**rWikipedia and Teacher Education: Student Uses and Perspectives**

**Abstract**

Since its inception, Wikipedia has become a ubiquitous source of information globally. However, its unique authorship and editing structure has been cause for controversy in regards its use as a pedagogical resource. However, failure to understand its strengths and shortcomings limits its potential as a learning tool to assist student learning. Understanding the place of Wikipedia in academic settings may be argued to be particularly important for students majoring in education because as future teachers, their attitudes to information resources will influence their future students. Currently, little is known about how students majoring in education use or view Wikipedia. Therefore, this study was designed to generate a profile of Wikipedia use by education majors as well as their perceptions about its value as an educational resource. Analyses of 210 completed questionnaires from education majors in a large urban university in the USA indicated extensive confusion in the respondents about the nature of Wikipedia which, in general, limited their use to a few low-level educational functions. Their inability or reluctance to take full advantage of Wikipedia in the classroom may be due to a pervasive indifference or active negative attitudes shown by their professors to Wikipedia as an academic resource.

**Keywords:** Wikipedia, Teacher Education, University Undergraduate, Wikipedia Uses, Perceptions

**Introduction**

Since its inception in 2001, Wikipedia has quickly gained popularity among online users and, despite the ongoing evolution of the Internet and challenges posed by AI, is “as popular as ever” (Hart, 2024) with more than 67 million unique global visitors daily. Currently, it appears on the first page of 99% of Google searches and is ranked as the seventh most visited website in the world with over 64 million articles in more than 300 languages. The English version of Wikipedia currently hosts 6.9 million articles which have been edited 825 million times by 11.9 million registered users since its inception. An average of 600 new articles are contributed per day to the English version of Wikipedia alone. A measure of the ubiquity of Wikipedia is that it is embedded in Microsoft Word as an add-in feature through which users can search Wikipedia for information directly within Word and insert their selections immediately into the document they are composing.In addition to its massive content, Wikipedia’s popularity is bolstered by the fact it is free to all users, in keeping with its mission to provide "every single person on the planet free access to the sum of all human knowledge" (Wales, 2004).

Wikipedia differs significantly from conventional encyclopedias particularly in its relies on volunteers for content, which results in ongoing, real-time contributions while increasing the depth and breadth of its content. This open authorship is the foundation of Wikipedia and another key factor in its exponential growth (Walker & Li, 2016). Similarly, any registered user can edit Wikipedia content, so inaccuracies get corrected in real time. Wikipedia, with its unique features of openness, vast content coverage, and easy access, has become an indispensable part of the information landscape in the digital age.

**Literature Review**

The debut of Wikipedia stimulated excitement in academic communities and its influence has permeated a wide spectrum of disciplines from sciences to humanities (Herbert, 2015; Hughes et al., 2009; Johinke, 2020; Kousha & Thelwall, 2017; Lee et al., 2019) because it can function as a knowledge organizer and points researchers to literature relevant to their projects. In this way, Wikipedia facilitates and contextualizes meaningful discourses in academic communities. For example, after conducting correlational analysis of thousands of Wikipedia articles, Thompson and Hanley (2018) concluded that “Wikipedia doesn’t just reflect the state of the scientific literature, it helps shape it” (p.37).

