Wikipedia: Reference Tool for the Future?

by

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ABSTRACT

In an age where the internet is the primary search tool, online reference sites have begun to play an even bigger role in our society. The two reference sites being discussed in this paper are *Wikipedia* and Encyclopedia Britannica. It became clear that while more people are using *Wikipedia*, it is still not trusted in as a credible source for use in research. Some libraries have begun uploading and contributing to *Wikipedia*; only time will tell if this has any effect on how *Wikipedia* is viewed in Academia. After delving into detail about how both *Wikipedia* and Encyclopedia Britannica are being used today, the author then conducted a series of interviews to find out how students and faculty are using both sites. While the results are not necessarily surprising, they do provide a good framework for discussion. In addition, the results of the study made it clear that more research must be done in this area.

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Chapter I: Introduction

"Tim Russert was the well-known anchor of the popular television show *Meet the Press* for 17 years. When he unexpectedly passed away in 2008, his *Wikipedia* page was updated before Fox News announced it." (pg 22, p 1) (Qualman, 2009) This example shows how the social web is changing the way we live, do business, communicate with others and more recently, begin research. In the world of Information and Communication Technology what better place to get information than on the web? The trusted encyclopedias like Encyclopedia Britannica and World Book Encyclopedia, used by scholars in academia have taken their hardbound books online. While they remain a trusted leader in information, a new competition has arisen; its name... *Wikipedia*. "In the last few years, we have been exposed to the growing phenomena of sites that enable the creation of user generated content. One of the prominent examples of this phenomenon is *Wikipedia*. *Wikipedia* is an on-line, volunteer-contribution-driven, wiki-based encyclopedia." (pg 679, p 1) (Amichai-Hamburger, Lamdan, Madiel, & Hayat, 2008) *Wikipedia* consistently ranks in top two positions on most common search engine results lists. Many people use it day after day to get quick answers to their questions. Many use it, trust it and continue to come back to it to find information.

While *Wikipedia* is gaining in popularity among the public, in academia, it lacks credibility. Because information on the site can be edited by anyone, scholars around the world do not trust it. However, studies have shown that in the new-age reference tool, information is not that different from that of Encyclopedia Britannica. So in this time of new Information and Communication Technologies where any Joe, Bill, or Shirley can edit reference tools, is *Wikipedia* a site to be trusted?

Purpose of the Study

When looking at the Review of Literature, the author hopes to gain knowledge about the current ideas and thoughts on both *Wikipedia* and Encyclopedia Britannica. Looking at how *Wikipedia* is currently used in academia as well as in libraries will lead into the study. The purpose of this study is to interview professors, graduate and undergraduate students to find out how they perceive *Wikipedia*. The goal is to get a better understanding of how those in the academic world are using *Wikipedia*, why they use it and if they see *Wikipedia* as a teaching tool.

By interviewing subjects in these areas, we should have a better understanding on the opinions and thoughts of *Wikipedia*.

Assumptions of the Study

The assumptions of the study are that the research subjects are familiar enough with *Wikipedia* and Encyclopedia Britannica to be able to answer questions about them.

Definition of Terms

Encyclopedia Britannica: a general English-language encyclopedia that is regarded as the most scholarly of encyclopedias.

Wikipedia: Wikipedia is an on-line, volunteer-contribution-driven, wiki-based encyclopedia." (Amichai-Hamburger, Lamdan, Madiel, & Hayat, 2008)

Trolling: the act of perusing the internet and attempting to disrupt a community or get reactions, attention and controversy by using obscene, offensive or hateful actions.

Enabler: A person within *Wikipedia* that may change or edit something with the intent to help but in fact may perpetuate a problem.

Wiki: A website of user generated content that allows the easy creation and editing of pages via a web browser.

Chapter II: Review of Literature

Wikipedia is the online reference tool of the future. With 2.5 billion page views per month, over 1 million articles, 43,000 contributors and 89,000 volunteers, it is quickly becoming the largest reference collection in the world. (Berinstein, 2006) In comparison to other educational reference material sites, it draws six times more traffic than the next closest site. (Polkinghorne & Hoffman, 2009) In addition, Wikipedia articles consistently rank first or second in results lists for most search engines. (Garfinkel, 2008) By looking at Wikipedia vs. Encyclopedia Britannica, the use of Wikipedia by libraries, how Wikipedia is being used in academia, a framework will be set for study.

Wikipedia has a core group of volunteers (about 2,000) who manage editing, citations, trolling and user generated content. Wikipedia volunteers are people who are skilled in using wikis, they are intelligent, geeky, and generally have a lot of time to spend on the website. Most of the volunteers and contributors do it because they want recognition within the Wikipedia community, they want to fulfill personal agendas, they feel they are doing something that has public interest and is for the good of the community, it is a fun hobby and many see it as just a great learning experience. (Berinstein, 2006)

Wikipedia is termed, "the free encyclopedia that anyone can edit." (pg 16, p. 6) Wikipedia can be used by anyone and the audience is very general and broad. The goal of Wikipedia is to become the free, democratic, reliable encyclopedia; a written compendium of knowledge. Wikipedia's scope is very large and diffuse, it does not restrict anything because of space yet it will not accept just anything, it does have limitations. (Berinstein, 2006)

Wikipedia's credible articles are based on "verifiability." This ties back to whether or not an article can be verified, most articles need to be linked or cited back to books, journals articles, magazines and the like before they go live on the site. For some pop culture entries, a simple website link will do the trick, but most other pages require valid sources. While Wikipedia is open to all to read, create and maintain, a registration process prevents unregistered users from creating new pages. Article are not signed or linked to a specific author, but they are linked to IP addresses so that abusive users can be blocked. All article changes are tracked and documented in a list for quality control. The idea is that Wikipedia is self-cleaning, community members find errors and fix them; many eyes are available to spot problems. Of course, the occasional

incorrect page slips through; *Wikipedia* does not claim to have a perfect process. (Berinstein, 2006) "*Wikipedia* is never locked for good; there is never an official version of an article." (pg 5, p 5) Because of this, the working *Wikipedia* community is dependent on knowledgeable users finding errors, noble intentions of users, the community following rules and being respectful and the philosophy, "if it ain't broke, don't fix it." *Wikipedia* has intolerance for bad behavior (trolling, vandals, and personal attacks) and encourages a helpful, thoughtful environment. "And so everybody who participates has an incentive to try to write for the enemy, as we put it, or write for people who may not agree with you and try to phrase things in a way that's neutral as you possibly can be because that's the only way to write something that will survive the test of time." (pg 5, p 9) (Berinstein, 2006)

Some have accused *Wikipedia*ns of having anti-elitist attitudes that can force out experts. Sometimes people do get attacked within the system and they get upset and leave. However, the creator of *Wikipedia* states that if they cannot write in a neutral point of view, expert or not, then it is ok for them to go. He states that finding middle ground is messy and humans will never be perfect. (Berinstein, 2006)

The two main problems for *Wikipedia* include the lack of public perception of credibility and the dominance of difficult people (trolls and enablers). In addition, some specialized subjects are lacking on *Wikipedia*. However, *Wikipedia* is becoming an important resource for news and information. It is the first and sometimes only stop for online encyclopedic information. (Royal & Kapila, 2008) "For the public to truly embrace *Wikipedia* as an authoritative source, it needs the support of academia and teachers, schools and Libraries." (pg 7, p 1) (Berinstein, 2006)

To contrast *Wikipedia*, Paula Berinstein took a look at Encyclopedia Britannica, and how it differs from *Wikipedia*. To start, Encyclopedia Britannica has 65,000 articles in its print volumes and more than 120,000 in the online edition, quite a bit less than the 1 million of *Wikipedia*.

