

Enhancing Academic Support at the University of Guyana Berbice Campus: The Need for a Research & Reference Services Division

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Abstract

University libraries play a critical and active role in the dissemination and use of information through its research and reference services. Like other university libraries, the University of Guyana Berbice Campus Library (UGBCL) does not have a designated division for this purpose but is expected to provide services to patrons in this area. Consequently, the overwhelming number of requests for assistance, mostly placed beyond regular working hours, oftentimes are unfulfilled, thus presenting a major challenge in terms of adequate service delivery. Hence, this study seeks to enhance the academic support services at the University of Guyana Berbice Campus (UGBC) by proposing the establishment of a Research and Reference Services Division (RRSD) within the Library. It focuses on evaluating UGBCL current academic support and identifying areas for enhancement; developing a robust framework for the proposed RRSD; and assessing the feasibility of establishing the same. The data in these areas was collected from students, academic and library staff through web-based surveys and analysed using SPSS and Microsoft Excel applications. From the findings of this study, there is a need for the establishment of a RRSD, to enhance academic support. Further, the result from the Chi-Square test revealed no statistically significant differences in support between the three (3) categories of respondents ($\chi^2(2) = 2.015$, $p = .365$). This suggested a broad consensus across the respondents' categories. The study concluded with recommendations for the successful establishment of a RRSD at the UGBCL which includes fostering collaboration with academic divisions, employing qualified staff, among others.

Keywords: *Academic Libraries, Academic Support, Reference Services, Research Division, University of Guyana Berbice Campus Library.*

Introduction

Overview

University libraries being the heart of their parent institutions, play a crucial role in supporting teaching, learning and research. In this information era, it's important for university libraries not only to build their collection but assist patrons with their research and information needs. Thus, the University of Guyana Berbice Campus Library (UGBCL) is not exempted from this provision. To circumvent the library's limitations of offering the services of a Research and Reference

Services Division (RRSD) to its patrons and in an attempt to meet their diverse needs and further to prove their relevance in this information society, UGBCL offers Information Literacy (IL) sessions. IL put simply is the ability to locate, evaluate and use information effectively, critically and ethically. IL is consider as a new art that extends beyond the knowledge of using computers and accessing information to a critical reflection of the type of information and its impact [1].

While IL does not cover all of the immediate RRSD needs of the UGBCL patrons, it certainly assists patrons with some of their needs. The

initial offerings at the UGBCL were packaged to include the most common areas, namely, plagiarism, referencing materials and using online databases. Subsequently, this was extended to include evaluating credible sources, citation generators, formatting of papers, writing a literature review, using AI tools and further facilitating other areas of interest which were requested by patrons. Additionally, library professionals began to offer group and one-on-one sessions with patrons providing guidance on research topics, formatting and referencing research papers and editorial works, among others. The delivering of IL consultation services was done by the traditional modes, however, during the COVID-19 pandemic and with the advancement of technology, these were made popular via the virtual modes.

UGBCL in Brief

The UGBCL was established in 2000; it is a branch of the main University Library at Turkeyen. It supports the instructional, information and research needs of the academic community as well as provides a variety of resources to extend the teaching and research programmes of the University of Guyana [2]. It comprised two divisions: Technical Services Division (TSD) and Reader Services Division (RSD) with a total of nine (9) staff, all of whom work across the two divisions. The TSD is mainly responsible for the following tasks:

1. Processing materials including accessioning, cataloguing and verifying
2. Managing the Bindery Unit
3. Storing equipment
4. Overseeing photography & videography projects
5. Handling stock requisitions

The RSD establishes direct contact with patrons since they make the materials processed in TSD available to patrons. Currently, it is mainly responsible for the:

Circulation Desk which entails:

1. Checking in and out of materials
2. Renewals

3. Printing, Photocopying & Scanning
4. Equipment Loans
5. Miscellaneous Loans

Information Desk which entails:

1. Register patrons
2. Clear patrons
3. Provide access to databases
4. Respond to basic/routine queries
5. Process interlibrary loan requests
6. Provide Social Networking Services

Reading Room which entails access to a user friendly and conducive study space.

From the layout above it is evident that while no divisions at UGBCL were assigned the task of providing academic support in the form of research consultations, conducting IL sessions, engaging in advanced reference services, among others, in an effort to meet patrons' information and research needs, all staff assisted in whatever way possible. Furthermore, with the increase of requests driven by referrals and UGBCL marketing strategies, this internal growth of stakeholders, and interest from the external stakeholders such as the secondary schools and Cyril Potter College of Education (CPCE), shows that there is a desperate need for a RRSD. Also, at some juncture patrons were sometimes refused this service due to time constraint, staff unavailability, among others. So, while UGBCL is committed to providing academic support to its patrons, there is an opportunity to enhance this support by establishing a RRSD.

The need for this division is driven by the recognition that patrons require more personalised and in-depth support to navigate the challenges encountered in academic research and information literacy. As such, UGBCL can bridge the existing gaps and enhance academic support by establishing a division focusing on research and reference services.

This study highlighted the need for a RRSD at UGBCL to provide high-quality academic support by assessing the current services and identifying areas for enhancement; developing

a robust framework for the division; and evaluating the feasibility of establishing the same.

Rationale/Purpose of the Study

The purpose of the study was to investigate the current academic support services UGBCL offered to meet patrons' needs and further to determine whether there is a need for the establishment of a division within UGBCL to offer the same. The reason for this is due to the absence of a specific division to provide this service at UGBCL and the dependency on staff initiative to assist patrons. However, they cannot always fulfil these requests due to lack of staff, the expertise, and the receipt of requests beyond working hours. Additionally, staff eventually became overwhelmed with the additional amount of work they performed.

Problem Statement

UGBCL receives overwhelming requests from patrons for assistance, most of which are often outside of the normal working hours. While UGBCL does not have a designated division to provide academic support including research consultations, advance reference services, IL sessions, among others, it does its best to meet the evolving needs of its patrons by assisting where necessary. Nevertheless, with the increased requests and continuous need for this service on a wider scale, this study proposed the need for a RRSD within UGBCL.

Research Questions

The research questions that guided this study were as follows:

1. How can academic support at the University of Guyana Berbice Campus (UGBC) be enhanced within the Library?
2. What are the critical components required for establishing the RRSD within UGBCL?
3. What are the possible challenges that should be considered before establishing the RRSD and how should they be effectively addressed?

Hypotheses

The following hypotheses (null and alternative) were put forward to support the first research question:

1. Null Hypothesis (Ho): There is no significant difference between the categories of respondents and their responses regarding the establishment of the RRSD.
2. Alternative Hypothesis (H1): There is a significant difference between the categories of respondents and their responses regarding the establishment of the RRSD.

Research Objectives

General Objective

The general objective of this study was *to establish a RRSD within the library at the UGBC to provide academic support to patrons.*

Specific Objectives

The specific objectives of this study were as follows:

1. To examine the current academic support provided by the UGBCL and further to determine whether there is a need for a RRSD to enhance these services.
2. To develop a robust framework for the RRSD focusing on its goals, service offerings, structure, staffing, infrastructure and budget.
3. To assess the feasibility of establishing the RRSD within the UGBCL by identifying potential challenges and proposing viable solutions for successful implementation and sustainability.

Significance of the Study

The significance of the study was as follows:

1. Emphasised the need for a RRSD within the library to enhance academic support at UGBC.
2. Served as a guide to the University, in particular the staff at UGBCL in terms of

developing and implementing a robust framework for the proposed new division.

3. Provided a listing of the possible challenges to be considered before establishing the RRSD along with the solutions to the same.

Limitations of the Study

The limitations of this study were as follows:

1. There was no guarantee that every questionnaire sent out will be returned and in a timely manner.
2. There was a possibility that respondents' bias may be evident where they might withhold their true opinions on certain questions.

Literature Review

Evolving Role of University Libraries

University libraries are considered essential components of their parent institutions, providing resources and services to support teaching, learning and research. However, over the years, the role of libraries is continuously changing, and this is due to the increasing amount of information readily available via the internet as well as the use of information and communication technologies [3]. The changes in roles are thus necessary and libraries must adapt if they are to meet the diverse needs of their patrons.

Academic Support Provided by University Libraries

Academic support, referred to as an intervention to help learners/students/scholars to be successful in their academic endeavours, has become an essential and necessary service in libraries [4]. The academic support provided by university libraries to their patrons globally are similar in nature as evident in some examples below.

