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Where Do Community College Students Go for their Reference Management Needs: Findings
from a Survey Study

Abstract

This research article reports the findings of a survey that was conducted at two community colleges affiliated with a large public university system in the Northeast of the United States. A survey was to explore community college students' citation management help-seeking habits. Findings suggest that respondents were more likely to utilize Purdue University's Online Writing Lab (OWL) website for reference management help than other resources. The results also show the impact of various factors (i.e., institution, academic level, undergraduate class level, field of study, age, gender, race/ethnicity, and user type) on students' citation help-seeking practices. Significant statistical associations were found between variables (institution, academic level, race/ethnicity, and field of study) and ways of seeking citation help. The authors discuss the implications for academic libraries and recommendations for future research.

Keywords: citation management help seeking habits; community colleges; community college students; academic libraries

Introduction

The impetus to frame this research project was the authors' desire to understand the citation management help-seeking practices of community college students and utilize the findings to improve reference management services at the researchers' institution for this group of academic library patrons. The City University of New York (CUNY) is the United States' "largest urban university system" and twenty-five institutions are affiliated with it ("About CUNY," 2022, *The Nation's Leading Urban University* section, para. 1). Of these, seven are two-year colleges ("About CUNY," 2022). Many of the community college students within the sprawling CUNY system transfer to four-year or senior colleges within the system either through traditional route or via various articulated agreements to seek degrees at the baccalaureate level. The campus where the principal researcher is employed is one of the four-year institutions of the CUNY system that has a large transfer student population, including those who have attended the systems' community colleges. In 2019, the campus had a more than 1700 undergraduate transfer student enrollment and of these approximately 40% were from CUNY community colleges (CUNY IRDB, n.d.).

Given the significant enrollment of transfer students with the community college background, the authors' home library has formed a subcommittee on transfer students (the principal investigator is a member of the subcommittee) to examine ways to enhance its instructions, including citation to better meet the needs of this growing segment of patrons. Prior to this study, the authors' library has not studied its junior college transfer students' citation management help-seeking practices. Therefore, the researchers conceptualized this research project to learn the reference management help-seeking habits of the foregoing group of patrons in order to design

citation services that aptly respond to the needs of students from associate granting institutions. Findings of the article can also be helpful to other academic libraries in developing targeted citation services for community college transfer students. The research will expand the sparse library and information science (LIS) literature on community college patrons' citation help seeking practice.

Institutional Context

The data for this research were collected through a survey that was conducted by the authors at two community college campuses (Hostos and Queensborough) affiliated with the City University of New York (CUNY) in 2017. Hostos Community Colleges (HCC) is one of the seven two year institutions of CUNY and is situated New York City's borough of the Bronx. HCC primarily serves the Bronx, but students residing in other boroughs of New York City, as well as from neighboring suburban county of Westchester also enroll at HCC. Approximately 6,000 students currently enrolled at the college (U.S. Department of Education, n.da.). At HCC, students have options of selecting a wide variety of majors in "33 undergraduate fields of study" (U.S. Department of Education, n.da, Top Fields of Study at CUNY Hostos Community College section, para.1).

Queensborough Community College (QCC) in Queens, which is another borough of New York City. The college is one of the junior colleges of CUNY and provides higher educational opportunities to inhabitants of the foregoing borough, as well as patrons living on nearby Long Island. QCC has a larger student body (close to 12,000) than HCC (U.S. Department of Education, n.db.). Students can choose a number of majors from "46 undergraduate fields of study" at QCC (U.S. Department of Education, n.db., Top Fields of Study at CUNY Queensborough Community College section, para.1). On average, QCC students are more likely

to transfer to a CUNY four-year program than their other counterparts from other junior colleges that are part of the aforesaid vast “urban university system” (Queensborough Community College, 2022, Alumni section, para. 1).

Literature Review

A small body of research addresses the information-seeking habits of community college students. One study conducted at a two-year institution in New York City examined “information behaviors of students related to non-academic areas of their college experiences” (Terrile, 2021, pp. 1-3). Terrile (2021) conducted interviews with 13 students using both a semi-structured questionnaire and two online surveys in which the author found they utilized both “interpersonal and online resources for all of their information needs for school and everyday life” (p. 1).