Contributors to Britannica include Nobel Prize winners, authors, curators and other experts. Most are well known in their field and they are paid well for their work. They are selected carefully by their specific knowledge on a subject. Britannica has over 4,800 contributors worldwide and about 100 editors in house. Britannica states its mission as:

To publish highly useful works of superior quality in the broad areas of reference, education, and learning in all media and for all ages. Reference encyclopedia specifically, is what we're known for and what we've concentrated on for most of the 237 years we've been in business, but for about 60 years we've published in related areas, including the school curriculum, educational film and video and the classics (Great Books of the Western World), to name a few. (Berinstein, 2006)

Britannica says that its users tend to be knowledge and information seekers and because of this, they go to Britannica which is "the most thorough, entertaining and up-to-date treatment of virtually every subject imaginable." Encyclopedia Britannica says it cannot cover everything and does not try to. Rather, it prides itself on having excellent and complete articles for the subjects it does cover. Lead times on articles can vary from a few months to over a year; it does not have the immediacy of *Wikipedia*. However, the online option allows articles to be revised more quickly. (Berinstein, 2006)

Britannica tries very hard to be balanced, discussing articles with many advisors and doing multiple article revisions. "A good editor has strong habits of mind such as skepticism and curiosity that at times border on obsessiveness." (Berinstein, 2006)

In the end, it seems as though comparing Encyclopedia Britannica and *Wikipedia* is like comparing apples and oranges. They are very different entities with varying missions. However, by taking a closer look at the strengths of each entity, there may be some emerging thoughts and ideas on using both in research and education.

A study done by Nature in 2005 stirred up some controversy in the reference world. Nature ran a study comparing Encyclopedia Britannica to *Wikipedia* by having well-known scholars review select articles in both of the online reference sites. In the end, Encyclopedia Britannica won (having fewer errors than *Wikipedia*) but the results were shocking. Britannica editors were very surprised (and upset) to find that the results of the study came back with 123 errors in 42 Britannica articles, and it was only 30% more accurate than *Wikipedia*. These errors took the form of factual errors, misleading statements and critical omissions. Encyclopedia Britannica was upset by the study and protested many of the so-called errors. Britannica claims that many of the errors were in opinion of the reviewers and differences in opinion could have led to the reporting of errors in both Britannica and *Wikipedia*. Britannica contests 58 of the

reported errors. Britannica asked how reviewers could fairly compare misleading statements in Britannica's well-written articles versus *Wikipedia*'s sometimes poorly written articles. The author discusses two potential sources of bias in the study. The first is omission. Britannica has less material and *Wikipedia*'s articles are much longer, so what could have been seen as an "omission," Britannica states was merely a concise article. The second source of bias in the Nature study was the comparison of a "hodge podge" of articles in *Wikipedia* to one article in Britannica. In conclusion, it seems as though the Nature study may have had bias or was too subjective of a study. Encyclopedia Britannica may be the gold standard of online web resources but "*Wikipedia* is a fantastically useful source of rough and ready information. And, on top of that, it's free." (Battle of Britannica, 2006)

While the basic content of *Wikipedia* is well known to most, there is more to *Wikipedia* than just encyclopedia information. The discussion section in *Wikipedia* is another one of the tools provided by this online reference site. "The importance of *Wikipedia* is that it is part of an open and changing network of opportunities." (pg 186, p 2) (Campbell, 2009)

Campbell argues that the content within *Wikipedia* means less than how the article fits into the network of articles and other content it is linked to. He stressed the importance of the discussion section in *Wikipedia* as a place to look for additional information as well as other sources that the article may lead to. It is a mistake to look at *Wikipedia* like volumes on a shelf, rather the limitations of articles provide users with opportunities to dig deeper and do more research. "The articles, along with the history and discussion pages and all their links, are opportunities for participation, research, and inspiration, as well as modes of conveying facts." (pg 186, p 4) (Campbell, 2009)

It is possible to learn a lot by following links and different lines of thinking within the discussion section of *Wikipedia*. Campbell argues that one cannot read *Wikipedia* like an authoritative or exhaustive destination. The value of *Wikipedia* is found in the fact that it requires an open and engaged user. Unless a topic has a broad set of editors, it can suffer. Verifiability can present a challenge if information is not presented anywhere else. *Wikipedia* is a form of knowledge that is open and mobile. (Campbell, 2009)

"The edges of *Wikipedia*'s multidimensional spacer are entirely permeable. As bureaucratic and small-minded as some *Wikipedia* editors are their obsession with minutia is nothing compared with how easy it is to go elsewhere. As *Wikipedia* is not bound into a set of

volumes, neither is the Web merely virtual space alongside our own. It is instead, I would argue, an annex. It is one that we make ourselves, and that will close down without our presence." (pg 187, final para.) (Campbell, 2009)

In his article, "Wikipedia and academic peer review," Erick Black discusses the current academic peer review process and how Wikipedia could serve as a new template for a wiki based open-source content system in academia. (Black, 2008)

First, Black reviews the current system, starting with the review process for publishing articles in academic journals. An author(s) must submit their paper to the journal and the editor will briefly skim it. If the article seems to match the criteria for submission to the journal, the paper is forwarded to reviewers. The journal editor relies on reviewer's comments to determine if an article should be published. The standards of selection vary from journal to journal but are loosely based on, validity, originality, methodology, findings, discussion, theoretical perspective and important findings. This system has remained the same for roughly the past 50 years with little change. While there is evidence that peer review improves the quality of articles, there is also evidence of bias to certain authors and universities. "Although higher prestige journals publish more high value articles, selection involves considerable randomness." (pg 75, p2) (Black, 2008)

Some journals take more than a year to review and publish a paper. As manuscripts becoming longer and have more and more authors, this timeline may stretch even longer. While articles are becoming longer, there is no evidence that articles published today are of significantly higher quality than those of 30 years ago. Black states:

The extraordinary amount of knowledge produced in today's academic environment prevents the traditional peer-review system form operating effectively. It developed at a time when the focus, scope, and scale of academic knowledge production were dramatically different. This ineffectiveness has manifested itself in peer review's inability to promote a uniform standard of fairness, quality and timely publication. (pg 76, p3)

Wikipedia is a potential model for more rapid and reliable dissemination of scholarly knowledge. Wikipedia could provide people with complementary and contrasting views and a

spot for collaboration and creation of a single document. Wikis offer a unique style of writing, previous versions can be found and a watch list can be created to monitor any changes to that page. The benefit to using wikis is "participatory journalism," more eyeballs and more traffic means additional people scrutinizing and contributing to content. (Black, 2008) "The resulting feedback loop between reading and editing provides for a rapid progression of content knowledge, providing a unique function that traditional media is incapable of employing." (pg 78, p 4) (Black, 2008)

There is evidence that articles contained within *Wikipedia* are reliable and valid. *Wikipedia*ns take issues of quality seriously; results are carefully reviewed and discussed like open-source programming. Some point out errors, but even the leading newspapers across the country make mistakes from time to time. A wiki-based open-source content system would be a huge change for academia. Peer review would move out from behind closed doors and into the public. "By transporting knowledge into the public arena, academia effectively promotes participation by anyone who wishes to collaborate, contribute or offer insight, regardless of geographic boundaries or academic pedigree." (pg 8, p 4) (Black, 2008)

Editors today struggle with too much data and academic peer review is limited to too few people. Since it is so highly specialized, fewer people can claim to be experts. The solution to this is to enable more people to contribute to academic writing, move to open, collaborative access to knowledge. Black references the "Romantic audience Project" which enabled students to move from passive consumption of web resources to actively and collectively authoring, linking, critiquing and incorporating rich multimedia into a wiki. This involved total class collaboration and could be the start to a new academic peer review process. Colleges could use this system to enable students to publish collaborative writing projects. (Black, 2008)

Black states that while the idea of using *Wikipedia* in academia has merit, the project undertaking would be huge. There would need to be a fundamental change in the way information in generated in society. Wikis erase the lines of idea ownership and authorship, so academic institutions would have to revisit the roles of tenure, merit, intellectual property and grant-funded research. (Black, 2008)

While revamping the entire process of academic peer review might be a drastic step, the article, "Putting the Library in *Wikipedia*," discusses some of the easier steps towards incorporating *Wikipedia* into academia and scholarly research.