The University of Edinburgh Library provided academic support in the form of IL and library skill sessions; one-on-one librarian consultations; develop digital library skills,

dissertation and thesis festival; research cafe; royal literary fund fellow; and resources and guidance [5]. At the Sir Alex Ferguson Library, they offer academic support such as one-on-one support as well as embedding and teaching library classes/sessions and workshops into programmes so as to get students to use quality academic resources [6]. Further, Ontario Institute for Studies in Education (OISE) Library offered drop-in research support to assist patrons with the basics such as resources, research tools, literature reviews, among others, as well as one-on-one and small group consultations for more advanced research assistance which includes formulating a literature search strategy [7].

From the Atlantic Cape Community College Library, they provided tutoring services in nearly all subject areas to all students using various modes like in-person, live chat, interactive whiteboards, live meetings, and asynchronous [8]. Additionally, the UWI Library support services include library instruction, research consultations, reference services, bibliographies and references, web-based guides, thesis consultation/checking, ask a librarian, among others [9].

Common Academic Support Services

Literature revealed that the following academic support services are considered common/popular in university libraries; these are briefly discussed below.

1. IL and Library Sessions

IL and library sessions focus mainly on patrons' information literacy needs, they are designed on specific research aspects or overview of library resources [10].

2. Research Consultations

Research consultations are designed to help patrons in academic writing, develop search strategies, using reference management software, providing knowledge of library resources, among others [5]. Additionally, it includes assistance in organising research and

providing customised support for patrons' research needs [11].

3. Library Course/Classes

Courses taught by library professionals are incorporated into students' programmes at universities. Library classes are taught during the semester pertaining to search strategies, library research, evaluation of sources, critical thinking, citations, among others [12].

4. Reference Services

Reference services usually take the form of providing assistance in finding materials, answering queries, accessing information, among others [13].

5. Thesis Checking/Scrutiny

Thesis checking/scrutiny involves checking students' thesis to ensure that they comply with the guide provided by the faculty/university as it relates to formatting, abstract, references, among others; then certifying it as acceptable for the library's collection providing it meets the requirements [9].

Impact of Academic Support Provided by University Libraries

Literature revealed that academic support in the form of library instruction sessions, etc. plays a critical role in students' success [14, 15]. Additionally, IL helps students to effectively identify and use information, engage in critical thinking and ethical reasoning, thus, contributing to their academic success [16]. Moreover, evidence revealed that library instruction courses enhance the persistence, grades and the overall academic achievement of students [17]. Further, students who took the library course, received a higher GPA when compared to those who did not take it [18]. As such, it can be said that library courses/instructions are considered one of the factors that contributes to students' success. Further, students reported that research consultations provided by the library met their expectations since it equipped them with the skills to undertake their projects and simultaneously enhanced the quality of their

work significantly [19]. Finally, students noted that they developed a higher level of confidence as it pertains to their research abilities following a consultation with the library [20].

Gaps in Academic Support

While university libraries provide academic services, there are gaps which include patrons being unaware of the support, limited staff, expertise shortage, and infrastructure.

Reports and surveys indicated that students are unaware of the library's support services including the research assistance available to them [21]. Additionally, in a survey conducted, in terms of user awareness of the library services and IL sessions, the library needs to intensely promote them [22]. Further, student support divisions because they require specialised knowledge, they are unable to implement some of the programs [23].

Establishing a Division for Academic Support

Before establishing any division, it is essential to obtain stakeholder buy-in which can be done through various methods such as engaging students, faculty, and administrative staff in the planning process. Obtaining buy-in from stakeholders is critical to ensure the right fit [24].

In establishing a new department, it is important to identify the problem that the department will be solving, engage in documentation such as setting objectives, preparing operational templates, etc., set the culture, and engage in recruitment [25].

Overall, literature revealed that establishing a division requires setting clear objectives, defining service offerings, creating an organisational structure, recruiting staff, allocating resources, engaging in budgeting, among others.

Materials and Methods

Overview

This section of the paper focuses on how the study was designed in order to gather the data required to address the research questions posed. Research methodology entails a researcher designing a study systematically to ensure the results are valid and reliable in addressing the research aims and objectives [26]. This section includes the research design; study area; population and sample; study duration; data collection and analysis; and ethical considerations.

Research Design & Approach

Research design is defined as the methods and techniques that a researcher uses to integrate aspects of research in a logical way so that the research problem is dealt with efficiently [27]. It is basically the researcher's plan to answer the research questions. For this study the quantitative research design was used because it aims to answer questions like what, how, where, who and when throughout the study and at the same time it was easier to utilise visuals like charts, graphs, etc. to represent the outcome of the analysis [28].

The study was carried out using both survey research and content analysis. The survey research is also referred to as descriptive research. Descriptive research entails using instruments like interviews and questionnaires to obtain information from individuals [29]. As such, Google form, a web-based survey tool was used to collect data. This instrument was easy to use and allowed the researcher to collect both quantitative and qualitative data from a large number of respondents in a shorter time

frame. It must be noted that the data collection process was conducted online since the respondents were rarely on campus during this period. While the respondents were treated with utmost confidentiality, there was a possibility that they may have withheld their true opinions on certain questions.

The content analysis is referred to as a document analysis. Content analysis as a research tool which is used to find certain words or concepts within documents which is then analysed and inferences drawn to the study undertaken [30]. This data collection type was employed because secondary data can be retrieved at a convenient time and has proven to be an unobtrusive source of information. Also, as written evidence, it is cost effective and efficient since it reduces the time needed for transcribing as is done with other types of data collection. However, one of the disadvantages of this data collection type is that protected information is not available to public or private access [31].

Study Area

Selecting a research area is essential because it decides whether the information obtained will be useful or not [32]. This study was conducted at the UGBC located at Tain, Port Maurant, Corentyne Berbice, Region # 6 (see figure 1 below). The reason for selecting this area was that the researcher is employed at this Campus and as such can have access to the necessary resources for this study. Also, over the 11 years of experience at the UGBCL, the researcher recognised that there is a need for a separate division at the library to provide academic support services to patrons.

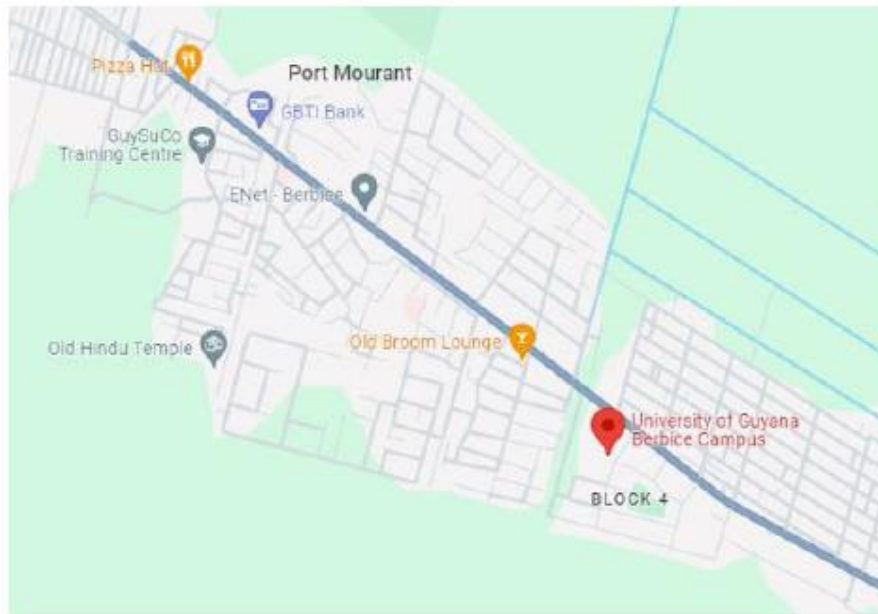


Figure 1. Map showing the geographical location of the study area. Source: Google Map.

Study Population

Population is defined as all the members of a class whether it be people, objects or events [29]. It is also defined as a group of persons with similar characteristics [33]. The population for this study was the undergraduate students and academic staff of Berbice Campus which was approximately six hundred (600) and forty (40) respectively. It also included the staff at the UGBCL, a total of nine (9). As such, the study sample was derived from this population.

