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## Format as a False Judge of Credibility: Messages from Librarians and Faculty and Student Responses

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# FORMAT AS A FALSE JUDGE OF CREDIBILITY

Messages from librarians and faculty and student responses

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## ABSTRACT

The purpose of this focus group study is to explore how students make sense of and respond to messages about information in higher education. This study identifies the messages students in higher education receive about information gathering, conducting research, and credibility and authority of information sources. This research revealed that students are receiving the message from faculty that format is a stand-in for credibility. Research to date focuses on how to steer students to information privileged by the academy: academic, peer reviewed articles and books. The voice of students is often absent. The proposed study employs the critical framework of Paulo Freire to evaluate student perceptions of information.

## INTRODUCTION

Students face overwhelming information choices in their academic studies, personal lives, and in the workplace (Albitz, 2007; Crawley, 1996; Hogan & West, 2007; Schantz, 1999; Savolainen, 2007; Spira, 2007; Young, 2005). Readily available information comes to students in unfiltered formats, raising questions about its authenticity, validity, and reliability (ALA, 2000). Librarians and teaching faculty also increasingly express concern about the authenticity, validity, and reliability of students' information sources (Bruckman, 2005; Clemmitt, 2008; Foster, 2007; Meola, 2004; Schantz, 1999; Walker, 2004).

The myriad of information choices relates directly to the information literacy standards (American Library Association, 2000); this can limit students' conceptions of how to find information by imposing on them a narrow definition of "good" or "bad" information (Wiegand, 1986). Information literacy also offers students the opportunity to cultivate their ability to make their own decisions about information sources (Freire, 2000; Pithers & Soden, 2000).

In the democratized age of information, educators worry that free, online sources are not relevant, accurate, or authoritative for scholarly work (Bruckman, 2005; Clemmitt, 2008; Foster, 2007; Meola, 2004; Schantz, 1999; Walker, 2004). Without publishers, peer reviewers, and librarians serving as intermediaries, research has become simultaneously easier to access and more difficult to judge. Students previously relied on librarian-vetted, traditional print resources and the authority of peer review expertise. Now, with the wealth of information available online, more people turn to the Internet than consult experts or family members to provide information and

resources (Pew, 2007).

Educators want students to succeed in scholarly work, to become informed citizens, to contribute to the global society, to enter the workforce educated, and to be critical thinkers and lifelong learners. Students who are graduated from college with information literacy skills have the ability to do and become all of these things (Snaveley, 2008). However, there is a gap between what academics want for students and how librarians and faculty go about achieving it through information literacy. The information literacy standards do not favor one form or format of information over another while academia prefers scholarly, proprietary, and traditional information sources above all else (Bok, 1982; Brabazon, 2007; Postman, 1995; Roszak, 1994).

## RESEARCH QUESTIONS & PURPOSE

The research questions are:

1. What messages do students receive about information gathering, research, and credibility and authority of information sources in higher education?
2. How do students make sense of and respond to these messages?

The purpose of this study is to identify the messages students receive about information gathering, conducting research and the credibility and authority of information sources in higher education. The study also analyzes how students make sense of and respond to the messages from different sources including faculty, librarians, and other students. Scholarly literature has not examined how students make sense of and respond to messages about information.

This study analyzed students' experiences with information gathering and research as well as their thinking about information sources and uses.

## METHODS

The primary participants of this study were thirty-two students between the ages of 18-25+ from the University of Mississippi, a higher education research institution. Out of the 32 students who participated, 22 were in their senior year. The remaining ten student participants were sophomores and juniors. Among the participants, 7 were in the formal and natural sciences, 6 were in the humanities, 9 were in professional and applied sciences, and 9 were in the social sciences.

Seven focus groups averaging five students each were conducted in order to interview students who could provide an in-depth understanding of how students make sense and respond to information. The students were interviewed together in the focus groups, not individually. The campus Information Technology (IT) department generated a random sample of seniors. Students were initially contacted by email, inviting them to participate in the focus groups. The email encouraged the seniors in the initial sample to invite friends to participate. This resulted in finding the ten students who were not in their senior year.

All steps in this research project were approved by the campus Institutional Research Board (IRB). Students were guaranteed confidentiality. Focus groups were interviewed. The interviews were converted to MP3 files and transcribed. The interview questions were developed through the research questions and informed by the theories of Paulo Freire. Each focus group was asked to respond to the interview

questions which are listed in Appendix A. Demographic data was collected regarding gender, age, race/ethnicity, international or U.S. status, and academic major. Demographic data is listed in Appendix B.

