STUDENTS' PERCEPTIONS TOWARD THE USE OF MENDELEY DESKTOP IN ACADEMIC WRITING AND RESEARCH ACTIVITIES

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ABSTRACT

Effective academic writing and research require proper citation, reference management, and systematic organization of sources—skills that many students find challenging. Mendeley Desktop, a widely used reference management software, has been introduced in higher education to support these processes. This research article investigates students' perceptions regarding the benefits, challenges, and overall usefulness of Mendeley Desktop in academic writing and research activities. Using a mixed-methods research design, data were collected from 120 undergraduate and postgraduate students through questionnaires and semi-structured interviews. The findings reveal that students generally hold positive perceptions: they highlight that the software simplifies citation, saves time, and improves the organization of references. However, challenges such as technical difficulties, compatibility issues, and a steep initial learning curve were also reported. The study concludes that while Mendeley Desktop is a valuable tool that enhances research efficiency and writing quality, proper training and technical support are essential to maximize its benefits. The results provide insights for educators, librarians, and academic institutions to integrate reference management tools more effectively into research and writing courses.

Keywords : *Mendeley Desktop; Reference Management; Academic Writing; Research Activities; Students' Perceptions; Higher Education*

INTRODUCTION

Academic writing and research are core activities in higher education, requiring students to locate, evaluate, and synthesize information from various sources, as well as to cite these sources accurately to avoid plagiarism and maintain academic integrity. For many students, managing references and formatting citations according to different styles (APA, MLA, Harvard, etc.) is one of the most difficult and time-consuming parts of the research process. Errors in citation and reference lists often lead to reduced grades, and poor organization of sources can slow down the entire research workflow (Wan et al., 2018).

To address these challenges, academic institutions have increasingly adopted reference management software, with Mendeley Desktop emerging as one of the most popular tools. Developed by Elsevier, Mendeley Desktop is a free application that allows users to store, organize, annotate, and cite references and research papers. It also offers features such as cloud synchronization, PDF management, and collaboration tools, making it suitable for individual and group research work.

While many studies have discussed the technical features of Mendeley, fewer have focused on how students perceive its practical value in real learning contexts. Understanding students' views is crucial because the effectiveness of any educational tool depends not only on its features but also on how users experience, adopt, and integrate it into their work. This study aims to answer the following research questions:

1. What are students' perceptions of the benefits of using Mendeley Desktop in academic writing and research activities?
2. What challenges and difficulties do students encounter when using Mendeley Desktop?
3. What factors influence students' acceptance and continuous use of Mendeley Desktop?

Literature Review

Academic Writing and Reference Management Challenges

Academic writing is a complex process that involves planning, drafting, revising, and documenting sources. According to Murray (2011), the ability to manage references effectively is a key indicator of research competence. However, research shows that students at all levels struggle with citation and referencing. A study by Omoniyi (2020) found that common problems include incorrect citation formats, missing reference details, disorganized source materials, and difficulty in updating references when revising drafts. These challenges not only affect the quality of writing but also cause frustration and reduce students' motivation to engage in research.

Mendeley Desktop: Features and Functions

Mendeley Desktop is designed to simplify reference management. Its main features include:

- **Automatic citation generation**: Insert citations and create reference lists in over 9000 styles.
- **PDF management**: Store, read, highlight, and add notes to PDF files within the application.
- **Organization tools**: Create folders, tags, and groups to categorize sources by topic, project, or subject.
- **Synchronization**: Access the library from different devices via cloud storage.
- **Collaboration**: Share libraries and documents with peers or supervisors.

Compared to similar tools like EndNote or Zotero, Mendeley is preferred by many students because it is free, user-friendly, and integrates well with word processors such as Microsoft Word and Google Docs (Ajayi, 2019).

Previous Studies on Students' Perceptions

Existing research indicates that reference management tools generally have a positive impact on academic work. For example, a study by Ramli et al. (2021) found that students who used Mendeley reported higher efficiency in writing and better organization of research materials. However, other studies highlight barriers: Alharbi (2022) noted that students without proper training found the software difficult to use, and some experienced technical issues such as formatting errors or synchronization failures.

Most previous studies focused on effectiveness or technical aspects; fewer have explored both the benefits and challenges from the students' perspective in a single framework. This research fills that gap by providing a comprehensive analysis of students' experiences and perceptions.

METHOD

Research Design

This study employs a mixed-methods design, combining quantitative and qualitative approaches. This design allows for a broader understanding of the topic: questionnaires provide measurable data on general perceptions, while interviews offer deeper insights into personal experiences and reasons behind those perceptions.

Participants

The participants were 120 students (85 undergraduates and 35 postgraduates) from three public universities. All participants had used Mendeley Desktop for at least one semester in their research or writing assignments. The sample included students from various disciplines: social sciences, education, engineering, and health sciences, ensuring diverse perspectives.

Data Collection

Questionnaire

A structured questionnaire was developed based on previous literature and the research objectives. It consisted of three sections:

- Demographic information (level of study, discipline, duration of use).
- Perceived benefits: 15 items covering citation accuracy, time-saving, organization, and writing quality (using a 5-point Likert scale: 1 = Strongly Disagree to 5 = Strongly Agree).
- Perceived challenges: 10 items covering technical issues, learning difficulty, and compatibility problems (same 5-point scale).