Despite Wikipedia’s undeniable impact and ubiquity, the quality of its information has been a controversial issue. Multiple authors and studies have defended the accuracy and validity of Wikipedia (Jemielniak, 2019; Mesgari et al., 2015; Michelucci & Dickinson, 2016; Read, 2006; Reavley et al., 2012; Rector, 2007; Rosenzweig, 2006; [Valenza](https://blogs.slj.com/neverendingsearch/author/joycevalenza/), 2019; Thompson & Hanley, 2018). For example, Giles (2005) was the first to utilize peer review to compare the scientific coverage in Wikipedia with that of the purported “gold standard” Encyclopedia Britannica. The study used a panel of experts in respective fields to examine the accuracy of 50 science topic articles in both encyclopedias and found Wikipedia's accuracy was comparable to that of Britannica. More than a decade later, Jemielniak (2019) noted “Wikipedia is by far the largest online encyclopedia, and the number of errors it contains is on par with the professional sources even in specialized topics such as biology or medicine” (p.1). This should not be entirely surprising as errors and inaccuracies are often corrected in a matter of hours by its diverse and diffuse volunteer editorial team. The effectiveness of Wikipedia’s open quality-control approach was highlighted by a study conceived to reveal flaws in Wikipedia's accuracy. Posing as a visiting law lecturer at Oxford University the author inserted 13 factual errors into various Wikipedia articles. Although Wikipedia allows anyone to edit entries without verifying credentials or expertise within 3 hours all of the errors had been removed by Wikipedia volunteer editors who routinely monitor updated entries (Read, 2006). This level of real-time information correction has led many academics to trust the quality of Wikipedia articles but “most importantly, the changes are transparent – I can look through the history to read the discussion, much the way I can in open peer reviews” ([Valenza](https://blogs.slj.com/neverendingsearch/author/joycevalenza/), 2019, para. 11).

Others have expressed deep concerns about Wikipedia content (Bayliss, 2013; Brown 2011; Dunn et al., 2018; Greenstein & Zhu, 2018; London et al., 2019; Luyt & Tan, 2010; Polk et al., 2015; Rector, 2008; Soylu, 2009). Interestingly, “the openness that makes Wikipedia so alluring to its contributors is precisely what discomfits scholars” (Read, 2006, p. 2), arguably because the open authorship and editorship differ so significantly from peer-reviewed academic publications and because Wikipedia is “. . . open to abuse, including the deliberate or inadvertent insertion of inaccurate information” (Luyt & Tan, 2010, p. 715). Additionally, while Wikipedia advocates for the collective intelligence of open authorship and editorship as its core value, critics argue that there are dangers to “crowd thinking,” including “the crowd getting it wrong,” “totally negative aspect of crowd behavior,” and “a potential intellectual arrogance” (Bayliss, 2013, p. 44). Finally, because Wikipedia does not disclose author or editor names, expertise, or credentials, whether entries are written or reviewed by experts or amateurs is unknown which, according to critics, “devalue[s] the notion of expertise” (Read, 2006; p.2).

Although it may be argued that “Wikipedia’s usefulness lies in readers’ ability to gain a quick feel for a subject [and] serious research should always be based on reliable primary and secondary sources, not on a tertiary . . .source like Wikipedia” (Brown, 2011, p. 342), the negativity about Wikipedia has influenced how educational institutions view it as an academic resource. Many have policies that prohibit students from using it in assignments (Hough, 2011; Park & Bridges, 2022).

Despite these mixed opinions, Wikipedia is popular among young people, with university students comprising a significant portion of Wikipedia users (Allahwala et al., 2013; D’Agostino, 2022; Di Lauro & Johinke, 2017; Dunn et al., 2019; Head & Eisenberg, 2013; Humer & Schnetzer, 2022; Lee et al., 2019; Valenza, 2019). In an early large-scale survey investigating whether college students used Wikipedia, more than 2,300 completed surveys from participants in six universities in the United States were analyzed. The results showed that 75% of respondents used Wikipedia, with 52% being frequent users and 23% occasional users (Head & Eisenberg, 2010). Similarly, a study by Knight & Pryke (2012) involving 1,222 students at a university in the United Kingdom found 75% of students used Wikipedia for their academic work, but with an inverse use profile - 22% were regular users, and 35% consulted it occasionally. A later study by Selwyn & Gorard (2016) explored the use of Wikipedia by university students in Australia and found that 87.5% of the 1,658 students surveyed used Wikipedia in their academic work.

