Librarians' Attitude Towards Providing Environmental Education Services in Their Community

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ABSTRACT

The International Federation of Library Associations and Institutions (IFLA) advocates for libraries' contributions to the global sustainable development efforts. Environment sustainability is one of the three pillars of the United Nations sustainable development concept. It's crucial to examine libraries' stance on environmental sustainability to see how they align with the professional organizations' position. Case studies on libraries' environmentally sustainable practices and services are plentiful. However, there is still the need for more empirical research that systematically examines libraries' position and practice on environmental sustainability and the roles libraries play in building environmentally sustainable communities. This study fills the gap by surveying librarians from three states in the United States. The findings will be of interest to library associations to better support their member libraries in this endeavor. The findings are also important to LIS educators if they consider embedding environmental sustainability or environmental issues in LIS courses.

ALISE RESEARCH TAXONOMY TOPICS

Information literacy; public libraries; academic libraries.

AUTHOR KEYWORDS

Environmental literacy; environmental education; libraries; GIS analysis.

INTRODUCTION

The International Federation of Library Associations and Institutions (IFLA) has advocated for libraries' unique and important contributions to the global sustainable development efforts. It considers library communities as key partners in this global effort and

commits to inspire and support individual libraries to serve their communities. In response to IFLA's call, ALA added sustainability as a core value of librarianship in 2019 and created the ALA United Nations 2030 Sustainable Development Goals (SDGs) Task Force in 2020. Though all three aspects are equally important, this study focuses on environmental sustainability, one of the three pillars of sustainable development aside from economic sustainability and social sustainability.

ALA created the Task Force on the Environment (TFOE) in 1989, which turned into the Sustainability Round Table in 2012. In 1990-2000, ALA partnered with the Global Learning, Inc., on a two-year grant-funded project called *Libraries Build Sustainable Communities* to start talking about the possible roles that libraries could play in building sustainable communities. In 2020-2021, ALA launched the initiative: *Resilient Communities: Libraries Respond to Climate Change* to help libraries engage their communities in programs and conversations that address the climate crisis. The Green Library Movement emerged in the early 1990s in which libraries aim to reduce their environmental impact by greening library buildings, operations, practices, and providing green services (Antonelli, 2008). At IFLA, the Environment, Sustainability and Libraries Section (ENSULIB) started in 2009 and the IFLA Green Library Award was granted to qualified awardees annually since 2016. IFLA (2018) described libraries as *Exemplars*, *Educators*, and *Enablers* in supporting the sustainable development efforts in their communities. In the United States, the ALA Special Task Force of Sustainability identified the similar roles and responsibilities of ALA and its member libraries as *Inspiration & Catalyst*, *Conveners & Connectors*, and *Contributors* (Aldrich et al., 2018).

Despite IFLA and ALA's active effort in promoting environmentally sustainable development and mobilizing members to join in the community efforts on environmental sustainability, most literature reports cases from individual libraries on their environmentally sustainable practices and services (Calloway & Callahan, 2003; Christensen, 2010; Harrington & Beale, 2010; Jankowska & Marcum, 2010; Love et al., 2005; Smith, 2010; Spencer, 2010; Urbanska, 2009; Woodland, 2010). There is only a handful of empirical research examining how libraries perceive the importance of environmental sustainability and what roles libraries could play in achieving community environmental sustainability. Dias (2017) surveyed municipal public libraries in Portugal on respondents' perception of the importance of environmental sustainability. Almost all responding libraries considered environmental sustainability to be an important issue. Kang (2018) studied the library directors' attitudes towards environmental sustainability in China and their libraries' environmentally sustainable actions. Findings indicated a contradiction between the library directors' perception of the importance of environmental sustainability and their levels of awareness of the environmental issue and actions taken in libraries. Beutelspacher and Meschede (2020) surveyed public libraries and their branches in Germany on their environmentally sustainable activities. They also reported contradictions between participants' expectations on libraries' environmentally sustainable activity and the actual efforts in the individual libraries. The current study surveys librarians from California, Florida, and Georgia in the United States to determine their perceptions of the importance of environmental sustainability and libraries' roles in promoting environmental sustainability in their communities. The results will be of interest to library associations aiming

to mobilize their member libraries to join the community efforts in promoting environmental awareness and literacy. The findings will also inform LIS educators on incorporating environmental issues or environmental sustainability in LIS curriculum.