Researchers from Florida State University and the University at Buffalo employed semi structured interviews examined two-year college students’ “self-perceptions of their information literacy (IL) needs” (Latham, Gross, Julien, Warren, & Moses, 2022, pp. 593-595). The authors selected thirty-four respondents for the research project some respondents utilized citation management software, whereas others did not (Latham et al., 2022).

Johnson (2020) of the University of South Carolina, Columbia analyzed “library behaviors/perceptions” of students attending remote classes at a two-year institution (p. 28).

Johnson (2020) used both “quantitative and qualitative” research designs for the study and gathered data from 92 students (p. 41-42). Johnson (2020) noted one reason for respondents’ utilization of the library was locating information for their class projects and they were most likely to utilize “the library when necessary” (p. 51).

Oliveira, Carroll, and Greenidge (2022) of Michigan’s Andrews University investigated “information-seeking behavior” of patrons taking “distance education” courses (p.421). They

authors gathered data using a “questionnaire” and recruited 172 participants for the study. The vast majority of the respondents (nearly 81%) mentioned utilizing Google to obtain “information” for course related projects and assignments, whereas a small minority (approximately 8%) sought help from a campus librarian for assistance with research (Oliveira et al., 2022, p. 431).

Outside of the United States, a Jamaican study explored “[i]nformation-seeking” habits of academic library users (Nelson & Tugwell, 2022, p. 257). Researchers at the University of West Indies at Mona administered an electronic “survey” to nearly 100 subjects and found that on average respondents from the “[h]umanities and [e]ducation track used electronic “databases” less than students in the social sciences (Nelson & Tugwell, 2022, pp. 265-267). The authors also observed that more than half of the participants sought help from their friends and more than two-thirds consulted the Internet for their research needs (Nelson & Tugwell, 2022). In South Asia, A project surveyed 350 undergraduate and graduate students using an in-person “questionnaire” concerning their information seeking behaviors” (S. Humbhi, Tareen, & A. humbhi, 2022, pp. 2-7). The authors discovered the majority of their study’s participants rely on “social media” for acquiring information (Humbhi et al., 2022, pp. 9-10).

The aforementioned publications provide some insights of information- seeking behaviors of undergraduate students attending two-and four-year colleges. Yet, existing scholarship has not explored the help-seeking habits of community college students’ related to citation management. The current study aims to address this existing gap in the research.

Aims

The goal of this research project was to determine citation management help- seeking practices of students attending community or junior colleges. The researchers developed five research questions to analyze this topic in detail. The research questions include the following:

- RQ1. What are community college students' citation help- seeking habits?
- RQ2. How does reference management help-seeking practice compare students' students' academic (undergraduate and continuing education) levels?
- RQ3. How does reference management help -seeking practice compare among participants of different undergraduate class (freshman, sophomore, junior, and senior) levels?
- RQ4. What are reference management help- seeking habits of the study subjects enrolled in different academic programs?
- RQ5. What are citation management help -seeking practices of students having different demographic backgrounds in term of age, gender, and ethnicity?
- RQ6. How do citation management help- seeking practices of English as a Second Language (ESL) students compare with native English-speaking students?
- RQ 7. Are there any statistical associations between variables (institution, academic level, demographic factor, field of study, and English-speaking ability) and the way subjects seek citation help?

Methods

The data for this article are derived from a research project "Use and Awareness of Reference Management Software Among Community College students," which authors of the paper undertook in 2017 (Names of authors redacted for blind review, 2018, pp. 228-229). This data

were not used in the 2018 article (Names of authors redacted for blind review, 2018). The project data for that study were collected through an in-person survey which sought The items on the instrument sought information such as demographic, “academic level,” “year of study,” “field of study,” and “college affiliation” from the respondents (Names of authors redacted for blind review, 2018, pp. 234-235). The survey instrument also included a question about subjects’ citation help- seeking practices (Names of authors redacted for blind review, 2018, p. 234). See Appendix for the full questionnaire distributed in that 2018 study.

The survey was administered in the spring of 2017 at two CUNY two-year institutions (QCC and Hostos) that are located in New York City Borough of Queens and the Bronx, respectively. Potential respondents were approached at a wide array of locations (canteen, “outside on library entrances, campus buildings,” and “in front of classrooms”) at the foregoing campuses (Names of authors redacted for blind review, 2018, pp. 235). The researchers chose these locations as many students tend to congregate there. It was therefore simple to recruit participants for the study. The IBM SPSS (Statistical Package for Social Sciences) Version 28 was utilized for data analysis for this research. Fisher’s Exact test was used to find statistical relationships between different variables and citation help- seeking habits.