Students use Wikipedia because it can facilitate understanding of a subject including “concepts, authors, definitions, and concise histories and further references” (Knight & Pryke, 2012; p. 657), which helps them cope with the challenges of the initial stage of research, especially in generating ideas about how to proceed (Head & Eisenberg, 2010). Thus, despite its real or purported shortcomings, students have generally indicated Wikipedia is relevant to their academic life and have leveraged its advantages to expand their knowledge base. As Dunn et al. (2019) noted: “Wikipedia is used regardless of considered advice or the organizational protocols in place” (p.224). Therefore, it is short-sighted to dismiss Wikipedia completely in higher education settings because by doing so students may be deprived of the potential benefits of this vast resource.

Understanding the place of Wikipedia in academic settings may be argued to be particularly important for students majoring in education because as future teachers, their uses and perceptions will influence their future students. Currently, there is no research on how students majoring in education use Wikipedia or on their perceptions of it as an academic tool. Therefore, this study was designed to generate a comprehensive profile of the use of Wikipedia by education majors as well as their perceptions of its value as an educational resource. The results may help future educators guide their students toward best practices for utilizing the potential of Wikipedia for academic development.

**Setting of the Study**

This study was conducted at a large urban university in the United States. Participants were 229 undergraduate students enrolled in introductory education courses. Of the total surveys received, 19 were incomplete, leaving a total of 210 (91.7%) usable for analysis.

**Methodology**

The research instrument was a questionnaire investigating: a) how education major students used Wikipedia in their academic work, b) what they perceived as the value of Wikipedia as an academic tool, and c) how their professors approached Wikipedia in courses for education majors. Descriptive data (frequencies and means) were analyzed.

**Results**

**1) How Wikipedia is used**

Approximately 66% of respondents used Wikipedia primarily for background information, quick facts, and generating ideas. However, only 37% relied on it for conducting research or composing papers (Table 1).

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| --- | --- | --- |
| **Table 1. Student Uses of Wikipedia (N=210)** | | |
|  | No | Yes | |
| I used Wikipedia for background information for my assignments. | 72  34.3% | 138  65.7% | |
| I used Wikipedia to pick up quick facts for my assignments. | 83  39.5% | 127  60.5% | |
| I used Wikipedia for my assignments (projects, papers, and presentations). | 84  40.0% | 126  60% | |
| I used Wikipedia for ideas for my assignments. | 91  43.3% | 119  56.7% | |
| I used Wikipedia for my research. | 133  63.3% | 77  36.7% | |
| I used Wikipedia in writing my papers. | 133  63.3% | 77  36.7% | |

**2)** **Why Wikipedia is used**

Students tended to agree/strongly agree that their use **of Wikipedia** were largely driven by Wikipedia's easy accessibility (68%), top ranking in Google searches (64%), and quick information delivery (65%). However, only 26% strongly agreed/agreed that Wikipedia contained the most updated information or that it was a rich source of information (24%) (Table 2).

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| **Table 2. Reasons for Using Wikipedia (N=210)** | | | | | |  |
|  | Strongly  Disagree | Disagree | Neutral | Agree | Strongly  Agree | Mean |
| It is easily accessible. | 21  10.0% | 9  4.3% | 37  17.6% | 76  36.2% | 67  31.9% | 3.76 |
| It always appears on the top of the hits through Google search. | 19  9.0% | 19  9.0% | 38  18.1% | 75  35.7% | 59  28.1% | 3.65 |
| It is a quick way to obtain information. | 23  11.0% | 13  6.2% | 37  17.6% | 88  41.9% | 49  23.3% | 3.61 |
| It is easy to navigate through the pages. | 22  10.5% | 19  9.0% | 46  21.9% | 93  44.3% | 30  14.3% | 3.43 |
| The information is well structured. | 22  10.5% | 30  14.3% | 59  28.1% | 74  35.2% | 25  11.9% | 3.24 |
| The information is well formatted. | 22  10.5% | 28  13.3% | 62  29.5% | 73  34.8% | 25  11.9% | 3.24 |
| It contains comprehensive information. | 27  12.9% | 28  13.3% | 70  33.3% | 63  30.0% | 22  10.5% | 3.12 |
| The information fits my need. | 27  12.9% | 30  14.3% | 66  31.4% | 71  33.8% | 16  7.6% | 3.09 |
| It contains most updated information. | 29  13.8% | 42  20.0% | 84  40.0% | 42  20.0% | 13  6.2% | 2.85 |
| It has what I need for my assignments. | 32  15.2% | 40  19.0% | 75  35.7% | 49  23.3% | 14  6.7% | 2.87 |
| It contains rich information. | 33  15.7% | 41  19.5% | 85  40.5% | 35  16.7% | 16  7.6% | 2.81 |

