

Phenomena of Cultural Intelligence in Pennsylvania Libraries

A Research Study

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This article describes a mixed methods research study of current Pennsylvania librarians to understand the phenomena of cultural intelligence within Pennsylvania libraries. The researcher surveyed Pennsylvania Library Association membership in September 2019. Survey participants took a cultural intelligence assessment, responded to qualitative questions, and addressed demographic questions. Overall, participants had varying levels of cultural intelligence, felt that cultural intelligence was important to their organizations and found value in its application. The results can inform library professionals and human resources about the importance of incorporation of cultural intelligence within everyday practices and communication with staff within libraries. Developing cultural intelligence through training and other activities will also impact the communities in which we serve. Best practices with cultural intelligence should be recorded and shared with other Pennsylvania libraries.

Introduction

Our libraries are global. Our communities are global. Our stakeholders are global. We live in a world where at any given time a cultural interaction can take place (in-person, on the phone, online, etc.). Even if we feel that our library is not currently representative of diversity in all realms of the diversity perspective, we need to be prepared for culturally diverse interactions because we all have differences. Customer demands and technology have changed the way in which we do our jobs. We are faced with the challenge of adapting our skills in an environment where cultural competence is not voluntary, but required. Research on cultural intelligence (CQ) specifically in libraries is minimal; however, there has been much discussion on topics of diversity, cultural competence, and cultural humility within the field where cultural intelligence is often included.

The intent of this concurrent research study is to explore cultural intelligence of librarians currently working within Pennsylvania libraries. The motivation behind this study was initially spurred over ten years ago when the researcher first learned about cultural intelligence in a doctoral course. The researcher was attracted to cultural

intelligence because of its broad application across all cultural contexts. As a former public and special librarian, the researcher had always wondered why some colleagues could successfully work with and adapt to different cultures while others had a difficult time. The researcher was interested in exploring Pennsylvania libraries because of their own personal connection to the state. Cultural intelligence is defined as “a person’s capability for successful adaptation to new cultural settings” (Earley & Ang, 2003, p. 9). The aim of cultural intelligence is to understand why some individuals are more comfortable in new cultural settings than others. This includes any type of cultural setting that may include differences of racial, gender, national, organizational aspects, etc. In a globalized world where our libraries hire diverse employees and serve diverse individuals and communities from varying cultural backgrounds, it makes sense that we should examine this term further. CQ has often been labeled differently across the literature such as cultural competency, cultural sensitivity, and cultural awareness.

The study includes both qualitative and quantitative statements and was designed to gain deeper insight into the topic of cultural intelligence among participating librarians. Combining both quantitative and qualitative data enabled the researcher to better understand the research problem by examining broader trends and detail of the research. In the study, the cultural intelligence assessment was used to measure the cultural intelligence of participating librarians. At the same time, cultural intelligence was explored using open-ended questions with the survey participants. The specific research questions were:

1. What is the overall CQ level of participants?
2. What variations exist among the four factors of cultural intelligence within the participants?
3. What are the viewpoints of these participants about the importance of cultural intelligence within their organizations?
4. What are the viewpoints of these participants about the value of cultural intelligence to their organizations?

Cultural intelligence according to Livermore (2016) focuses on the skills needed “to work effectively in situations characterized by cultural diversity” (p. 230). Understanding the phenomena of cultural intelligence in libraries can help to reveal why certain cultural interactions are more successful than others and can help libraries and their stakeholders determine strategies for integrating cultural intelligence practices into their daily work. According to Ang et al. (2007), cultural intelligence “has implications for selecting, training, and developing a culturally intelligent workforce” (p. 365).

We should be concerned with how to appreciate difference and welcome all into the library. While we know that our libraries are not very diverse by ethnicity or gender, as evidenced by statistical data from the American Library Association (2017), we serve very diverse communities. According to the latest U.S. Census Bureau data estimates (2019), Pennsylvania represents a wide range of diversity (diversity as discussed below expands beyond race, ethnicity and gender):

- 20.7% of persons are under the age of 18 years
- 12% are Black or African American
- 7.6% are Hispanic or Latino
- 6.8% are foreign born persons (from 2014-2018)
- 69% live in owner-occupied housing (from 2014-2018)
- 90.2% are a high school graduate or higher (from 2014-2018)
- 9.8% with a disability under age 65 years (from 2014-2018)
- 12.2% persons in poverty

Cultural intelligence is a form of intelligence that helps us to function effectively in any cultural context (national, organizational, generational, ethnic, etc.) we may face with colleagues and patrons. CQ is based on understanding the skills, behaviors and value orientations of different cultures. We interact daily with individuals from all walks of life, offering the opportunity for us to improve our own cultural intelligence.

Literature Review

Diversity, Cultural Competence & Cultural Intelligence in Libraries

Many of us were first attracted to diversity in libraries because of our belief in the commitment to change. Diversity, equity, and inclusion (DEI) are central values of the library profession. Far too often, however, libraries set the commitment to diversity as a goal but are not willing to invest in real resources to accomplish diverse change. Often, administrators are indifferent to supporting diversity initiatives. Diversity comprises a variety of characteristics representing differences and similarities including aspects of visible diversity, invisible diversity, and underrepresented groups. According to Loden (1996), elements of diversity include age, gender, abilities, race, ethnic heritage, sexual orientation, geographic location, work experience, family status, socioeconomic status, religion, education, and organizational role, for example (p. 16). The American Library Association, Association of College & Research Libraries, Association of Research Libraries, Society of American Archivists, and other associations have expressed their commitment to diversity as key actions, in standards, and within initiatives.

One area that is well noted within the literature is that of recruitment and retention of a diverse library workforce. Neely (1999) outlined diversity initiatives and programs nationally including the ALA Spectrum Initiative. While updated American Library Association (2012) statistics continue to evidence how our profession lacks race and gender diversity, we need to continue to serve our diverse communities, consider all elements of diversity, and offer initiatives to recruit and retain diverse library workers. According to Cullen (2014), "Increased diversity requires 'cultural intelligence characterized by tolerance, empathy and a co-operativeness to appreciate differences among followers and collaborators,' besides also empowering and developing minorities' leadership in their organisations" (p. 325).

Many libraries have taken steps to build inclusive excellence, fostering diversity and inclusiveness in areas such as programming, collection representation, and by assessing climates. For example, Pennsylvania State University Libraries have developed initiatives over the years that have involved a broader approach to improve their climate. One example is a workshop to enable employees to discuss diversity-related topics as adapted from Speak Up!, a program from the Southern Poverty Law Center (Knapp, Snively, & Klimczyk, 2012).

More recently in 2019, Penn Libraries launched a new initiative "Diversity in the Stacks," to ensure that collections are representative of their students' backgrounds. This is not a new trend, as many libraries across the nation have made efforts to ensure their collections are more representative and offer programs to celebrate diversity. For example, in 2017, San Francisco Public Library launched a new series of city-wide programs, "We Love Diverse Books" to showcase the representation that is available within the libraries' collections. In 2018, they received the Gale/Library Journal Library of the Year for being an inspiration for public libraries due to their approach and directions to reach all of their city's diverse population (Berry, 2018).

Many libraries have assessed their own climates and cultures throughout the years by using assessment instruments. In 1995, Pennsylvania State University Libraries developed a climate assessment that was later modified by other libraries (Day & Cross, 1999). In 1999, the University of Maryland Libraries and UM Industrial and Organizational Psychology developed an assessment with an emphasis on diversity, now known as ClimateQUAL+ (Kyriallidou & Baughman, 2009). These are only a few examples of diversity initiatives within libraries over the years.

The research on diversity and cultural competence in general is vast within the field of librarianship, with cultural intelligence more recently showing up in the scholarship (Cooke, 2017; Overall, 2009; Villagran, 2016, 2020; Wang & Su, 2006). Cultural competence definitions and frameworks have their foundation in many disciplines including social work, health sciences, psychology, law enforcement, and education. Cross et al. (1989) is notably known for a framework rooted in health sciences which considers cultural competence as a five-level process. One of the first articles on cultural competence present in library and information science literature was that of Nuri-Robins in 1994. According to Engseth (2018), Nuri-Robins examines cultural competence in context of organizational development placing the responsibility of diversity work on the majority (p. 463-464).