Demographics

The original questionnaire was distributed to “135 students” of which “92% (n=124)” agreed to participate (Names of authors redacted for blind review, p. 235). All of the subjects who started the survey “completed” it (Names of authors redacted for blind review, 2018, p. 235). A majority of respondents attended Hostos Community College (HCC), whereas less than half took classes at Queensborough Community College (QCC) (Names of authors redacted **for** blind review,

2018). A small minority of subjects were enrolled at “other” institutions (Names of authors redacted for blind review, 2018, p. 235).

By academic level, the largest percentage of responses came from bachelor level subjects followed by “continuing education” participants and “other” subjects (Names of authors redacted for blind review, 2018, p. 235). The survey sample was mostly included upper- level baccalaureate, “female,” younger than “24 years of age,” and “Hispanic” respondents (Names of authors redacted for blind review, 2018, p.235-236). Most respondents spoke English as their native language (Names of authors redacted for blind review, 2018). A majority of the respondents were enrolled in “liberal arts and humanities,” “social sciences,” and “health sciences or allied health sciences” programs; on the other hand, a minority were pursuing degrees in “business or accounting,” “education, “natural sciences” or “other” disciplines (Names of authors redacted for blind review, 2018, p. 236).

Results

RQ 1. What are community college students’ citation help seeking habits?

Approximately 22 % (n=27) of respondents indicated seeing their college’s reference librarians for citation management related issues, whereas 11.3 % (n=14) sought help from their friends. and close to 14% (n=17) had used a citation style manual for their reference needs and more than a quarter (26%, n=32) utilized website such as Purdue OWL for citation assistance. Just over seven percent (n=9) of respondents indicated they did not seek any citation help and five (4%) participants left this question blank. Table 1 shows the responses in detail.

Table 1
 Respondents' Citation Management Help Seeking Practices

Ways to Seek Citation Management Help	Number of Participants/Percentage
I ask a reference librarian at my college library	27/21.8
My friends help me	14/11.3
I use a citation style manual	17/13.7
I use an online site (e.g., Purdue OWL)	32/25.8
I do not seek help	9/7.3
I cannot answer	8/6.5
Did not answer	5/4.0
I use citation style manual & I use an online site (e.g., Purdue OWL)	1/0.8
Other	8/6.4
N/A	3/2.4

The authors analyzed participants' responses by institution. Twenty (31.3%) of Hostos Community College (HCC) and 12.3 % (n=7) of Queensborough Community College (QCC) students contacted a reference librarian at their institution for citation management needs. An equal percentage of HCC (10.5%, n=6) and QCC (10.9%, n=7) respondents reported obtaining reference management assistance from their friends. Compared to HCC participants, subjects from QCC were more likely to use a manual for questions related to in-text citation and bibliography. One third (33.3%, n= 19) of QCC respondents consulted Purdue University's OWL website for their citation assistance and nearly one-fifth (18.8%, n=12) of their counterparts from HCC did the same. A higher percentage of HCC subjects reported obtaining no citation assistance compared to those at QCC (Table 2).

Table 2
Citation Management Help Seeking Practice by Institution*

Ways to Seek Citation Management Help	Institution (Number of Participants/Percentage)	
	QCC	HCC
I ask a reference librarian at my college library	7/12.3	20/31.3
My friends help me	6/10.5	7/10.9
I use a citation style manual	9/15.8	8/12.5
I use an online site (e.g., Purdue OWL)	19/33.3	12/18.8
I do not seek help	3/5.3	6/9.4
I cannot answer	5/8.8	3/4.7
Did not answer	3/5.3	1/1.6
I use citation style manual & I use an online site (e.g., Purdue OWL)	1/1.8	0/0.0
Other	1/1.75	7/10.9
N/A	3/5.3	0/0.0

*The total number of participants do not equal to 124 because three students were from other CUNY colleges.

RQ 2. How does the reference management help seeking practice compare among the study subjects of different academic (undergraduate and continuing education) levels?