Data was collected from the focus group transcripts. The data from the transcripts was analyzed and used as the primary data source for the study. The interview questions were open ended and meant to encourage discussion between the members of the focus groups. The data from the transcripts was not analyzed on a question-by-question basis; instead participant comments were coded into overarching themes. This article is only a portion of a larger study. While all interview questions are included in Appendix A, not all of the themes that were derived from the data gathered in the focus groups are included in this article.

## LITERATURE REVIEW

This literature review will include a short review of the theories of Paulo Friere, which served as the theoretical framework for the research. Additionally, education and library literature is reviewed to address perceptions of student information use and students' ability successfully to retrieve and think critically about information.

The concepts of Paulo Freire's theory of "banking information" from the text *Pedagogy of the Oppressed* were applied as a framework. Banking information is the "act of depositing [information/knowledge], in which the students are the depositories and the teacher is the depositor" (Freire, 2000, p. 73). Students are relatively disempowered in the knowledge production aspects of the academy. Instead of reflecting faculty-centric models of information sense making, this study reveals student

worldviews about information in their own voices.

The situational authority of teaching faculty and librarians over students is an environment that lends itself to banking information, a teacher-centric versus student centered approach.

Library and education literature examine how students use information through citation reviews, discussion groups, content analyses and user studies. Citation reviews (also known as citation analysis studies) and user studies are the primary methods for this research. Librarians use citation reviews as a collection development tool or to examine student research sources in the context of academic work. Historically, citation reviews have been a popular research method to gauge the amount, relevancy, and scholarly nature of print resources in student bibliographies (Gratch, 1985; Joswick, 1994; Sylvia & Leshner, 1995). With the advent of the Internet, citation reviews also consider the number of citations in bibliographies that do not come from proprietary, online academic databases. Citation reviews often examine a particular discipline or a single class in addition to the scholarly nature of the resources (Davis, 2003; Davis & Cohen, 2001; Middleton, 2005; Ursin et al., 2004). Many citation reviews gauge the effectiveness of library instruction (Diller & Phelps, 2008; Hearn, 2005; Hovde, 2000; Mohler, 2005; Yu, Sullivan, & Woodall, 2006).

Citation reviews and other studies address different student user groups: across disciplines (Whitmire, 2002); by level of students—freshman, undergraduate, graduate, etc. (Lazonder, Biemans, & Wopereis, 2000; Leckie, 1996; Waldman, 2003); and generational differences (Weiler, 2005). Some user studies are longitudinal

and look at behavior over time (Rowley & Urquhart, 2007). User studies have sought to uncover student information seeking behavior in order to promote the development of techniques to assist students in finding their way back to academic sources. This study questions the role of librarians and faculty as the sole arbitrators of the authority of an academic source. In fact, the word “authority” only appears in the information literacy standards once, contextualized by the student applying “initial criteria for evaluating both the information and its sources” (ALA, 2000, standard 3, performance indicator 2). The standards alone do not privilege types of information but the interpretation of the standards by librarians and teaching faculty fixates on scholarly, peer reviewed, and print sources.

Head (2007) used discussion groups, content analysis, and a student survey to examine how students conduct academic research. The purpose of this research was to “explore existing assumptions about students’ reliance on the Internet for carrying out course-related research.” Head’s study is significant because the results included how students gauge “professors’ expectations for quality research.” The Head study sought to demonstrate how students do not rely so much on Internet resources as presumed; the tone of the article implied the importance of proprietary databases for academic work. Similarly, Valentine (1993) ran a focus group to study the attitudes and library research skills of library student workers also with a focus on proprietary databases as the preeminent source.

Citation reviews and user studies demonstrate what resources students use and their pathways to choosing resources but not what motivated their choices. The

purpose of these studies appears to be to gain the insight necessary in order to steer students toward traditional academic sources. Traditional approaches to education assume the expertise of the professor. Freire (2000) wrote “in the banking concept of education, knowledge is a gift bestowed by those who consider themselves knowledgeable upon those whom they consider know nothing” (p. 72). What if educators constructed a theory of information literacy where students’ opinions about information were as valid as professors’? What is missing from research is ascertaining how students make sense of and how they respond to messages about information. This study directly asked students about the messages they receive about different types of information sources and how they make sense of and respond to these messages.

The sheer amount of information on the Internet is a common reason given for student use of non-academic sources. Snively (2008) argued that the readily available amount of information on the Internet means that students must be taught how to evaluate information, locate appropriate resources, and efficiently find quality information. Note the emphasis on appropriateness and quality and not *why* some information is conferred with this status. Undergraduates do not arrive at the university with the skills or expertise identified with locating and using information for academic papers. Fields (2005) noted that it was disappointing but not surprising that first year students make the minimum effort to meet the level of

faculty research standards.

Many educators live in the environment of banking information, seeing students as receptacles for information and knowledge and not as contributors. By not fully recognizing the power relationships involved in banking information, even well intentioned educators can use the same “instrument of alienation in what they consider an effort to liberate” (Freire, 2000, p. 79). Students are generally not included as co-creators and co-interpreters of

MANY EDUCATORS LIVE IN THE ENVIRONMENT OF BANKING INFORMATION, SEEING STUDENTS AS RECEPTACLES FOR INFORMATION AND KNOWLEDGE AND NOT AS CONTRIBUTORS.

information literacy standards. Freire wrote that the teacher “confuses the authority of knowledge with his or her own professional authority, which she or he sets in opposition to the

freedom of the students” (p. 73). In other words, librarians and professors who seek to teach information literacy, critical thinking or any other education theory, while envisioning the students as “totally ignorant,” deny student potential.

In education literature, similar tensions exist between student preferences for popular sources and faculty preferences for scholarly resources. In *The Chronicle*, Foster (2007) noted that students might be tech-savvy but when required to do academic research, students can be inept. Too often, college officials say, “students rely on Google or Wikipedia as sources, as if oblivious to peer-reviewed scholarship” (p. A38). Wang and Artero (2005) stated, “the availability of information resources does not guarantee the successful use of Web resources in academia” (p. 72). In “Google No More,”

Walker (2006) declared that left to their own devices, “students collect information indiscriminately on the free Web and hand in papers and projects with works-cited pages that look like the greatest hits of Google” (p. 1). Graham and Metaxas (2003) are an exception in the literature; they argue that demonizing the Web as “devoid of useful information” creates a disconnect with students when librarians can use the Internet to increase critical thinking skills (p. 75). Much of the library and education literature denies the usefulness of student information skills and expertise. So how do

students gather information, conduct research, and discern credibility and authority of sources in a multimedia age?

## DISCUSSION

The format of resources and whether online resources were more or less credible was a dominating theme among students and was discussed across focus groups and interview questions. It was difficult for students to negotiate mixed messages from faculty about format. Students received messages

TABLE 1 — MESSAGES FROM PROFESSORS ABOUT DATABASES		
Participant	Discipline	Comment
Student E	Professional and Applied Sciences	Like the databases, the library, maybe ABI Inform and ProQuest.
Student F	Humanities	The only thing I have ever been told about as an English major is MLA bibliography, which was, I just found out about that this fall semester and before that it was JSTOR. I never heard of any of these other [databases].
Student F	Humanities	The teachers always tell us to just use the database, you know, the library sources and they try to encourage us to actually go and get books, you know, and read the book and use that as a source.
Student G	Professional and Applied Sciences	Use a database
Student AF	Social Sciences	EbscoHost is the only [database] I really know of.
Student H	Social Sciences	The only one I have ever heard anyone say anything about is, like, JSTOR so that's the one that I feel most comfortable with. I just go with that and just try to hit a keyword or something of some sort so hopefully I can get something of use from it.
Student I	Formal and Natural Sciences	I hear a lot from a lot of my professors that websites are often unreliable or they can be so it is better just to stick to the databases.

from faculty comparing databases and the Internet. Students compared the formats they preferred with what students believed faculty wanted.

This research explores the theme of how students negotiate the terrain of mixed messages. Students had difficulty determining what information faculty considered credible because of mixed messages and differing opinions from faculty about currency, authorship, scholarly resources, traditional research, the Internet and how these issues related to format. Students received mixed messages about information gathering and the credibility and authority of information sources. Student participants were looking for a source of authority and tried to explain their conceptualizations of what a trustworthy

source looked like. Students described credible resources in several ways but there was a distinct message received that some sources were “correct” and “suitable” reflecting a faculty-centric view of credibility. Head and Eisenberg (2009) found that students were frustrated by having to conduct research “to meet another’s expectations” (p. 4).