**3) Validation of Wikipedia information**

Between 30% and 50% of respondents took Wikipedia at face value, meaning they never checked accuracy, reliability, currency, edit history, links and references, or depth and scope of their Wikipedia information (Table 3).

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| --- | --- | --- | --- | --- | --- | --- |
| **Table 3. Checking Wikipedia Information (N=210)** | | | | | |  |
|  | Never | Occasionally | Sometimes | Frequently | Quite Often | Mean |
| I check the accuracy of the information in Wikipedia before using it. | 65  31% | 41  19.5% | 18  8.6% | 58  27.6% | 28  13.3% | 2.73 |
| I check the reliability of the information in Wikipedia before using it. | 66  31.4% | 41  19.5% | 17  8.1% | 56  26.7% | 30  14.3% | 2.73 |
| I check the currency of the information in Wikipedia before using it. | 71  33.8% | 49  23.3% | 20  9.5% | 43  20.5% | 27  12.9% | 2.55 |
| I check the edit history of the information before using it. | 99  47.1% | 47  22.4% | 14  6.7% | 27  12.9% | 23  11% | 2.19 |
| I check links and references used in the information before using it. | 71  33.8% | 51  24.3% | 20  9.5% | 39  18.6% | 29  13.8% | 2.54 |
| I check the levels of information in Wikipedia before using it. | 83  39.5% | 53  25.2% | 24  11.4% | 29  13.8% | 21  10% | 2.30 |
| I check the scope of information in Wikipedia before using it. | 82  39% | 58  27.6% | 20  9.5% | 29  13.8% | 21  10% | 2.28 |

**4) Knowledge about Wikipedia**

Although most respondents (80%) knew that Wikipedia differed from other online encyclopedias, less than 40% were familiar with its history. A slight majority were familiar with its open policy on submissions (59.1%) and editing (56.7%) (Table 4)

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| **Table 4. Knowledge about Wikipedia (N=210)** | | | | |
| **Section 1** | Yes | | No | |
| I know the history of Wikipedia. | 80  38.1% | | 130  61.9 % | |
| I know Wikipedia differs from other online encyclopedias. | 168  80% | | 42  20% | |
| I know how Wikipedia is administered. | 116  55.2% | | 94  44.8% | |
| **Section 2** |  | | | |
|  | Yes | Unsure | | No |
| Anyone can write articles in Wikipedia regardless of their expertise. | 124  59.1% | 57  27.0% | | 29  13.8% |
| Anyone can edit articles in Wikipedia regardless of their expertise. | 119  56.7% | 60  28.6% | | 31  14.8% |

**5) Perceptions about core Wikipedia characteristics**

Although almost 60% of respondents knew of Wikipedia’s open submission (59.5%) and editing policy (56.1%), approximately 50% were unsure whether contributors were knowledgeable, reliable, or trustworthy (range: 47.1%-50%). Similarly, respondents were mostly uncertain (by a wide margin) about the impact of contributor anonymity on the credibility of Wikipedia information reliable (range: Unsure: 47.6%-51.9% vs. Agree/Strongly agree: 35.7%-42.8% or Disagree/Strongly disagree: 9.7%-12.4%). (Table 5).