Sampling Method

Sample is defined as a subgroup of the population that a researcher aims to study in order to generalise the population [33]. The researcher utilised the purposive sampling, a non-probability technique, to select the sample for this study. Purposive sampling or judgement sampling involves judging samples that are representative of the population [29]. So, this sampling technique relies on the discretion of the researcher to identify/select individuals and documents to provide valuable information to achieve the objectives of the study. The purposive sampling technique was chosen for this study because it was considered both cost

and time effective. Simultaneously, documents and participants were selected based on their ability to provide more valuable insights into the study as against random selections.

As such, the criteria for selecting the participants were as follows:

1. Students across all division/college/school at UGBC at different study years who used the academic support services.
2. Academic staff that utilised the academic support services for the benefits of their students.
3. UGBCL staff since they are directly involved in the provision of the academic support services.

While the criteria for selecting similar research/documents were as follows:

1. Terms based on the topic understudy
2. Title and abstracts
3. Year of publication, that is between 2000-2024
4. Peer-reviewed, full-text, etc.

Sample Size

A sample size of 74, comprising forty-five (45) students, twenty (20) academic staff and nine (9) library staff were selected for this study (see table 1 below).

Table 1. Sample of the study

Participants	Population	Sample
Undergraduate Students	600	45
Academic Staff	40	20
Library Staff	9	9
Total	649	74

Additionally, over 30 relevant documents were perused so as to answer the research questions.

Study Duration

The study duration was a six (6) months period, that is, during April - September, 2024.

Collection of Data

Survey Research

Permission was sought from the Director (ag) of UGBC to conduct the survey with the students and staff of UGBC. After approval was obtained, the questionnaires were then created using Google forms and vetted by experts in the research field as part of the validation process. A pilot study was then conducted with approximately five (5) students and five (5) staff who were not included in the actual study in order to validate the accuracy and suitability of the instrument and at the same provide the researcher with the opportunity to make adjustments to the questionnaires where necessary. So, with the questionnaires created, validated and tested for reliability, the data collection process commenced where consent was sought and questionnaires with a brief note of the purpose of the study were sent via email and WhatsApp to the students, academic staff and the library staff selected. The data collected from the survey was automatically stored on the cloud after the questionnaires were filled. This process was conducted during the period June-July, 2024.

Content Analysis

A number of institutional documents including monthly reports, statistics sheets, UGBC proposed organogram, among others were retrieved and reviewed. Additionally, various websites and databases like EBSCOhost, JSTOR, etc. were utilised to search for articles pertaining to the topic under study. Various search terms were used including *academic support services provided by university libraries, impact of library academic services on students, library reference services division impact, research and reference services in academic libraries*, among others. The search results were then filtered in terms of publication year, subject, peer-reviewed and full-text. Also, the title and abstract of articles were used as a guide to select the most appropriate ones. As a result, over 30 publications including books, articles, websites, among others were retrieved and reviewed.

Table 2 below provided basic details about the documents retrieved and reviewed during the study. These documents were critical in terms of providing answers to the research questions in addition to the primary data gathered. As such, the information was analysed and utilised accordingly within the study. Overall, the information was presented under the relevant headings in a clear and comprehensive manner.

Table 2. Documents retrieved and reviewed

Type of Documents	Description of Documents	Source of Documents
University records	• Monthly reports • Statistics sheets • Organogram • Time analysis worksheets • Student guide	UGBCL
Literature on libraries academic support services	• Articles • Chapters	Journals, Books, Websites

Data Analysis

Credibility is critical when analysing data in a study. In this process it is important to organise, code and represent data so that it can be interpreted accurately [34]. As such, data analysis was done in a credible process so as to establish trustworthiness in the research. Data analysis was done using the SPSS software version 23 and Microsoft Excel 2016. The data collected from Google forms was coded and inputted into SPSS then analysed using descriptive statistics (frequency, percentages and cross tabs including Chi-Square test) and multiple responses. It is important to note that since there were three (3) categories of respondents, 3 sets of data were coded and analysed into SPSS. The analysis generated from SPSS were then copied and merged into Microsoft Excel to produce the necessary tables, graphs and charts.

Ethical Considerations

Since this study involved human respondents, it was critical that human research ethics be obtained [35]. As such, permission was sought from the Director (ag) of UGBC to conduct the survey. Additionally, before obtaining data from the participants, they were informed who the researcher was, the purpose of the research, the data that would be collected and how the data would be used; this was followed by seeking their consent. Further,

participants' identity was kept anonymous since they were not required to supply their names.

Results

Introduction

This study was conducted at the UGBC to determine if there is a need for a RRSD within the library to enhance the academic support provided to patrons. Questionnaires were utilised to obtain data from 74 respondents who are the students, academic staff and library staff. It must be noted that while 74 was the proposed sample amount, more than 74 questionnaires were sent out since there is the possibility that not all will be returned. However, the amount returned matches the proposed sample amount. The data collected was analysed using a combination of SPSS version 23 and Microsoft Excel 2016. The results and analysis were presented using descriptive statistics which were displayed through tables, graphs and charts where the biodata is cross tabulated and the 3 research questions were done in frequency, percentage and cross tabulations including a Chi-Square test.

Findings & Analysis

Analysis of Demographic Characteristics

Students

Figure 2 below display the demographic characteristics of the forty-five (45) students at the UGBC who participated in the survey. It can

be seen that majority of the students were from Natural Science (24.4%), between the age range 26-30 (35.6%) and in final year (44.4%).

Overall, it can be seen that students within all the college, divisions and school as well as the year of study and age range were represented.

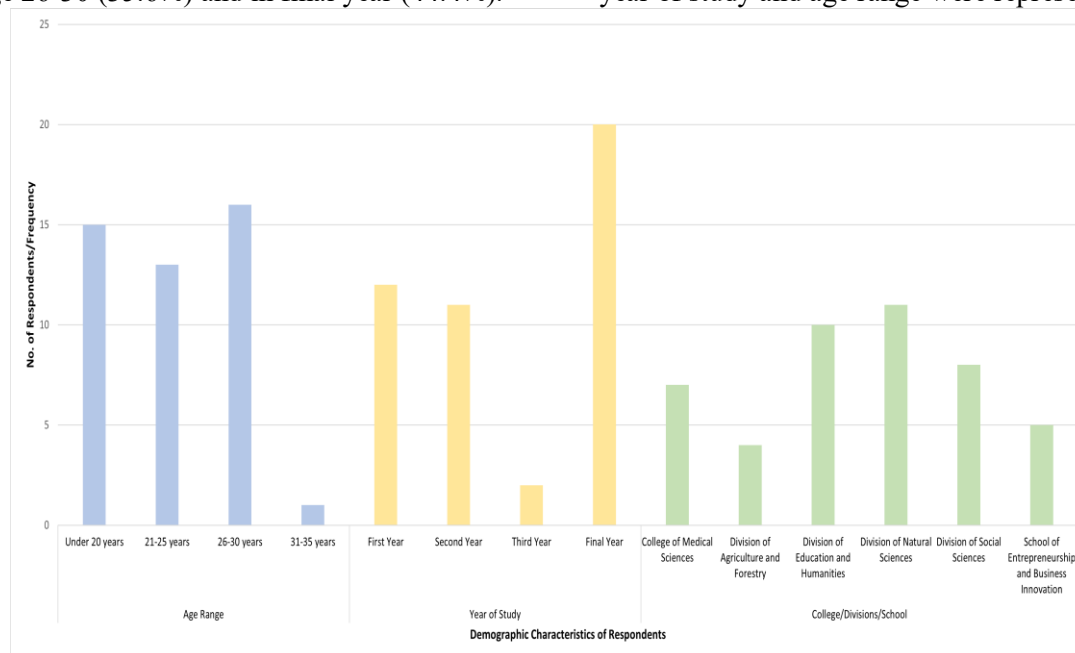


Figure 2. Demographic characteristics of students

Academic Staff

Figure 3 below display the demographic characteristics of the twenty (20) academic staff who are the lecturers at the UGBC that participated in the survey. It can be seen that

majority of the staff was from the Division of Education & Humanities (40%), over 36 years (75%) and over 15 years of experience (50%). Overall, it can be seen that academic staff within all college, divisions and school as well as age range and experiences were represented.