Smith (2008) addressed the importance of cross-cultural communication and cultural competencies as necessary skills of librarians. Overall (2009) suggested a cultural competence framework for the library and information science profession based on Cross' et al. work. Their definition focuses on recognizing the importance of culture in one's own life and others'; to gain knowledge of diverse cultures; to bridge gaps in services; to understand socioeconomic and political aspects; and to implement institutional policies that are favorable to diverse populations (Montiel-Overall, Nunez, & Reyes-Escudero, 2016). Cooke (2017) adapted Cross' et al. framework to include cultural humility which "requires practitioners to examine and identify the underlying issues that produce and exacerbate instances of inequality in the diverse communities we serve" (p. 18). Cultural competence continues to be discussed in LIS literature frequently when it comes to ethnic or racial groups, management, and leadership (Engseth, 2018). Additionally, many LIS faculties within LIS programs have expanded the work of Overall through suggestions and development of courses focusing on cultural competence in information professionals, race, and social justice (Cooke & Sweeney, 2017; Pawley, 2006; Villagran & Hawamdeh, 2020).

Panigabutra-Roberts (2013) explained that cultural competence is more about the 'what' or attributes of knowledge in cross-cultural situations while cultural intelligence is more about the process and the 'how' to acquire and utilize the knowledge (p. 131). She suggests that both are complementary to each other. In 2006, Wang and Su found that there were "no discussions nor application of CQ yet in library leadership development" even though CQ was identified as, "one of the most important leadership attributes" (para. 1). Farideh, Zekrollah, and Maryam (2013) studied the relationship between cultural intelligence and knowledge management in public libraries in Khuzestan, finding a positive correlation and concluding that cultural intelligence can be strengthened in organizations in order to improve interpersonal relationships. Villagran (2016) explored cultural intelligence within legal settings and found that law librarians have to extensively deal with cultural changes and adapt to unfamiliar environments particularly when faced with constant volatility. If we think of culture, we often consider aspects behind human behavior: our sense of belonging, our biases, our identities, our values, sense of self, language, norms. Each of these are integral to cultural intelligence and what makes us unique. Hofstede (1980) defined culture as shared mental programs that condition individuals' responses to their environment. Thomas and Inkson (2003) identified the following basic characteristics that apply to any culture:

- Culture is shared;
- Culture is learned and enduring;
- Culture is a powerful influence on behavior;
- Culture is systematic and organized;
- Culture is largely invisible; and
- Culture may be "tight" or "loose."

Culture is observed in our everyday interactions. It is deeply embedded within us. People, however, often go straight to the differences that we have rather than similarities, and this is where the use of cultural intelligence can help.

Cultural Intelligence

Cultural intelligence is a term that has been discussed in the literature when it comes to training, leadership, organizational behavior, and negotiations (Alon & Higgins, 2005; Bhawuk & Brislin, 2000; Livermore, 2010; Thomas & Inkson, 2003, 2009; Triandis, 1994). Cultural intelligence was originally defined in 2003 as a person's capability to function effectively in a new and unfamiliar environment (Ang et al., 2007; Earley & Ang, 2003). Research reveals that individuals that exhibit high cultural intelligence have exceptional cross-cultural adjustment, improved job performance, and increased personal well-being (Livermore, 2011). Studies have shown that the culturally intelligent—individuals who effectively accomplish their objectives regardless of the cultural context—have strengths in four key capabilities. This is the model of the Cultural Intelligence Center and the one that informs this research (see Figure 1). Cultural intelligence is a form of intelligence that can be improved upon and a valid measure of intercultural capabilities.

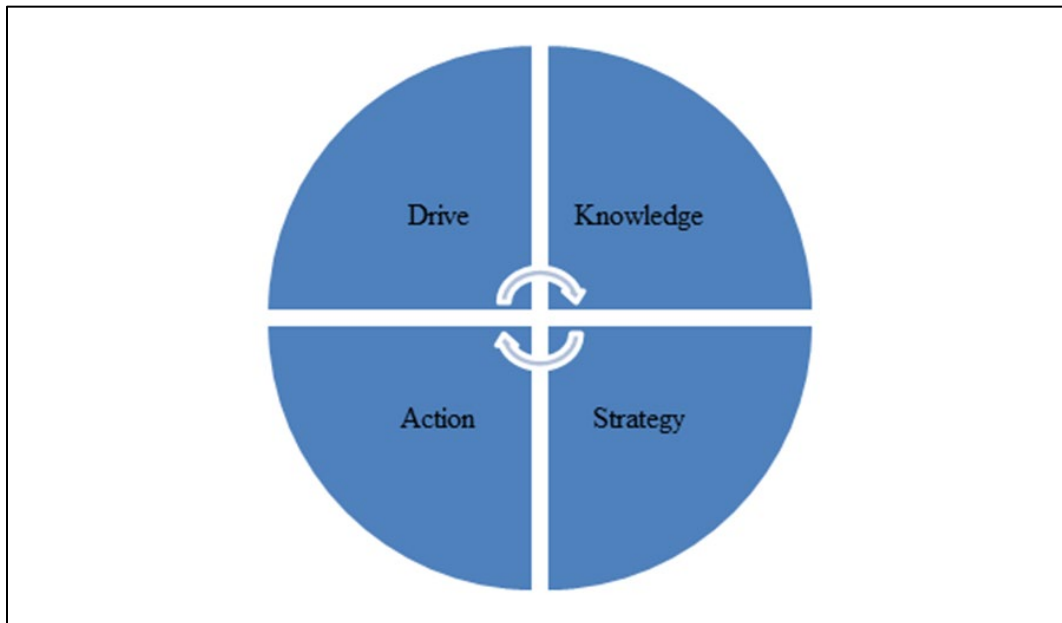


Figure 1
Cultural Intelligence Model

The four capabilities of cultural intelligence are CQ Drive, CQ Knowledge, CQ Strategy, and CQ Action. They can also be thought of as four steps to developing cultural intelligence. CQ Drive focuses on our interest and confidence to adapt to cultural contexts. How willing are you to work with diverse cultures? Those with Drive understand the potential that being a part of a diverse team holds and can perceive the usefulness of diversity (Livermore, 2016). One of the most challenging things to do when faced with a cultural challenge is to persist ahead. According to Earley, Ang, and Tan (2006), “cultural intelligence means that a person is energetic and willing to persevere in the face of difficulty and possible failure” (p. 28). We often assume that individuals are motivated to become culturally intelligent. This, however, is often not the case as we often approach diversity and diversity training with no interest. CQ Drive includes our internal motivation, external benefits gained from a diverse situation, and our own confidence to be effective.

CQ Knowledge is about the understanding of variation and likeness of cultures. Within a team, one values other members because they understand those similarities or differences. Earley, Ang, and Tan (2006) express that, “cultural values play the most direct roles in a person's self-enhancement motive because they provide the benchmark

for judging what happens around you and how you feel about yourself” (p. 66). Understanding cultural systems, values, and norms of different cultures is important here because in order to be effective library leaders, we need to understand how these may differ and impact our workplace (Livermore, 2016).

Communication styles, role expectations, and even the language patterns we have may be different. Each of these can lead to conflict in the workplace. It is important to realize how culture influences our effectiveness in the workplace. For example, being a library director for a smaller library system may look different than being a library dean for a multicultural university. “Specialized, domain-specific cultural knowledge, combined with a macro understanding of cultural issues, is a crucial part of leading with cultural intelligence,” according to Livermore (2016, p. 242).

CQ Strategy is how one plans for and is conscious of multicultural situations. One can see how differences may impact another. They are sensible to planning for engagements with diverse individuals. While we cannot predict who our employers, employees, directors, or customers will be, we can gain skills to help us be prepared for intercultural experiences. Examining our own behaviors and norms is a great starting place to help guide responses and identify possible areas of conflict with a colleague (Menzies, 2016).

CQ Action is the behavior that we put into place as needed when we work with each other. The culturally intelligent understand that adapting may or may not be necessary. Rogers (2008) suggests engaging in CQ Talk strategies to help us consider our verbal and non-verbal actions. Strategies include:

- Inquiry/checking. Learn more about the other person or assess your own interpretations.
- Self-revelation. Offering information to the other person to communicate uncertainties.
- Correction/alternative. Suggest an alternative approach or rephrase.
- Building. Use collaborative dialogue to help develop the communication.

“CQ not only requires that you know how and what to do and have the energy to persevere and keep trying; it also requires that you have in your toolbox of actions the specific ones needed for a given encounter,” (Earley, Ang, & Tan, 2006, p. 33). That being said, one has to not only understand but be able to execute actions as needed with confidence and ease. Because we live and work in environments that are becoming more diverse by various means, improving our behavioral CQ is critical. Understanding yourself, speaking slowly in verbal communications, and observing body language are strategies that can help improve one’s CQ Action (Earley, Ang, & Tan, 2006).