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| --- | --- | --- | --- | --- | --- | --- |
| **Table 5. Perceptions about Open Authorship and Editorship of Wikipedia**  **(N=210)** | | | | | | |
|  | Strongly Disagree | Disagree | Unsure | Agree | Strongly Agree | Mean |
| People who write articles in Wikipedia are knowledgeable in specific topic. | 24  11.4% | 38  18.1% | 103  49.0% | 43  20.5% | 2  1.0% | 2.81 |
| People who write articles in Wikipedia are experts in specific topic. | 32  15.2% | 61  29.0% | 99  47.1% | 15  7.1% | 3  1.4% | 2.51 |
| People who write articles in Wikipedia are trustworthy. | 27  12.9% | 55  26.2% | 105  50.0% | 21  10.0% | 2  1.0% | 2.60 |
| People who write articles in Wikipedia are reliable. | 27  12.9% | 59  28.1% | 103  49.0% | 17  8.1% | 4  1.9% | 2.58 |
| Anyone can write articles in Wikipedia regardless of their expertise. | 9  4.3% | 16  7.6% | 60  28.6% | 67  31.9% | 58  27.6% | 3.65 |
| Anyone can edit articles in Wikipedia regardless of their expertise. | 9  4.3% | 21  10.0% | 62  29.5% | 61  29% | 57  27.1% | 3.62 |
| Credentials of people who write articles in Wikipedia are compromised when they remain anonymous. | 10  4.8% | 16  7.6% | 109  51.9% | 43  20.5% | 32  15.2% | 3.34 |
| Articles are not accountable with anonymous authors. | 8  3.8% | 12  5.7% | 100  47.6% | 53  25.2% | 37  17.6% | 3.47 |

**6) Educational value of Wikipedia**

Respondents were divided in their perspectives about Wikipedia as an academic tool, with 30.9% agreeing/strongly agreeing it is not academically valuable and 30.5% agree/strongly agreeing that it is a useful educational resource. Although only 20% agreed/ strongly agreed that it should be banned from university courses, 42.8%-45.2% disagreed/strongly disagreed with the idea of integrating or supporting it in courses (Table 6).

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| **Table 6. Educational Value of Wikipedia (N=210)** | | | | | | |
|  | Strongly Disagree | Disagree | Unsure | Agree | Strongly Agree | Mean |
| Wikipedia should not be accepted in student assignments. | 22  10.5% | 39  18.6% | 86  41.0% | 42  20.0% | 21  10.0% | 3.01 |
| Wikipedia is not academically valuable. | 20  9.5% | 47  22.4% | 78  37.1% | 45  21.4% | 20  9.5% | 3.00 |
| Wikipedia is a useful educational resource. | 25  11.9% | 38  18.1% | 83  39.5% | 47  22.4% | 17  8.1% | 2.97 |
| Wikipedia should be banned in university courses. | 28  13.3% | 63  30.0% | 77  36.7% | 28  13.3% | 14  6.7% | 2.70 |
| Wikipedia should be integrated as an educational resource in university courses. | 34  16.2% | 61  29.0% | 72  34.3% | 35  16.7% | 8  3.8% | 2.63 |
| Professors should endorse the use of Wikipedia in student assignments. | 28  13.3% | 62  29.5% | 90  42.9% | 21  10.0% | 9  4.3% | 2.62 |

**7) Faculty and Wikipedia**

Respondents indicated a pervasive antagonism toward Wikipedia as an academic resource from faculty, with “never” as the most frequent response (41%-75.2%) related to positive faculty actions, i.e., guidance on how to best evaluate and use Wikipedia. Almost half of the students (48.1%) were told frequently or quite often not to use Wikipedia by their professors.