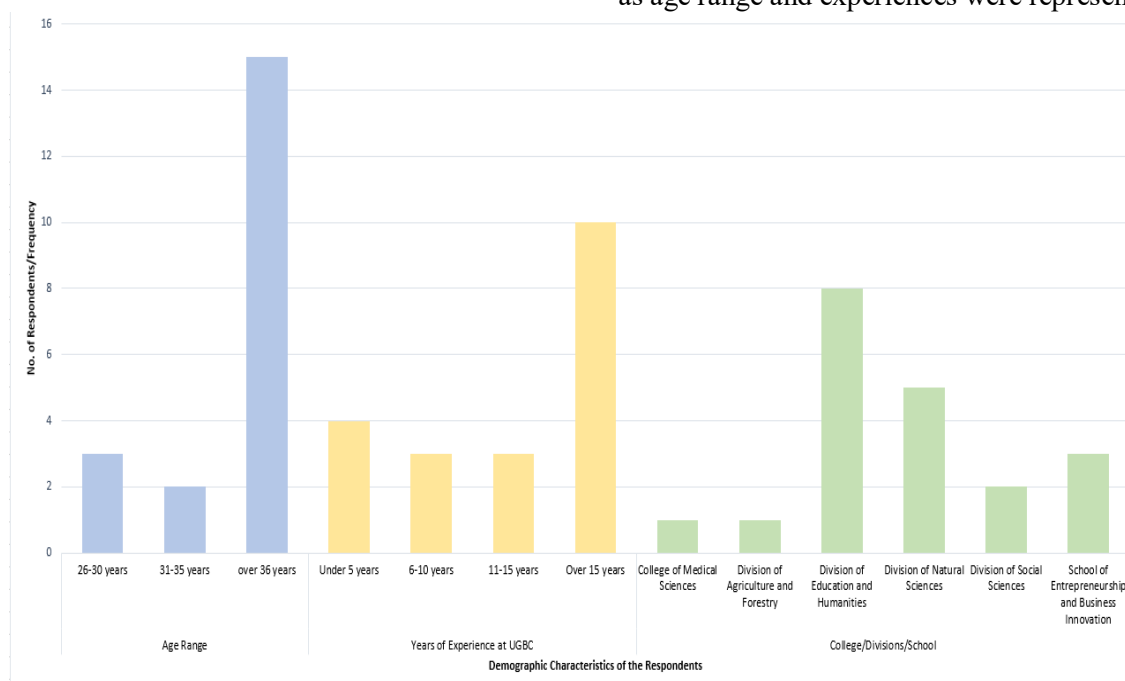


Figure 3. Demographic characteristics of academic staff

BCL Staff

Figure 4 below display the demographic characteristics of the nine (9) staff at UGBCL. It can be seen that majority of the staff was

junior (66.7%), over 36 years (44.46%) and under 5 years and 6-10 years' experience (33.3%) each. Overall, both categories of staff as well as all designation, age range and years of experience were represented.

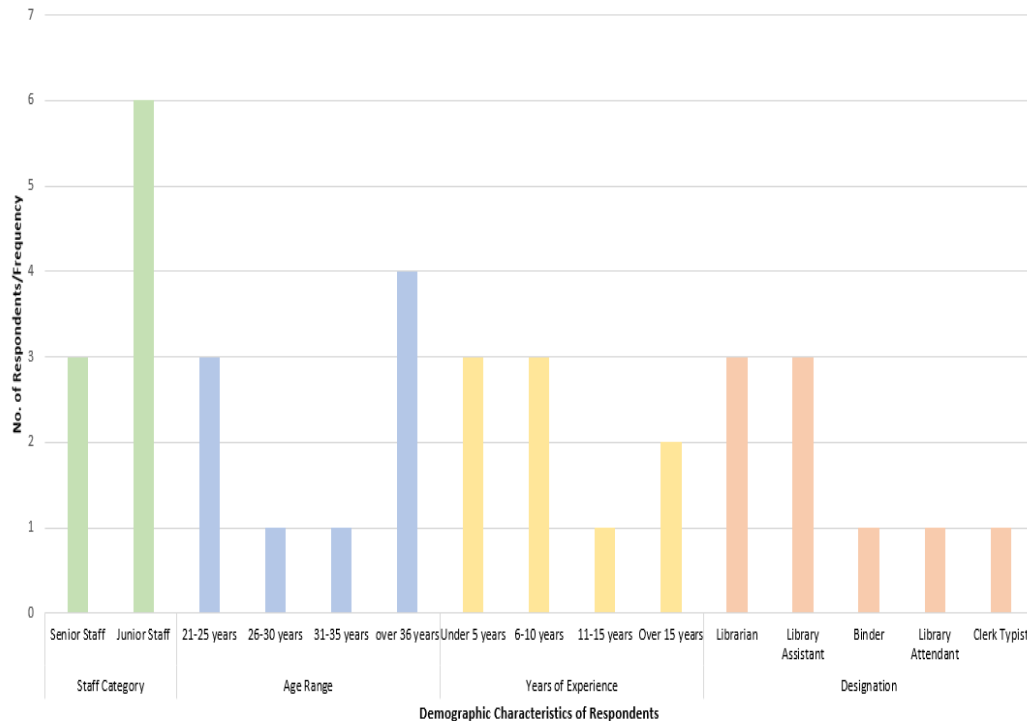


Figure 4. Demographic characteristics of UGBCL staff

Research Question 1: How can academic support at the UGBC be enhanced within the Library?

This research question entailed finding out what are the academic support services utilised, how often they are being utilised, which services need enhancement, the challenges patrons experienced accessing the services, whether there is a need for a RRSd and if patrons are in support of the establishment of the same.

Table 3 below displays the academic support services utilised by patrons, that is, both students and academic staff in the various college, divisions and school. Overall, the most popular academic support service used by the students was the use of research tools (55.56%) while for the academic staff it was citation & referencing (75%). Nevertheless, upon consulting with the UGBCL monthly reports

and statistics sheets for the academic year 2023/2024, it can be seen that 19 IL class sessions were done in areas such as plagiarism, citation & referencing, turnitin, database usage, formatting of papers, finding academic sources, formulating literature review and abstracts, annotated bibliography, among others. For the class sessions, plagiarism and citation & referencing were the most common ones. Additionally, 177 group and one-on-one sessions were done with patrons in areas like citation & referencing, formatting of papers, fulfilling article requests, guidance on research topics, proofreading & editorial works, using SPSS (installing, coding, inputting and analysing data), using Microsoft applications, Google workspaces, LibreOffice, and assisting with UG application and registration processes. For the group and one-on-one sessions, citation & referencing, formatting of papers and using the SPSS were the most common ones.

Table 3. Academic support services utilised by patrons

Academic Support Services	College/Division/School												Total	
	College of Medical Sciences		Division of Agriculture and Forestry		Division of Education and Humanities		Division of Natural Sciences		Division of Social Sciences		School of Entrepreneurship and Business Innovation			
	Stu	Aca. Staff	Stu	Aca. Staff	Stu	Aca. Staff	Stu	Aca. Staff	Stu	Aca. Staff	Stu	Aca. Staff	Stu.	Aca. Staff
Information Literacy Sessions (One-on-One)	3	0	0	1	2	0	2	0	1	1	0	0	8	2
Information Literacy Sessions (Group)	3	0	0	1	1	1	2	1	3	1	0	0	9	4
Guidance on Research Topics	2	0	1	1	6	4	6	3	2	0	2	1	19	9
Formatting of Papers	2	0	0	0	2	4	3	1	3	2	1	1	11	8
Assistance with Citations and Referencing	3	1	4	1	5	7	6	3	3	2	0	1	21	15
Editorial Works and Proofreading	2	0	1	0	2	1	3	0	2	1	1	1	11	3
Use of Research Tools	6	0	1	1	4	4	8	3	5	1	1	2	25	11
Advance Reference Queries	3	0	1	0	1	2	4	2	2	1	0	0	11	5
Provision of Additional Resources	2	1	0	0	5	7	7	3	2	1	2	1	18	13
Total	7	1	4	1	10	8	11	5	8	2	5	3	45	20

Table 4 below shows the frequency of usage of the academic support services by both the students and academic staff. 4 (8.9%) students and 1 (5%) academic staff always used the academic support services, 15 (33.3%) students and 5 (25%) academic staff often used the academic support services, 11 (24.4%) students and 13 (65%) academic staff sometimes used

the academic support services and 15 (33.3%) student and 1 (5%) academic staff rarely used the academic support services. It is important to note that no students or academic staff indicated that they never used the academic support services provided by the library. As such, to further support this, consultation with the library's monthly reports and statistics sheets

revealed that the students and academic staff utilise the academic services on a regular basis.