Approximately 15 % (n=15) of undergraduate and a slightly more than two-thirds (66.7%, n=12) of continuing education respondents revealed they utilize the services of a reference librarian for their citation needs. On average, undergraduate patrons were more likely to use a reference style manual than their continuing education counterparts. Almost an equal percent of undergraduate (10.8%, n=11) and continuing education (11.1%; n=2) subjects indicated obtaining citation assistance from their friends or acquaintances. Twenty-nine (28.4%) undergraduates reported visiting online site such as Indiana’s Purdue University’s OWL site for their reference management concerns compared to nearly 7% (n=1) users enrolled in non-credit bearing classes (continuing education classes). A higher percentage of undergraduate students reported not seeking any citation help than those the continuing education program. Four (3.9%)

undergraduate and one (5.6%) continuing education students did not answer this question. Table 3 illustrates the study subjects’ help seeking habit by academic level in detail.

Table 3
Citation Management Help Seeking Practice by Academic Level*

Ways to Seek Citation Management Help	Academic Level (Number of Participants/Percentage)	
	Undergraduate	Continuing Education
I ask a reference librarian at my college library	15/14.7	12/66.7
My friends help me	11/10.8	2/11.1
I use a citation style manual	16/15.7	1/5.6
I use an online site (e.g., Purdue OWL)	29/28.4	1/5.6
I do not seek help	9/8.8	0/0.0
I cannot answer	7/6.9	0/0.0
Did not answer	4/3.9	1/5.6
I use citation style manual & I use an online site (e.g., Purdue OWL)	1/1.0	0/0.0
Other	7/6.8	1/5.5
N/A	3/2.9	0/0.0

*The total number of participants do not equal to 124 because four subjects could not be classified into undergraduate or continuing education categories.

RQ 3. How does the reference management help seeking practice compare among participants of different undergraduate class (freshman, sophomore, junior, and senior) levels?

Disaggregating the citation help-seeking data by undergraduate class level reveal five main patterns. First, most freshman (21.3%, n=10, sophomore (31.8%, n=14, and junior (62.5%, n=5) respondents visited Purdue University’s OWL website for in-text, bibliographic, and other citation related questions. Second, no senior student selected Purdue’s website as a source citation help. Third, senior respondents were more likely to use a citation style manual for their reference needs than freshman, sophomore, and junior subjects. Fourth, freshman and sophomore

students were most likely to rely on their friends or acquaintance for obtaining citation assistance compared to junior and senior respondents. Finally, obtaining citation assistance from a reference librarian was more popular with freshman and sophomore subjects than with their junior and senior counterparts (Table 4).

Table 4
Citation Management Help Seeking Practice by Undergraduate Class Level

Ways to Seek Citation Management Help	Undergraduate Class Level (Number of Participants/Percentage)			
	Freshman	Sophomore	Junior	Senior
I ask a reference librarian at my college library	8/17	7/15.9	0/0	0/0
My friends help me	7/14.9	4/9.1	0/0	0/0
I use a citation style manual	9/19.1	4/9.1	2/25	1/33.3
I use an online site (e.g., Purdue OWL)	10/21.3	14/31.8	5/62.5	0/0
I do not seek help	5/10.6	3/6.8	0/0	1/33.3
I cannot answer	3/6.4	4/9.1	0/0	0/0
Did not answer	2/4.3	1/2.3	1/12.5	0/0
I use a citation style manual & I use an online site (e.g., Purdue OWL)	0/0	1/2.3	0/0	0/0
Other	0/0	6/13.6	0/0	1/33.3
N/A	3/6.4	0/0	0/0	0/0

RQ 4. What are reference management help seeking habits of the study subjects enrolled in different academic programs?

The survey provided an opportunity for participants enrolled in various academic and certificate programs to report the sources they depend on for their reference management needs. A larger proportion of students pursuing degrees in a wide variety of subjects mentioned they frequently

utilize Purdue University's OWL website for their citation purposes, whereas a small number of students utilized a citation style manual. A higher number of students from the liberal arts and humanities, education, social sciences, health sciences/allied health, and engineering technology/engineering science majors sought the assistance of a reference librarian for their citation questions than their natural sciences counterparts and those who did not declare their majors.