There is disagreement between Librarians on the value of *Wikipedia*. There are those who hate is, saying that because anyone can edit *Wikipedia*, it cannot be trusted. Then there are those that love it because of the ease of use and the fact that it is a great starting point for research. *Wikipedia* is snubbed by academia but widely accepted by others as a valid place to find research. *Wikipedia* could play a large role in academia, professors and students could improve *Wikipedia* by contributing with new scholarly content, evaluating articles and editing articles that are "less than scholarly." People access library websites less frequently now than in the past. People want tools that instantly deliver information and are user friendly. *Wikipedia* provides people with fast information, graphics, internal links to related articles, external links to related websites and references. "The presence of Librarians in *Wikipedia* as content contributors would assist with the creation and maintenance of a more scholarly environment." (pg 40, p 4) (Pressley & McCallum, 2008)

Perhaps academia would view *Wikipedia* as a good place to begin research if librarians were active contributors. Since people do not really visit physical libraries, everything is now found online and there is a lot of inaccurate information on the web. Librarian created *Wikipedia* entries could help alleviate misinformation. Citing sources and linking back to library web pages could attract non-library users and encourage people to use local libraries. Special collections could bolster *Wikipedia*'s reputation and help shed the less-than-scholarly image.

In the article, the authors discuss the process of creating pages on *Wikipedia*, which resulted in measurable traffic increase to the library's webpage. Libraries that start to contribute to *Wikipedia* could reach a new group of users. Many people start their research on *Wikipedia* and may contact the library after that for more information. "We may not have resolved the issue of putting *Wikipedia* in libraries, but we think we've found an effective way to put libraries in *Wikipedia*." (pg 42, last paragraph) (Pressley & McCallum, 2008)

While librarians are working on building their information into *Wikipedia*, *Wikipedia* has started a reference desk of its own. One study compared the *Wikipedia* Reference Desk to a regular library reference desk. The results were surprising. The author analyzed *Wikipedia* based on three factors, reliability, responsiveness and assurance. The author found that the quality of the *Wikipedia* Reference Desk is similar to library reference services. The *Wikipedia* answers were as accurate as traditional reference librarians. The answer completeness rate at *Wikipedia* was found to be better than library reference services' completeness rate. Another

finding was that *Wikipedia* was quicker to respond to user requests than a library. The one downfall to *Wikipedia* was that it usually only cites *Wikipedia* sources in its answers whereas librarians use a multitude of sources. However, both *Wikipedia* and reference librarians provide the same level of answer quality with minor variations except for the use of sources. (Shachaf, 2009)

Wikipedia is run by amateurs who are not paid and do not have a degree so why do their services match those of traditional reference librarians? The author discusses that Wikipedia has an advantage over other technologies that are used for reference. Volunteers experience of answering questions equals the skills and knowledge of librarians. The similarity in quality has to do with the types of questions that each are asked. In addition, Wikipedia has good quality due to the collaboration with all users. The author concludes by adding that additional research on the subject is needed but all reference librarians could benefit in a class on using Web 2.0. (Shachaf, 2009)

While there are those who are trying to incorporate *Wikipedia* into academia and find a use for the popular website. There are others who are trying to outright ban *Wikipedia* from academics and scholarly research. These next articles discuss the consequences of an outright ban on *Wikipedia* and the good vs. evil dilemma.

Polkinghorne and Hoffman state, "on one side, we have opponents who view *Wikipedia* users as ignorant of the need to use reliable sources when doing academic work. On the other, we have devoted users who have embraced this tool as the crown jewel of the new digital information world." (pg 101, p 3) (Polkinghorne & Hoffman, 2009) Some say *Wikipedia* is not only unreliable, it is untrustworthy and evil. Others say *Wikipedia* is similar to Library resources, therefore, it is good. "*Wikipedia* is different than anything librarians have encountered thus far. It has blurred the boundaries of good and bad information." (pg 102, p 1) (Polkinghorne & Hoffman, 2009)

The good vs. evil stigma reaches into the depths of the classroom; opponents say that because of *Wikipedia*, they cannot teach students where information comes from, how it is organized, described, found, understood and used. "Having learned that *Wikipedia* is 'bad,' some patrons may avoid it, but this knowledge alone does not help them make agile critical decisions about today's swath of information resources." (pg 102, p 30) (Polkinghorne & Hoffman, 2009)

The social web has introduced a new role that librarians have to play. RSS feeds, blogs and Instant Messaging all aide in enhancing reference services and these tools can be used to teach research skills. So the question remains, can *Wikipedia* be used as a teaching tool? "A prohibition of this sort [*Wikipedia*] communicates to students that they can avoid thinking critically about the content of their research through a policy of ignoring section of the library." (pg 102, p 8) (Polkinghorne & Hoffman, 2009)

Jeff Maehre touches on this in his article, "What It Means To Ban *Wikipedia*." Maehre says a rule like "don't use encyclopedias" does not help students. *Wikipedia* offers complex discussions, contains links and many entries are as good as subject specific reference books. The value in sources only lies in gaining familiarity with a topic. "It seems to me that professors put too much emphasis on the source rather than the information." (pg 230, p 8) (Maehre, 2009)

Journals may be better than *Wikipedia* but that does not make *Wikipedia* bad. The important factor is that students learn how to determine the best source. Maehre discusses the importance of teaching information literacy and outlines a way instructors could go about doing this. First, assign students to find a wide-range of sources; they would be responsible for finding the best content within each, separating the good information from the bad. Thus, building skills that are at the core of higher education. Students need to know how to find sources and judge them for sustainability. The author notes that if an assignment is to find two or three sources, the research then becomes an action, not a process. Telling students what to do rather than explaining how not to or why not to does not help. Students need to be shown how to evaluate texts for tone, bias and level of analysis. If students are able to use a wide range of sources, then they can choose good material from each. When students choose their own material, they are responsible for insight, logic and effectiveness of material because they choose it. (Maehre, 2009)

Once students know how to find information, they can decide what sources to use or not use. Wikipedia is a very valuable starting point for research. Wikipedia entries could be used the same way as a book, identifying factual information to support an argument. Wikipedia articles are very good at citing sources or are flagged for not having them. The discussion pages in Wikipedia include ongoing debates about facts, citations, explanations and syntax. Teachers should tell students to peruse the discussion pages in Wikipedia for a few reasons; when reading the discussion page information, students enter into textual analysis and critical thought, students

get to witness first-hand knowledge creation and understand that the facts are not native to *Wikipedia*, students can build on "social knowledge," they see how credentials are or are not beyond reproach, and students see why citations are important in their own work. (Maehre, 2009)

The argument remains that *Wikipedia* lacks credibility and it has error-ridden articles. However, if the site did not seem "true enough," people would not keep coming back. The fact is, incorrect information goes away quickly and *Wikipedia*'s core content policies of verifiability, no original research and neutral point of view, are followed strictly by most. (Garfinkel, 2008) "These policies have made *Wikipedia* a kind of academic agora where people on both sides of politically charged subjects can rationally discuss their positions, find common ground and unemotionally document their differences." (pg 85, p 2) (Garfinkel, 2008)

Comparing and contrasting *Wikipedia* and Encyclopedia Britannica provided the realization that the two are distinctly different. While both are reference sites, they are used in entirely different realms. However, many are pushing to bring *Wikipedia* into academia. The conclusions made in this section focus on the differences between *Wikipedia* and Encyclopedia Britannica. Although *Wikipedia* is not the gold standard among reference sites, it can be a very useful starting point for research and the discussion and links can provide researchers and learners with even more direction. Libraries are using *Wikipedia* more and more; they are adding content and trying to assist users in the online reference world. The question remains how both will be able to exist together and suggestions were made that more librarians should be trained in using Web 2.0 tools. Finally, many authors suggest that *Wikipedia* should be used as a teaching tool. It is a great place for students to start their research, perform textual analysis and build critical thinking skills. In the next section, the author will study these outcomes and compare them to findings in interviews with faculty and students at UW-Stout.

Chapter III: Methodology

While *Wikipedia* is gaining in popularity among the public, in academia, it lacks credibility. The information on the site can be edited by anyone and that fact makes scholars hesitant to use it. In the Review of Literature, the author found studies that showed the information on *Wikipedia* does not differ that much from Encyclopedia Britannica. In this section, the researcher will outline the methods for collecting data. This was a smaller sample size but the interview allowed the researcher to ask questions that are more open-ended and get data that tells why people believe what they do.