Table 4. Frequency of usage of academic support services

Responses	Students		Academic Staff	
	Frequency	Percent	Frequency	Percent
Always	4	8.9	1	5.0
Often	15	33.3	5	25.0
Sometimes	11	24.4	13	65.0
Rarely	15	33.3	1	5.0
Total	45	100.0	20	100.0

Table 5 below shows only the requests that were received and fulfilled/honoured. So, while there was no statistics to show the total amount of requests received, staff members indicated that quite a lot of requests were refused due to staff unavailability and the beyond working

hours' requests. Another critical point is that this is not an offering at UGBCL, but it is accommodated due to patrons' needs. Also, it can be seen in the table below that no class sessions were consecutively done during June – August because it was the summer period.

Table 5. Monthly statistics of patrons' usage of academic services at UGBCL in 2023/2024

Months	No. of Class Sessions	No. of One-on-One & Group Sessions
September 2023	3	15
October 2023	6	8
November 2023	1	16
December 2023	1	30
January 2024	0	8
February 2024	4	10
March 2024	3	20
April 2024	0	20
May 2024	1	10
June 2024	0	15
July 2024	0	15
August 2024	0	10
Total	19	177

Table 6 below displays the academic support services that patrons in the various college, divisions and school felt need enhancement. Overall, the services that need the most enhancement were provision of additional

resources (33.33%) and editorial works & proofreading (70%) as indicated by students and academic staff respectively. Nevertheless, upon consulting the UGBCL IL sessions evaluation forms, in terms of enhancement,

patrons highlighted that practical aspects should be incorporated into the sessions e.g. in the demonstration of paper formatting, students should be given the opportunity to do the same. They also added that videos can be made on

these areas for students and academic staff to access. While others commented the following: “services are top-class”, “sessions are very helpful”, “learn’t a lot”, “continue to conduct more sessions”, among others.

Table 6. Academic support services patrons felt need enhancement

Academic Support Services	College/Division/School												Total	
	College of Medical Sciences		Division of Agriculture and Forestry		Division of Education and Humanities		Division of Natural Sciences		Division of Social Sciences		School of Entrepreneurship and Business Innovation			
	Stu	Aca. Staff	Stu	Aca. Staff	Stu	Aca. Staff	Stu	Aca. Staff	Stu	Aca. Staff	Stu	Aca. Staff	Stu	Aca. Staff
Information Literacy Sessions (One-on-One)	2	0	0	0	3	2	2	3	1	0	1	1	9	6
Information Literacy Sessions (Group)	3	0	0	0	1	1	1	1	2	0	1	1	8	3
Guidance on Research Topics	3	1	1	0	1	3	4	1	4	2	1	2	14	9
Formatting of Papers	0	0	0	1	3	3	4	2	3	0	0	1	10	7
Assistance with Citations and Referencing	2	1	2	0	2	3	4	2	2	0	1	1	13	7
Editorial Works and Proofreading	1	1	1	1	2	7	5	1	4	1	1	3	14	14
Use of Research Tools	2	1	1	0	3	4	4	1	2	0	0	3	12	9
Advance Reference Queries	3	1	1	1	2	5	4	1	2	0	2	3	14	11
Provision of Additional Resources	2	1	1	0	2	3	4	0	4	0	2	2	15	6
Total	7	1	4	1	10	8	11	5	8	2	4	3	45	20

Table 7 below reflects the challenges patrons (students and academic staff) encountered when accessing the academic support services and the challenges the library staff encountered in providing these services. Overall, the most prominent challenges encountered were limited access to expert guidance, beyond working hours (55%), and lack of staff availability

(66.67%) as indicated by students, academic staff and library staff respectively. In addition to lack of staff availability, upon consulting with the library staff time analysis worksheets it was revealed that on numerous occasions staff worked beyond working hours including holidays to accommodate IL sessions both class sessions as well as group and one-on-one.

Table 7. Challenges encountered when accessing/providing academic support services

Academic Support Services	College/Division/School													Total		
	College of Medical Sciences		Division of Agriculture and Forestry		Division of Education and Humanities		Division of Natural Sciences		Division of Social Sciences		School of Entrepreneurship and Business Innovation		UGBCL			
	Stu	Aca. Staff	Stu	Aca. Staff	Stu	Aca. Staff	Stu	Aca. Staff	Stu	Aca. Staff	Stu	Aca. Staff		Stu	Aca. Staff	UGBCL
Limited Staff Availability	4	0	0	0	3	2	3	2	3	1	3	1	6	16	6	6
Limited Access to Expert Guidance	3	1	1	0	8	0	8	1	6	2	1	3	4	27	7	4
Beyond Working Hours	5	0	3	0	4	7	3	2	3	1	3	1	4	21	11	4
Lack of Infrastructure	2	0	1	0	3	1	3	1	3	0	1	2	5	13	4	5
Total	7	1	4	1	10	8	11	5	8	2	5	3	9	45	20	9

Figure 5 below displays whether there is a need for a RRSD within the library to provide academic support services. Overall, a minority of the respondents 3 (4.1%) recognised that there is no need for the establishment of a RRSD while majority of the respondents 71 (95.9%) recognised there is a need for the establishment of a RRSD. Also, upon looking at the UGBCL proposed progressive organogram, the staff recognised that there is a need for such a division since it proposed the establishment of a division with the same function but with a slightly different name

Digital & Reference Services Division. It must be noted that this division is referred to by different names such as *Research Division*, *Reference Services Division*, *Reference and Information Services Division*, among others but basically perform the same function. It's important to note that while this division was initially proposed for the institution, a survey was not done to indicate its necessity rather it's been done based on observation and requests received. Hence, this current study sought to support the initial idea of establishing the same.

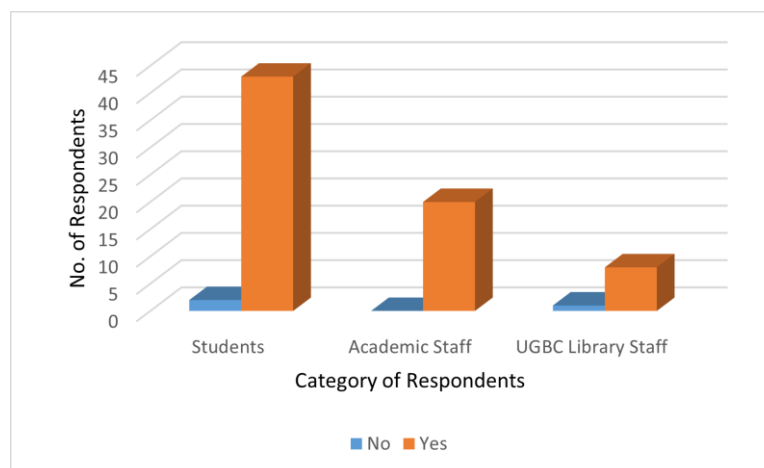


Figure 5. Need for the establishment of a RRSD within the library

Hypothesis Testing

Null Hypothesis (Ho): There is no significant difference between the categories of respondents and their responses regarding the establishment of the RRSD.

Alternative Hypothesis (H1): There is a significant difference between the categories of respondents and their responses regarding the establishment of the RRSD.

Table 8 below shows that a Chi-Square test was done to evaluate whether there was a significant association between the categories of respondents (students, academic staff and library staff) and their responses regarding the establishment of the RRSD (as shown in Figure 5). It can be seen that the Chi-Square value is 2.015 which measures the extent of deviation between the observed and expected frequencies, degree of freedom is 2 and the p-

value is 0.365. The p-value of 0.365 which is less than the commonly used significance level 0.05 simply means that there was no significant difference between the students, academic staff and library staff as it relates to their agreement or disagreement with the establishment of the RRSD. Thus, the null hypothesis is accepted. So, this lack of significant differences across the three categories suggested consensus in the sense that the proposal to establish the RRSD may be widely supported or opposed uniformly. Nevertheless, this table revealed broad-based support which is critical in moving forward with the establishment of the RRSD. Also, the lack of significant differences revealed that there is no need to target specific groups for support as well as focus can be made on identifying common challenges among the groups rather than specific ones, thus leading to efficiency in problem solving.