Liberal arts and humanities, education, social sciences, and undecided students were more likely to rely on a friend or acquaintance as a source for citation help than natural sciences, health sciences/allied health, and engineering technology/engineering science students. A higher percent of health sciences/allied health, sciences education, liberal arts and humanities respondents did not seek any citation help compared to natural sciences, undecided, and engineering science study subjects. Tables 5 and 6 lists aforesaid data in detail.

Table 5
Citation Management Help Seeking Practice by Field of Study

Ways to Seek Citation Management Help	Field of Study (Number of Participants/Percentage)				
	Liberal Arts and Humanities	Education	Natural Sciences	Social Sciences	Health Sciences/Allied Health
I ask a reference librarian at my college library	9/24.3%	2/20.0%	0/0.0%	3/13.6%	7/36.8%
My friends help me	5/13.5%	1/10.0%	0/0.0%	5/22.7%	0/0.0%
I use a citation style manual	8/21.6%	0/0.0%	0/0.0%	1/4.5%	1/5.3%
I use an online site (e.g., Purdue OWL)	10/27.0	2/20.0%	3/60.0%	5/22.7%	3/15.8%
I do not seek help	1/2.7%	1/10.0%	0/0%	3/13.6%	3/15.8%
I cannot answer	2/5.4%	0/0.0%	0/0%	3/13.6%	0/0.0%
Did not answer	0/0%	0/0.0%	2/40.0%	0/0.0%	0/0.0%
I use a citation style manual & I use online site (e.g., Purdue OWL)	0/0%	0/0.0%	0/0.0%	0/0.0%	1/5.3%
Other	1/2.7%	1/10.0%	0/0.0%	1/4.5%	4/21%
N/A	1/2.7%	1/10.0%	0/0.0%	1/4.5%	0/0. %

N/A	0/0.0%	0/0.0%	0/0.0%	0/0.0%	0/0.0%	0/0.0%
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RQ 5. What are citation management help seeking practices of students having different demographic backgrounds in term of age, gender, and ethnicity?

The authors further disaggregated the survey citation help- seeking data by demographic variables such as age, gender, and race/ethnicity.

Age. The study subjects from three young age groups (under 24, 24-34, and 35-44) were more likely to visit a reference librarian at their college for citation related questions compared to their counterparts from the middle age group (45-54). Approximately 13% (n=13) of subjects younger than 24 years of age claimed to contact their friends for reference management purposes. On the other hand, no participants from the other age brackets (24-34, 35-44, and 45-54) indicated a friend as a resource for citation assistance.

Close to 15% (n=15) of respondents below the age of 24 years, 6.3 % (n=1) between ages 24-34, and 25% (n=1) from the 35-44 age group had consulted a citation manual for their reference management needs. No participant between ages 45-54 reported utilizing a citation manual. Of the participants who visited an online site such as Purdue OWL for citation related questions, one quarter (24.5%, n=25) were younger than 24 years of age, 31.3% (n=5) were between ages of 24-34, 25% (n=1) were from the 35-44 group, and 50% (n=1) belonged to the 45-54 age range.

Nearly 7% (n=7) of students in the youngest age category (under 24 years) and almost 13% (n=2) from the middle age group (24-34 years) did not obtain assistance for their citation needs. No subjects from the older age categories (35-44 and 45-54 years) sought help for reference related issues. Eight (7.8%) participants below 24 years of age left this question blank, and no respondents from other age groups left this particular survey instrument item blank. Table 7 shows the aforesaid data.

Table 7
Citation Management Help Seeking Practice by Age Group

Ways to Seek Citation Management Help	Age Group (Number of Participants/Percentage)			
	Under 24 years of age	24-34 years of age	35-44 years of age	45-54 years of age
I ask a reference librarian at my college library	20/19.6	5/31.3	2/50.0	0/0.0
My friends help me	13/12.7	0/0.0	0/0.0	1/50.0
I use a citation style manual	15/14.7	1/6.3	1/25.0	0/0.0
I use an online site (e.g., Purdue OWL)	25/24.5	5/31.3	1/25.0	1/50.0
I do not seek help	7/6.9	2/12.5	0/0.0	0/0.0
I cannot answer	8/7.8	0/0.0	0/0.0	0/0.0
Did not answer	5/4.9	0/0.0	0/0.0	0/0.0
I use a citation style manual & I use an online site (e.g., Purdue OWL)	1/1.0	0/0.0	0/0.0	0/0.0
Other	6/5.8	3/18.7	0/0.0	0/0.0
N/A	3/2.9	0/0.0	0/0.0	0/0.0