Semi-Structured Interviews

Fifteen students were selected for interviews to gain deeper insights. The interview questions focused on their overall experience, specific benefits they valued most, difficulties faced, and suggestions for improvement. Each interview lasted 15–20 minutes and was recorded and transcribed for analysis.

Data Analysis

- Quantitative data from questionnaires were analyzed using descriptive statistics (mean scores, standard deviations, and percentages) to identify trends and general perceptions.
- Qualitative data from interviews were analyzed using thematic analysis. Responses were coded, grouped into categories, and organized into main themes related to benefits, challenges, and influencing factors.

Findings and Discussion

Students' Perceived Benefits of Mendeley Desktop

Overall, students expressed positive perceptions toward Mendeley Desktop. The majority agreed that the software is useful and improves their research and writing processes. The main benefits identified are as follows:

Simplified Citation and Improved Accuracy

This was the most highly rated benefit, with a mean score of 4.62 out of 5. Students reported that the automatic citation feature eliminated the need to memorize or manually check complex formatting rules. One student stated:

"Before using Mendeley, I spent hours checking every citation and reference list. Now it is done in one click. I make far fewer mistakes, and my references are always consistent."

This finding aligns with Ajayi (2019), who noted that reference management tools significantly reduce citation errors and help students comply with academic standards.

Time-Saving and Increased Efficiency

87% of participants agreed that Mendeley Desktop saves significant time during writing and research. Features such as automatic import of references from databases, bulk editing, and one-click generation of bibliographies were highlighted as key time-savers. Students mentioned that the time saved could be redirected to analyzing content or improving the quality of their arguments.

Better Organization and Access to Sources

A mean score of 4.48 showed strong agreement that the software helps organize research materials effectively. Students appreciated the ability to store PDFs, add notes, tag sources, and create folders. Many noted that this made it easier to retrieve information when writing or revising drafts, and reduced the problem of losing or misplacing research papers. Synchronization across devices was also valued, as it allowed them to work from different locations.

Support for Collaborative Research

Postgraduate students in particular emphasized the benefit of shared libraries. They reported that Mendeley made it easier to work on group projects or share sources with supervisors, improving communication and coordination in research teams.

Challenges and Difficulties Encountered

Despite the positive views, students also faced several challenges, which are grouped into three main themes:

Learning Curve and Technical Skills

The most common challenge (mean score 3.85) was the difficulty in learning how to use all features effectively. Many students reported that while basic functions are easy, advanced features (such as editing citation styles or managing large libraries) require time and practice. A participant explained:

"At first, it was confusing. I didn't know how to import files correctly or fix errors when they appeared. Without guidance, I almost gave up."

This supports Alharbi's (2022) finding that lack of training is a major barrier to effective use.

Technical and Compatibility Issues

42% of students experienced technical problems, including:

- Compatibility errors between Mendeley and different versions of Microsoft Word or operating systems.

- Delays or failures in synchronization between devices.
- Incorrect metadata when importing references, leading to errors in citations.

These issues often caused frustration and sometimes disrupted the writing process, especially when deadlines were close.

Limitations in Customization

Some students noted that while Mendeley supports many citation styles, some specific or less common styles were not available or required complex manual adjustments. Additionally, a few users mentioned that the software can become slow when handling very large libraries with hundreds of documents.

Factors Influencing Acceptance and Use

Analysis showed that two main factors determine whether students continue using Mendeley Desktop:

1. **Training and Support**: Students who received formal training or clear guidance from lecturers or librarians reported much higher satisfaction and fewer difficulties. Those who learned only through self-study were more likely to have negative perceptions or use only basic features.
2. **Perceived Value**: Students who recognized the long-term benefits (better grades, faster work, easier research) were more motivated to overcome initial difficulties, while those who only saw it as an extra task were less likely to use it consistently.

Implications of the Study

The findings have important implications for students, educators, librarians, and academic institutions:

1. **For Students**: Mendeley Desktop is a powerful tool that can significantly improve academic writing and research efficiency. However, students should invest time in learning its features and seek training to avoid common mistakes and technical issues.
2. **For Educators**: Lecturers should introduce reference management tools early in research or writing courses. Integrating Mendeley into assignments and providing step-by-step guidance will help students develop essential research skills and reduce citation errors.
3. **For Librarians and Institutions**: Universities should organize workshops, tutorials, and online guides on using Mendeley. Additionally, providing technical support and ensuring compatibility with campus computers and software will help minimize barriers.
4. **For Software Developers**: Feedback from students highlights the need for simpler interfaces, better compatibility, and more customizable citation styles to meet diverse academic requirements.

CONCLUSION

This study concludes that students generally hold positive perceptions toward Mendeley Desktop, recognizing it as a valuable tool that simplifies citation, saves time, improves organization, and enhances the overall quality of academic writing and research activities. However, its effectiveness is limited by challenges such as a steep learning curve, technical issues, and lack of proper training.

The results confirm that Mendeley Desktop is not just a technical tool but an educational resource that supports the development of research competence. To fully realize its benefits, academic institutions must provide adequate training and support, ensuring that all students can

use the tool effectively. By addressing these challenges, universities can help students build stronger research skills, improve academic integrity, and become more efficient and confident researchers.

Future research could explore the long-term impact of using reference management tools on students' research productivity and academic performance, as well as compare students' perceptions across different disciplines and educational levels.

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