Table 8. Chi-Square test on the responses regarding the establishment of the RRSD for different categories of respondents

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	2.015a	2	.365
N of Valid Cases	74		

Figure 6 below displays the supportiveness of the students, academic staff and library staff in establishing a RRSD at the UGBCL. Overall, 42 (56.8%) respondents who were the majority

were strongly supportive of establishing the RRSD while 32 (43.2%) respondents were supportive of it. It's important to note that no students, academic staff or library staff

indicated that they were not very supportive or not supportive at all in establishing the RRSD, hence emphasising the necessity for the division. Another critical point is that while 3

respondents indicated that they do not see the need to establish a RRSD in Figure 5, they were supportive of establishing the same.

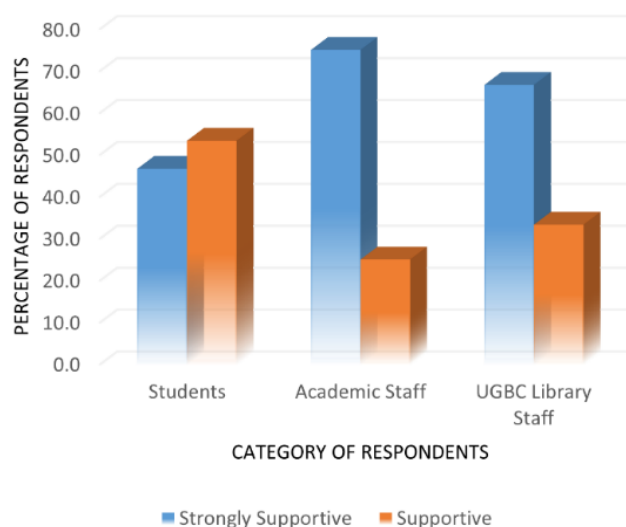


Figure 6. Supportiveness of establishing a RRSD

Research Question 2: What are the critical components required for establishing the RRSD within UGBCL?

This research question entailed identifying the critical components required for establishing the RRSD including service offerings, structure, staffing, infrastructure and budget.

Service Offerings

Table 9 below displays the services that RRSD can offer to its patrons that the students, academic staff and library staff agreed on.

Overall, the students indicated the need for access to specialised resources (68.9%) as the main service, the academic staff indicated strengthen research skills (90%) and the library staff indicated access to specialised resources (100%), IL sessions (100%), support for academic writing/formatting/ referencing (100%), editorial works & proofreading (100%), strengthen research skills (100%) and use search techniques (100%). This is further supported by the library monthly reports and statistics sheets where all these services are provided to patrons through class sessions as well as group & one-one sessions.

Table 9. Services that the RRSD can provide to patrons

Academic Support Services	College/Division/School													Total		
	College of Medical Sciences		Division of Agriculture and Forestry		Division of Education and Humanities		Division of Natural Sciences		Division of Social Sciences		School of Entrepreneurship and Business Innovation		UGBCL			
	Stu	Aca. Staff	Stu	Aca. Staff	Stu	Aca. Staff	Stu	Aca. Staff	Stu	Aca. Staff	Stu	Aca. Staff		Stu	Aca. Staff	UGBCL
Access to Specialised Resources	7	1	2	1	5	7	8	5	6	1	3	2	9	31	17	9

Information Literacy Sessions	3	0	0	1	4	4	5	3	2	2	2	1	9	16	11	9
Workshops and Seminars	4	1	2	1	5	6	5	2	3	1	1	2	6	20	13	6
Library Course(s)	2	0	0	1	3	3	5	1	3	1	1	1	5	14	7	5
Personalised Consultations	3	0	0	1	3	5	5	1	2	2	1	2	3	14	11	3
Support for Academic Writing/Formatting/Referencing	5	1	2	1	5	6	8	3	4	2	2	3	9	26	16	9
Editorial Works & Proofreading	3	1	1	1	5	7	6	3	5	2	1	2	9	21	16	9
Reviewing of Research Papers	2	1	1	1	6	5	5	2	4	0	2	3	5	20	12	5
Use of Research Tools	4	1	3	1	6	7	8	3	5	2	4	2	7	30	16	7
Strengthen Research Skills	5	1	1	1	7	7	6	4	5	2	2	3	9	26	18	9
Utilise Search Techniques	2	1	0	1	5	3	5	1	2	2	1	2	9	15	10	9
Total	7	1	4	1	10	8	11	5	8	2	5	3	9	45	20	9

Figure 7 below reflects the opinions of the students, academic staff and library staff as to whether patrons should pay for certain specialised services including editorial works, proofreading and formatting of papers. Overall, 64 (86.49%) respondents, who were the majority, were in agreement that a fee be charged for specialised services offered while 10 (13.51%) respondents who were the

minority were not in agreement. It’s important to note that the library staff revealed that when students are in need of these specialised services they would usually offer to pay for the same. However, on numerous occasions due to various reasons including lack of staff availability and going beyond working hours, they were refused these services.

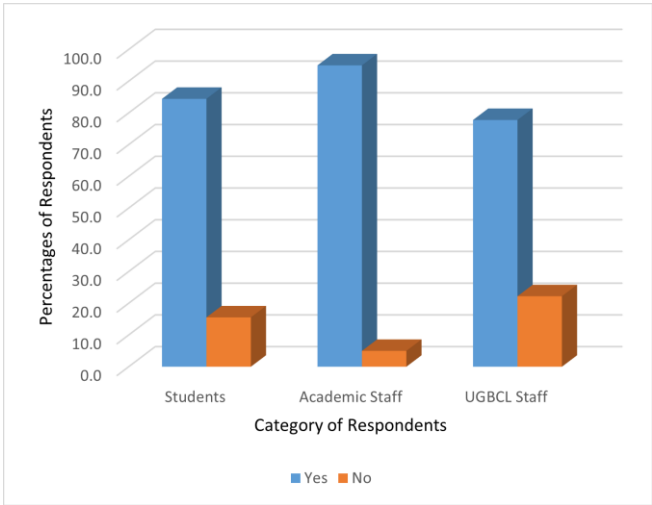


Figure 7. Paying for certain specialised services

Table 10 below outlines the topics that students, academic staff and library staff indicated that can be included in a library course if it is offered in the programmes at UGBC. Overall, the main topic based on the students' perspective was research skills

(82.2%), for academic staff it was citation & referencing (100%) and for the library staff it was academic integrity & plagiarism awareness (88.89%), citation & referencing (88.89%), research skills (88.89%) and the use of research tools (88.89%).

Table 10. Topics to be included in the mandatory library course

Academic Support Services	College/Division/School													Total		
	College of Medical Sciences		Division of Agriculture and Forestry		Division of Education and Humanities		Division of Natural Sciences		Division of Social Sciences		School of Entrepreneurship and Business Innovation		UGBCL			
	Stu	Aca. Staff	Stu	Aca. Staff	Stu	Aca. Staff	Stu	Aca. Staff	Stu	Aca. Staff	Stu	Aca. Staff		Stu	Aca. Staff	UGBCL
Overview of Library Services	5	1	1	1	4	1	5	3	3	0	1	0	7	19	6	7
Database Usage	5	1	2	1	2	5	9	2	3	2	0	1	7	21	12	7
Academic Integrity & Plagiarism Awareness	3	1	2	1	9	7	8	4	5	2	2	3	8	29	18	8
Citation & Referencing	3	1	3	1	6	8	9	5	7	2	3	3	8	31	20	8
Information Literacy	3	1	0	1	5	2	5	3	3	2	2	2	6	18	11	6
Academic Writing	6	0	1	1	9	5	9	3	4	2	3	3	7	32	14	7
Research Skills	6	0	3	1	8	6	11	4	5	2	4	3	8	37	16	8
Use of Research Tools	6	1	2	1	5	6	5	4	4	2	2	3	8	24	17	8
Search Techniques	3	1	0	1	5	4	6	3	4	2	2	0	7	20	11	7
Total	7	1	4	1	10	8	11	5	8	2	5	3	9	45	20	9

Structure

Figure 8 below displays the mode of operations for the RRSD according to the perspective of the students, academic staff and library staff. In terms of the students, 4 (8.9%) indicated that the RRSD should be operated in

the face-to-face mode, 6 (13.3%) indicated virtual and 35 (77.8%) indicated blended. In terms of the academic staff, 4 (20%) indicated face-to-face, 1 (5%) indicated virtual and 15 (75%) indicated blended. In terms of the library staff, 2 (22.2%) indicated face-to-face and 7

(77.8%) indicated blended. Overall, 10 (13.5%) respondents indicated face-to-face operations,

7 (9.5%) indicated virtual and 57 (77%) indicated blended.