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| --- | --- | --- | --- | --- | --- | --- |
| **Table 7. How Faculty Handle Wikipedia in Courses (N=210)** | | | | | |  |
|  | Never | Occasionally | Sometimes | Frequently | Quite Often | Mean |
| Professors discussed how to evaluate information in Wikipedia. | 90  42.9% | 54  25.7% | 36  17.1% | 16  7.6% | 14  6.7% | 2.10 |
| Professors discussed how to judge the quality of information in Wikipedia. | 86  41.0% | 55  26.2% | 31  14.8% | 20  9.5% | 18  8.6% | 2.19 |
| Professors discussed how to assess credibility of information in Wikipedia. | 99  47.1% | 51  24.3% | 36  17.1% | 9  4.3% | 15  7.1% | 2.00 |
| Professor discussed how to select appropriate information in Wikipedia. | 102  48.6% | 54  25.7% | 31  14.8% | 9  4.3% | 14  6.7% | 1.95 |
| Professors provided us with guidance on how to use Wikipedia. | 109  51.9% | 50  23.8% | 32  15.2% | 5  2.4% | 14  6.7% | 1.88 |
| Professors discussed the pitfalls of Wikipedia | 63  30.0% | 48  22.9% | 47  22.4% | 20  9.5% | 32  15.2% | 2.57 |
| Professors discussed how to cite Wikipedia as a source. | 127  60.5% | 44  21.0% | 23  11.0% | 7  3.3% | 9  4.3% | 1.70 |
| Professors discussed the benefits of Wikipedia | 102  48.6% | 60  28.6% | 29  13.8% | 8  3.8% | 11  5.2% | 1.89 |
| Professors encouraged us to contribute to Wikipedia. | 158  75.2% | 23  11.0% | 21  10.0% | 4  1.9% | 4  1.9% | 1.45 |
| Professors told us not to use Wikipedia for our assignments. | 41  19.5% | 37  17.6% | 31  14.8% | 36  17.1% | 65  31.0% | 3.22 |

**Discussion**

This study generated a comprehensive profile of undergraduate education major’s use of Wikipedia and their perceptions of its value in academic settings. More than 60% reported using Wikipedia for their assignments, primarily to obtain facts and ideas quickly and for background information; however, less than one-third reported using Wikipedia for research and writing papers.

This pattern of Wikipedia use may be associated with student attitudes about the value of Wikipedia as an academic resource. Students did not consider Wikipedia contributors as knowledgeable experts in specific fields, resulting in perceptions that Wikipedia authors were not trustworthy or reliable. Students were generally neutral about the value of Wikipedia in academic settings and uncertain about whether its use should be permitted in academic assignments. Despite their ambivalence, the majority of students used Wikipedia in academic work. It is worth noting that students appeared to adjust their uses of Wikipedia in line with their perceptions of its value in academic work. They used Wikipedia as a supplement resource rather than a primary scholarly reference. Another possible explanation for this behavior is Wikipedia’s superior user interface. Students were drawn to Wikipedia because it is easily accessible, consistently appears at the top of search results in Google search and offers a quick way to obtain information.

Although students used Wikipedia, a large number of students lacked knowledge about the history of Wikipedia as well as how Wikipedia is governed and managed including its open authorship and editorship. This knowledge gap may affect student judgments and decisions for using Wikipedia information. Due to a lack of foundational knowledge about Wikipedia, students may either overestimate or underestimate its reliability. Without fully understanding how Wikipedia manages the contributing process, students may not be aware of the importance to evaluate the credibility of its content, neglecting to check references, edit histories, and authors’ expertise, which will hindering students from critically assessing Wikipedia information. It is important for students to learn and understand Wikipedia as an open, dynamic, fluid, and evolving information platform so that they can approach its content with a critical questioning mindset.

However, many students in this study did not demonstrate that they employed an inquisitive and questioning mindset when approaching Wikipedia information. A significant number of students never checked the credibility of its content, such as its accuracy, reliability, currency, edit history, and references. This disturbing behavior pattern indicates that there was an urgent need to develop students’ information literacy skills. Information literacy refers to students’ ability to locate, evaluate, and use information effectively and responsibly (American Library Association, 1989; SACS, 1996). Lacking information literacy skills may lead to the use of inaccurate, biased, or outdated information, which, in turn, negatively affects the quality and credibility of students’ academic work.