Methodology

Pennsylvania librarians were invited to participate in a survey in September 2019 on cultural intelligence if they currently worked in a Pennsylvania library through an announcement to the College and Research Division (CRD) of the Pennsylvania Library Association and to the entire membership via PAMAILALL, PAPLDIRECTOR and PAPUBLIB. PAMAILALL is a discussion list that focuses on issues related to all library types in PA. Membership in the PAMAILALL mailing list is limited to anyone associated with any type of library within the Commonwealth of Pennsylvania. PAPLDIRECTOR is a Pennsylvania Public Library Directors list and PAPUBLIB is a discussion list focused on issues related to public libraries in Pennsylvania. The survey was sent to these four distribution lists to cast a wide net for responses in the state of Pennsylvania. The survey was open from September 4 - 27 with a reminder sent a week before closure. Select results from the survey were used to inform the Pennsylvania Library Association College & Research Division luncheon keynote presentation, “*Academic Libraries: How Cultural Intelligence Makes a Difference*” at the 2019 Pennsylvania Library Association annual conference.

Data

Qualitative and quantitative data was collected in September 2019 from Pennsylvania Library Association membership via a survey. Of 166 initial respondents, 40 provided complete responses with 32.5% of responses from those currently working in academic libraries in Pennsylvania, and 57.5% from those currently working in public libraries in Pennsylvania. The survey data was collected by use of Qualtrics survey software. The survey qualitative results were uploaded into NVivo, a qualitative coding software, and the quantitative results were uploaded into Microsoft Excel for review and also reviewed through Qualtrics. The qualitative results were coded for themes and statements examined. Frequency distribution, tables and charts were developed to represent the quantitative data. The data was reviewed four times to ensure accurate coding and examination.

Design

The design process included development of specific research questions, application of a specific cultural intelligence lens/framework, the data collection via survey, data analysis via Qualtrics, Excel and NVivo, and the write-up. This involved collecting and analyzing two forms of data within a single study design concurrently. With concurrent strategy, the researcher integrated the information within the overall results. The qualitative open-ended questions were included as being nested within the cultural intelligence assessment in order to analyze different questions.

A survey design was explicitly used as the preferred data collection procedure because of the easy design abilities with the incorporation of cultural intelligence assessment and the quick turnaround in data collection. The Cultural Intelligence Scale (CQS) is an instrument that measures an individuals' cultural intelligence level. The CQS measures four primary factors which represent distinct CQ capabilities: CQ Drive, CQ Knowledge, CQ Strategy, and CQ Action. The CQS was developed to test and validate Earley and Ang's (2003) conceptualization of cultural intelligence, which is based upon Sternberg's multiple loci of intelligences. Sternberg and Detterman (1986) developed a framework around multiple loci of intelligence and later examined whether culture played a role on intelligence (Sternberg & Grigorenko, 2006). The scale development and validation followed rigorous construct development procedures, involving multiple development samples and multiple cross-validation samples.

As an existing validated instrument, the scale was replicated for online use within the survey. The 20-item four factor self-report CQS measures elements of motivation, cognition, metacognition, and behavior which align with the CQ model. A 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree) was used for the statements to each factor. Descriptive statistics and frequency distributions were used to analyze CQS data; item analysis conducted within each of the four factors for level of agreement. Five demographic questions and six qualitative open-ended questions were embedded within the online survey.

Limitations of Study

The survey is a limitation to the generalizability of the study. PAMAILALL is an Internet discussion forum specific to Pennsylvania, and as such, the results of the study may not be generalized to the United States as a whole. Additionally, it was also sent to the College & Research Division, which is the smallest division in the association, and to PAPLDIRECTOR and PAPUBLIB, which focus on public libraries. Even within the context of Pennsylvania, there is no guarantee that the results are representative of all Pennsylvania libraries, since it cannot be assumed that the librarians that chose to participate in the survey are representative of all librarians in Pennsylvania. The study was also voluntary and based on self-selection. Examining all members of state library associations, public librarians, or academic librarians as a whole across the United States may offer different responses. There may also be differences

in responses between library directors/deans and library staff. Some findings discussed organizational aspects, however this study measured the CQ of librarians within these organizations, and not the CQ of the organization.

Demographics Findings

The study participants had a wide range of demographic backgrounds representing a variety of differences and similarities. Of the 40 complete responses received, 90% (n=36) reported no minority status, while 10% (n=4) reported multi-racial or other. This is consistent with the racial composition of Pennsylvania, according to the most recent Census data. As reported by the U.S. Census Bureau in 2019, the racial composition of Pennsylvania was 81.8% white alone, 12% black or African American alone, 0.4% American Indian and Alaska Native alone, 3.7% Asian alone, 0.1% Native Hawaiian and other Pacific Islander alone. Two or more races was 2.1%.

As Figure 2 indicates, the level of education varied among respondents. Eighty-five percent of participants held a Master's Degree (n=34), 7.5% held a 4-year college degree (n=3), and only 2.5% held either some college, doctoral degree or professional degree (JD, MD) (n=1).

Figure 3 shows that fifty percent of respondents (n=20) had 20+ years of experience working in libraries. Fifteen percent had less than 5 years of experience (n=6) and 5-9 years of experience (n=6). Twelve and a half percent had from 15-19 years of experience (n=5) and only 3 had 10-14 years of experience (7.5%).

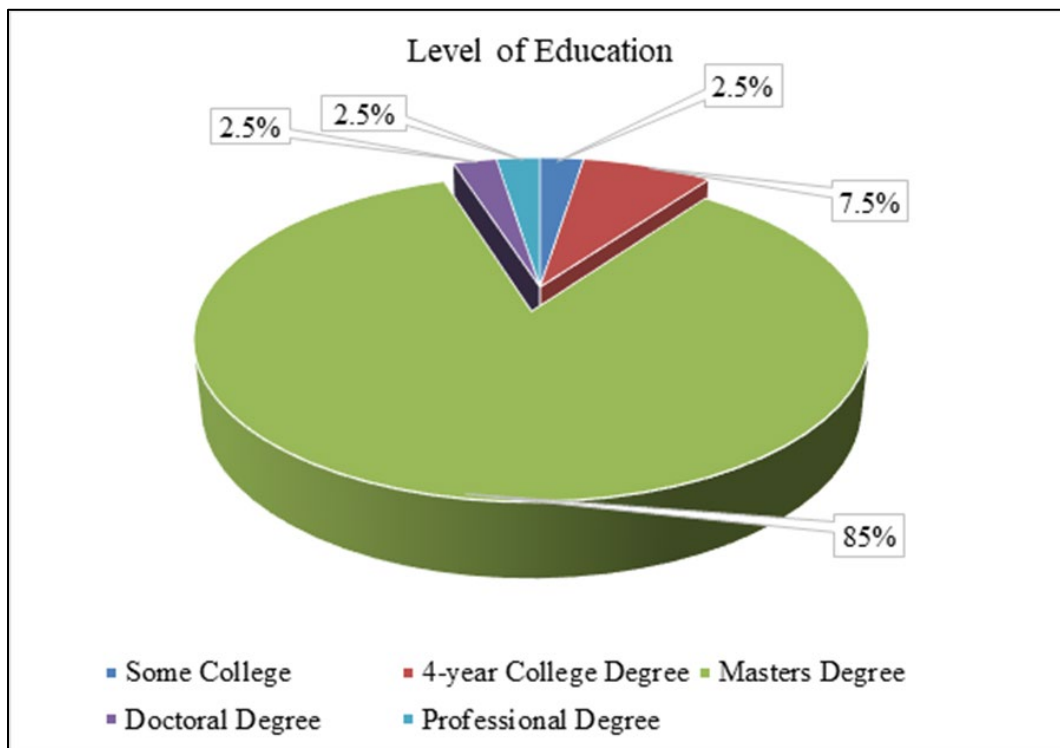


Figure 2
Frequency Distribution of Level of Education (N=40)