Gender. The researchers further disaggregated students’ responses by gender. Ten (20.4%) male and 23% (n=17) female participants went to see a reference librarian at their campuses. On the other hand, 10.2% (n=5) male and 12.2% (n=9) respondents listed a friend as a source of reference management help. Male respondents used a citation style manual more than female students. Close to one-third (32.7%, n=16) of male and almost 21% (n=16) female students revealed utilizing a website, such as Purdue OWL for reference needs. Female participants were

less likely to seek citation help than their male and transgender peers. Six (12.2%) male and two (2.7%) female students decided not to answer this question (Table 8).

Table 8
Citation Management Help Seeking Practice by Gender

Ways to Seek Citation Management Help	Gender (Number of Participants/Percentage)		
	Male	Female	Transgender
I ask a reference librarian at my college library	10/20.4	17/23.0	0/0.0
My friends help me	5/10.2	9/12.2	0/0.0
I use a citation style manual	7/14.3	10/13.5	0/0.0
I use an online site (e.g., Purdue OWL)	16/32.7	16/21.6	0/0.0
I do not seek help	2/4.1	6/8.1	1/100.0
I cannot answer	6/12.2	2/2.7	0/0.0
Did not answer	0/0.0	5/6.8	0/0.0
I use a citation style manual & I use an online site (e.g., Purdue OWL)	1/2.0	0/0.0	0/0.0
Other	2/4.1	6/8.1	0/0.0
N/A	0/0.0	3/4.1	0/0.0

Race/Ethnicity. Students from a wide variety of racial and ethnic backgrounds were asked to indicate their citation help-seeking habits. On average, Black (29.2%, n=7) participants were likely to approach a reference librarian for reference management needs than White (21.4%, n=3), Hispanic (20.6%, n=13), Asian (0%, n=0), and multiracial (14.3%; n=1) subjects. Nearly 18% (n=11) of Hispanic and one-third (33.3%; n=2) of Asian respondents contacted a friend for citation related questions. No White, Black, and multiracial students mentioned friends

a source of citation help. White and Hispanic participants were more likely to consult a style manual for their reference needs compared to their peers from other racial and ethnic groups. Of participants who accessed a website, such as Purdue University's Purdue OWL, for in-text and bibliography related issues, 7.1% (n=1) were White, 50% (n=12) were Black, another 50% were Asian, nearly 24% (n=15) were Hispanic, and 14.3% (n=1) were multiracial. More White students showed disinterest in getting citation assistance than Black, Hispanic, Asian, and multiracial students. Two (14.3%) White, 12.5% (n=3) Black, 1.6% (n=1) Hispanic, and 14.3% (n=1) multiracial subjects refused to answer this question. No Asian participants left this question blank. The foregoing data are further displayed in Table 9.

Table 9
Citation Management Help Seeking Practice by Race/Ethnicity

Ways to Seek Citation Management Help	Race/Ethnicity (Number of Participants/Percentage)					
	White	Black	Hispanic	Asian	Multiracial	Other
I ask a reference librarian at my college library	3/21.4	7/29.2	13/20.6%	0/0.0	1/14.3	3/33.3
My friends help me	0/0.0	0/0.0	11/17.5	2/33.3	0/0.0	1/11.1
I use a citation style manual	2/14.3	0/0.0	13/20.6	0/0.0	1/14.3	1/11.1
I use an online site (e.g., Purdue OWL)	2/14.3	12/50.0	15/23.8	3/50.0	1/14.3	0/0.0
I do not seek help	3/21.4	1/4.1	3/4.8	0/0.0	0/0.0	2/22.2
I cannot answer	2/14.3	3/12.5	1/1.6	0/0.0	1/14.3	1/11.1
Did not answer	0/0.0	0/0.0	3/4.8	0/0.0	2/28.6	0/0.0
I use a citation style manual & I use an online site (e.g., Purdue OWL)	0/0.0	0/0.0	0/0.0	0/0.0	1/14.3	0/0.0
Other	1/7.1	1/4.1	4/6.3	0/0.0	0/0.0	2/22.2
N/A	2/14.3	0/0.0	0/0.0	1/16.7	0/0.0	0/0

RQ 6. How do citation management help- seeking practices of English as Second Language (ESL) students compare with students whose English is the primary language?