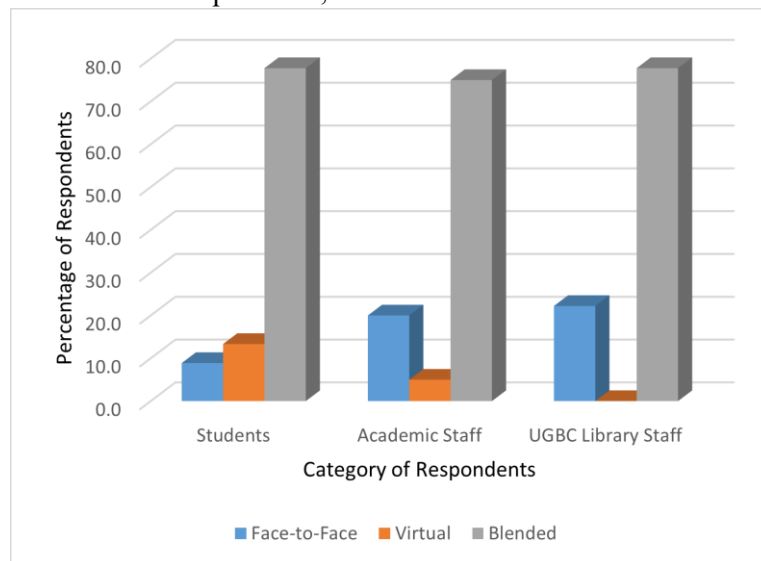


Figure 8. Mode of operations

Table 11 below displays the operation hours patrons including students and academic staff think will be most convenient for them to

access the RRSD. Overall, the most popular option for students (55.56%) and academic staff (55%) was 24/7 access.

Table 11. Proposed operating hours for RRSD

Academic Support Services	College/Division/School												Total	
	College of Medical Sciences		Division of Agriculture and Forestry		Division of Education and Humanities		Division of Natural Sciences		Division of Social Sciences		School of Entrepreneurship and Business Innovation			
	Stu.	Aca. Staff	Stu.	Aca. Staff	Stu.	Aca. Staff	Stu.	Aca. Staff	Stu.	Aca. Staff	Stu.	Aca. Staff	Stu.	Aca. Staff
Mornings	2	0	2	1	1	0	2	0	1	0	1	0	9	1
Afternoons	1	1	1	1	3	2	0	2	4	2	3	1	12	9
Evenings	2	1	1	0	3	1	0	1	2	1	0	0	8	4
24/7 Access	3	1	1	0	4	6	9	2	6	0	2	2	25	11
Total	7	1	4	1	10	8	11	5	8	2	5	3	45	20

Figure 9 below presents the frequency in which patrons, that is, students and academic staff think they will use the academic support services provided by the RRSD. Overall, it is critical to note that the majority of the students (44.4%) and academic staff (50%) were of the view that they will be using the RRSD services

on a weekly basis. This can be further supported by Table 5 where although there is no RRSD currently, patrons are still using the services on a regular basis. As such, with the division established with all the necessary resources, there will be an increase in requests and usage of these services.

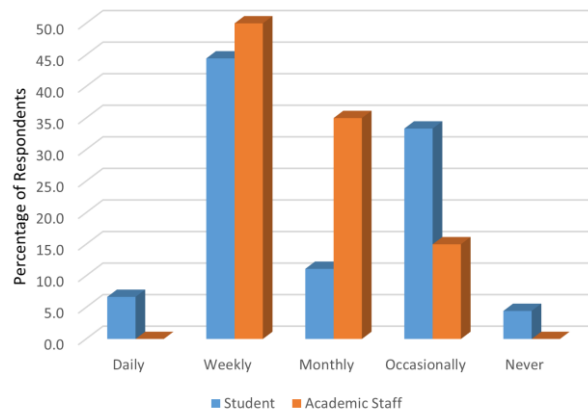


Figure 9. Frequency usage of RRSD

Figure 10 below presents views of library staff on the organisation structure for the RRSD. It can be seen that 4 (45%) library staff agreed on the hierarchical structure, 2 (22%) library staff agreed on flat and 3 (33%) library staff agreed on matrix. Hence, the majority of

the library staff agreed on the hierarchical structure. Also, upon looking at the UGBCL proposed progressive organogram, it can be seen that the suggested structure for the proposed division was hierarchical.

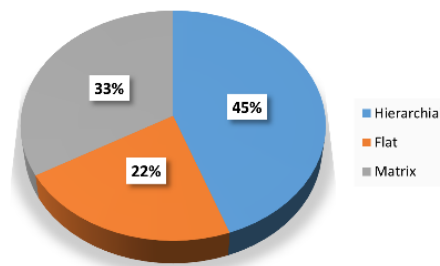


Figure 10. Structure for RRSD

Figure 11 below presents the library staff view on the RRSD integration into the existing library structure. It can be seen that 5 (56%) library staff indicated RRSD should be integrated into the existing library structure as a separate division and 4 (44%) library staff indicated as a sub-division in an existing

division in UGBCL. Overall, the majority of the library staff indicated that RRSD should be a separate division within the library. This is supported by the proposed progressive organogram which placed the similar proposed division as a separate one.

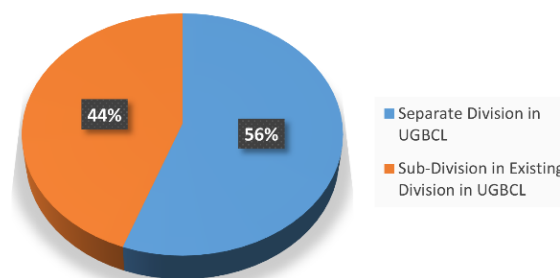


Figure 11. RRSD integration into the current UGBCL structure

Staffing

Figure 12 below presents the amount of staff necessary for the RRSD according to the library staff perspective. It can be seen that 5 (56%) library staff are of the view that 1-3 staff are

needed and 4 (44%) library staff are of the view that 4-6 staff are needed. Hence, the majority of the staff agreed on having 1-3 staff for the division. This is supported by the proposed organogram where three (3) staff were suggested for the proposed division.

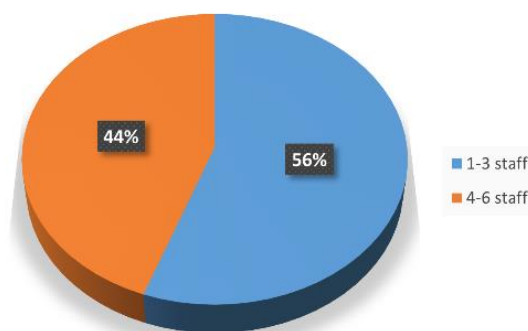


Figure 12. Amount of staff needed for the RRSD

Figure 13 below presents staff roles necessary for the RRSD. From the library staff perspective, it can be seen that the staff roles needed for RRSD are Research & Reference Services Librarian as indicated by all 9 (100%) library staff, Assistant Librarian as indicated by 4 of the 9 (44.4%) staff and a Digital Services

Specialist as indicated by 8 of the 9 (88.9%) staff. So, while some library staff agreed on having 4-6 staff for the division in Figure 12, they did not list the other roles. However, these roles are similar to the ones suggested in the proposed progressive organogram.

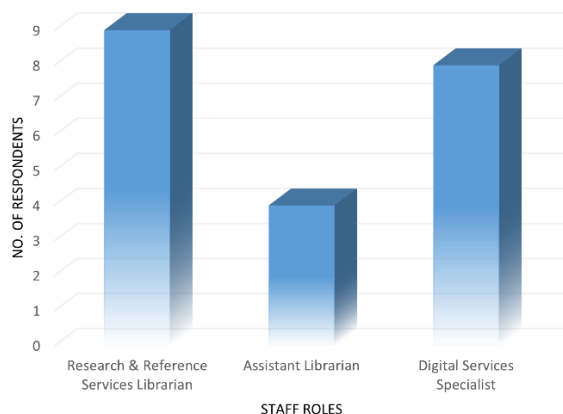


Figure 13. Staff roles

Table 12 below displays the tools that the staff in the RRSD should be proficient in to effectively enhance academic support according to the students, academic staff and library staff. It can be seen that the students, academic staff and library staff indicated that the staff of RRSD should be proficient in all of

the tools namely data analysis, citation management, plagiarism checkers and collaborative tools. For the students (80%) and the library staff (100%), the most prominent one was plagiarism checkers while for the academic staff (95%) it was data analysis tools.