Subject Selection and Description

Since this study was not meant to be a representative sample, the researcher did not randomly choose subjects. The participants were asked to participate based on their acquaintance with the researcher. None of the participants had a great stake in the research, that is to say, none of the answers in this study were skewed based on anything the researcher would have talked about with the participants. There were nine participants, all affiliated with a small Midwestern University. There were three male participants and six female participants. Three faculty, undergraduate and graduate students were interviewed for this study. The researcher provided the participants with consent forms before the interview began, which included information about topic of study, contact information for professional resources, and any risks to the participants. A synopsis of the research study and the interview questions were approved by the Institutional Review Board for the Protection of Human Subjects (Appendix B) before any data were collected.

Instrumentation

The researcher created a questionnaire with the help of her research advisor to be used during the interview process. The subjects were asked to answer two Likert style questions, one matching and six open ended questions for a total of nine questions. The questionnaire was created specifically for this interview based on the conclusions drawn from the review of literature. The interview questions (Appendix A) were created by the researcher and were based on examples from past qualitative research studies. All interviews were recorded so the researcher could transcribe the answers at a later date. All participants were informed that they

were being recorded before the interview began. The recorded data was kept in the researcher's home and on her computer, locked and inaccessible to anyone but the researcher. In addition, the data was stored with no identifying information so they could not be tied back to the participants. Full interview answers can be found in Appendix A.

Data Collection Procedures

A nine question face-to-face interview was conducted with each subject. The questions were mostly open-ended; the point was to get respondents thinking about Wikipedia and Encyclopedia Britannica. They were able to give complete answers and the researcher was able to gather more information than would have been possible with a simple survey. In addition to the open-ended questions, the researcher had two Likert questions and a matching definitions question on the survey. The researcher began conducted each interview in a semi-private location (office or meeting room) in order to keep the interview personal and keep the participants from being distracted. The recording devise was place a foot away from the participant so their answers would be clear and loud. The interview began with the researcher handing the participant a sheet of paper with two Likert Style questions. The respondents were asked to circle their answers on the paper and then talk in detail about why they chose their answer. The researcher then probed deeper, asking two open-ended questions. Next, the researcher gave each participant a piece of paper that had definitions taken from both Encyclopedia Britannica and Wikipedia. The participants were asked to identify which definition they believe came from Wikipedia by putting a small "w" next to it and Britannica by putting a small "b" next to it. They were informed that the definitions were in a random order. The researcher then revealed to the participant which definitions came for which source. To close, the researcher asked another four open-ended questions and thanked each participant for their help in the research project.

Data Analysis

The data was collected and put in an excel spreadsheet. The researcher then looked at all the comments by participants and grouped them based on Faculty, Graduate and Undergraduate. The researcher compiled all the information and compared and contrasted the answers from the different groups. Conclusions were drawn based on the similarities and differences between responders in each group and the overall responses in all three categories.

Limitations

There were a few limitations to this study. First, the questionnaire only asked a few specific questions about habits and opinions. To have a more comprehensive view of the topic, a more in-depth interview would need to be conducted. Another limitation was the non-representative sample. In order to get data that could be generalizable, the researcher would have needed a random sample of participants and would have needed a larger sample size. The next limitation was the lack of statistical analysis. No statistical analysis was done on the data so there are no statistical conclusions that can be drawn from this study. Since the researcher was the only one to conduct the interviews, she may have had her own bias that could have affected the study. The subjective nature of a few of the research questions along with the researchers own personal ideas could have affected the way the data was analyzed. Finally, because of the small size of people interviewed, some would argue that not enough data was gathered. A larger number of people could have yielded a more diverse response range.

Summary

While this study may not be a representative sample, the author would argue that the responses that were gathered were not only useful but also shed some light on the use of *Wikipedia* and Encyclopedia Britannica in education. The information gathered was in-depth and was a good investigation into the topic. Although the response size was small, the author believes that the ideas could be reflected by many at UW-Stout. That fact alone makes the study worthwhile and could spark an interesting debate within the academic community.

Chapter IV: Results

The Review of Literature brought about the following conclusions. Comparing and contrasting *Wikipedia* and Encyclopedia Britannica provided the realization that the two are distinctly different. While both are reference sites, they are used in totally different ways. The fact remains that *Wikipedia* is being used more in academia. Although *Wikipedia* is not a perfect reference site, it can be a very useful starting point for research and the discussion section and links can provide researchers and learners with even more direction. Many authors suggest that *Wikipedia* should be used as a teaching tool; it can be used to perform textual analysis and build critical thinking skills. The purpose of this study is to interview professors, graduate and undergraduate students to find out how they perceive *Wikipedia*. The goal is to get a better understanding of how those in the academic world are using *Wikipedia*, why they use it and if they see *Wikipedia* as a teaching tool. There were nine participants, all affiliated with a small Midwestern University. There were three male participants and six female participants. Three faculty, undergraduate and graduate students were interviewed for this study. The following section will detail the results of this study.

The full results of this study can be found in Appendix A. For this portion, the researcher will analyze the quantitative data and then discuss the qualitative answers by reviewing similar and differing themes among respondents.

Item Analysis

Question 1: On the scale below, please indicate the degree to which you agree with the following statement: *Wikipedia* is a credible source for use in a research paper. Please explain your choice.

Respondent Answers to Question 1

Faculty 1	3: Disagree
Faculty 2	3: Disagree
Faculty 3	3: Disagree
Graduate Student 1	3: Disagree
Graduate Student 2	1: Strongly Agree
Graduate Student 3	2: Agree
Undergraduate Student 1	1: Strongly Agree
Undergraduate Student 2	2: Agree
Undergraduate Student 3	2: Agree

In this question, it is easy to see the difference between faculty and students in regards to Wikipedia as a credible source. All of the faulty members disagreed, saying Wikipedia is NOT a credible source for use in a research paper. Conversely, all of the students, except for one Graduate student, agreed or strongly agreed with the statement, providing evidence that they believe Wikipedia is a credible source for use in research. The faculty members all had similar opinions of why it is not a credible source for use in research. Faculty member two sums it up by saying, "the information in there can be very valuable for beginning to understand and topic or beginning to understand directions that you can go when doing research but the fact that on any given day, any person can go in and edit any page to say whatever they want and until such time as that has been fixed by the other people who edit that page, you may be going in and reading something that is entirely bogus." The students backed up their information by arguing that Wikipedia is a credible source because it is heavily policed and all the information is cited at the bottom of the article. Undergraduate student three states, "I choose agree for number one because there are all the sources listed at the bottom and there are different portions where it says it needs a source to be listed. You know what I mean when it says 'need source' so you don't know if you can really trust that. But you know if you don't know if it is credible or not you can go to the source that it is from and see how credible it is."

Question 2: On the scale below, please indicate the degree to which you agree with the following statement: Encyclopedia Britannica is a credible source for use in a research paper. Please explain your choice.

Respondent Answers to Question 2

Faculty 1	4: Strongly Disagree
Faculty 2	2: Agree
Faculty 3	2: Agree
Graduate Student 1	2: Agree
Graduate Student 2	2: Agree
Graduate Student 3	N/A
Undergraduate Student 1	2: Agree
Undergraduate Student 2	1: Strongly Agree
Undergraduate Student 3	1: Strongly Agree

For question two, one faculty member strongly disagreed and everyone else with the exception of one Graduate student who chose not to answer the question, agreed or strongly agreed that Encyclopedia Britannica is a credible source for use in a research paper. Faculty member one stated, "I definitely would not use Encyclopedia Britannica. The advantage to Wikipedia is that it has more current definitions and you can find stuff that you couldn't find in Encyclopedia Britannica, it would make a supplement. Now for research papers that I would have students doing for a class, I'm ok with some Wikipedia definitions or resources. I would probably never let anybody use Encyclopedia Britannica even at a freshman level. For definitions maybe. But I would give Wikipedia more credibility just because of the timeliness." All of the other respondents echoed similar themes of Encyclopedia Britannica being trusted because it has been around for longer than Wikipedia. Most of the students said they trusted it because their professors told them to use it or the professor trusted it. Undergraduate student three said, "I put strongly agree for Encyclopedia Britannica. I think that just has a lot to do with the fact that that's kind of the idea that goes along with an Encyclopedia. It's a really credible source and professors will let you use those way more than they will let you use Wikipedia."