The study participants who speak English as a foreign language, as well as the native speakers of English, recorded their reference management assistance obtaining habits using the research project questionnaire. ESL study subjects were more likely to seek assistance from a friend for reference management related matters compared to native speakers of English. Consulting a citation style manual for citation purposes was more popular with non-ESL participants. Four

(7.7%) ESL and close to 7% (n=5) of non-ESL respondents reported not obtaining any reference management assistance for academic purposes. Six (8.3%) participants whose English was the primary language and approximately 4% (n=2) ESL subjects did not answer this question. Table 10 illustrates the aforementioned data in detail.

Table 10
Citation Management Help Seeking Practice by User Type (ESL and Non-ESL)

Ways to Seek Citation Management Help	Number of ESL and Non-ESL Participants/Percentage	
	ESL	Non-ESL
I ask a reference librarian at my college library	13/25.0%	14/19.4%
My friends help me	7/13.5%	7/9.7%
I use a citation style manual	7/13.5%	10/13.9%
I use an online site (e.g., Purdue OWL)	11/21.2%	21/29.2%
I do not seek help	4/7.7%	5/6.9%
I cannot answer	2/3.8%	6/8.3%
Did not answer	3/5.8%	2/2.8%
I use a citation style manual & I use an online site (e.g., Purdue OWL)	0/0.0	1/1.4%
Other	4/7.6%	4/5.5%
N/A	1/1.9%	2/2.8%

RQ 7. Are there any statistical associations between variables (institution, academic level, undergraduate class level, demographic factor, field of study, and user type [ESL vs non-ESL]) and the way to seek citation help?

Fisher-Freeman-Halton (Fisher's exact) test was performed to determine statistical relationships between variables (institution, academic level, undergraduate class level, demographic factor, field of study, and user type [ESL and non-ESL]) and the ways subjects obtain citation assistance. The Fisher's exact test reveals significant associations between variables (institution [$p=.059$], academic level [$p=.010$], race/ethnicity [$p=.0$], and field of study [$p=.0$]) and the ways subjects seek citation help. Some factors (gender [$p=.111$], age [$p=.636$], and user type [$p=.901$]) did not have significant relationships with the ways subjects obtain citation assistance. The relationship between undergraduate class level and ways of seeking citation help could not be assessed due to unavailability of a p-value.

Discussion & Limitations

The goal of this research article was to examine reference management help-seeking behaviors among students enrolled at two community colleges located in New York City. The results provide four key insights about these respondents' citation help-seeking habits. First, the data indicate the influence of variables such as academic level, undergraduate class level, and academic major on respondents' citation assistance-seeking practices. This can be explained by the unique research needs of patrons pursuing different courses of study at various academic levels. For instance, the first author has worked with senior undergraduate nursing students asking questions about the American Psychological Association (APA) style in-text citation rules because they were required to by their instructors to consult a librarian for their research projects. Second, findings demonstrate a plurality of participants used websites such as Purdue OWL for their reference management needs. This is unsurprising given many professors encourage their students to use Purdue's website. Third, utilizing a citation style manual and obtaining help for from a reference librarian appealed to surveyed students. This trend can be understood by the

fact that many instructors require students to use style manuals and encourage students to consult a librarian for citation-related questions. Finally, the data also illustrate that 7.3% (n=9) of the respondents did not seek assistance concerning citation needs. One may conclude from this finding that students are educated about reference management resources in their information literacy classes. This first author sensed this was the case while working with community college transfer students.

The results of this research build upon the work of Terrible (2021), Johnson (2020), and Latham, et, al. (2022) by coming to a better understanding of the citation resources two-year college students utilize, as well as investigating statistical associations between a number of variables, including students' academic level, undergraduate class level, field of study, and ways of seeking citation assistance.

