very helpful for students to make it easier to write in including citations and minimize errors that cause plagiarism. Where by using Mendeley students are more efficient in making citations automatically so they don't need to spend time making citations manually.

3.2. Discussion

This activity aims to determine and evaluate the quality level of physics education students at Jambi University in writing, both in compiling practicum reports and scientific papers. Where in making scientific papers, students need more understanding to make the work not plagiarized. Correct references are a respect for the original ideas of previous authors and to avoid plagiarism (Vijai et al., 2020). Plagiarism is the act of taking something from someone's work and using it for academic purposes so that it can be said to be a despicable and prohibited act, which usually often occurs due to errors in including references from quotations taken from other people's

scientific writing. Likewise, according to Pratiwi & Aisya (2021), plagiarism can be categorized as an activity or process related to taking someone else's work and claiming it as their own, either intentionally or unintentionally. This is sometimes done unintentionally because some students may not be used to including references correctly or usually this writing reference is called citation, where citation is the process of citing someone else's writing by including the author's name. Wibowo (2012), said that the best approach to avoid plagiarism is to paraphrase which is freely interpreted as an effort to lift the essence of the reading and rewrite it using your own words. In addition, to avoid plagiarism and of course to make it easier for students to make citations, the Mendeley application is used.

Many articles show that Mendeley is very important in facilitating citations and references as has been done by (Fernandez et al., 2020). Mendeley is a citation and reference management software into a social network that can help organize research, collaborate with other researchers online and find the latest research publications (Bhoi & Center, 2018). And according to Salija (2017) in his explanation, states. that Mendeley is a free desktop, web and mobile-based tool for organizing research citations from annotating paper pdf format, this is comparable to the statement of Puspita et al. (2021) which states that the function of Mendeley is to easily create a bibliography in compiling scientific papers. Users can use Mendeley as a desktop application that is installed offline on a computer. The application is often referred to as Mendeley Desktop.

4. CONCLUSION AND RECOMMENDATION

Based on this study, it can be concluded that the use of the Mendeley application provides many benefits for taking citations and listing bibliographies, this also has a positive impact on helping students if there are sentences or quotes that are typed manually, they can be checked using Mendeley to avoid plagiarism. This study was conducted to determine the level of quality of Physics Education students at the University of Jambi in making citations and bibliographies of a scientific work or practicum report.

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