Question 3: Would you or have you previously cited *Wikipedia* in a formal research paper? Why or Why Not?

The results from this question are somewhat varied. Faculty one remarked, "I believe that I have. Again, just for some definitions or something. If it was something I was submitting, I would be very reluctant to use very many. But if it was a paper I was doing internally for the University or for the department I probably would because I consider it a pretty legitimate resource." The other faculty members said they have not used it and would not use it. Most do go to *Wikipedia* for basic definitions, however. The Graduate students were mixed, one said that using it was not allowed while the other two said it was a allowed and it was an easy place to find information so that is why they used it. Similar answers were found in Undergraduate student responses. While one remarked that using it was against professor's policies, the others said they have used it and would use it again.

Question 4: Would you or have you previously cited Encyclopedia Britannica in a formal research paper? Why or Why Not?

All three faculty members said that they didn't think they have ever citied Encyclopedia Britannica, but couldn't remember for sure. Faculty three said, "I probably would, because to me the information would be validated. But I don't use it; I would go to some other source." The Graduate students all said they have never used it; they use other sources. Only one remarked that they would use it. The Undergraduate students had similar answers, only one said that they used it but did not cite it often. The others did not use it but said they might in the future.

Question 5: The researcher reads, "The following definitions on the sheet I am presenting you with were taken from Encyclopedia Britannica and *Wikipedia*. Please identify which definition you believe came from *Wikipedia* by putting a small "W" next to each and Britannica by putting a "B" next to each."

Of all the respondents, only two got all of the definitions correct. Three respondents did not answer any correctly. Six respondents flip-flopped answers for A and B, and C and D while only four flip-flopped answers for E and F. The evidence suggests that matching the definitions correctly did not really have anything to do with whether or not the respondent was a Faculty member, Graduate or Undergraduate student.

Question 6: Now that you know which definitions came from *Wikipedia* and Encyclopedia Britannica, does your opinion change for either Encyclopedia Britannica or *Wikipedia*? Explain.

None of the three faculty members said their opinion changed. The same response was echoed with the Graduate students with the exception of Graduate student two who remarked, "Umm, well, I might actually check out Encyclopedia Britannica because it is a lot easier to understand than I remember. From, like doing research papers when I was younger. It was actually easier to read compared to my perceived thought of it." Two of the Undergraduate students remarked that their opinion might have changed a little while the other said their opinion remained constant with what they said before. Undergraduate Student two said, "Kind of, cause when you think of Encyclopedia, you think much longer, more detailed, bigger words and *Wikipedia* is supposed to be the simpler version. Like, for the Monday, I thought that was *Wikipedia* cause it was the more straightforward answer."

Question 7: Do you think *Wikipedia* could be used as a teaching tool? Why or why not?

The Faculty members all had similar responses and the overall message was that, yes, *Wikipedia* can be used as a teaching tool and most are already using it as such. Faculty one stated "Well I guess on a real simplistic form. I guess I use *Wikipedia* links for classes I mean instead of writing some definition I will have linked to it. I have had students, I mean I set up Wikis for students in class where they start from scratch and I'll put a lead in sentence in there and we'll work around it." In addition, Faculty two remarked, "Yes, I use *Wikipedia* as a teaching tool. When I do that it is when I am looking for a more common understanding of certain kinds of terms or as a starting point to start students down exploring certain ideas or concepts." Most of the students remarked that they have had professors use *Wikipedia* as a teaching tool or thought it

could be used as one. Graduate student two said, "Yes, we've actually used it in one of our classes as a collaboration site. Because say if everyone is working on the same project and they each have stuff to contribute, it can be put in there and it will be edited. And it is interesting site if everyone is working on the same site people can add their references to the bottom. It is a good tool for collaboration." In addition, Undergraduate student one stated, "Yes, I do think it could be used as a teaching tool. Actually, several of my teachers do already use it as a teaching tool and they reference the websites. Sometimes they do have pictures along with the descriptions or they have 3D models that give more information."

Question 8: (Faculty Only) In class, students ask your opinion about the use of Wikipedia as a source. What would you tell them? Explain your reasoning.

Two of the faculty members expressed that they thought *Wikipedia* is a good place to start research. While it shouldn't be used heavily or used as one of only a few sources, it can be a useful resource. However, Faculty three disagreed on this point saying, "I would say just what I've said. It's not validated; anybody can put anything on there. It probably, for the most part, I've found it matches with a lot of other valid sources but you have to understand that it may not and you can't cite it as such."

Question 9: (For Students Only): Would you use Wikipedia as a place to start your research? Why or why not?

All of the Graduate and Undergraduate students said they would start their research on *Wikipedia*. Most use it as a place to get a broad overview and to find generally information on the topic. A few students mentioned using the links to find sources and other places to go for information. Graduate student three summed it up by saying, "Yes, that is where I usually start my research. Cause it is one of the first things that pops up when you do a search. And it gives you an idea of the topic and you can refine your search based on what you find on *Wikipedia*."

Question 10: Any other comments about Wikipedia?

All respondents had little to say for this question except for Faculty one who commented, "No except that it is probably one of the most revolutionary things. If you think about the ability to change the way that people can access information. You have to have this foundation of the internet underneath it. It's kind of like having a paperback public library access wherever you are. But I mean, I can pull my phone out and type into Bing or Google and one of the top three hits of the thing I type in if I am looking for information is probably *Wikipedia*. And if it is just for quick information that is probably when I am going to go first because that gives me a little more insight. Not only is *Wikipedia* quick access to information but if it is a big enough topic it is usually a pretty in-depth resource that is usually well organized."

Chapter V: Discussion

Throughout this paper, the author has looked into the research and data pertaining to Wikipedia and Encyclopedia Britannica. The goal was to find and gather additional information about both and to find out whether or not Wikipedia should be used in research.

Limitations

Limitations to the study include, the questionnaire only asked a few specific questions about habits and opinions, non-representative sample, lack of statistical analysis, potential researcher bias, subjective nature of the research and small sample size.

Conclusions

Comparing and contrasting *Wikipedia* and Encyclopedia Britannica showed the they are very different. There are advocates out there for the use of *Wikipedia* in academia. Although *Wikipedia* is not the gold standard among reference sites, it can be a very useful starting point for research and the discussion and links can provide researchers and learners with even more direction. Libraries are using *Wikipedia* more and more; they are adding content and trying to assist users in the online reference world. The question remains how both will be able to exist together and suggestions were made that more librarians should be trained in using Web 2.0 tools. *Wikipedia* can and should be used as a teaching tool. It is a great place for students to start their research, perform textual analysis and build critical thinking skills.

In the study, most of the respondents indicated that they use *Wikipedia* on a daily basis. However, the Faculty indicated that they do not accept *Wikipedia* citations in research papers. When interviewing the students, most said they have cited *Wikipedia* and believe it is a credible source. There seems to be a lack of communication between Faculty and students on what is acceptable practice for using *Wikipedia* in research. In addition, since most are using *Wikipedia* to start their research, the author would argue that citing it would actually benefit those reading the paper. If someone wants to get additional information about a topic, they can check out the *Wikipedia* page and its links at the bottom and it can be a great resource for them. Next, one of the interesting findings was how few of the respondents guessed correctly, in regards to which definitions belonged to *Wikipedia* and Encyclopedia Britannica. While that portion was purely subjective, one could argue that both were factually correct and very similar. Only a few of the

respondents said their opinion changed for either of them. Even though they had just been presented with information that showed both *Wikipedia* and Encyclopedia Britannica were very similar in their definitions and the way information is presented.

Recommendations

Finally, the author would like to recommend that more studies be done on this topic with a larger sample size. It might be interesting to note a difference in non-traditional versus traditional college-age students and how they view *Wikipedia*. Also, the author would recommend that Universities and departments set out specific guidelines for how *Wikipedia* should and can be used in research. There seems to be a big difference in the way Faculty and students are using *Wikipedia* and it is important for them all to have an understanding of what good research practices are.

Appendix A: Interview Data

The following questionnaire was read to each participant. For questions 1, 2 and 5, the interviews were given the questions on a separate piece of paper and asked to write down their answers. This portion of the research will detail out their responses to each question.