### *Currency & Authorship*

Currency was a method students used to judge credibility according to the findings. Students overall were inclined to place more importance overall on currency in academic assignments while they received messages from faculty that currency was not as important as using approved resources or formats. *See Table 1: Messages from professors about databases.* Students

**TABLE 2: WHAT PARTICIPANTS THINK PROFESSORS WANT**

Participant	Discipline	Comment
Student J	Formal and Natural Sciences	Always go for something published. Yeah, search for articles as opposed to Internet sites unless they are certainly reputable Internet sites.
Student K	Professional and Applied Sciences	In my major it is going to be papers and published papers or the books in here if they are not already online.
Student L	Social Sciences	I think a lot of what I hear is kind of a go-with-your-instincts, use common sense a lot of times, you know when something sounds wrong or looks weird.
Student M	Professional and Applied Sciences	I think probably professors would rather you have a book source than an online source. I kind of get that feeling sometimes that if you are going to use online sources, at least have one book source.
Student B	Social Sciences	I think from what I have seen is professors feel more safe using stuff that has been found through the library.
Student N	Formal and Natural Sciences	[Use] the library. I think you can get just books [in the library] or research journals.
Student C	Humanities	[Databases are] obviously a trusted source and it is also they see it as a good learning tool.



disagreed with faculty on this point. The message only to use vetted sources, even if a more current source is available on the Internet, caused students to believe that faculty were not always reliable judges of authority.

Students expressed that authorship was another determination of credibility. There were several ways that students relied on authorship as a judge of credibility. Some students saw authors as having to prove or present believable information for arguments to be credible. Other students looked for authority through signposts, for example, if an article was signed or was published in a peer reviewed journal. Students differed on whether or not credentials were important. Some determined a degree in the area, especially a PhD, was a signpost for credibility. Students had a strong negative reaction to authors whom they saw as biased, slanted, or who gave “just opinion.” Authors’ “opinions” were scoffed at as not credible and a degree of rebellion emerged in this discussion. Relativism came into play: everything is relative, everything is just someone’s opinion, and everything is debatable. Students felt that scholarly resources had blanket approval by faculty even though some articles were “just opinion.” The relativism of “just opinion” created a student response that faculty were not always reliable judges of authority.

### *Scholarly Resources & Traditional Research*

Data was collected about information gathering, including scholarly resources, traditional research, and issues related to format. Many of the messages about scholarly resources and traditional research related to format. Students reported that scholarly resources were important to faculty and that they were “good,” quality

resources. Faculty expected students to use scholarly resources. Students stated that scholarly resources were recommended, encouraged, preferred but not necessarily required by faculty. *See Table 2: What participants think professors want.* Students received the message that scholarly resources were published in journals, library databases, print books, and were found in a physical format and not on the Internet. Students resisted this message. Student A, a geological engineering major stated that “there are real articles on there that are peer reviewed and journal articles that are basically the same thing which you can find in the library.”

Students received the same message about traditional research; traditional research was conducted physically in the library and was primarily associated with books, not the Internet. Students received mixed messages about traditional research making it difficult for them to determine where they should get their information. Students noted confusion and exasperation about the differing faculty expectations for traditional research formats. *See Table 3: Messages about varying contexts for format.* According to some faculty, traditional research could include “good” Internet sites like Google Scholar while other faculty forbade them to use the Internet or anything outside of library subscription databases at all. Student B, a psychology major, made the quintessential comment related to students’ difficulty with mixed messages about format: “I have heard different [professors] say, ‘Well, you can get scholarly articles through websites like Google and Yahoo and Lycos and stuff,’ and other professors have said, ‘Well, you need to use the library’s system and EbscoHost and stuff like that.’ So it can be difficult to determine where you get your information from.” Students felt that online research was easier

TABLE 3 — MESSAGES ABOUT VARYING CONTEXTS FOR FORMAT		
Participant	Discipline	Comment
Student E	Professional and Applied Sciences	It just kind of depends on the professor. Sometimes they will specify, like, where exactly to look, but if they don't do that, then they want it in that general idea from one of those approved places.
Student L	Social Sciences	You know, early on, I think freshman year, there was a big encouragement to go to the library and use the resources and they try to keep you away from the Internet and tell you to be careful with what you use and you can't believe everything you read on the Internet. And then as you go along, there aren't so many guidelines and so you progress up to senior year.
Student O	Social Sciences	My 300 level classes and above, they want me to do the actual research on a lot of the peer edited articles but, like, the ones I took my freshman year, like, they didn't care if we used Wikipedia or whatever, they just wanted us to get the information. So it kind of depends on the level of class I was in.
Student C	Humanities	I feel like it is more of a matter of opinion per professor where you get your information from because some don't like any Internet usage and some prefer it, like, they just prefer using books and stuff like that, so I think it is just more of what your professor wants out of the assignment. That's the only conflict I have had out of it.
Student P	Social Sciences	I think it depends on the context because certain classes use different resources. Like some English classes you may use only primary sources, some other liberal arts classes you may use, you know secondary sources that you can get from databases, so there is not, like, one thing you hear.
Student Q	Humanities	It depends on also what department what you can and cannot use. Like, it's easier in some to use the Internet because the library doesn't have the books you need or journal articles or whatever. Sometimes it's easier or harder.