METHOD

Libraries in the states of California, Florida, and Georgia were invited to complete the anonymous web survey hosted on Qualtrics. This study has been exempted from Institutional Review Board (IRB) review in accordance with Federal regulations. These three states were purposefully selected because of the differences in their geographic locations, climate-related disasters declared, and their library service's population demographic characteristics. Data collection began in July 2020 amid the COVID-19 pandemic. The survey link was first shared to Florida Library Association and California Library Association's listservs on July 21, 2020. Two reminders were sent to both listservs on July 27 and August 3 separately. To further boost the survey responses, the survey invitation emails were also sent to individual libraries identified from the Florida Division of Library and Information Services website, and the California State Library website in September 2020. Ultimately, 74 responses were received from Florida, 103 responses from California. The Georgia Library Association's membership listserv was used in the previous pilot study. The invitation emails for this survey were sent directly to the directors and staff members of the individual public libraries listed on the Georgia Public Library Service website and individual university libraries from the University System of Georgia in September 2020. Seventy-six responses were received from Georgia.

Librarians were asked a series of demographic questions regarding the types of libraries they work in, the library's service communities, their working positions, and the library's annual budget and service populations. The library's physical address was also collected for GIS analysis. Their prior knowledge about the Green Library Movement, and the LEED (Leadership in Energy and Environmental Design) certification program from the U.S. Green Building Council were also asked (Antonelli & McCullough, 2012). Twenty-eight Likert scale questions were used to measure respondents' attitudes towards environmental sustainability and their perceptions of libraries' roles in promoting environmental sustainability in their communities. These statements were created based on reviewing existing literature and the libraries' roles in sustainable development advocated by IFLA and ALA. The Cronbach's Alpha coefficient is .895, suggesting that the items have relatively high internal consistency. The instrument was also pilot tested and refined.

PRELIMINARY FINDINGS

In total, 203 valid responses were received. Of these, 79 responses were received from California, 58 from Florida, and 66 from Georgia. Partial responses were included for analysis. Out of the total 203 responses, 120 (59.1%) respondents were from public libraries, 58 of 120 were from California; 79 (38.9%) respondents were from academic libraries. Furthermore, 164 (80.8%) respondents were librarians; 16 (7.9%) respondents were paraprofessionals; and 21 (10.3%) were library administrators or branch managers. Most of the respondents who are

paraprofessionals or library administrators were from public libraries. Compared to California and Florida, about 40% of the Georgia respondents were from libraries that serve rural areas. Only 6.3% and 6.9% of the respondents from California and Florida were from libraries that serve rural areas.

Fifty-eight (28.6%) of the 203 respondents were aware of the Green Library Movement, and 115 (56.7%) reported no. On the contrary, 143 (70.4%) of the respondents were aware of the LEED certification program, and 49 (24.1%) reported no. Out of the 143 respondents who were aware of the LEED certification, 56 of them were also aware of LEED-certified libraries in their community. Overall, 50 respondents were aware of both concepts, and 38 respondents were not aware of either one.

The responses to the 28 Likert scale attitudinal questions can be roughly grouped into several different categories. The first category includes 4 Likert scale questions that focus on respondents' attitudes towards greening libraries' operation and practice. Figure 1 below shows that the surveyed respondents strongly agreed that libraries should adopt environmentally sustainable practices and serve as the model for their community.
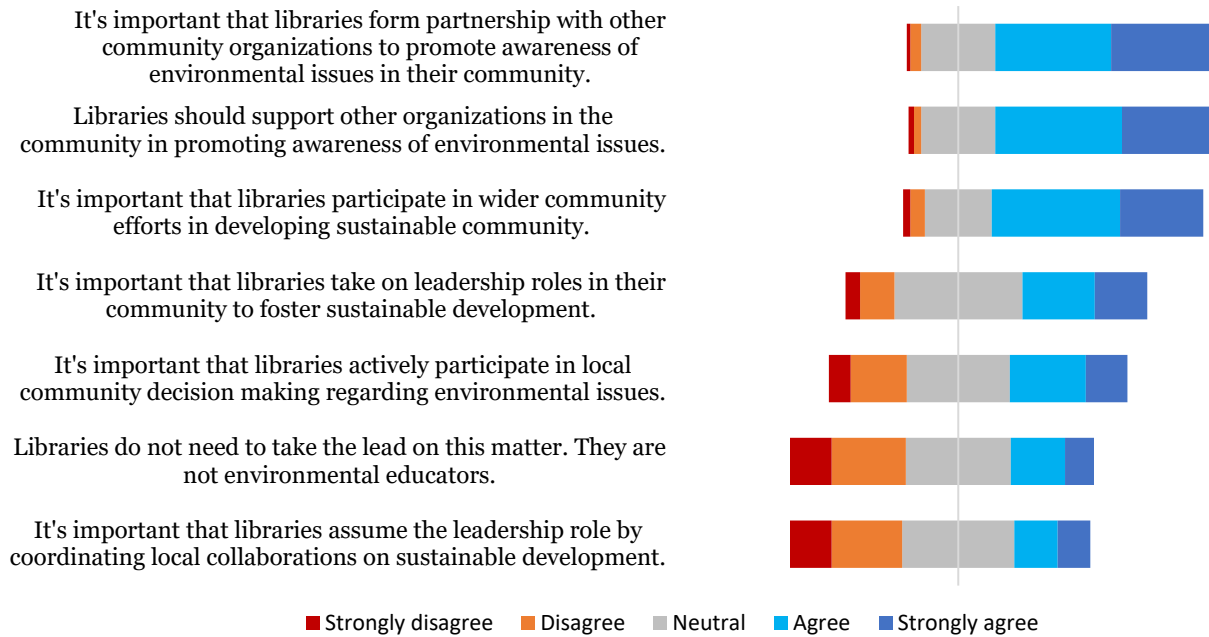
Figure 1
Attitude Toward Library's Environmentally Sustainable Operation and Practice
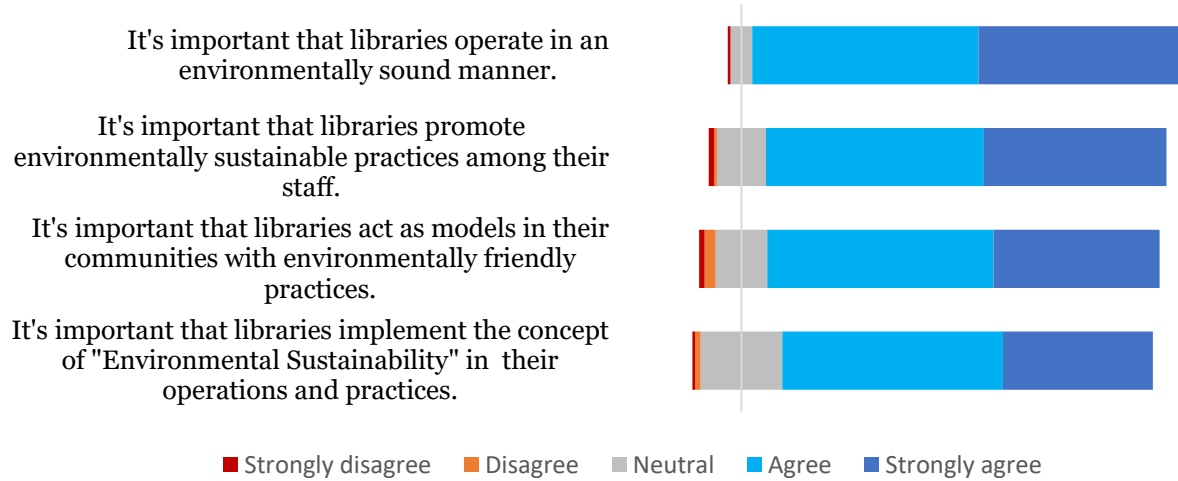
The second category includes 7 Likert scale questions that focus on respondents' attitudes on the roles that library should play in promoting environmental sustainability in their community. Most respondents agreed that libraries should form partnership with community organizations and support them in promoting awareness of environmental issues. Most respondents took a neutral stand when it comes to whether libraries should take the leadership role.

Figure 2

Attitude Toward Library's Roles in Community

It's important that libraries form partnership with other community organizations to promote awareness of environmental issues in their community.

Libraries should support other organizations in the community in promoting awareness of environmental issues.

It's important that libraries participate in wider community efforts in developing sustainable community.

It's important that libraries take on leadership roles in their community to foster sustainable development.

It's important that libraries actively participate in local community decision making regarding environmental issues.

Libraries do not need to take the lead on this matter. They are not environmental educators.

It's important that libraries assume the leadership role by coordinating local collaborations on sustainable development.

■ Strongly disagree   ■ Disagree   ■ Neutral   ■ Agree   ■ Strongly agree

The third category focuses on respondents' attitudes on the library's role in providing credible information resources. Most respondents strongly agreed or agreed on the importance of libraries as information providers. The degree of the agreement reduced when it comes to whether libraries should actively promote the information resources or offer workshops and programs on environmental topics.

Figure 3

Attitude Toward Providing Information Resources

It's important that libraries connect the public with reliable information sources on environmental issues.

It's important that libraries provide reliable and accurate information resources on environmental issues for patron access.

Libraries should be good sources for programmings and information on environmental issues.

It's important that libraries educate public on seeking, evaluating, and using reliable information to understand environmental issues.

It's important that libraries actively promote information resources on sustainability.

It's important that libraries offer workshops and programs related to environmental topics.
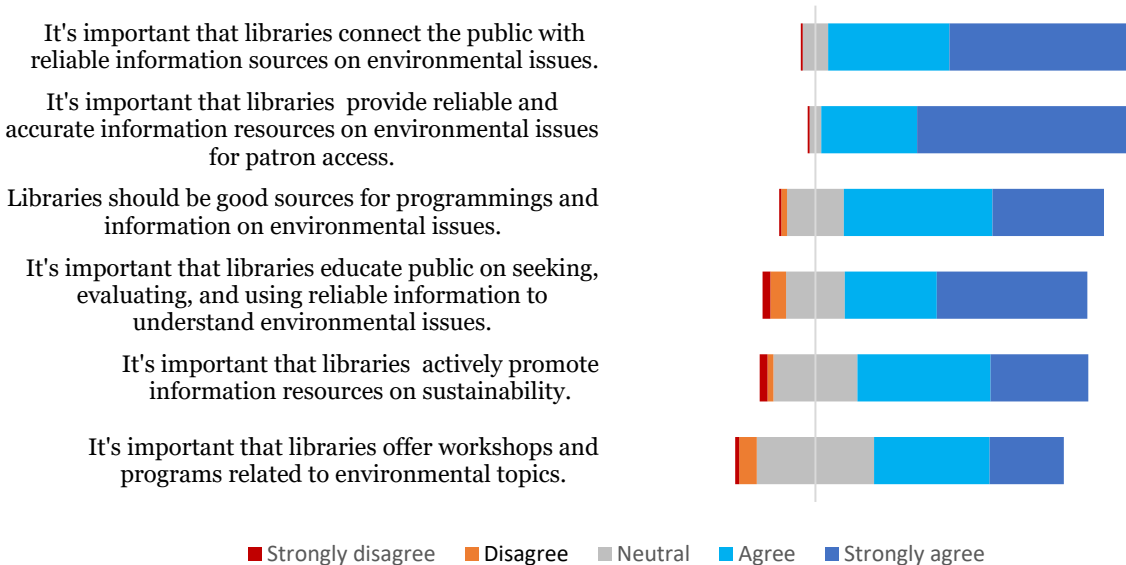
■ Strongly disagree   ■ Disagree   ■ Neutral   ■ Agree   ■ Strongly agree

The fourth category includes 11 Likert scale questions that focus on respondents' attitudes on library's roles in promoting environmental sustainability awareness and education. This category also contains both positively and negatively worded statements. As figure 4 shows, most respondents agreed that library should educate the public about environmental sustainability and environmental issues.

Figure 4

Attitude Toward Library Promoting Environmental Sustainability Awareness and Education
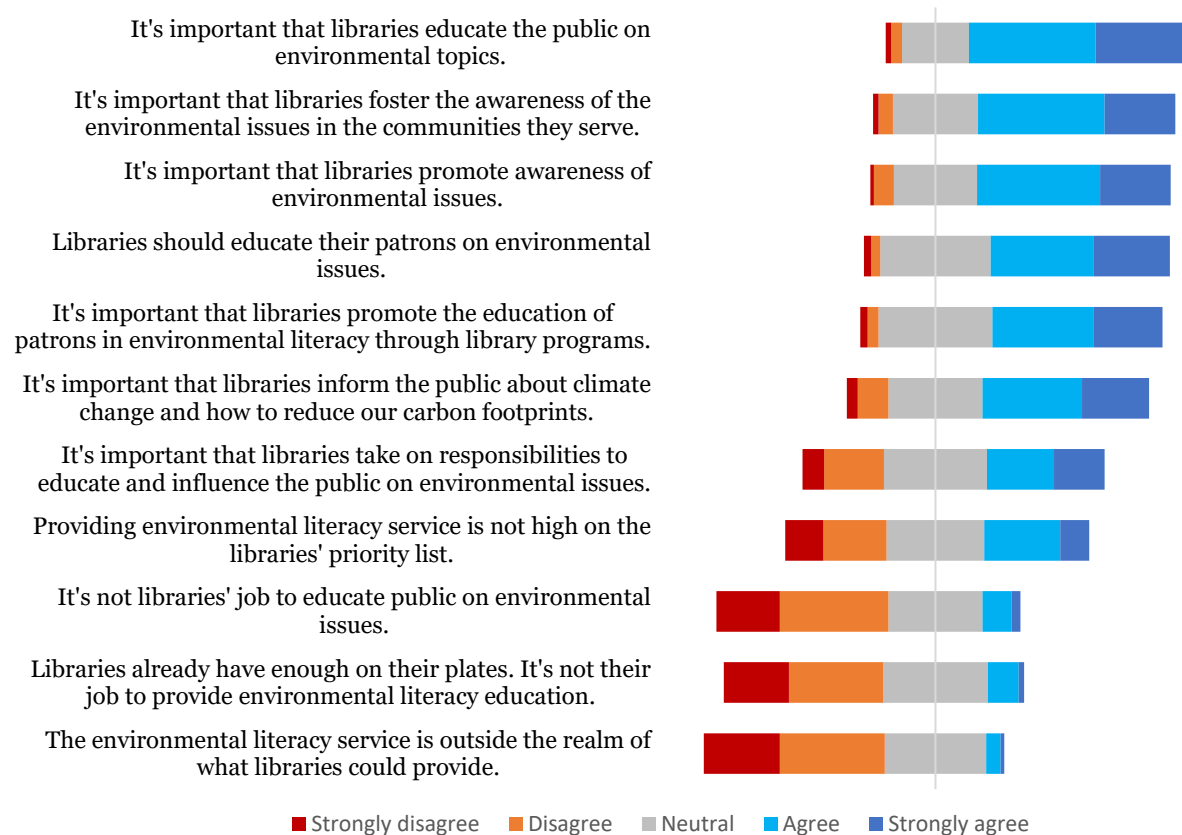
Overall, the respondents strongly agreed that libraries should provide accurate environmental information, participate in community efforts, and educate the public through resources and programming. The 10 Likert scale questions that have the mode of neutral attitude are ranging from whether libraries should take on leadership in community initiatives to whether educating the public is the library's job.

GIS Analysis Results

To detect spatial patterns of librarians' responses, Geocoding method in GIS was applied in this research. Not all the responses have complete address information. Some only reported the zip code. For the responses that only provided the zip code, the researcher consulted Google map, the "Find a library near you" feature in the WorldCat, and the library lists maintained by

the state libraries and the state library associations to verify the address. When there are multiple addresses from the same zip code, the library's service population and service areas were cross-checked to determine the most possible library addresses.

All library addresses were geocoded into the ArcGIS software. A point layer was created to demonstrate the locations of library responses. All other survey responses were also imported into the ArcGIS database. Other GIS data such as state and cities were from the U.S. census TIGER file.

Using the newly created library response point layer, GIS maps were created to demonstrate survey results. The spatial pattern is very clear on the maps. For example, the LEED-certified libraries are mostly in the large and mid-size metropolitan areas, including San Francisco, Los Angeles, and Oakland in California, Atlanta, and Savanna in Georgia, as well as Orlando, Fort Meyer, Gainesville, and Tallahassee in Florida. The interesting part is that some large metros are missing from the list, such as San Diego in California, Jacksonville, Miami, and Tampa in Florida. On the other hand, both Tallahassee and Gainesville are mid-size metros, but the respondents are more aware of the concepts of LEED. They both benefit from the presence of major flagship state universities in the region, and this indicates that the education of LEED is very important.

Respondents familiar with the concept of LEED are very similar to the LEED-certified libraries. When asked "Are you aware of any examples of the LEED-certified Libraries in your area?" the spatial pattern of the Yes answers is similar to the answer to LEED-certified libraries, but with a few added responses from areas near Sacramento in California, Columbus in Georgia, and Port Pierce and Niceville in Florida. Moreover, large metro Miami is finally on the list. The No answers to this question are widespread, including both large, mid-size, and small metros, as well as rural areas. This highlights that the familiarity with the concept of LEED is still the minority, even in urban areas.

Different from LEED-certified libraries, respondents familiar with the Green Library Movement are much more widespread outside of the major or mid-sized metro areas. But that pattern also differs in each state. California has a more concentrated pattern, with most of the awareness in the Francisco and Los Angeles metro areas, plus a few in the coastal cities between the two metros. For both Georgia and Florida, there are many respondents who are familiar with the concepts in small cities and metros, not only along the coast but in the inland areas as well. For Georgia, the list includes small cities and metros like Valdosta, Milledgeville, Douglas, and even rural areas, such as Blakely in the Southwest, Waycross, and Moultrie in the south, and Clarksville in the Northeast. For Florida, the list includes rural areas near Lake City and Niceville, as well as small cities like Lakeland and Winter Park.

People who strongly agree that it is important that libraries operate in an environmentally sound manner are more widespread. They cover not only areas where LEED libraries are, but also include many other large, mid-size, and small cities, even rural areas. Again, Californian responses are mostly along the coastal areas, and some along the central area, such as Fresno and Sacramento. Georgian responses are mostly along the broad I-75 corridor, plus Savanna.

Floridian responses are along both coasts and upper mid regions. Moreover, people who agree that it is important that libraries operate in an environmentally sound manner are even more widespread than the strongly agreed responses, including small cities and rural areas.

People who strongly agree or agree that it is important that libraries implement the concept of "Environmental Sustainability" in their operations and practices have a similar spatial location pattern as those who answered "libraries operate in an environmentally sound manner." These two questions have almost identical patterns overall.

DISCUSSION

Overall, the majority of the respondents from California, Florida, and Georgia agree that it's important for libraries to operate and serve in an environmentally sustainable way. This echoes previous research findings. The majority of the respondents in this study also agree that libraries should model environmentally sustainable operations and practices in their communities, provide credible information resource on environmental issues and knowledge, and take an active part in community efforts. The degree of agreement among respondents decreased when it comes to whether libraries should educate the public on environmental issues or take on leadership roles in their community. These findings partly answer to IFLA and ALA's advocacy of libraries as *Exemplars*, *Educators*, *Enablers, Inspiration & Catalyst*, *Conveners & Connectors*, and *Contributors* in supporting the sustainable development efforts in their communities. These findings suggest that libraries might need more trainings and support in taking an active part in community initiatives, and they should incorporate environmental sustainability into their mission statement and strategic planning in order to prioritize it.

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