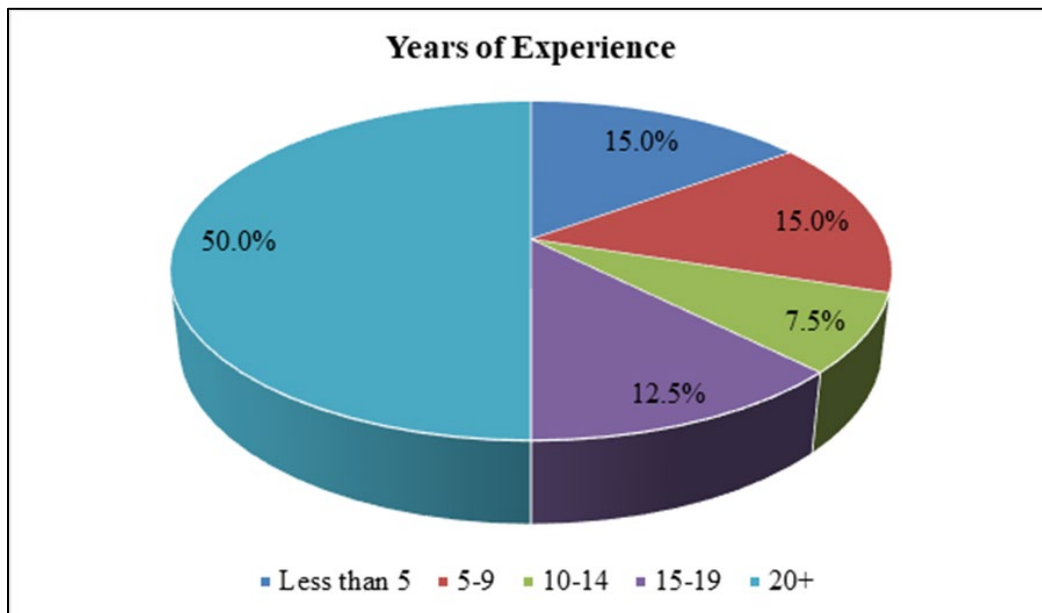


Figure 3
Frequency Distribution of Years of Experience (N=40)

Figure 4 shows that four different library types were represented within the survey. 57.5% were currently working in a public library (n=23), 32.5% were working in an academic library (n=13), 5% were working in other (n=2), and 2.5% in either a school or vendor/publisher (n=1). For those working in an academic library, respondents reported working in a 4-year private institution, 4-year master's granting institution, community college, tier 1/R1 institution, university library and health sciences. The other included special and retired.

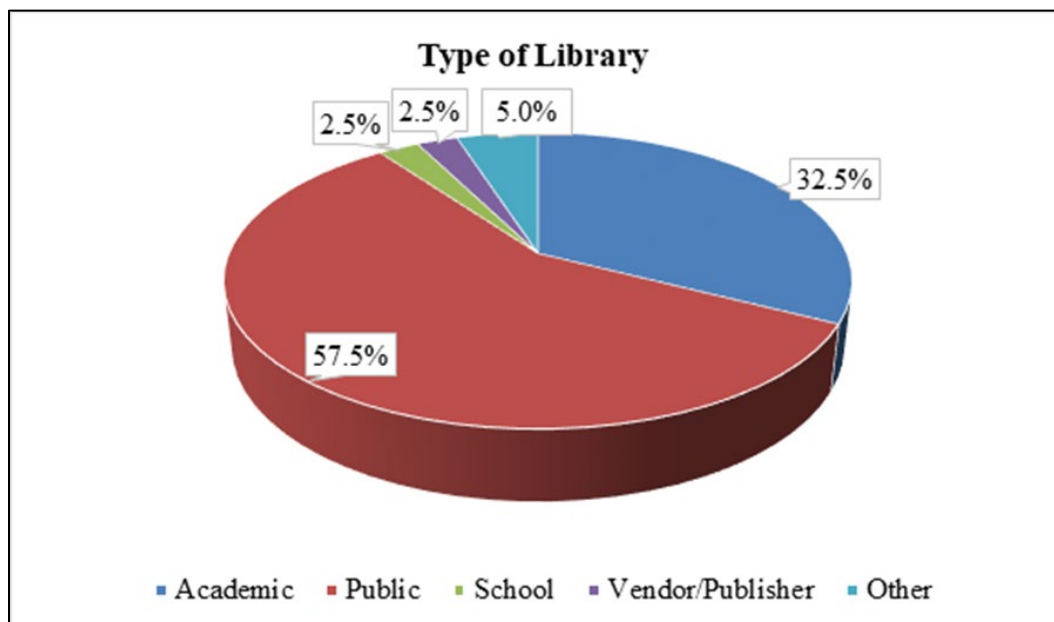


Figure 4
Frequency Distribution of Type of Library Currently Worked In (N=40)

Current job title responses varied: 52.5% (n=21) included the word “library” or “librarian.” Overall, there were 24 different job titles in use among the subjects. Job titles are listed below in Table 1 in alphabetical order.

Table 1
Current Job Title Frequency Distribution (N=40)

Current Job Title	Frequency
Adult Programming and Marketing Manager	1
Assessment Librarian	1
Assistant Director	1
Associate Professor	2
Business Librarian	1
Cataloging and Metadata Librarian	1
Cataloging Services Manager	1
Children’s Librarian	1
Department Head	1
Director	6
Director of Youth Services	1
District Consultant Librarian	1
Executive Director	5
Head of Circulation	1
Health Sciences Librarian	1
Information Services and Interlibrary Loan Librarian	1
Librarian	2

Library Acquisitions & Outreach Specialist	1
Library Director	6*
Library Manager	1
Library Technician	1
Reference Librarian	1
Science Librarian	1
Secondary Teacher Librarian	1

**One respondent indicated Library Director in Training.*

Qualitative Findings

Six qualitative open-ended questions allowed for respondents to provide additional information about cultural intelligence. Questions 2-5 were included to collect additional data on the four factors beyond that of the CQS.

1. What do you believe is the value of cultural intelligence to your library?
2. Do you have the motivation to work through challenges that come with cross-cultural situations you encounter in your library?
3. Do you have the cultural understanding needed to be effective culturally within your library?
4. Share an example of a time when you were aware of a multicultural situation in your library that you managed effectively.
5. Share an experience in which you modified your actions to adapt to different cultural norms within your library.
6. How important is cultural intelligence in your current role?

Between 39-47 participants provided responses to the qualitative questions. The findings were examined and ten main themes emerged: 'internal stakeholders' (staff, employees), 'external stakeholders' (students, patrons, public, and community), 'situations/environment,' 'change,' 'value,' 'motivation,' 'knowledge,' 'strategy,' 'behavior,' and 'importance.' Overall, there are 294 single coded text passages thus far from the 47 subjects linked to specific themes. There are 153 coded terms which resulted in several passages being coded to more than one subtheme or theme. For example, 'staff member' and 'support staff' being coded to the main theme of 'internal stakeholders.' There is also present overlap of main themes where passages have been coded to more than one theme making the coded text passages almost double the amount of the single coded text passages.

Internal Stakeholders

"Internal Stakeholders: was noted as a main theme, however there was overlap with "behavior" as many of the examples from subjects focused on the behavioral piece. One comment which speaks to the internal stakeholders being able to adapt with working with diverse cultures was:

Librarians and library staff that have a solid sense of their own ability to produce an intended result or the ability to familiarize and/or understand another culture regardless of the environment they are in are valuable because they are adaptable and open to working with a variety of patrons, faculty or staff members and situations.

Another example illustrates staff being open and learning about other cultures in order to make sure they develop programs and have services for those cultures:

I and other staff members are open to helping any patron using the library; we want to be the community's library no matter the cultural make-up of the community; we also try to find out about each culture represented in our library, and make sure we have items and programming available for them as well.

One passage considers taking action for others if a bias or inappropriate action has occurred: "I also step in for any difficulty, such as a staff member being accused of racist behavior or board members not understanding LGBTQ safe places, etc. Sometimes we speak for those who can't speak for themselves." This is an excellent illustration of how a subject takes care in taking action even when others cannot themselves. Another respondent mentions how important CQ is to incorporating in instruction, "I am an information services librarian, so it is very crucial for me to incorporate cultural intelligence into my instruction."

External Stakeholders

Several passages were coded to this main theme, and there was overlap with another main theme of "environment." The subtheme "cultural understanding" also was exhibited through passages coded for this theme. "External Stakeholders" is described as students, patrons, public, or the community. "International students" was coded six times with respondents speaking about their populations on campus. Two subjects spoke about how diverse their organization is and how they offer various programs to help others learn about different cultures: "I do work on a very culturally diverse campus (about 15% international students), and many programs exist to help everyone learn about other cultures." Further:

We have worked with different offices and programs on campus, including international student support services and a multicultural program to offer additional and tailored instruction, and provide direct services to student groups so they understand the resources available to them and know how to get help.

Another commented, "Due to our high population of international students - we are always aware of the multicultural situations of libraries around the globe." This is great because it shows not only the awareness, but that this specific group is helping us to learn about multicultural situations outside the United States. One respondent commented on how behaviors are adjusted when working with international students, which is utilization of CQ Action: "When I work with international students I often modify my actions and jargon to better suit the needs and understandings of our students."