and faster to use and had value-added features print sources did not have. The students responded to these mixed messages by concluding that faculty only wished to thwart them by not allowing them to use online resources which afforded time-saving and ease-of-use which students preferred.

### *NextGens & Format*

Abrams and Luther (2004) stated that one characteristic of NextGens is that students do not find distinguishing between formats important. Students did see a difference between faculty who were accepting of technology and what they termed “older” faculty. Students felt that some faculty enjoyed traditional research and that faculty felt that traditional research was safer than online resources. Coupled with this message was the feeling that faculty wanted students to suffer, to do it the hard way, to have to go to the library physically, and to spend more time than would be necessary. Or, as Student C, a theatre major said, “really putting the elbow grease into it.” Students expressed annoyance with this attitude citing their time as an important factor. Once again, students favored online research over traditional research, especially if the online sources were more current. Some students felt misled by the quality of faculty recommended resources. For example Student D, an international studies major, expressed frustration about the messages she received about format:

*I feel like if it is in the databases or from the library, it's good to go. But I don't really think that's really true. [An article] is not really a good source even though a professor wrote it. It doesn't mean that the information is right. But I feel like if I find it through the library, [faculty think] it's fine, but I don't really think that's true.*

Because students found faculty to be overly cautious about online resources, they often either ignored messages or worked around them. Finally, some students stated that they were unable to determine what was traditional anymore since an article that could be found in print in the library could also be found in an online database or through Google Scholar. For example, Student A noted:

*With the Internet now, there are so many articles that are online that, you know, I can get a lot of articles online and I can also get them in the library but it is so much easier to do it from my home.*

One implication of this research is that students are getting the message from faculty that format is a stand-in for credibility. However, format is a failed judgment for credibility (Cooley & Goedeken, 1996). Students described a false, obsessive focus on format on the part of faculty. The format that was determined to be least credible was the Internet. Students received such mixed messages as the Internet is not safe, but if students do use the Internet, they should not use a blog but they should use Google Scholar instead. They can find peer reviewed articles from the Internet, use an .edu or .gov site, and verify Internet sources. The obsession with format varied from faculty member to faculty member, once again creating arbitrary rules for students. Students did not feel that format was important as long as the information was credible but they were compelled to use print sources or library databases. Student C noted in reference to library databases, that “if a professor says a source is credible, then it’s credible. If they trust it, then they see it as ‘a good learning tool.’” Similarly, other students mentioned “sticking to” the databases or using a

database that faculty recommend even though students did not tie credibility to format.

## IMPLICATIONS

It is much easier for librarians and faculty to use format as a short-cut to teach students what is appropriate for academic use rather than spending time explaining the value—and limitations—of peer review, how the scholarly conversation happens in academic discourse, and all the ways to analyze resources of all types. This explanation is difficult but it is essential to developing the critical thinking skills students need in order consciously to use information academically, professionally, and personally. Much of the library and education literature denigrates the ability of students to gather information and judge credibility. Moore (2002) claimed that students do not have the same experiential knowledge of adults to locate and analyze relevant information. Similar critiques of students' ability to locate information, especially on the Internet, inundated research (Fields, 2005; Foster, 2007; Kirkwood, O'Hanlon, 2002; Walker, 2006).

One implication of this focus group study is that librarians need to focus less on student lack of expertise and focus more on co-learning. Co-learning is another term reflecting Freire's concept of teacher/students and student/teachers. If librarians practice co-learning with students, it will give students a voice in the learning experience. When using the problem-posing method, the students are no longer "docile listeners—are now critical co-investigators in dialogue with the teacher" (Freire, 2000, p. 81). Implicit in this is an exchange of information where the educator re-examines early perceptions of information. Student knowledge of information and the skill and

ideas they bring to the learning experience could reform instruction sessions and information literacy initiatives.