Research Questions:

1.	On the scale below, please indicate the degree to which you agree with the following			
	statement: Wikipedia is a credible source for use in a research paper. Please explain you	ır		
	choice.			
	14			

2. On the scale below, please indicate the degree to which you agree with the following statement: Encyclopedia Britannica is a credible source for use in a research paper. Please explain your choice.

Strongly Agree Disagree Strongly Disagree

1	2	3	4
Strongly Agree	Agree	Disagree	Strongly Disagree

- 3. Would you or have you previously cited *Wikipedia* in a formal research paper? Why or Why Not?
- 4. Would you or have you previously cited Encyclopedia Britannica in a formal research paper? Why or Why Not?
- 5. The researcher reads "The following definitions on the sheet I am presenting you with were taken from Encyclopedia Britannica and *Wikipedia*. Please identify which definition you believe came from *Wikipedia* by putting a small "W" next to each and Britannica by putting a "B" next to each."

The correct answers were:

A: Wikipedia

B. Britannica

C. Britannica

D. Wikipedia

E. Wikipedia

F. Britannica

- **A. Monday** is the day of the week between Sunday and Tuesday.
- **C. Yoga-** (Sanskrit: "Yoking," or "Union"), one of the six orthodox systems (darshans) of Indian philosophy. Its influence has been widespread among many other schools of Indian thought. Its basic text is the *Yoga-sūtras* by Patañjali (*c.* 2nd century bc?). The practical aspects of Yoga play a more important part than does its intellectual content.
- **E. Badgers,** occasionally referred to as brocks, are shortlegged, heavy-set omnivores in the weasel family, Mustelidae. There are eight species of badger, in three subfamilies: Melinae (badgers of Europe and Asia), Mellivorinae (the Ratel or honey badger), and Taxideinae (the American badger). The Asiatic stink badgers of the genus Mydaus were formerly included in the Melinae and Mustelidae, but recent genetic evidence indicates that these are actually closer relatives of the skunks, now often put with them in the separate family Mephitidae.

- **B.** Monday- second day of the week.
- D. Yoga (Sanskrit, Pāli: योग yóga) refers to traditional physical and mental disciplines originating in India. The word is associated with meditative practices in Hinduism, Buddhism and Jainism. In Hinduism, it also refers to one of the six orthodox (āstika) schools of Hindu philosophy, and to the goal toward which that school directs its practices.
- **F. Badger-** common name for any of several stout carnivores, most of them members of the weasel family (Mustelidae), that are found in various parts of the world and are known for their burrowing ability. The 10 species differ in size, habitat, and coloration, but all are nocturnal and possess anal scent glands, powerful jaws, and large, heavy claws on their forefeet, which are used to dig for food and construct underground dens. The North American badger (Taxidea taxus) feeds mostly on rodents, but Old World species are omnivorous.

The researcher then revealed which definitions came from Wikipedia and which came from Encyclopedia Britannica. Then the researcher asked the following questions.

- 6. Now that you know which definitions came from *Wikipedia* and Encyclopedia Britannica, does your opinion change for either Encyclopedia Britannica or *Wikipedia*? Explain.
- 7. Do you think *Wikipedia* could be used as a teaching tool? Why or why not?
- 8. (For Professors Only): In class, students ask your opinion about the use of Wikipedia as a source. What would you tell them? Explain your reasoning.
- 9. (For Students Only): Would you use Wikipedia as a place to start your research? Why or why not?
- 10. Any other comments about Wikipedia?

Faculty 1

Interview Response

Q. 1: 3- Disagree.

Response: I would maybe if I was working on a research paper that I was going to submit for a Journal article, I wouldn't have a problem using a *Wikipedia* definition of something but for formal publication and master's papers and stuff I wouldn't use *Wikipedia*. But I probably wouldn't use USA Today, Time Magazine, Business Week, I would maybe use Fortune.

Q. 2: 4- Strongly Disagree

Response: I definitely would not use Encyclopedia Britannica. The advantage to *Wikipedia* is that it has more current definitions and you can find stuff that you couldn't find in Encyclopedia Britannica, it would make a supplement. Now for research papers that I would have students doing for a class, I'm ok with some *Wikipedia* definitions or resources. I would probably never let anybody use Encyclopedia Britannica even at a freshman level. For definitions maybe. But I would give *Wikipedia* more credibility just because of the timeliness.

Q. 3

Response: I believe that I have. Again, just for some definitions or something. If it was something I was submitting, I would be very reluctant to use very many. But if it was a paper I was doing internally for the University or for the Department I probably would because I consider it a pretty legitimate resource. Again, it goes back to the first question, I mean, the credibility of everything that we read is pretty questionable. I think the one thing that if people say "oh well that's credible because it's a refereed journal." Well, no because mostly what they

look at is the format. I've seen papers, not that I have written, but that faculty members in our department have written that I have read. I know that the people who reviewed it had no idea what the person was talking about because it was pretty specialized and all the feedback he got was on grammatical structure or sorting references.

0.4

Response: No, I haven't. Maybe when I was an undergrad student but that was 40 years ago. Again, maybe I would use it for a definition but I don't think that in the past 25 years that I have ever cited it.

Q. 5

A: Wikipedia

B: Britannica

C: Britannica

D: Wikipedia

E: Wikipedia

F: Britannica

Q. 6

Response: No. I mean they were pretty close. The only reason I would favor *Wikipedia* is kind of the timeliness. The characters kind of made me look at that one again. I don't think one is necessarily any better than the other. I looked at kind of how I thought they would have been edited. I don't think it changed my mind, I mean, I think they are pretty comparable. I don't see any reason why anyone would want to use Encyclopedia Britannica when *Wikipedia* has current stuff. And as far as I understand based on studies they've done, the number of factual errors is probably pretty consistent between one or the other. Encyclopedia Britannica is not absolutely correct.

Q. 7

Response: Wikipedia, not a wiki, ok. Well I guess on a real simplistic form. I guess I use Wikipedia links for classes I mean instead of writing some definition I will have linked to it. I have had students, I mean I set up Wikis for students in class where they start from scratch and I'll put a lead in sentence in there and we'll work around it. I haven't recently, but I don't teach that much anymore. I haven't recently had anyone go into Wikipedia and make edits but I have given them that change. But that was more of a teaching tool because I was teaching about wikis and that you could go in and you had this power that you had something you edited in this wide form. So as a resource tool I think that is fine. I don't know if it encourages a real thinking or learning process. But the concept of wikis bigger than Wikipedia, I mean the whole concept of hyper linking. Wired magazine, now in the magazine they have the whole article and then they have links to the dropout articles.

Q.8 (For Professors Only)

Response: I would say *Wikipedia* as a source is a good starting point. Kind of like a good starting point or a good ending point. If you look at a research inverted pyramid. That you start with the stable old books and stuff and then you go to refereed journals and then you go to general publications. And I kind of said I would never use USA Today or *Wikipedia*, but maybe

for presentations. USA Today and *Wikipedia* those are the only places you can get timely information. Going back to what I said before, I don't think that *Wikipedia* is 100% credible but there are a lot of things that a lot of people give credence to that are not. One article said this, I can pretty much find in referred journals, things to support whatever I want. And I think it makes a bit of a difference if it is an undergrad or grad student. But, I don't question the credibility anymore than I would any other source. I mean there are some things that you assume that are pretty factual. But if you look at textbooks, textbooks will have errors of fact in them once and a while.

Q. 10

Response: No except that it is probably one of the most revolutionary things. If you think about the ability to change the way that people can access information. You have to have this foundation of the internet underneath it. It's kind of like having a paperback public library access wherever you are. But I mean, I can pull my phone out and type into Bing or Google and one of the top 3 hits of the thing I type in if I am looking for information is probably *Wikipedia*. And if it is just for quick information that is probably when I am going to go first because that gives me a little more insight. Not only is *Wikipedia* quick access to information but if it is a big enough topic it is usually a pretty in-depth resource that is usually well organized.

Faculty 2

Interview Response

Q.1: 3- Disagree

Response: My answer is 3, disagree. The reason that it is not strongly disagree, really, in the end it is not a credible source. The information in there can be very valuable for beginning to understand and topic or beginning to understand directions that you can go when doing research but the fact that on any given day, any person can go in and edit any page to say whatever they want and until such time as that has been fixed by the other people who edit that page, you may be going in and reading something that is entirely bogus. So, where I see *Wikipedia* as being a credible or valid resource is when you are going, not to get details but when you are going to get a broad understand of certain topic areas. I actually use *Wikipedia* periodically in my classes when I want students to get a base level understand of concepts, generally. I use Ideological and sociologic where I send them to *Wikipedia* to get an answer that it palatable. So that it is easier to understand when going to some of the other resources. And it that respect, it is a great resource. When they are doing research on other things that are more topical what I tell my students is, sure go to *Wikipedia*, see what it has to say, but the most important thing you can get out of a *Wikipedia* article are the references at the bottom that lead to more reliable resources.

Q. 2: 2-Agree

Response: I agree- it is a credible resource. Whether or not I would see that as being a good resource...it can be credible and necessarily good. Would be in the level of research that they are doing. If somebody is doing research for a 100 level course than ok, Encyclopedia Britannica is not bad. If they are doing a 400,500,700 level course than generally, you are needing to get to something that is much for specific than what you can get. So, Encyclopedia Britannica is

designed to give you a broad overview of a topic, it is not designed to give you a deep understanding of it. So, if you are writing for a very broad perspective it's an ok source, but you wouldn't want to build a whole paper upon it because you never get a deep depth of understanding with it.

Q. 3

Response: I believe, no I have not, because *Wikipedia* came along after I did most of my publishing. If I were going to, it would be more if I was trying to get a definition of terms that would be the only time I would cite *Wikipedia*. And I accept from my students as well, if you are doing it in the definition terms of the paper, you know, that's an acceptable way of doing that. It's not going to a depth of understand, it's just a definition.

Q. 4

Response: I don't believe so. If I did it was as an undergrad. Probably not. Because again, the level of information there is a starting point that leads you to a concept rather than fully exploring.

Q. 5

A: Britannica

B. Wikipedia

C. Wikipedia

D. Britannica

E. Wikipedia

F. Britannica

Q. 6

Response: No, my opinion does not change for either of them. I felt for finding basic definitions, they are not bad sources.

Q. 7

Response: Yes, I use *Wikipedia* as a teaching tool. When I do that it is when I am looking for a more common understanding of certain kinds of terms or as a starting point to start students down exploring certain ideas or concepts.

Q. 8 (For Professors Only)

Response: I would tell them that they could it for the definition of terms, or they can use it minimally within their paper but they should not use it heavily and it should not be one of their primary sources.

Q. 10

Response: It's great! But, within limitations.

Faculty 3

Interview Response

Q. 1: 3- Disagree

Response: *Wikipedia*, cause anyone can put anything out there. It's not peer reviewed. Sometimes it is easier to understand and very helpful. It's not validated so, *Wikipedia* is eh. You wouldn't want to cite *Wikipedia* in research. Disagree with *Wikipedia*.

Q. 2: 2-Agree

Response: Whereas Encyclopedia Britannica probably is more valid, it's a more credible source. *Wikipedia* is easy. So people use it and it does help you look at things from another perspective. I would say agree with Encyclopedia Britannica.

Q. 3

Response: No, cause it is not considered valid, peer-reviewed or valid.

Q. 4

Response: I probably would, because to me the information would be validated. But I don't use it; I would go to some other source.

Q. 5

- A. Britannica
- B. Wikipedia
- C. Wikipedia
- D. Britannica
- E. Wikipedia
- F. Britannica

Q. 6

Response: No, no. I was looking more for the roots; I was thinking they would more go back to the roots of words in Britannica.

O. 7

Response: It's just another view, but people have to understand that it may not be correct because anyone can put stuff up there. So, while we are learning we look at other views, we would need to validate that if we were to use it as a teaching tool.

Q. 8 (For professors only)

Response: I would say just what I've said. It's not validated; anybody can put anything on there. It probably, for the most part, I've found it matches with a lot of other valid sources but you have to understand that it may not and you can't cite it as such.

Q. 10

Response: No, nope.

Graduate Student 1

Interview Response

Q. 1: 3-Disagree

Response: For the first question, I wrote disagree, I don't strongly disagree, but I disagree because I feel with *Wikipedia* people can edit the source any time or any day whether you are a high school student or an elementary student, so long as you know how to use the internet so that is why I would say disagree for that one.

Q. 2: 2-Agree

Response: For the second one, I would say agree, when I have looked at Encyclopedia Britannica I feel it's, you can't alternate what is in there but I also don't know where the information came from, it always has a source referenced back to it, there usually is no author listed except for like, the author being Encyclopedia Britannica.

Q. 3

Response: Um, I have not because I guess I was always told not to use it due to umm, knowledge of the author.

Q. 4

Response: Um, I have not, because I have always used a library source. I have looked on there, but I have not used it as a source.

Q. 5

- A. Britannica
- B. Wikipedia
- C. Wikipedia
- D. Britannica
- E. Wikipedia
- F. Britannica

0.6

Response: Umm, the one that was most in-depth was the Badger one, so that's why I kind of got it. But for the Monday one, it was like really simple so I guess either one would have worked, it's not like, lying about what day Monday is. Any for Yoga, I don't know, I guess, one describes what Yoga athletic, in that form is and the other goes on to talk about where it came from. Those 2 would be ones that if you got it wrong, it wouldn't be harmful in research or anything. Whereas the Badger is an animal so.

Q. 7

Response: I think *Wikipedia* could be used as a teaching tool because it shows individuals what to look for and what not to look for that it could be a credible source but then in other areas it couldn't be and then the relevance of it.

Q. 9 (Students Only)

Response: I usually look there just to get an overall background to get some idea of where to start from there after I start I go on to more credible sources.

Q. 10

Response: It is a place to start not a place to get your most important information from, I would go elsewhere. But if you can find sources that have similar or same data in two sites and that is what *Wikipedia* or Britannica says, then I'd use that.

Graduate Student 2

Interview Response

Q. 1: 1-Strongly Agree

Response: For *Wikipedia* it's pretty much updated every day on pretty much all topics and it's policed a lot so if you put something out there it will be corrected within a really short period of time and it's up to date. People with more information can add their own insights to stuff and it gives it a wider range.

Q. 2: 2-Agree

Response: Encyclopedia Britannica, for the online, I've never used it. I know the books were strongly used before but I don't know how updated that it. It is probably more of a, in terms of being harder to understand than *Wikipedia*. *Wikipedia* is usually in layman's terms and it also has the references that they used listed on the bottom.

Q. 3

Response: Yes, I have. Because umm research papers that I have done most recently are on current topics like social media or new technologies that there actually hasn't been a lot of time for Encyclopedia Britannica to get it in print.

0.4

Response: I have not, no. I have just found better sources of information.

- O. 5
- A. Britannica
- B. Wikipedia
- C. Wikipedia
- D. Britannica
- E. Britannica
- F. Wikipedia

Q. 6

Response: Umm, well, I might actually check out Encyclopedia Britannica because it is a lot easier to understand than I remember. From, like doing research papers when I was younger. It was actually easier to read compared to my perceived thought of it.

Q. 7

Response: Yes, we've actually used it in one of our classes as a collaboration site. Because say if everyone is working on the same project and they each have stuff to contribute, it can be put in there and it will be edited. And it is interesting site if everyone is working on the same site people can add their references to the bottom. It is a good tool for collaboration.

Q. 9 (for students only)

Response: Yeah, because the basics of what you are looking for is offered in layman's terms and you can go from there along with the references that they have listed along the bottom so it has its own information as well as credible sources.

Q. 10

Response: Nope, I think it is a good resource.

Graduate Student 3

Interview Response

Q. 1: 2-Agree

Response: For the first one, I agree. Why? I don't know, because they have all the sources there where they got the information. We have to verify for some of our classes and it is true, when you verify the sources, you can go to the source.

O. 2: N/A

Response: I never used Encyclopedia Britannica, so I don't know.

Q. 3

Response: Yes, because it was allowed and because it was the easiest place to find the information. It was reliable information and it had all the sources where it got the information so I could verify it.

O. 4

Response: Never used it. I would though.