With public patrons, there were many comments regarding supporting and helping diverse populations, and how important the public is to the mission of a public library. For example, one respondent mentioned, "...meeting patrons' needs from extreme ends of the age spectrum and/or economic scale, or educational level, with the examples happening on a daily basis as I interact with patrons from all of these categories." One library offers a Muslim patron who brings in his prayer rug while visiting the library a private, quiet place to pray per his request. Another indicated considering materials and resources for patrons: "The Library recently purchased updated materials on gender and sexuality studies in response to patron requests." Another respondent described adapting to patrons' needs: "We are publishing our activities and events online to adapt to patron preferences when it comes to information consumption."

Several comments emphasized the importance of the public library as a community and the reason for its existence. “A public library is a service organization for all members of a community.” Further, “Cultural intelligence is essential in a public library setting where we (librarians) are interacting every day with people from many different backgrounds, places, experiences and circumstances,” and “Our public library has been described as the ‘community living room,’ i.e., a welcoming gathering place for everyone.”

Environment

“Environment” includes passages where the environment is discussed as part of value and specific situations occurring within this environment. One respondent commented, “The value of cultural intelligence is the ability to be sensitive to differences in both the physical environment and in people.” Further, “It opens the library to new collaborations, experiences and helps to foster a welcoming environment for all.” One subject commented on the atmosphere of the environment, “In terms of a different environment, as a librarian, we walk into the same space every day, but the people walking in create a different environment.”

Several comments mentioned having a welcoming environment. For example, “I have awareness of the impact of cultural differences on interactions and I think that is a great first step toward effective interactions and creation of a welcoming environment.” This sums up nicely how cultural intelligence can impact your environment: “Many students/patrons are new to libraries, new to being college students, new to being library patrons, and library staff strive to provide an open, welcoming environment in which to navigate these unfamiliarities.”

Change

“Change” was a common theme that appeared throughout the passages. Comments ranged from environmental changes to individuals’ fear of change to how cultural intelligence can help to manage stress and organizational change. One subject commented, “The institution I am currently at is slow to change and many of the staff fear change, where as I previously worked in a field that required change often.” This clearly has an impact on internal and external environments. Another mentioned how change was a constant and the impact it has on being successful as a librarian:

Our campus environment can be in constant change, and the ability to take changes in stride and react positively to them is very important to being an effective librarian or for the community to view your library in a positive, inclusive light.

Another agreed, “Having the ability to adapt and function effectively in constantly changing situations is key to success.” Two subjects shared how cultural intelligence has an impact. “A person’s cultural intelligence will help them better deal with changes that take place in the library environment, whether it is organizational change or change in the demographics served.” Another stated, “It is useful not only for me, as an academic librarian, for navigating the frequent changes in my job and changes in types of students, but also in helping me to help students navigate their transition to college and college research.”

Value of Cultural Intelligence

Qualitative statement 1 asks, What do you believe is the value of cultural intelligence to your library? As the qualitative results showed, the majority of respondents found there is value in cultural intelligence. Gandhi built his life's work around two values: 1) to recognize the humanity of all people, and 2) to fight against injustice but to always do so in a way (non-violence) that protected everyone's human dignity. Similarly, with cultural intelligence, respondents felt that 1) all should feel welcomed and appreciated in the library, and 2) the welcoming environment should include the ability of librarians to be sensitive to differences. One respondent expressed, “We are constantly

working with people from different backgrounds. It's important to be able to be open to understanding others perspectives."

Respondents felt that providing an open, welcoming environment in which to navigate unfamiliarity is important to making people from many cultures feel welcomed and appreciated. Several librarians felt that there was value in showing the student communities that they actually understand cultural differences. Through this, students will feel comfortable to ask for assistance from the librarians and staff. Librarians also responded that they are better able to deal with changes that take place in the library environment when they use cultural intelligence. The value of cultural intelligence is, "the ability to be sensitive to differences in both the physical environment and in people," as one participant stated.

Motivation

This question was asked as part of the qualitative items to gain more insight into participant experiences: Do you have the motivation to work through challenges that come with cross-cultural situations you encounter in your library? Forty-four subjects responded to this question and the majority (92%) expressed that they do have motivation to work through challenges that come with cross-cultural situations encountered in their library. "I want to help my community members be successful, and it is a key part of my job to help them be successful. Therefore, it is important to work through any challenges." Another agreed, stating:

The cross-cultural challenges are how we grow and learn about different members of our community. I approach every situation as an opportunity to learn something about the other person and to share my own cultural background in relation to the situation at hand.

One admitted, however, that, "We have few, if any, real cross-cultural situations. That being said, I was raised in the generation that was taught to be color blind, so there are times when I am unaware of cultural differences, and that can be both good and bad." Another responded in context of patrons they serve: "Patience and reassurance is key to assisting the students across various cultural situations and again, to have a dominant presence within the library and beyond." The word cloud below (Figure 5) presents a visual representation of the terms that appear more frequently in the qualitative responses.

I feel that I have gained a reasonable amount of cultural understanding over the years through professional development opportunities and by working with individual families to understand their particular issues and needs. I also have had a varied staff over the years that have represented different cultures- helping me to grow in understanding and helping us to serve our patrons better.

Another respondent further said, "I am equipped to work within a diverse organization as I have learned from all of my colleagues." Another commented, "I have worked in many different types of libraries in different parts of the United States, so I feel comfortable in this situation." The word cloud below (see Figure 6) represents a visual representation of terms that were most prominent in the qualitative responses related to CQ Knowledge.



Figure 6
Word Cloud for CQ Knowledge

Strategy

This third question was asked as part of the qualitative items to gain more insight into participant experiences: Share an example of a time when you were aware of a multicultural situation in your library that you managed effectively. Forty-four subjects also responded to this question. Many of the examples related to either specific genders or ethnic populations. Gender and gender identity came up as a strong subtheme for this question when it came to language and use of pronouns. One subject said, "Working with pronouns effectively - we are changing the language of our policy manual to be gender non-specific, and will teach our staff about using the language effectively." Another example worth noting, as it specifically illustrates differing cultural value orientations (CQ Knowledge) along with adapting behaviors (CQ Action) by being observant (CQ Strategy):

I had a situation where I was interacting with a couple from a culture where the woman was not expected to speak or even look up. The man was asking a question for her. My first inclination was to speak to the woman directly but quickly realized this was not what she would want or be comfortable with. I directed my questions to the man and soon we had a pleasant conversation where the woman then joined in.

In another example, this helped the employees to learn about differing cultural value orientations and norms so that they could do their jobs better:

Another time we had a presentation about how students use libraries in other parts of the world. That was very enlightening to staff who now understand that when students ask for a book, they aren't asking to be waited on but behaving in the way they do at home.

Other examples included, "I worked with an older woman of color who was struggling with a research project and helped her to gain more confidence in her own ability," and "A man from China was trying to show his elderly parents how to use the computer; I assisted by showing how he could change the language in the browser." Below in Figure 7 is a word cloud of term prominence from qualitative responses to CQ Strategy.



Figure 7
Word Cloud for CQ Strategy

Behavior

This fourth question was asked as part of the qualitative items to gain more insight into participant experiences: Share an experience in which you modified your actions to adapt to different cultural norms within your library. For this item, there were forty-four responses and an abundance of great examples of modifying and adapting behaviors within the library workplace. One subject commented that when conducting instruction or reference, "I try

Importance of Cultural Intelligence

Research Question 4 asks, How important is cultural intelligence in your current role? The qualitative results revealed that the majority (over 98%) believed that cultural intelligence was important or extremely important. One subject shared, "Very! It should be to all libraries." The themes around importance focused on two key stakeholders: the staff/employee of the organization, and the patrons/customers/students that use the library. "Being more aware of cultural norms is a good way to provide a safe, judgement free place," according to one librarian. Cultural intelligence is a tool to help us "be sensitive to a variety of cultures." It helps to "enhance patron interactions," and is an "indispensable tool in tense situations to help resolve conflict." Further, "...flexibility and remaining open to feedback and change in the process is important."

CQ was also seen as important to leadership and in aspiring to move into leadership: "I am an administrator that deals with a variety of people in the community and I must be sensitive to a variety of cultures that I deal with in the community." Another respondent agreed, saying, "As the leader of my organization, I need to be a role model and lead by example. If it is important to me, then staff should understand that it needs to be important to them as well." Another comment, "I feel it is extremely important, and as I move through the ranks of the library I am going to make sure we are able to assist in any and all ways possible."

Another expressed the importance to the community stating, "I would think it is exceptionally important so that the community can be educated about the differences that exist in today's world that they might not normally encounter." One respondent felt, "It's important if I want the library to be a valuable part of our school community that is supported by students, administrators and faculty." Two percent felt it isn't as important, isn't valued, or is not important at all. "It is a concept that is undervalued at my library, though probably something we should be thinking much more about...especially as our student body becomes more diverse."