Some limitations of this research must be acknowledged. First, both campuses where the survey was conducted have a significant number of ESL students and it is possible some participants may not have correctly understood some survey questions. Second, the investigators did not include students enrolled in online programs for this study and therefore results may not be applicable to this subset of pupils. Third, the data of this article based upon a project that used convenience sampling and had a small sample size. This limits the generalizability of the findings to other colleges and universities. Fourth, the CUNY institutions where the survey was conducted enroll a significant number of immigrant, low-income, first generation college, undocumented, and minority students. Thus, the findings may not be extended to institutions whose student bodies are less diverse.

|Conclusion, Implications, and Recommendations for Further Research

This research is the first of which authors are aware that has investigated community college students' citation management help-seeking practices. The statistical analysis indicates significant relationships between various factors, including academic level and field of study, and ways of seeking citation assistance. The data also reveal popularity of websites such as Purdue University's Online Writing Lab (OWL) as well as students' friends as resource for citation help.

The current paper's findings have some implications for community college libraries or academic libraries serving transfer students from two-year institutions. First, libraries should consider offering reference management workshops to students majoring in a wide variety of subjects at different academic levels. This can be very useful for students taking upper-level research courses in a variety of course studies. Libraries may also need to promote open source websites (e.g., OWL) during information literacy classes and reference consultations to reduce users' reliance on only their friends for help concerning their citation needs. Librarians should consider creating brief tutorial videos on citation styles and distributing them with various disciplines so recordings can be posted to a course's content management system (i.e., Blackboard; Canvas). As a result, when students access their course materials, they might use the video tutorials with ease.

The analyzed data present opportunities to undertake further investigation on citation management and community college students. It would be interesting to determine how the findings of this research compare with others that use a more representative sample and collect

data electronically. It would also be fruitful to explore the citation management- help seeking practices of international students as compared to domestic U.S. students. Future research can also examine the impact of variables such as enrollment in both research-based and non-research-based classes on users' citation help-seeking behaviors. The researchers hope data presented in this paper help libraries gain insight about associate degree -level students' information seeking behavior related to reference management.

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Appendix

Questionnaire: Reference Management Software Use & Awareness

1. Which college do you attend? Please select ONE of the following:

- a. Queensborough Community College
 - b. Hostos Community College
 - c. Another CUNY college _____
 - d. Other college _____
 - e. I do not attend a college
2. What is your academic level? **Please select ONE** of the following:
- a. Undergraduate student
 - b. Continuing Education student
 - c. Alumni
 - e. Other (Please specify)
-
3. If you are an undergraduate student, **please select ONE** of the following. Otherwise skip this question.
- a. Freshman
 - b. Sophomore
 - c. Junior
 - d. Senior
4. What is your gender? **Please select ONE.**
- a. Male
 - b. Female
 - c. Transgender
5. Approximately, what is your age? **Please select ONE.**
- a. Under 24
 - b. 24–34
 - c. 35–44
 - d. 45–54
 - e. 55–64
 - f. 65 and up
6. How do you identify yourself? **Please select ONE.**
- a. White
 - b. Black
 - c. Hispanic
 - d. American Indian or Alaska Native
 - e. Asian
 - f. Arab/Middle Eastern
 - g. Native Hawaiian or other Pacific Islander
 - h. Multiracial
 - i. Other (Please specify) _____

7. What is your **major OR intended major OR in what subject area do you hope to obtain a degree or have a degree?** Please indicate:
-

8. **Reference management software (RMS)** helps people to **organize, save, and share their articles, books, and other citations**. **RMS** also allows people to **create bibliographies** and **insert citations** into an assignment.

Are you aware of RMS?

- a. Yes
 - b. No
9. Do you use **reference management software (RMS)** for your citation needs?
- a. Yes
 - b. No

If yes, please circle one: RefWorks, EndNote, Mendeley, Zotero, EasyBib, RefME, Citation Machine, Citavi, Bib Tex, CiteUlike, Papers, None, Other (please specify)

10. If you do not use **reference management software (RMS)**, then where do you find help for your citation related issues?

- a. I ask a reference librarian at my college library
 - b. My friends help me
 - c. I use a citation style manual
 - d. I use an online site (e.g., Purdue OWL)
 - e. I do not seek help
 - f. I cannot answer
11. Are you interested in attending a library workshop that will educate you about **reference management software (RMS)**?
- a. Yes
 - b. No
 - c. Do not know

12. Is English your second language?

- a. Yes
- b. No

13. Any other comments and/or suggestions: