The Impact of the CCCCC's Clearinghouse on Climate Change Knowledge Acquisition in Belize

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Abstract

The discovery and mention of climate change started sometime in the nineteenth century when several occurring natural changes were identified by scientists. The effect of greenhouse gases on the climate and the environment became of concern. Climate change has been of a growing concern over the years. In the world today, it has shown far reaching effects on the environment and as well on humans at an increasingly severe manner. This is due largely to modern industrial activities and other collective inputs of humans in their day to day livelihoods, all of which have increasingly changed the natural balance in the environment making climate change a serious issue. For example, the constantly increasing amount of carbon dioxide within the atmosphere acts as a barrier that traps heat inside making the environment hotter and a resultant increase in the level of global warming. Carbon dioxide abounds in the fumes produced by the vehicles we use as means of transportation and conveyance of goods to our many destinations. The United Nations Framework Conventions on Climate Change (UNFCCC) reported that globally averaged concentrations of carbon dioxide (CO_2) reached 407.8 parts per million in 2018, up from 405.5 parts per million (ppm) in 2017. The European Union in 2017 reported that 87 percent of all human-produced carbon dioxide emissions come from the burning of fossil fuels like coal, natural gas and oil. To tackle the challenges of climate change countries have taken several initiatives to combat the negative trends and the attendant effects of climate change and Belize is no exception to this. Like Belize, the Caribbean region as a whole is at the highly vulnerable end of the various modern activities causing and increasing the trend in climate change. The awareness of the challenges posed by the changing climate and the understanding of the potential depth of the problem being created for future generation should be of concern to all well-meaning citizens of the Caribbean region. Proper awareness on this critical issue is not possible without the acquisition of relevant knowledge on the subject matter. This then necessitates an inquiry into the success of an existing system, the Clearinghouse system put in place by the CCCCC to foster the acquisition of knowledge on the specific subject of climate change and as well generally on the environment which bears the effect of climate change.

Keywords: Information System Success Model, Clearinghouse Database System, Caribbean Community Climate Change Centre (CCCCCC)

Introduction

In the country of Belize, the Caribbean Community Climate Change Center also known as the CCCCC works with the countries that make up CARICOM to tackle issues of climate change, to represent and advocate for CARICOM members in the international stage on climate and environmental issues and to create and implement programs and projects that will help the various CARICOM member countries to follow the path of climate resiliency in their national and communal development plans. The CCCCC is basically a regional body established under the auspices of CARICOM in 2002 and it acts as the executing agent for all regional action plans and activities on climate change within the Caribbean region.

The focus for this research paper is the CCCCC's information database system, otherwise referred to as the clearinghouse search tool. The clearinghouse system is an online database system that experts at the center use to provide information resources to all stakeholders on the issues of climate change and the environment in general. This tool was created to help every individual or group within or outside of the region who require information resources on climate change in the course of their study, research or work. It enables such individuals to retrieve, request, contribute and exchange information about climate change.

As concerned individuals and students of the University of Belize, located within the climate vulnerable Caribbean region, we consider the subject matter of knowledge acquisition on climate change an essential matter for all concerned citizens and residents of the region. Also, this matter should be of concern to our international partners with whom we are involved in trade, tourism and other international activities. This research is meant to assess the clearinghouse system database tool which is assessable at the url: https://www.clearinghouse.caribbeanclimate.bz, in relation to its impact on climate change knowledge acquisition in Belize. The current users of the clearinghouse are mainly researchers, students and individuals who work in establishments involved with the environment and its climatic conditions such as the department of environment, meteorological agencies, airport authorities, the national emergency management organization and a host of others. This current niche of users will be assessed to ascertain their objective views on the impact of the CCCCC's information clearinghouse system on their quest for the acquisition of knowledge on climate issues.

Literature Review

The carbon dioxide theory of climate change was established by Physicist Guy Stewart Callender (1898-1964) in the early 1930s (Fleming, 2007). He was the first to discover that that the planet had warmed and that it was related to carbon dioxide emissions through a collections of world temperature measurements ((Applegate, 2013). This theory is what set the wheels in motion for more environmental studies and awareness including the proactive efforts to mitigate and reverse the negative effect of climate change. Today, it's now a widespread agreement among environmental scientist that the burning of fossil fuels as a result of human activities (Doran & Zimmerman, 2009).

Even in the Caribbean, governments have taken initiatives to build awareness about climate change through the Caribbean Community Climate Change Center. This is despite the fact that the Caribbean is not be the largest contributors of carbon dioxide emission, however historical records have confirmed that warming of global atmospheric temperatures, alongside with greenhouse gas emission have resulted in peculiar variations in the distributions of weather patterns and environmental phenomena (United Nations Economic Commission for Latin America and The Caribbean, 2011). According to the United Nations Economic Commission for Latin America and Caribbean, some of the effects due to global warming and greenhouse emissions are: increase in Caribbean's mean temperature, increase in Caribbean's maximum temperature, decreased average precipitations from most Caribbean countries, increase in Sea Levels and increase in extreme weather event such as more drought, floods and more frequent and intense hurricanes. These phenomena's can destroy many Caribbean nations' infrastructure, agriculture and ecology.

The knowledge of global warming and its effects have led governments and NGO's to make environmental assessments, a major environmental assessment is the "Climate Change and Environmental Degradation Risk and Adaption Assessment (CEDRA) (Wiggins, 2009). According to Wiggins, they are 7 steps to the CEDRA assessment, these steps are as follows:

1. Mapping – Map locations, locations physical and socioeconomic environment
2. Science- Stakeholder analysis, research and consultation
3. Community- Consult Communities
4. Risk assessments- Assess projects, identify impacts, calculate risks
5. Adaptation- participatory assessments
6. Compile CEDRA- CEDRA write-up, Action Plan. New Projects, Consultation
7. Lasting change – updating CEDRA, learning, Evaluation.

CEDRA is a tool that has helped local NGO's in developing countries to develop projects that encourage environmental sustainability and mitigate environmental degradation while stimulating growth in these developing countries including Belize, which have developed their own climate change policies, strategies and action plans with the aid of the Caribbean Community Climate Change Center (CCCCC) and Ministry of Forestry, fisheries and Sustainable Development (MFFSD). According to Belize's Climate change policy, strategy and action plan, Belize's focus was to adapt to an environmentally friendly society and to mitigate the uses of greenhouse gases in these key areas: Agriculture, Forestry, Fisheries and Aquaculture, Water resources, Land use and Human settlements, Human Health, Energy, Tourism, Transportation and Solid waste (CCCCC & MFFSD, 2015).

The largest obstacle that affects the effectiveness of environmentally friendly projects in the Caribbean is high levels of poverty and lack of education. This poses a problem whereby many Belizeans are unaware of the issues of climate change and the negative effects on the environment. Hence the current negative and unsustainable practices that is common as well as being very resistant to any change that will leave them economically worst A good example is being averse to buying eco-friendly disposable containers as opposed to foam containers because of the significantly higher price that has to be paid when going green. The data collected can help the CCCCC and MFFSD to know how to go about a possible education campaign and how to boost economic growths in communities that have higher carbon emission while not affecting the economic status of impoverished Belizeans.

Methodology

Introduction

In this chapter, the research paper discusses the research design, population, instruments and procedures used for data collection. In specific details, quantitative data was collected with the use of questionnaires. The data gathered is analyzed to answer the research question of the effectiveness of the clearinghouse system on climate change knowledge acquisition introduced earlier. The research involve asking the select number of participants a series of structured closed ended questions to obtain the Impact of CCCCC's information Clearinghouse on the Climate Change Knowledge Acquisition in Belize.

Research Design

The Researchers used mainly quantitative research method and conducted a survey by using a survey questionnaire to obtain response from 40 respondents. The questionnaire consists of Likert scale questions. A Likert scale gives specific choices for example, strongly agree, agree, not sure, disagree, and strongly disagree (Polit and Hungler 2013). The questionnaire served as an appropriate tool for the research as it helped to ensure the structure and regularity of information gathered from all the participants. A copy on the questionnaire is provided in the Appendix. The respondents appropriately completed the 40 questionnaires. The questionnaires are pre-numbered from 1 to 40 and are analyzed by the group members using the microsoft excel software package. The survey questionnaire specifically has 9 categories of structured questions with the 1st category being questions on quantitative and qualitative background information of respondents. The remaining categories are 8 groups of technology acceptance models of questions, which contained closed-ended questions asking respondents to rank their acceptance and view of the effectiveness of the clearinghouse database system on a scale of 1-7, with 1 representing complete disagreement and 7 indicating a perfect agreement.

The table below provides the eight technology-acceptance-model question categories and the respective questions under each category in the questionnaire

Category	Questions
Information Quality	IQ1: The Clearinghouse system meets your exact information need on climate issues IQ2: The Clearinghouse system provides information you need at the right time IQ3: The Clearinghouse system provides information that is relevant to your awareness needs on climate issues IQ4: The Clearinghouse system provides sufficient information IQ5: The Clearinghouse system provides information that is easy to understand IQ6: The Clearinghouse system provides up-to-date information on climate issues
System Quality	SQ1: The Clearinghouse system is easy to use SQ2: The Clearinghouse system is user-friendly SQ3: The Clearinghouse system provides high speed information access SQ4: The Clearinghouse system provides interactive features between users and system
Complementary Technology Quality	CTQ1: The software on the device (desktop, laptop, mobile device) you normally use to access the Information Clearinghouse is adequate. CTQ2: The device hardware (desktop, laptop, mobile device) you normally use to access the Information Clearinghouse is adequate. CTQ3: The computer (desktop, laptop, mobile device) you normally use to access the Information Clearinghouse has a fast internet connection. CTQ4: The computer (desktop, laptop, mobile device) you normally use to access the Information Clearinghouse has a reliable internet connection.
Computer-Self Efficacy Measure	CSE1: You could use the Clearinghouse system without asking frequent questions or requiring instructions from anyone CSE2: You successfully obtained information from the Clearinghouse system without having used a system like it before CSE3: You could use the Clearinghouse system if you have only the information system manual for reference CSE4: You could use the Clearinghouse system if you witnessed the use of the system before the actual use by yourself CSE5: You could use the Clearinghouse system successfully if you could call for help when stuck CSE6: You could use the Clearinghouse system if someone else helped you to get started CSE7: You could use the Clearinghouse system if you had ample time to

	complete the research or job for which the information system was provided. CSE8: You could use the Clearinghouse system if it has a built-in help facility for assistance CSE9: You could use the Clearinghouse system if someone first puts you through on its use CSE10: You could use the Clearinghouse system if you had used similar information systems before using it for your research or job function
Service Quality	SV1: The support staff keeps the Clearinghouse software up to date SV2: When users have a problem Clearinghouse system support staff show a sincere interest in solving it SV3: The Clearinghouse support staff respond promptly when users have a problem with obtaining information from the clearing house SV4: The Information Clearinghouse support staff tell users exactly when services or changes to to the system will be made
User Satisfaction	US1: You have a positive attitude or evaluation towards the Clearinghou system function US2: You think that the Clearinghouse system is highly beneficial US3: The Clearinghouse system has met your expectations US4: You are satisfied with the CCCCC's Information Clearinghouse system
Use	U1: Your frequency of use of the Information Clearinghouse system is high U2: You depend upon the Information Clearinghouse system U3: You were able to personally obtain required information from the Clearinghouse system without anyone around to tell you how to go about it U4: You have the knowledge necessary to use the Information Clearinghouse system
Perceived Net Benefit	NB1: The Clearinghouse system helps to improve your research or planning on climate issues NB2: The Clearinghouse system helps you or your organization save time and costs in obtaining information NB3: The Information Clearinghouse system helps to meet your personal, organizational or community climate goals NB4: The use of the Clearinghouse system helps you or your organization to improve staff assessment and training NB5: Using the Information Clearinghouse system for research or on the job increases your productivity NB6: Overall, using the Information Clearinghouse system enhances the gathering of information and the decision-making process on climate issues

Participants

The respondents in this research are select employees of the CCCCC, other relevant government agencies and the University of Belize students. The researchers administered the questionnaires to employees willing to participate and randomly to students of the University of Belize to obtain their view on how the Clearinghouse database has helped them to acquire knowledge relevant to their work or study. The Research employed mainly quantitative method. The survey questionnaire asked the participants closed-ended questions designed in a Likert scale. The data responses is analyzed using quantitative techniques and the result is shown using pie-charts, bar-charts and percentages.

Research Procedure

The following steps were taken to obtain data:

1. The group members visited the CCCCC's office location in Belmopan to obtain background information on the activities of the center and vital information regarding the set-up and operation of the CCCCC's Clearinghouse database system. Email contacts of recent external users of the clearinghouse system were obtained, being potential participants for the survey conducted.

2. The softcopy of the survey was sent to the select staff of CCCCC and other external users whose email contacts had been previously obtained. Hardcopies of the questionnaire were provided to a focus group of selected UB students who had access to the resources of the clearinghouse database system.

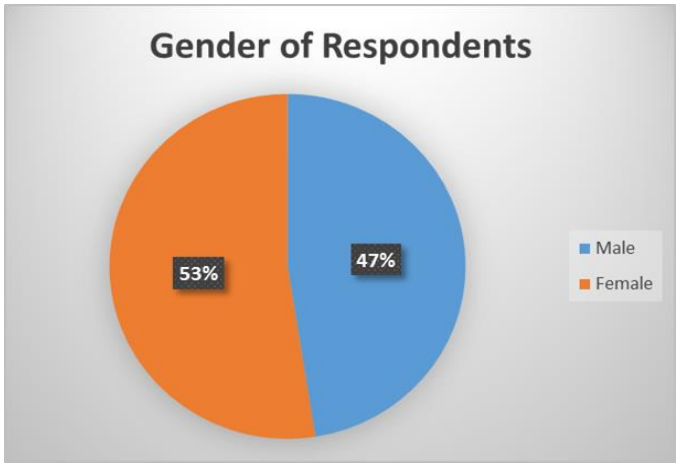
3. The group team members retrieved the research the 40 completed questionnaires, 10 from the emailed respondents and 30 from the focus group of UB students who assessed the information system under the various categories of questions on the questionnaire.

4. Finally, the researchers reviewed all information collected, analyzed them using the excel software package and the results were presented using charts and graphs which shows different patterns as to the user ratings of the clearinghouse information system. An analysis of the pattern under each category of responses was provided by the researchers. A conclusion and recommendation section was written, which provided the management of the CCCCC with vital recommendations based on observations from the research study.

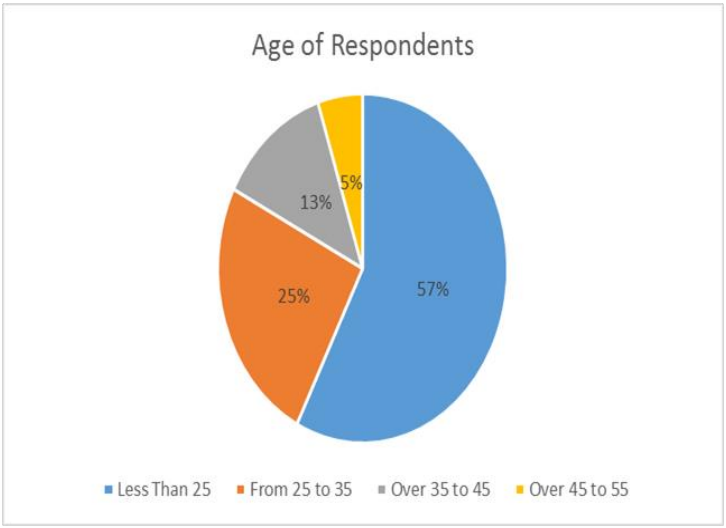
Data analysis

The survey conducted gathered responses from select employees of the CCCCC and external users of the clearinghouse system. The questionnaire had nine broad categories of information to which the 40 respondents surveyed provided the required information. The data from the responses are presented in the charts and histograms below

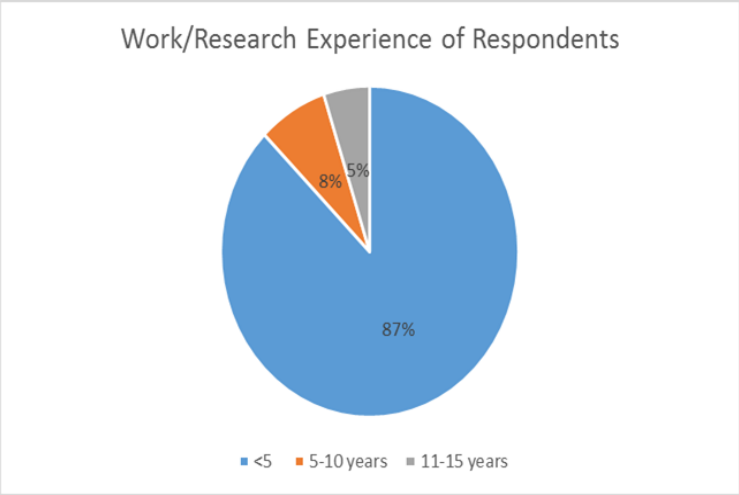
The first category of information covers the background information on the sampled 40 respondents. The bar charts below captures the background information of the respondents. The 1st Chart shows that
53 percent of the total 40 respondents are females while the remaining 47 percent are males



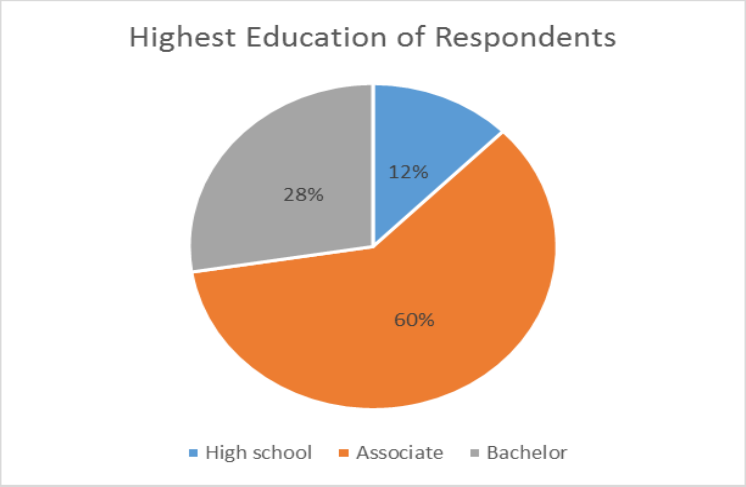
Data gathered on the age of respondents reveals that majority of the respondents precisely 57 percent are 25 years of age and below. 25 percent fall between the age of 25 and 35 while 13 percent are between 35 and 45 years of age. The remaining 5 percent fall between 45 and 55 years of age



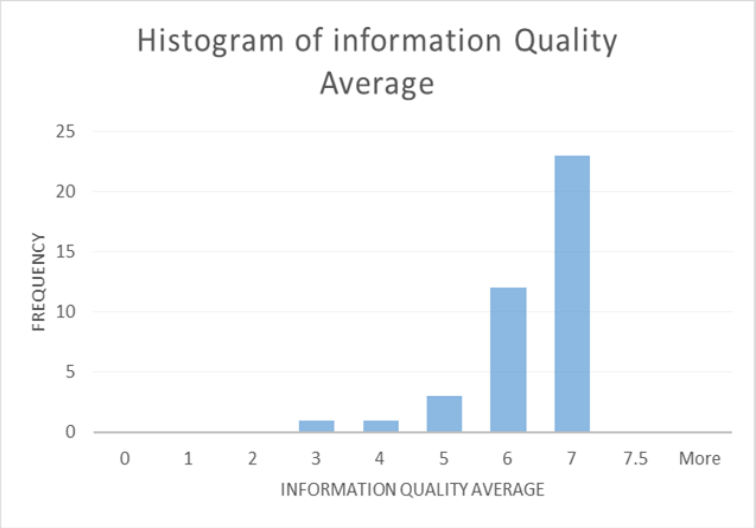
The highest percentage of respondents, which is 87 percent have work or research experience on climate and environment issues of 5 years and below. Those with work or field experience of between 5 to 10 years are 8 percent of the total respondent population, while the remaining 5 percent have experience of between 11 to 15 years.



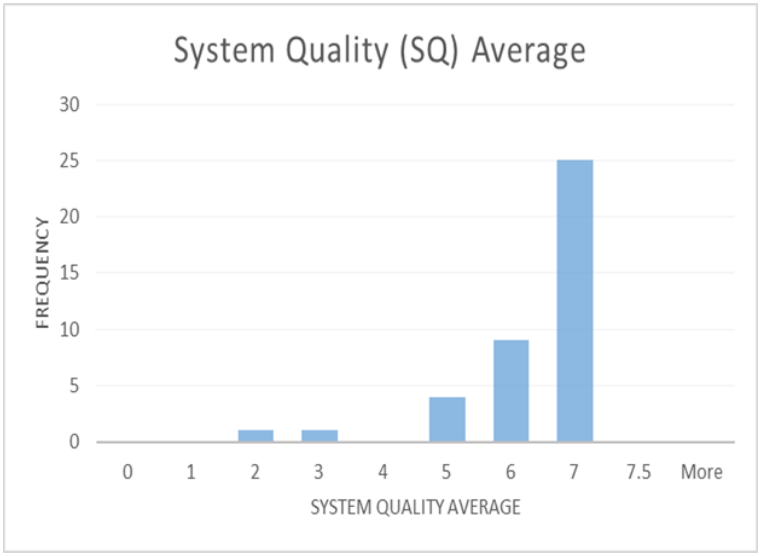
In terms of the highest level of education, 12 percent of the respondents hold a high school diploma, 60 percent hold an associate degree and the remaining 28 percent hold a bachelor degree and higher.



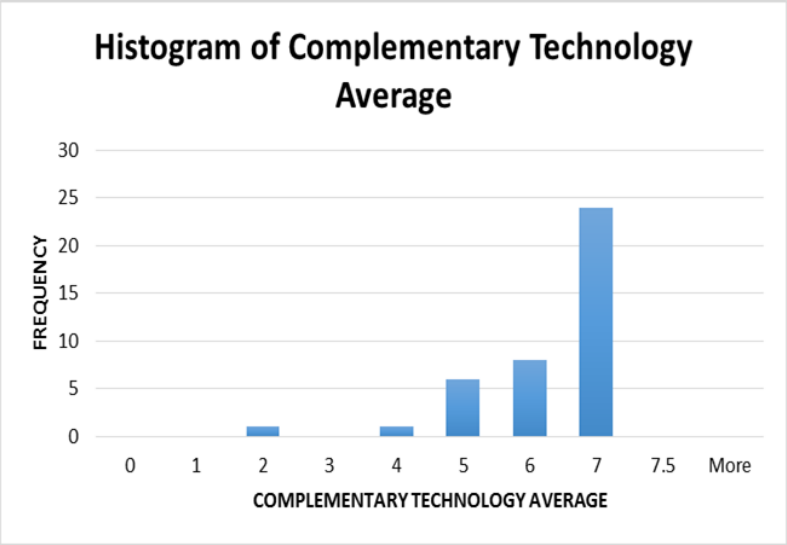
The second category of questions were regarding the quality of information the clearing house system provides. A review of the averages show that 23 respondents ranked the information quality with the highest score of 7 and only 2 respondents being neutral on the high quality of information. As shown in the histogram below, none of the respondents disagree with the quality of information provided by the clearing house system



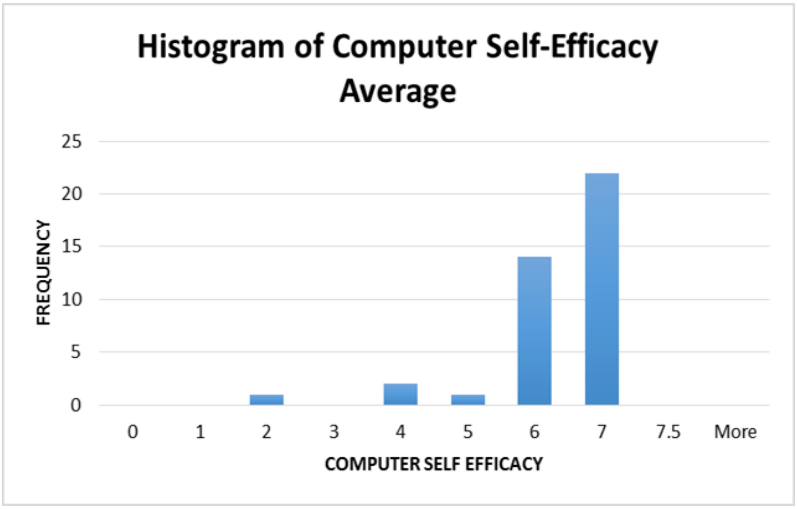
The third group of questions centred on system quality. The questions asked respondents their view about the quality of the information system. Two of the forty respondents disagrees with the system quality ranking it less than 4, we remaining respondents ranked it at a level of 5 and above. Hence from the respondents' point of view, we can summarise that the quality of the clearinghouse system as maintained by CCCCC is at a very high standard. The histogram below shows same



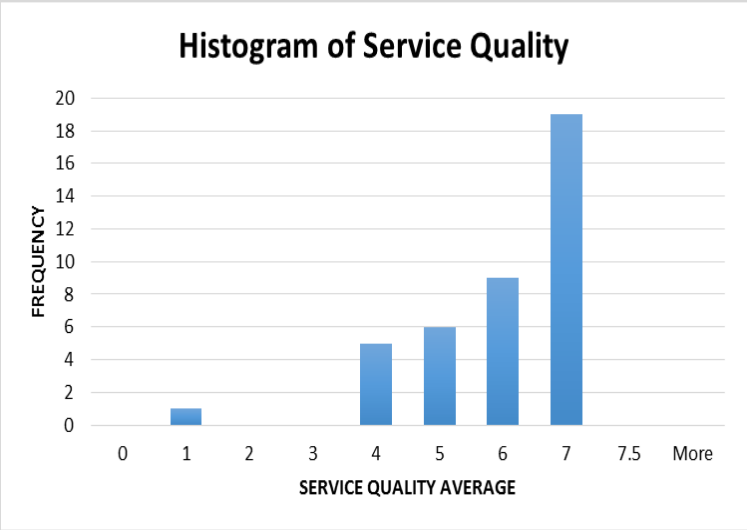
The fourth question category was to determine the quality of complementary technology used by the respondents to access the clearinghouse system. 38 of the respondents ranked it between 5 to 7 which corresponds to a high level of complementary the technology. The histogram of the complementary technology confirms same



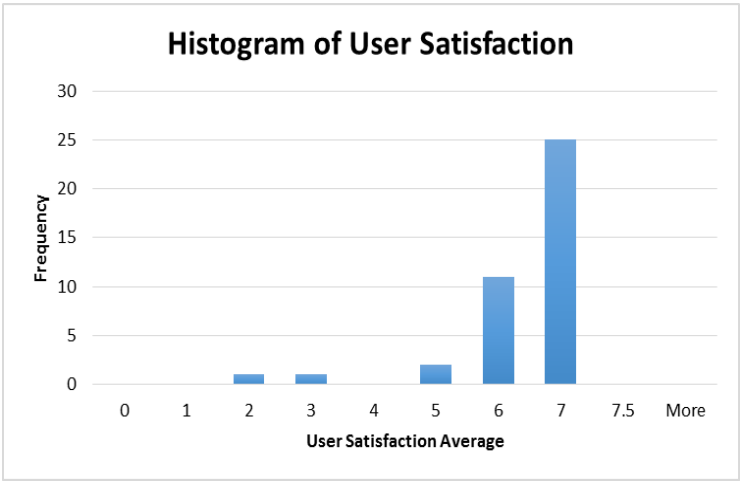
The fifth category of questions centred on the computer self-efficacy measures. Respondents were asked 10 different questions regarding the Self Efficacy of the clearinghouse system. Self-efficacy generally describes an individual's belief in his or her capacity to function successfully in the use of a given approach or system. And in terms of self-efficacy, majority of the respondents maintain confidence in their ability to use the clearing house system to attain their desired research or work objectives. Most respondents ranked their self-efficacy at the highest levels of 6-7.



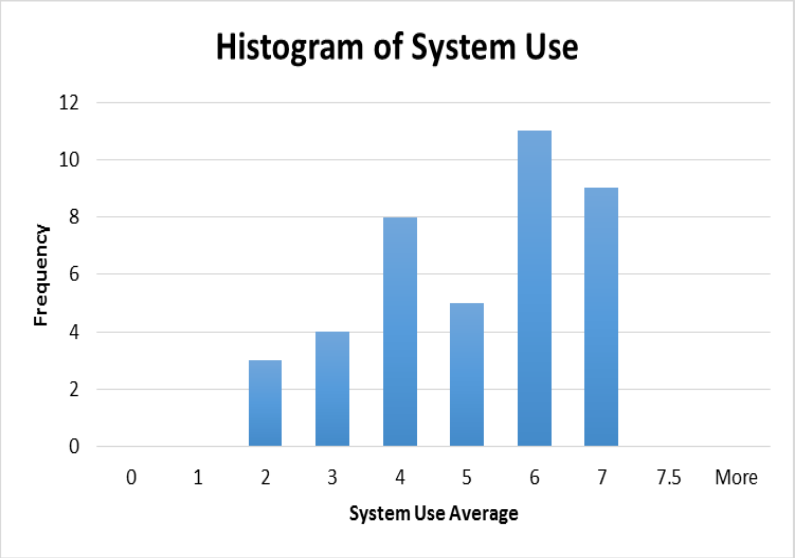
The sixth group of questions were aimed at determining the service quality of the clearinghouse search tool system. The service quality was as well highly ranked by the respondents, which shows a high quality of service provided by the clearinghouse system. The histogram below corroborates same



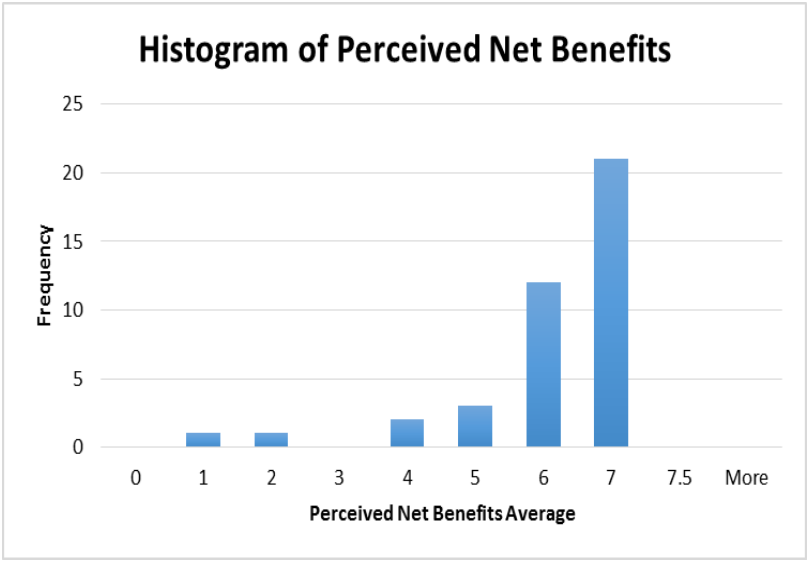
The seventh category of questions were used to determine the level of user satisfaction with the clearinghouse information system. User satisfaction as well ranked high as majority of the respondents ranked the user satisfaction at between 5-7. The minority of 2 persons ranked it low in terms of user satisfaction, but this should be of concern to the clearinghouse staff as the system should ideally and satisfactorily meet the needs of all users



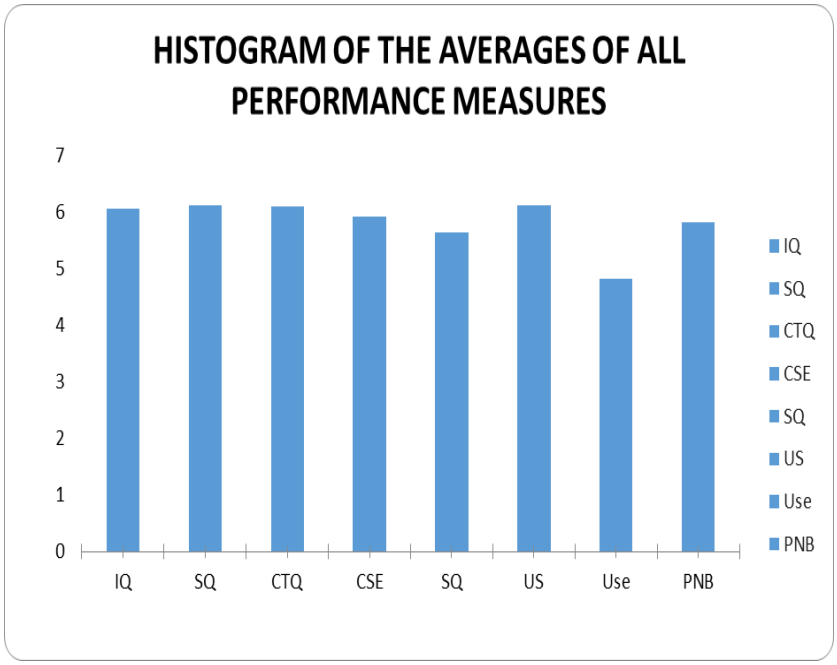
The eighth set of questions asked for information from respondents regarding their frequency and level of usage of the clearinghouse system. The majority of responses were at a medium to a high level which implies that the users find the important use of the clearinghouse system in the course of their work and research on climate and environment issues. This trend is revealed in the histogram of system use by respondents



The ninth and the last set of questions focused on the perceived net benefits in terms of knowledge acquisition to both internal and external users of the clearinghouse system. Most individuals maintain a high perception of the net benefits obtained from their use of the clearinghouse to obtain information and improve their knowledge on climate change. 83 percent of the respondents have a very perceived net benefits of the system ranking it between 5-7, while a very minimal 5 percent ranked their perceived net benefits between 1 to 2. The histogram below reveals same



Finally, the overall averages of the all the categories of measure used to assess the system yields a very high and positive ranking of the clearinghouse system. The surveyed respondents are of the view that the clearinghouse system have a positive direct impact on climate change knowledge acquisition in Belize. The histogram below provides the overall average of all the performance measures identified separately above



Conclusion

In the course of this research survey of the CCCCC's clearing house system we were able to gather valuable information and views from researchers and students on the subject of climate change. The research also underlines the essential role of the CCCCC in coordinating and harmonizing all efforts to tackle and adapt to the reality of the effect of climate change on the Caribbean population.

Also, the overall results of the survey which results shows that the respondent the are in agreement with the overall quality of the clearinghouse system as it provides optimum benefits to users in terms of acquiring knowledge on climate change matters in Belize and the wider Caribbean.

It is our recommendation for the CCCCC to enact and implement projects and programs that will take the knowledge of climate change matters beyond the current niche of few students and researchers who are inherently concerned with the issue of climate change due to their studies and research work. The means of acquiring knowledge the on the subject of climate change should be within the reach of the ordinary citizen in Belize and the wider Caribbean.

Additionally, further research projects need to be done on the subject of increasing the level of acquisition of knowledge on climate change matters in Belize and the Caribbean. The clearinghouse system as it currently functions effectively aids the acquisition of climate change knowledge by students and researchers. Further researches and the

execution of additional programs on promoting climate change knowledge acquisition will certainly be of immense benefits to all citizens of the Caribbean and beyond.

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Appendix A

"Impact of CCCCC's Information Clearinghouse on Climate Change knowledge acquisition in Belize"

Purpose

This questionnaire asks for information regarding the impact of CCCCC's Regional Information Clearinghouse on climate change knowledge acquisition and enhancement in Belize. The center is a regional body under the auspices of CARICOM established in 2002. Please answer the questions relating to your personal knowledge and experience. Your individual responses to the questionnaire will be strictly confidential.

Instructions

This is a survey, not a test; there are no right or wrong answers. Please tick the boxes to mark your answers.

1. Background Information	**Answers:**
Please indicate your gender:	Male ☐ Female ☐
Please indicate your age:	<25 ☐ 25-35 ☐ 36-45 ☐ 46-55 ☐ >55 ☐
Please indicate highest education level attained:	PhD ☐ Masters ☐ Bachelors ☐ Associates ☐ High School ☐ Primary School
Please indicate yours of work or research experience:	<5 ☐ 5-10 ☐ 11-15 ☐ >15 ☐

Indicate your agreement with each statement by rating it from (1) strongly disagree to (7) strongly agree.

2. Information Quality	**Disagree ---------- Agree**
• IQ1: The Clearinghouse system meets your exact information need on climate issues	1☐ 2☐ 3☐ 4☐ 5☐ 6☐ 7☐
IQ2: The Clearinghouse system provides information you need at the right time	1☐ 2☐ 3☐ 4☐ 5☐ 6☐ 7☐
IQ3: The Clearinghouse system provides information that is relevant to your awareness needs on climate issues	1☐ 2☐ 3☐ 4☐ 5☐ 6☐ 7☐
IQ4: The Clearinghouse system provides sufficient information	1☐ 2☐ 3☐ 4☐ 5☐ 6☐ 7☐
IQ5: The Clearinghouse system provides information that is easy to understand	1☐ 2☐ 3☐ 4☐ 5☐ 6☐ 7☐
IQ6: The Clearinghouse system provides up-to-date information on climate issues	1☐ 2☐ 3☐ 4☐ 5☐ 6☐ 7☐
3. System Quality	**Disagree ---------- Agree**
SQ1: The Clearinghouse system is easy to use	1☐ 2☐ 3☐ 4☐ 5☐ 6☐ 7☐
SQ2: The Clearinghouse system is user-friendly	1☐ 2☐ 3☐ 4☐ 5☐ 6☐ 7☐
SQ3: The Clearinghouse system provides high speed information access	1☐ 2☐ 3☐ 4☐ 5☐ 6☐ 7☐
SQ4: The Clearinghouse system provides interactive features between users and system	1☐ 2☐ 3☐ 4☐ 5☐ 6☐ 7☐
4. Complementary Technology Quality	**Disagree ----------Agre**
CTQ1: The software on the device (desktop, laptop, mobile device) you normally use to access the Information Clearinghouse is adequate	1☐ 2☐ 3☐ 4☐ 5☐ 6☐ 7☐
CTQ2: The device hardware (desktop, laptop, mobile device) you normally use to access the Information Clearinghouse is adequate	1☐ 2☐ 3☐ 4☐ 5☐ 6☐ 7☐
CTQ3: The computer (desktop, laptop, mobile device) you normally use to access the Information Clearinghouse has a fast internet connection	1☐ 2☐ 3☐ 4☐ 5☐ 6☐ 7☐
CTQ4: The computer (desktop, laptop, mobile device) you normally use to access the Information Clearinghouse has a reliable internet	1☐ 2☐ 3☐ 4☐ 5☐ 6☐ 7☐
5. Computer Self-Efficacy Measure	**Disagree ----------Agre**
CSE1: You could use the Clearinghouse system without asking freque questions or	1☐ 2☐ 3☐ 4☐ 5☐ 6☐ 7☐

CSE2: You successfully obtained information from the Clearinghou system without	1☐ 2☐ 3☐ 4☐ 5☐ 6☐ 7☐
CSE3: You could use the Clearinghouse system if you have only t information system	1☐ 2☐ 3☐ 4☐ 5☐ 6☐ 7☐
CSE4: You could use the Clearinghouse system if you witnessed the use the system before	1☐ 2☐ 3☐ 4☐ 5☐ 6☐ 7☐
CSE5: You could use the Clearinghouse system successfully if you could c for help	1☐ 2☐ 3☐ 4☐ 5☐ 6☐ 7☐
CSE6: You could use the Clearinghouse system if someone else helped y to get started	1☐ 2☐ 3☐ 4☐ 5☐ 6☐ 7☐
CSE7: You could use the Clearinghouse system if you had ample time complete the	1☐ 2☐ 3☐ 4☐ 5☐ 6☐ 7☐
CSE8: You could use the Clearinghouse system if it has a built-in he facility for assistance	1☐ 2☐ 3☐ 4☐ 5☐ 6☐ 7☐
CSE9: You could use the Clearinghouse system if someone first puts y through on its use	1☐ 2☐ 3☐ 4☐ 5☐ 6☐ 7☐
CSE10: You could use the Clearinghouse system if you had used simil information systems	1☐ 2☐ 3☐ 4☐ 5☐ 6☐ 7☐
6. Service Quality	**Disagree ----------Agre**
SV1: The support staff keeps the Clearinghouse software up to date	1☐ 2☐ 3☐ 4☐ 5☐ 6☐ 7☐
SV2: When users have a problem Clearinghouse system support staff sho a sincere interest in	1☐ 2☐ 3☐ 4☐ 5☐ 6☐ 7☐
SV3: The Clearinghouse support staff respond promptly when users have problem	1☐ 2☐ 3☐ 4☐ 5☐ 6☐ 7☐
SV4: The Information Clearinghouse support staff tell users exactly wh services or changes to to the system will be made	1☐ 2☐ 3☐ 4☐ 5☐ 6☐ 7☐
7. User Satisfaction	**Disagree ----------Agre**
US1: You have a positive attitude or evaluation towards the Clearinghou	1☐ 2☐ 3☐ 4☐ 5☐ 6☐ 7☐
US2: You think that the Clearinghouse system is highly beneficial	1☐ 2☐ 3☐ 4☐ 5☐ 6☐ 7☐
US3: The Clearinghouse system has met your expectations	1☐ 2☐ 3☐ 4☐ 5☐ 6☐ 7☐
US4: You are satisfied with the CCCCC's Information Clearinghouse syste	1☐ 2☐ 3☐ 4☐ 5☐ 6☐ 7☐
8. Use	**Never ---------- ----------Ofte**
U1: Your frequency of use of the Information Clearinghouse system is	1☐ 2☐ 3☐ 4☐ 5☐ 6☐ 7☐
U2: You depend upon the Information Clearinghouse system	1☐ 2☐ 3☐ 4☐ 5☐ 6☐ 7☐
U3: You were able to personally obtain required information from the Clearinghouse system without anyone around to tell you how to go	1☐ 2☐ 3☐ 4☐ 5☐ 6☐ 7☐
U4: You have the knowledge necessary to use the Information Clearinghouse system	1☐ 2☐ 3☐ 4☐ 5☐ 6☐ 7☐
9. Perceived Net Benefits (Knowledge Acquisition)	**Never ---------- Often**
NB1: The Clearinghouse system helps to improve your research or	1☐ 2☐ 3☐ 4☐ 5☐ 6☐ 7☐
NB2: The Clearinghouse system helps you or your organization save time and costs in obtaining information	1☐ 2☐ 3☐ 4☐ 5☐ 6☐ 7☐
NB3: The Information Clearinghouse system helps to meet your personal, organizational or community climate goals	1☐ 2☐ 3☐ 4☐ 5☐ 6☐ 7☐
NB4: The use of the Clearinghouse system helps you or your organization to improve staff assessment and training	1☐ 2☐ 3☐ 4☐ 5☐ 6☐ 7☐
NB5: Using the Information Clearinghouse system for research or on the job increases your productivity	1☐ 2☐ 3☐ 4☐ 5☐ 6☐ 7☐

NB6: Overall, using the Information Clearinghouse system enhances the gathering of information and the decision-making process on	1☐ 2☐ 3☐ 4☐ 5☐ 6☐ 7☐

Please return this survey to the person who gave you the form.

Thank you for your participation.