The credibility of different information formats dominated the data. The second implication of this research is that librarians should intensify collaboration with faculty on assignment design. By working together, librarians and faculty can examine the purpose of the assignment and determine if the format of the required sources matches the learning goals of the assignment. Academic libraries are relying more and more on online resources. Faculty members are central to implementing information literacy practices. Keeping faculty up-to-date about online resources is an important part of librarian/faculty partnerships.

The data in this study revealed that students value the speed and convenience of Internet research. Another implication of this research is that librarians must find ways to work with students for whom ease-of use is their highest-rated criterion in determining the value of resources—slightly more than credibility of the information (OCLC, 2005). Academic libraries have made strides to increase the usability of library websites and subscription resources and must continue these improvements. Seamans (2002) argued that librarians

*need to acknowledge the searching strategies and tools that students are using and ... to seriously consider incorporating in instructional sessions information about how to get to a variety of resources, including some that may not be quality-filtered and may not be provided by libraries (p. 122).*

Librarians can continue to stress to students the value of using multiple sources which

will inform and reinforce each other. Librarians should also be patient with the student culture of speed and acknowledge that not all credible sources are necessarily library-vetted.

## CONCLUSIONS

This research identifies how to improve student learning through giving voice to students' belief systems as they describe what they believe and how they behave relevant to finding information. The two research questions are:

1. What messages do students receive about information gathering, conducting research, and the credibility and authority of information sources in higher education?
2. How do students make sense of and respond to these messages?

Students primarily received negative messages from faculty about using the Internet and positive messages about traditional academic sources. As a result, students demonstrated a lack of trust in faculty judgments of resources related to format. Part of this distrust was based on confusion related to online sources; some students received the message that any source from the Internet is not acceptable, including library subscription databases or academic articles located on the wider web. Part of this distrust was also based on the fact that different professors had different standards for credibility. The lack of a consistent message from faculty over the years and across disciplines contributed to student distrust of faculty judgments about the credibility of formats. Because students highly value the ease-of use of the online environment, some students saw faculty

preference of traditional resources as illogical.

Head and Eisenberg's (2010) report found that research assignments advised students to use their campus library shelves and/or online library sources without detailing which database to search, how to search them, or how to evaluate resources. Very few assignments even discussed Internet sources even though many students "almost always integrate the Web into their research activities" (p. 1). This research study concurs with Head and Eisenberg and recommends that librarians increase the trust levels of the students they work with by acknowledging that there is value to the currency, ease-of-use, and often credibility of resources found on the Internet. By applying a Freirean lens to library instruction methods and involving student voices in the research process, information literacy can liberate students to make the connection to research as relevant to their academic lives and beyond.

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5. What do you hear from professors, librarians and other students about using scholarly resources?
6. What strategies do students learn from each other about finding information?
7. What messages do you and other students hear from professors and librarians about traditional research methods?
8. To what extent do you use different strategies for locating information for different purposes (e.g., academic vs. personal information)?
9. How do you think that being able to find information will impact your life after you graduate? What are some examples?

## APPENDIX A: INTERVIEW QUESTIONS

1. What do you and other students hear about how to conduct research and gather information for academic assignments?
2. To what extent do you hear conflicting messages from professors, librarians, and other students about how to conduct research and gather information?
3. What do you and other students hear from professors and librarians about using information found through library resources, like databases and on the Internet?
4. What do you and other students hear about how to evaluate the trustworthiness or credibility of information?

## APPENDIX B: PARTICIPANT DEMOGRAPHIC DATA

Student	Gender	Age	Race	International
R	Male	22-23	White	No
J	Male	24 or older	White	No
E	Female	20-21	White	No
S	Female	20-21	White	No
K	Female	18-19	White	Yes
A	Male	20-21	White	No
T	Female	22-23	White	No
U	Male	24 or older	African American	No
L	Female	20-21	White	No
V	Female	24 or older	White	No
W	Male	22-23	White	No
X	Male	22-23	White	No
O	Male	20-21	White	No
F	Female	20-21	White	No
Y	Male	24 or older	White	No
D	Female	20-21	White	No
M	Female	22-23	White	No
Z	Female	20-21	Two or more races	No
B	Female	22-23	White	No
AA	Female	20-21	White	No
G	Male	24 or older	White	No
AB	Female	20-21	White	No
N	Female	22-23	White	Yes
C	Male	20-21	White	No
AC	Male	20-21	White	No
P	Male	22-23	White	No
AD	Female	20-21	White	No
AE	Male	22-23	African American	No
H	Female	22-23	Two or more races	No
Q	Female	24 or older	White	No
I	Male	18-19	White	No