Quantitative Findings

Research Question 1 asks, What is the overall level of CQ of participating library individuals? Research question 2 asks, What variations exist among the four factors of cultural intelligence within the participants? The cultural intelligence scale includes twenty items which provide an overall CQ level and four factors (with scores for each factor) (see appendix A for assessment). Higher scores correlate with higher levels of CQ. The results varied across the board, as can be seen in Figures 9-12. Descriptive statistics are reported for each of the four factors of cultural intelligence (see tables 2-5). Forty subjects responded to all statements for each factor.

CQ Drive/Motivation

This factor relates to how motivated a person is to work through the challenges and opportunities that come with multicultural situations. Table 2 represents the range of responses from 1 (strongly disagree) to 7 (strongly agree) for all statements. MOT1 to MOT5 represent the five statements for motivation on the Cultural Intelligence Scale on the web-based survey (see Appendix A). The means ranged from 4.72 to 6.22 with the first item having the highest mean. The fourth item had the highest standard deviation.

Table 2
CQ Drive Range, Means, and Standard Deviations

Statistic	MOT1	MOT2	MOT3	MOT4	MOT5
Min Value	1	1	1	1	1
Max Value	7	7	7	7	7
Mean	6.22	5.10	5.15	4.72	4.95
Standard Deviation	1.25	1.46	1.51	1.79	1.47

As seen in Figure 9, 57.5% (n=23) selected “Strongly Agree” for statement 1: MOT1: I enjoy interacting with people from different cultures. The other statements all had ranges from 25% (n=10) to 32.50% (n=13) for the highest responses, either 4 (neither agree or disagree), 5 (somewhat agree), or 6 (agree). This is a strong correlation with responses from the qualitative question for motivation as 92% expressed that they do have motivation to work through challenges that come with cross-cultural situations encountered in their library.

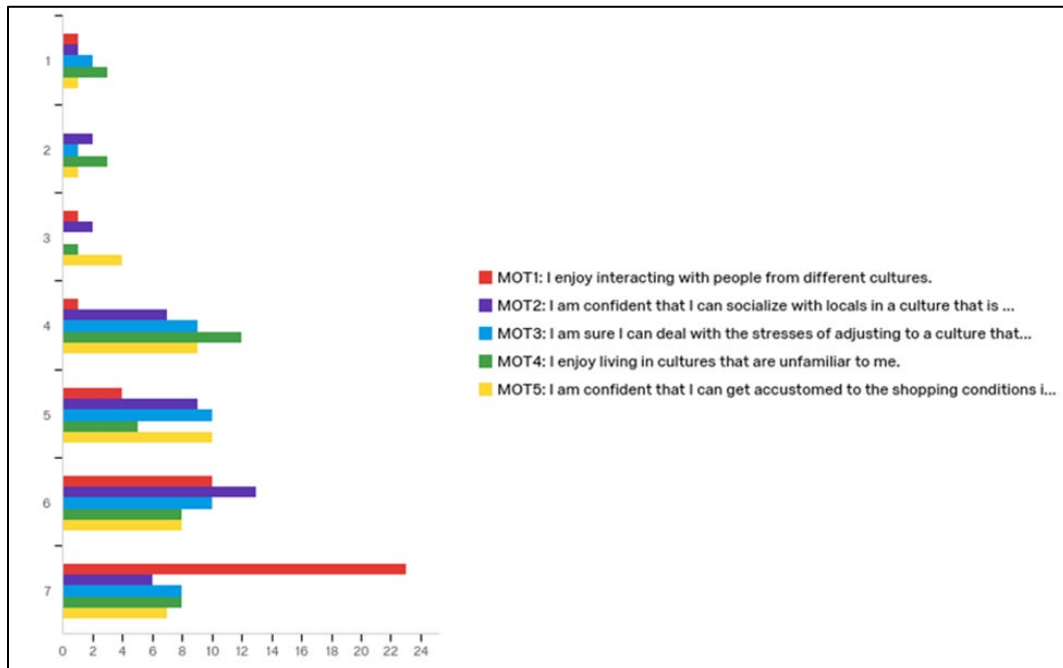


Figure 9
Level of Agreement for CQ Motivation from CQS

CQ Knowledge/Cognitive

This factor relates to understanding different cultures. Table 3 shows the range of responses from 1 (strongly disagree) to 7 (strongly agree) for all statements. COG1 to COG6 represent the six statements for knowledge on the Cultural Intelligence Scale on the web-based survey (see appendix A). The means ranged from 3.13 to 4.22 with the third item having the highest mean. These are much lower than the ranges for CQ motivation. The first item had the highest standard deviation.

Table 3
CQ Knowledge Range, Means, and Standard Deviations

Statistic	COG1	COG2	COG3	COG4	COG5	COG6
Min Value	1	1	1	1	1	1
Max Value	7	7	7	7	7	7
Mean	3.42	3.13	4.22	3.88	4.00	3.40
Standard Deviation	1.56	1.50	1.47	1.55	1.45	1.41

Figure 10 shows a lot of variation among responses to each of the levels of agreement to each statement. Thirty-seven and a half percent (n=15) responded they “disagreed” with COG2: I know the rules (e.g., vocabulary, grammar) of other languages. The largest amount of agreement was for COG5: I know the arts and crafts of other cultures with 32.50% (n=13) selecting “somewhat agree.” The only statement level of agreement with 0% selection was “agree” for COG6: I know the rules for expressing non-verbal behaviors in other cultures. This had the most variations of agreement by respondents than all other factors.

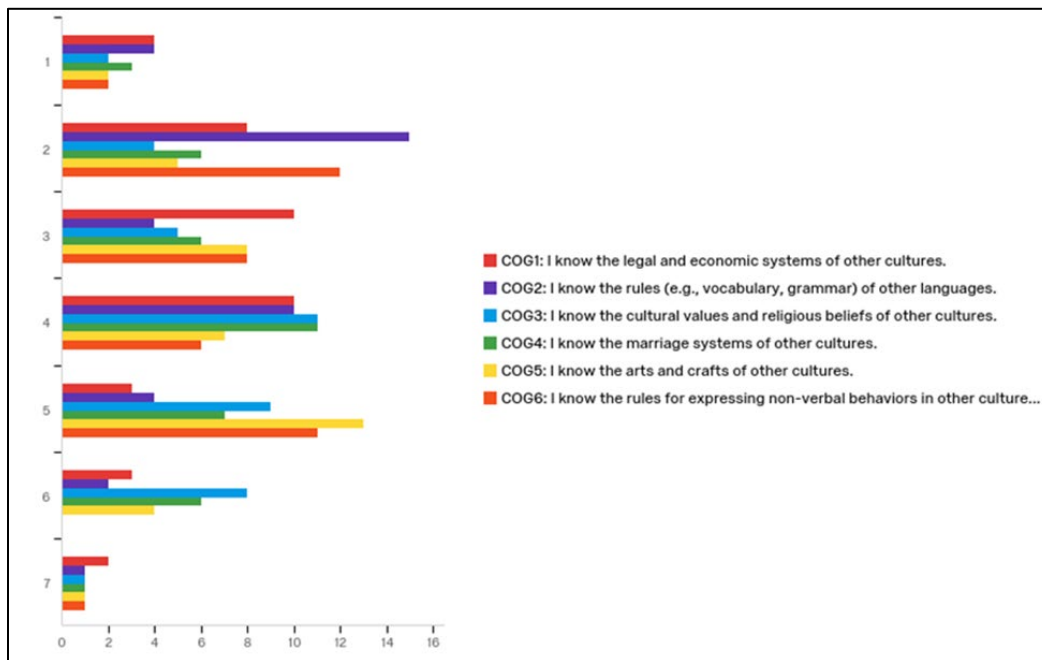


Figure 10
Level of Agreement for CQ Knowledge from CQS

CQ Strategy/Metacognition

This factor relates to how one identifies, explains and plans for dealing with differences. Table 4 shows the range of responses from 1 (strongly disagree) to 7 (strongly agree) for all statements. MC1 to MC4 represent the four statements for strategy on the Cultural Intelligence Scale on the web-based survey (see Appendix A). The means ranged from 4.97 to 5.25 with the second item having the highest mean. The standard deviations ranged from 1.39 to 1.57.