In a broad sense, Wikipedia offers a platform for students to develop critical information literacy skills that extend beyond Wikipedia and benefit them in a variety of contexts. For example, students could learn how to examine references, links, and edit histories in evaluating the credibility of Wikipedia articles. By cross-referencing Wikipedia articles with other authoritative sources, students could learn how to verify their accuracy. In an age of information overload, students should stay up to date with the latest developments in a field by checking the timeliness of an article.

One key factor in developing students’ information literacy is the instructor’s guidance. Nevertheless, this study showed that professors played a limited role in guiding students’ use of Wikipedia. More than 50% of students reported that their professors never provided guidance on how to use Wikipedia effectively. Professors rarely, if ever, taught students how to select, evaluate, or cite information from Wikipedia. Neither did they spend time in class discussing the benefits or pitfalls of using Wikipedia. Close to 50% of students indicated that their professors explicitly communicated to them that they were not allowed to use Wikipedia for their assignments.

Professors played an essential role in shaping student perceptions and behaviors regarding information resources. Without professors’ guidance, students were left to navigate Wikipedia on their own. More crucially, professors missed an opportunity to utilize Wikipedia as an open platform for promoting information literacy skills.

There are many ways for professors to integrate student use of Wikipedia into learning activities and assignments in their courses. For example, professors can engage students in discussions (online or face-to-face) about Wikipedia. In these discussions, students can share their experiences using Wikipedia, explore its strengths and weaknesses as an information source, debate its appropriate role in academic settings, and compare it with other online and print resources such as journals, encyclopedias, and education websites. Students can also conduct case analyses. Professors can assign students to analyze specific Wikipedia articles for credibility, focusing on sources, references, and edit history. Alternatively, students can evaluate a Wikipedia article for possible bias and reflect on how bias might shape its content.

Professors can play an active role in cultivating critical information literacy in students by designing assignments that encourage students to contribute to the Wikipedia community. Students should not only consume information, but also produce it. The term “prosumer” was coined by Toffler (1980) in his monumental book *The* *Third Wave*. A prosumer refers to an individual who is involved in both consuming and producing goods and services. When applied in critical information literacy, it describes someone who is both a consumer and producer of information. Chen et al. (2011) extended the concept by identifying two types of prosumers: functional prosumers and critical prosumers. A functional prosumer has the knowledge and skills to consume and produce information or media. A critical prosumer understands the social and cultural dimensions of information and has the ability to critically evaluate it in the process of both consumption and production.

Wikipedia is an ideal platform for students to practise becoming critical information prosumers. Professors can design Wikipedia projects where students are required to edit existing Wikipedia entries or contribute original writings to Wikipedia. Wikipedia projects can be applied across various disciplines. Students can choose a topic, read a related Wikipedia article, evaluate the article, and identify inaccuracies, missing content, or potential bias. They can then either completing editing the exiting Wikipedia content or write a new article on the topic and publish it on Wikipedia.

Wikipedia projects can benefit education majors in multiple ways, including a) promoting critical information literacy skills as they learn to assess essential aspects of content such as accuracy, reliability, currency, references, and scope, b) improving their research skills by contributing to Wikipedia which involves locating sources, analyzing information, synthesizing ideas, and cross-referencing materials, and c) motivating them to improve their communication skills as they write for a real audience and contribute to the overall educational welfare of a global community.

**Conclusion**

Despite some reservations, most students use Wikipedia for background information or to establish a broad foundation for their ideas. However, a majority never verify the credibility of the information they obtain from Wikipedia before using it, and many have no knowledge of Wikipedia’s history, governance, or management. Respondents indicated that faculty generally provided little guidance on student use of Wikipedia, thus missing an important opportunity to impart critical information literacy skills of their students. From these findings, it is clear that further research is needed to devise strategies to overcome these deficiencies and allow future teachers to fully exploit the potential of Wikipedia as an academic resource.

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**Data Availability:** Data will be made available on reasonable request.