O. 5

- A. Wikipedia
- B. Britannica
- C. Britannica
- D. Wikipedia

E. Wikipedia

F. Britannica

Q. 6

Response: I don't think it changes, I think they are basically the same. *Wikipedia*, the wording is more for a formal user, it doesn't use as fancy of words as the other one.

Q. 7

Response: It yeah, it can be used for teaching, as long as you tell the students to go through one of the searches to verify that the information is there.

Q. 9 (for students only)

Response: Yes, that is where I usually start my research. Cause it is one of the first things that pops up when you do a search. And it gives you an idea of the topic and you can refine your search based on what you find on *Wikipedia*.

Q. 10

Response: I don't know, No.

Undergraduate Student 1

Interview Response

Q. 1: 1-Strongly Agree

Response: I strongly agree with *Wikipedia* because for all my research papers that I've ever done, I've used *Wikipedia*, and or just for research and information for common knowledge. I've never found any disagreement or anything refuting information in there.

Q. 2: 2-Agree

Response: For Encyclopedia Britannica, I put agree just because I don't use that as often, I don't know how credible, I mean, I've only done a few searches with that, just cause I use *Wikipedia*. I would say it is a credible source but I don't use it as often.

Q. 3

Response: Yes, I have cited *Wikipedia* in a formal research paper just because I have used their information; it was more clear to me than using a different website and because it was a more credible website than other ones that I have found.

O. 4

Response: I don't believe I have. I think I have read through the information, but never cited it. Because I normally use *Wikipedia* website or because I use journal articles or neither of the websites would be allowed.

Q. 5

A. Wikipedia

- B. Britannica
- C. Britannica
- D. Wikipedia
- E. Britannica
- F. Wikipedia

0.6

Response: No, don't think my opinion changes. They both seem the same as what I thought I guess. The definitions are pretty similar it is just the way they are worded.

Q. 7

Response: Yes, I do think it could be used as a teaching tool. Actually, several of my teachers do already use it as a teaching tool and they reference the websites. Sometimes they do have pictures along with the descriptions or they have 3D models that give more information.

Q. 9 (for students only)

Response: Yes, typically, if I don't know something that is the first place that I go. Cause, I know that it is credible and I know that it will give me the definition along with history and other information that would probably be useful.

Q. 10

Response: Nope.

Undergraduate Student 2

Interview Response

Q. 1: 2-Agree

Response: Well, *Wikipedia*, I don't know, it's just, I'll go there sometimes and I'll find different answers to questions that I am looking for documents and I just found some things that were questionable and don't really seem to work out.

Q. 2: 1-Strongly Agree

Response: The Encyclopedia, I have always found everything that I have needed. It is always the same material that I find later on line and it matches up. I don't know, when you think Encyclopedias you think of the books and when you see it online, it is almost identical. So, it just one of those familiar things and more trustworthy cause I have known it for longer.

Q. 3

Response: Yes, I have a few times and just cause it was an easy resource and I needed one more...it was easy.

Q. 4

Response: Yes, sometimes, I usually just look it up to see what a word means; I don't cite it as often.

Q. 5

- A. Britannica
- B. Wikipedia
- C. Wikipedia
- D. Britannica
- E. Britannica
- F. Wikipedia

Q. 6

Response: Kind of, cause when you think of Encyclopedia, you think much longer, more detailed, bigger words and *Wikipedia* is supposed to be the simpler version. Like, for the Monday, I thought that was *Wikipedia* cause it was the more straightforward answer.

Q. 7

Response: I don't know, I guess so. It is just another good reference maybe not a main one but it would be nice to have something else available to be used to mix it up from all the resources we have already.

Q. 9 (for students only)

Response: Probably because they give other little details and go off on other little things and have other references so it would be easy to branch off from the website.

Q. 10

Response: Nope.

Undergraduate Student 3

Interview Response

Q. 1: 2-Agree

Response: I choose agree for number one because there are all the sources listed at the bottom and there are different portions where it says it needs a source to be listed. You know what I mean when it says "need source" so you don't know if you can really trust that. But you know if you don't know if it is credible or not you can go to the source that it is from and see how credible it is.

Q. 2: 1-Strongly Agree

Response: I put strongly agree for Encyclopedia Britannica. I think that just has a lot to do with the fact that that's kind of the idea that goes along with an Encyclopedia. It's a really credible source and professors will let you use those way more than they will let you use *Wikipedia*.

Q. 3

Response: No, I have not because teachers won't let me.

Q. 4

Response: I haven't, but I would. I just don't really use Encyclopedia Britannica.

Q. 5

- A. Britannica
- B. Wikipedia
- C. Wikipedia
- D. Britannica
- E. Britannica
- F. Wikipedia

Q. 6

Response: Why I was just obviously completely wrong for all of them so I don't know. Right away looking at the first one, I feel like *Wikipedia* looks way more credible than Encyclopedia Britannica. I mean, the second day of the week? You know, that doesn't give nearly as much information as "the day of the week between Sunday and Tuesday."

Q. 7

Response: Yes, definitely. When it is done right, with credible sources that are being used to create the page. It provides a really easy way for students to get the general background on something and it points them in the direction to find way more information at the bottom where all the sources are listed. So, I think it's great.

Q. 9 (for students only)

Response: Yes I would. Why? What I just said. It will help point you in the direction of a lot more information that is out there, all on one webpage.

O. 10

Response: It's awesome. I love it!

Appendix B

This form was given to each research participant before the interview began. They were told by the researcher that by participating in the study they were agreeing to have their responses used in this study. All were informed that the interview was being recorded.

UW-Stout Implied Consent Statement for Research Involving Human Subjects

This project has been reviewed by the UW-Stout IRB as required by the Code of Federal Regulations Title 45 Part 46

Consent to Participate In UW-Stout Approved Research

Title: *Wikipedia*: Reference Tool for the Future?

Investigator:

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Research Sponsor:

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Description:

While *Wikipedia* is gaining in popularity among the general public, in academia, it lacks credibility. Because information on the site can be edited by anyone, scholars around the world do not trust it. However, studies have shown that in the new-age reference tool, information is not that different from that of Encyclopedia Britannica. So in this time of new Information and Communication Technologies where any Joe, Bill, or Shirley can edit reference tools, is *Wikipedia* a site to be trusted? The objectives of this research are to find out if faculty members and students are using *Wikipedia* in research. In addition, the author seeks to find out if faculty members would use it in the future or consider using it as a teaching tool. Questions will be asked to gauge interviewees opinions on both *Wikipedia* and Encyclopedia Britannica and if they see *Wikipedia* as a credible source for use in research and education.

Risks and Benefits:

There are little risks involved with this interview. The material interviewees will be questioned about does not contain sensitive information. Interviewees may stop the interview at any time. If any people wish for the interview NOT to be recorded, the interviewer will use a word processor to transcribe the interview.

The benefit to this study is to learn how professors and students in a University setting are already using *Wikipedia* in research and perhaps get some insight into how the online reference site can be used as a teaching tool. Finding out more about students and faculty members habits when using the site will be compared to information found in the literature review. It is the author's hope that a more positive image could be formed about *Wikipedia* and more students and professors could use the site in research.

Time Commitment:

Each interview will last roughly 15 minutes and will be tape-recorded.

Confidentiality:

Your name will not be included on any documents. We do not believe that you can be identified from any of the information given in the interview. The tape recording of the interview will be erased after the author finishes transcribing the information. All recordings will be guarded by the researcher and not shared with anyone.

Right to Withdraw:

Your participation in this study is entirely voluntary. You may choose not to participate without any adverse consequences to you. You have the right to stop the survey at any time. However, should you choose to participate and later wish to withdraw from the study, there is no way to way to identify your anonymous document after it has been turned into the investigator.

IRB Approval:

This study has been reviewed and approved by The University of Wisconsin-Stout's Institutional Review Board (IRB). The IRB has determined that this study meets the ethical obligations required by federal law and University policies. If you have questions or concerns regarding this study, please contact the Investigator or Advisor. If you have any questions, concerns, or reports regarding your rights as a research subject, please contact the IRB Administrator.

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Statement of Consent:

By completing the following interview you agree to participate in the project entitled, *Wikipedia: Reference Tool for the Future?*

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