Table 4
CQ Strategy Range, Means, and Standard Deviations

Statistic	MC1	MC2	MC3	MC4
Min Value	1	1	1	1
Max Value	7	7	7	7
Mean	5.17	5.25	4.97	4.97
Standard Deviation	1.51	1.39	1.41	1.57

As seen in Figure 11, the highest number of respondents for each of the four statements was 6 on the Likert scale, “agree.” Of these, MC2: I adjust my cultural knowledge as I interact with people from a culture that is unfamiliar to me, had the highest with 35% (n=14). Majority of the responses feel in the agreement levels 5 (somewhat

agree) or 6 (agree). There was less disagreement with these four statements as compared to other factors which had higher responses in disagreement.

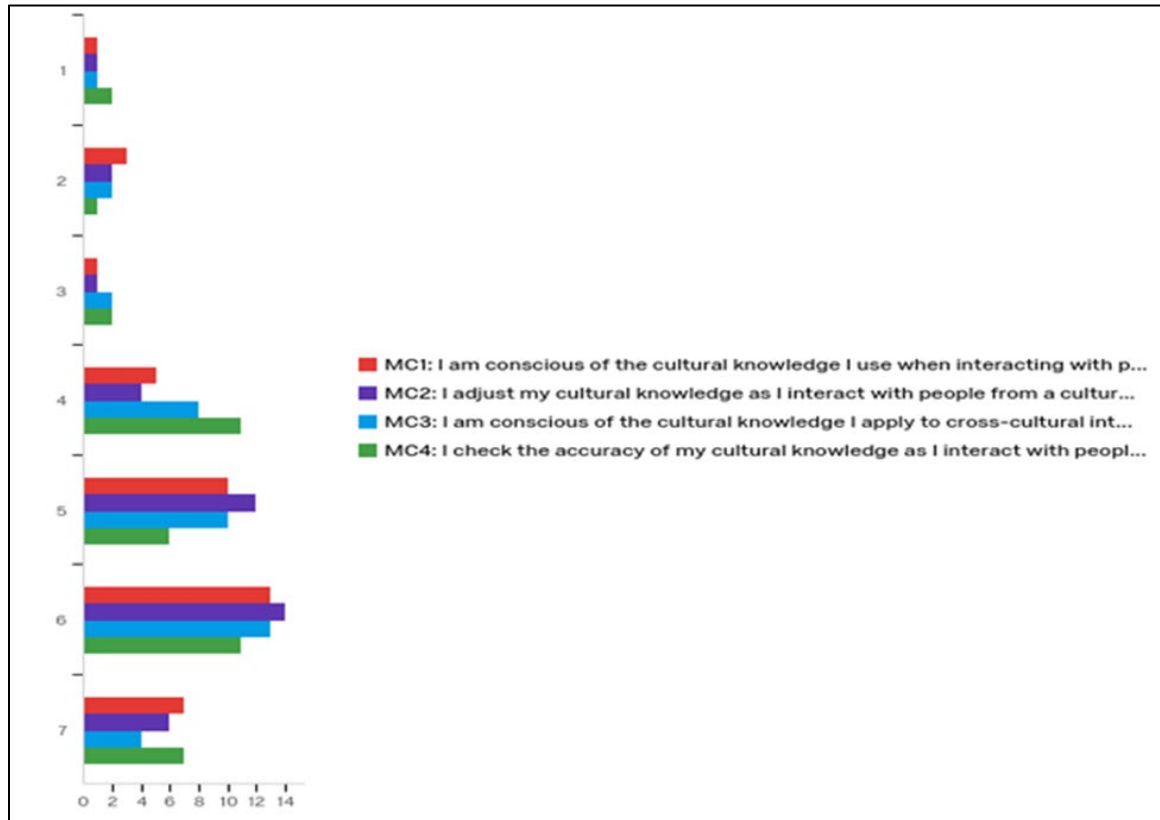


Figure 11
Level of Agreement for CQ Strategy from CQS

CQ Action/Behavioral

This factor relates to performance or modifying behavior when interacting in diverse situations. Table 5 shows the range of responses from 1 (strongly disagree) to 7 (strongly agree) for all statements. BEH1 to BEH5 represent the five statements for action on the Cultural Intelligence Scale on the web-based survey (see Appendix A). The means ranged from 4.85 to 5.28 with the third item having the highest mean. These are much lower than the ranges for CQ Motivation. The standard deviations range from 1.44 to 1.56

Table 5
CQ Action Range, Means, and Standard Deviations

Statistic	BEH1	BEH2	BEH3	BEH4	BEH5
Min Value	1	1	1	1	1
Max Value	7	7	7	7	7
Mean	4.88	4.85	5.28	5.05	4.97
Standard Deviation	1.44	1.48	1.45	1.52	1.56

Figure 12 illustrates some interesting results from respondents to the five statements for CQ Action. There were few responses for “somewhat disagree” for all five statements with only one respondent selecting “somewhat disagree” for statement 2 and 4. BEH1: I change my verbal behavior (e.g., accent, tone) when a cross-cultural interaction requires it had the highest number of responses (n=24) of either 4 (neither agree or disagree) (n=10) or 5 (somewhat agree) (n=14). Most responses fell under the agreement side of responses.

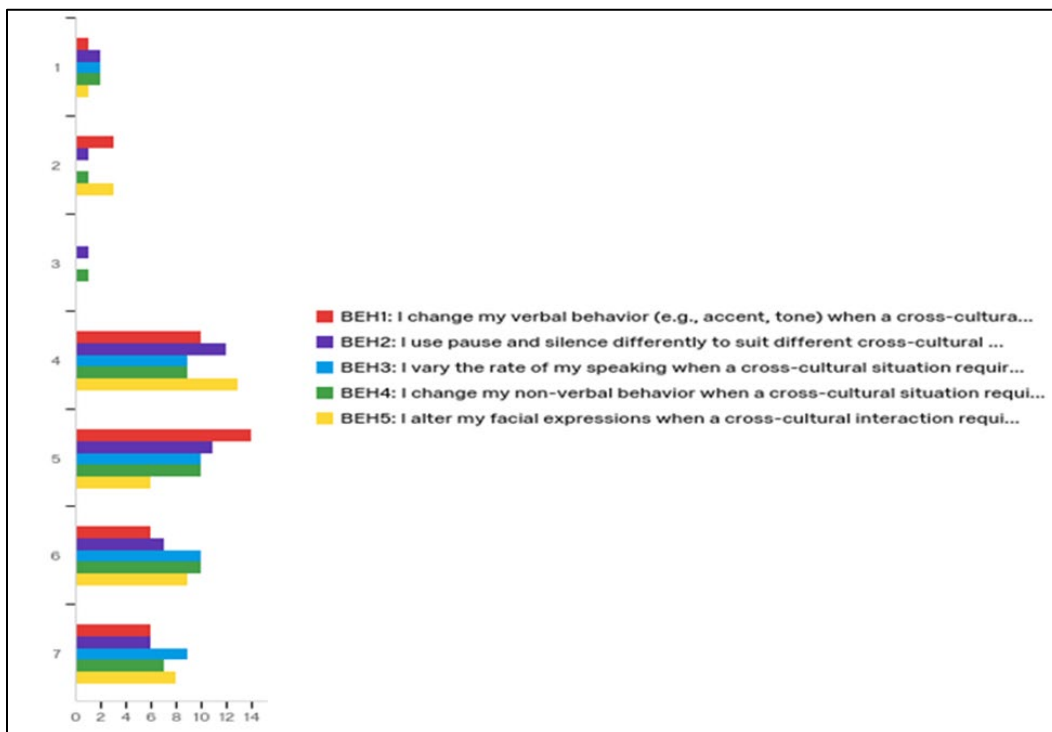


Figure 12
Level of Agreement for CQ Action from CQS

Conclusions and Implications

Three specific conclusions were drawn from the results of this survey. First, Pennsylvania librarians felt cultural intelligence was important in their current role. Second, the librarians found value in its application within their library and organization. Third, Pennsylvania librarians had varying levels of cultural intelligence overall and variety within each of the four dimensions of CQ.

Importance

The majority of respondents felt that cultural intelligence was important in their role with patrons, with resolving conflict, and in leadership positions. Kienzle and Husar (2007) share that the value of cultural awareness improves relationships and communications. It is through use of cultural intelligence that one becomes culturally aware (Early & Ang, 2003). Because of this the implications are significant when it comes to embedding within daily practices. Cultural intelligence is malleable; we can each improve. The first step is to understand your own individual cultural intelligence level through use of an assessment and development plan. This development plan can be incorporated into performance reviews with human resources. While cultural intelligence may be seen as a 'soft skill,' evidence shows that job performance and personal well-being improve when an individual exhibits high CQ (Earley & Ang, 2003; Earley, Ang, & Tan, 2006; Livermore, 2011).

Cultural intelligence can be included within other diversity initiatives and cultural competency practices, particularly when it comes to developing leaders. Alon and Higgins (2005) express how important emotional and cultural intelligence are to developing global leaders. A respondent expressed how being a leader requires leading by example, in that if CQ is important to the leader, then staff should understand that it is important to them as well. Leading a diverse workforce requires cultural intelligence (Thomas & Inkson, 2009). Lindsey et al., (2003) found that culturally capable individuals appreciate diverse individuals, and that they will evaluate how their own actions will influence others similar to that of a leader.

Value

Respondents felt that all should feel welcomed and appreciated in the library and that the welcoming environment should include the ability to be sensitive to differences. Taking a cultural intelligence assessment, analyzing the results, and creating a development plan will assist librarians to understand where they currently are with their CQ level and which areas need improvement in order to have welcoming interactions. If you are not interested in working with a particular group, how welcome will they feel in your interactions? With CQ Knowledge, you are understanding and learning about cultures, what makes them unique and similar. Have you taken steps to learn about this particular culture and the language(s) they may speak? Do you modify your own behaviors when interacting with this group in order to show them that you do appreciate them?

Consider Pennsylvania. The Philadelphia metro area alone has at least 146 languages that are spoken at home, according to the U.S. Census Bureau (2015, October; 2015, November) data collected from 2009 to 2013. Fifteen percent of the metro area population age 5 and over speak a language other than English. In the state of Pennsylvania, 525,220 speak Spanish other than English at home. German (51,345) and Pennsylvania Dutch (51,760) are also spoken by over 50,000 at home. Germanics expect eye contact and thrive on a good debate. This knowledge can assist a librarian as they plan a program, develop outreach, or have daily interactions at a reference desk with this group. A librarian would be better prepared to welcome them into the library environment because 1) they knew which areas of cultural intelligence they needed to work on, 2) acted to learn about this cultural group, and 3) used their knowledge to adjust their behavior when interacting with this group. This is an example of applying cultural intelligence.

Varying Levels

Variations were seen across each of the four dimensions and within each response for each item on the assessment as stated and examined above. This has implications for practice. Librarians need to learn about others, respect diverse populations and influence organizational culture (Nuri-Robins, 1994). To be effective, an organization needs to be diverse (having representation across all aspects of diversity), inclusive (offering a climate where all library personnel can flourish), and equitable (where there is fair treatment of all). Understanding our biases and our cultural awareness are first steps. Awareness, however, does not guarantee success in our interactions with each other. This is where CQ comes in—we step beyond awareness to developing habits and behaviors which will help reduce biases and improve our interactions. If a librarian knows which areas of cultural intelligence are not as strong based on their assessment, they can work to improve those areas and increase their level. This will impact intercultural interactions with colleagues and patrons.

Human resource departments and diversity committees can work together with librarians to develop training. In our own cultures, we usually have a good idea about what is going on, but when we interact with those from different backgrounds (which is everyone!), the same norms, values or cues might mean something different. Being aware of cultural norms can help enhance patron interactions. Operating with high cultural intelligence can help in tense situations where a possible conflict is occurring. Ramirez (2010) presented a model for how cultural intelligence levels affect conflict resolution ability and that those with higher levels predict whether a person will choose an appropriate conflict strategy based on the cultural backgrounds of those involved (p. 43). This may have implications for library directors and managers who manage conflicts among employees and patrons. Suggested tools to incorporate in a training include case studies, role play, and simulations.

Recommendations for Future Research and Practice

This study focused on only one state within the United States, and there is much opportunity for additional research among other states and regionally. This study established that cultural intelligence is an important capability when it comes to value to a library, and extends prior scholarship in this area (Cooke, 2017; Cullen, 2014; Farideh, Zekrollah, & Maryam, 2013; Villagran, 2016; Wang & Su, 2006). Future research should examine the cultural intelligence within other states and the ways in which CQ and cultural competence have been integrated together in training. It is important for future research to also consider the impact that CQ has on leadership and whether or not CQ levels of leaders in a library make a difference in how effective the organization is run. Since there were differing levels within each of the four factors, each factor can be more thoroughly studied to understand which may be most needed per role in a library setting.

Ang et al. (2007) share that CQ is important for selecting, training and developing a culturally intelligence workforce. Smith (2008) agreed in that cross-cultural communication and cultural competencies are necessary skills of librarians. Library and Information Science faculty can integrate the assessments and scenarios within their curricula to complement other diversity and multicultural courses (Cooke & Sweeney, 2017; Pawley, 2006; Villagran & Hawamdeh, 2020). Libraries should seek out cultural assessments and integrate them within their trainings. Hiring a cultural intelligence facilitator offers the benefit of not only administrative execution of the assessments, but also facilitated trainings, guided learnings, reflection, and specific action plans to help libraries understand CQ and embed it within their organizational practices (beyond the individual level). The CQS offers the opportunity for one to understand their individual level and areas where improvement can be made. It is through increased awareness of our biases that we can identify steps to prevent them from influencing our actions toward others. Cultural intelligence helps us to change our behaviors and improve the effectiveness in these interactions.

Summary

This study was based on the cultural intelligence foundation of our capability to function effectively in diverse contexts. The findings within this study confirm that the overall level of cultural intelligence among participating Pennsylvania librarians does vary. This is due to many factors including our own cultural backgrounds, experiences, and understanding of cultural intelligence and its application. All four factors of cultural intelligence (Drive, Knowledge, Strategy, and Action) are being used within Pennsylvania libraries, but at differing levels. The variations among the four factors were not surprising, given our own perceptions and differences. Overall, participants felt this concept was important within their organizations. That being the case, Pennsylvania libraries should consider how to adopt and integrate CQ into their daily practices. Participants also found value in cultural intelligence in their organizations at many levels and within different practices. The findings indicate cultural differences do exist in our library workplaces and have a strong impact.

The research contributes to the limited amount of empirical literature on CQ and libraries. The results of this study will help inform Pennsylvania libraries on avenues they may take to continue or begin working on cultural intelligence. For example, human resource departments and leadership can work together to provide training for their staff in this area. Pennsylvania libraries should develop the CQ of their staff as this has implications in the interactions with each other, patrons and the community. Cultural adaptation and education at all levels can help with workplace effectiveness. The scope of this study is important to our profession and provides evidence of how cultural intelligence is showing up in our interactions.

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Appendix A: Cultural Intelligence Scale

20-Item Four Factor Cultural Intelligence Scale (CQS) Cultural Intelligence Scale (CQS) – Self-Report

Read each statement and select the response that best describes your capabilities. Select the answer that BEST describes you AS YOU REALLY ARE (1=strongly disagree; 7=strongly agree)

CQ Factor Questionnaire Items

Motivational CQ: (CQ Drive)

MOT1 I enjoy interacting with people from different cultures.

MOT2 I am confident that I can socialize with locals in a culture that is unfamiliar to me.

MOT3 I am sure I can deal with the stresses of adjusting to a culture that is new to me.

MOT4 I enjoy living in cultures that are unfamiliar to me.

MOT5 I am confident that I can get accustomed to the shopping conditions in a different culture.

Cognitive CQ: (CQ Knowledge)

COG1 I know the legal and economic systems of other cultures.

COG2 I know the rules (e.g., vocabulary, grammar) of other languages.

COG3 I know the cultural values and religious beliefs of other cultures.

COG4 I know the marriage systems of other cultures.

COG5 I know the arts and crafts of other cultures.

COG6 I know the rules for expressing non-verbal behaviors in other cultures.

Metacognitive CQ (CQ Strategy):

MC1 I am conscious of the cultural knowledge I use when interacting with people with different cultural backgrounds.

MC2 I adjust my cultural knowledge as I interact with people from a culture that is unfamiliar to me.

MC3 I am conscious of the cultural knowledge I apply to cross-cultural interactions.

MC4 I check the accuracy of my cultural knowledge as I interact with people from different cultures.

Behavioral CQ: (CQ Action)

BEH1 I change my verbal behavior (e.g., accent, tone) when a cross-cultural interaction requires it.

BEH2 I use pause and silence differently to suit different cross-cultural situations.

BEH3 I vary the rate of my speaking when a cross-cultural situation requires it.

BEH4 I change my non-verbal behavior when a cross-cultural situation requires it.

BEH5 I alter my facial expressions when a cross-cultural interaction requires it.

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Note. Use of this scale granted to academic researchers for research purposes only. For information on using the scale for purposes other than academic research (e.g., consultants and non-academic organizations), please email info@culturalq.com.