Table 12. Tools that RRSD staff should be proficient in

Academic Support Services	College/Division/School													Total		
	College of Medical Sciences		Division of Agriculture and Forestry		Division of Education and Humanities		Division of Natural Sciences		Division of Social Sciences		School of Entrepreneurship and Business Innovation		UGBCL			
	Stu	Aca. Staff	Stu	Aca. Staff	Stu	Aca. Staff	Stu	Aca. Staff	Stu	Aca. Staff	Stu	Aca. Staff		Stu	Aca. Staff	UGBCL
Data Analysis Tools	6	1	3	1	8	7	8	5	7	2	3	3	7	35	19	7
Citation Management Tools	6	1	3	1	5	7	9	3	4	2	5	3	8	32	17	8
Plagiarism Checkers	6	1	3	1	7	6	10	4	6	2	4	3	9	36	17	9
Collaborative Tools	6	1	1	1	6	5	6	2	6	2	1	3	8	26	14	8
Total	7	1	4	1	10	8	11	5	8	2	5	3	9	45	20	9

Infrastructure

Table 13 below displays the infrastructure needed for the RRSD to function as indicated by the students (68.89%), academic staff (90%)

and library staff (100%). Overall, for students and academic staff, the most prominent infrastructure was research tools/software while for library staff it was both computer workstations and research tools/software.

Table 13. Infrastructure necessary for RRSD to function

Academic Support Services	College/Division/School													Total		
	College of Medical Sciences		Division of Agriculture and Forestry		Division of Education and Humanities		Division of Natural Sciences		Division of Social Sciences		School of Entrepreneurship and Business Innovation		UGBCL			
	Stu	Aca. Staff	Stu	Aca. Staff	Stu	Aca. Staff	Stu	Aca. Staff	Stu	Aca. Staff	Stu	Aca. Staff		Stu	Aca. Staff	UGBCL
Consultation Spaces	6	1	2	1	5	7	7	4	4	2	4	2	8	28	17	8
Zoom Room	6	1	3	1	5	6	6	2	5	2	3	3	7	28	15	7
Computer Workstations	7	1	2	1	6	5	7	4	4	0	2	3	9	28	14	9

Research Tools/Software	4	1	2	1	7	7	9	4	6	2	3	3	9	31	18	9
Databases	4	1	1	1	6	6	7	4	5	1	2	1	8	25	14	8
Chatbots	2	1	0	1	3	5	5	2	3	1	2	1	4	15	11	4
Total	7	1	4	1	10	8	11	5	8	2	5	3	9	45	20	9

Budgets

Figure 14 below displays the factors selected by the library staff that should be considered when engaging in budgeting for the RRSD. All of the 9 (100%) library staff selected both salaries & benefits and research & reference tools, 7 of the 9 (77.8%) library staff selected

physical infrastructure, 8 of the 9 (88.9%) library staff selected training & professional development (PD) and 6 of the 9 (66.7%) selected marketing & outreach. Hence, it can be seen that most staff agreed on salaries & benefits and research & reference tools being the main factors.



Figure 14. Budgeting factors

Research Question 3: What are the possible challenges that should be considered before establishing the RRSD and how should they be effectively addressed?

This research question entailed highlighting the possible challenges of establishing the RRSD along with their proposed solutions as well as outlining some sustainability measures that can be taken into consideration.

Table 14 below displays the potential challenges that should be considered before establishing the RRSD as indicated by the students, academic staff and library staff. Overall, the most prominent challenges selected by students (64.4%) were limited operating hours and lack of qualified staff/experts, for the academic staff (80%) it was inadequate infrastructure and for the library staff (66.67%) it was inadequate infrastructure and lack of collaboration between academic divisions and the library.

Table 14. Potential challenges of establishing the RRSD

Academic Support Services	College/Division/School													Total		
	College of Medical Sciences		Division of Agriculture and Forestry		Division of Education and Humanities		Division of Natural Sciences		Division of Social Sciences		School of Entrepreneurship and Business Innovation		UGBCL			
	Stu	Aca. Staff	Stu	Aca. Staff	Stu	Aca. Staff	Stu	Aca. Staff	Stu	Aca. Staff	Stu	Aca. Staff		Stu	Aca. Staff	UGBCL
Limited Operating Hours	4	1	3	1	7	5	7	3	7	1	1	1	3	29	12	3
Lack of Stakeholder Support	2	1	1	1	5	5	7	3	2	1	3	2	3	20	13	3
Inadequate Infrastructure	4	1	1	1	6	6	7	3	4	2	4	3	6	26	16	6
Lack of Qualified Staff/Experts	6	1	1	1	6	6	8	1	4	2	4	3	5	29	14	5
Accessibility Issues for Users with Disabilities and Diverse Needs	5	1	0	1	5	5	6	2	3	0	1	2	3	20	10	3
Lack of Awareness/ Limited Promotion of Services	6	1	4	1	6	6	6	3	5	2	1	2	3	28	15	3
Insufficient Resources/ Materials	4	1	1	1	8	5	6	4	4	1	2	3	5	25	15	5
Lack of Collaboration Between Academic Divisions and the Library	3	1	1	1	6	5	6	3	3	1	2	2	6	21	13	6
Total	7	1	4	1	10	8	11	5	8	2	5	3	9	45	20	9

Table 15 below displays the possible solutions to the potential challenges of establishing the RRSD as selected by the students, academic staff and library staff.

Overall, the most prominent solution selected by the students (68.89%) was to recruit qualified staff/experts, for academic staff (85%) it was to upgrade existing infrastructure

and for the library staff (66.67%) it was to foster collaboration between academic divisions. provide sufficient resources/materials and

Table 15. Possible solutions to the potential challenges of establishing the RRSD

Academic Support Services	College/Division/School													Total		
	College of Medical Sciences		Division of Agriculture and Forestry		Division of Education and Humanities		Division of Natural Sciences		Division of Social Sciences		School of Entrepreneurship and Business Innovation		UGBCL			
	Stu	Aca. Staff	Stu	Aca. Staff	Stu	Aca. Staff	Stu	Aca. Staff	Stu	Aca. Staff	Stu	Aca. Staff		Stu	Aca. Staff	UGBCL
Extend Operating Hours	4	1	3	1	5	5	9	2	6	2	1	1	4	28	12	4
Engage Stakeholders Early	2	1	1	1	7	7	7	3	5	2	3	1	3	25	15	3
Upgrade Existing Infrastructure	4	1	1	1	7	7	5	3	4	2	5	3	5	26	17	5
Recruit Qualified Staff/Experts	6	1	2	1	8	5	7	1	4	2	4	3	4	31	13	4
Provide Assistive Technologies and Alternative Formats for Materials	5	0	1	1	6	6	7	4	5	1	3	3	4	27	15	4
Promote Awareness/Market Services	4	1	2	1	4	6	4	3	7	2	1	2	3	22	15	3
Provide Sufficient Resources/Materials	3	1	1	1	6	6	7	4	6	1	3	3	6	26	16	6
Foster Collaboration Between Academic Divisions and the Library	4	1	2	1	5	6	7	3	3	2	2	2	6	23	15	6
Total	7	1	4	1	10	8	11	5	8	2	5	3	9	45	20	9

Table 16 below presents the strategies/methods that the students, academic staff and library staff think should be adopted to ensure the sustainability of the RRSD. It can be seen that the 45 (100%) students, 20 (100%) academic staff and 9 (100%) library staff selected all of the strategies/methods namely: obtain regular feedback from patrons to improve services, engage in training & PD

activities regularly and utilise updated technology & resources to sustain the RRSD. For the students and academic staff, the most prominent method was to engage in training and PD activities regularly while for the library staff it was the same as the student and academic staff in addition to obtain regular feedback from patrons to improve services.

Table 16. Strategies/Methods UGBCL should adopt to evaluate & sustain the RRSD

Academic Support Services	College/Division/School													Total		
	College of Medical Sciences		Division of Agriculture and Forestry		Division of Education and Humanities		Division of Natural Sciences		Division of Social Sciences		School of Entrepreneurship and Business Innovation		UGBCL			
	Stu	Aca. Staff	Stu	Aca. Staff	Stu	Aca. Staff	Stu	Aca. Staff	Stu	Aca. Staff	Stu	Aca. Staff		Stu	Aca. Staff	UGBCL
Obtain Regular Feedback from Patrons to Improve Services	6	1	3	1	6	6	8	4	8	2	4	2	9	35	16	9
Engage in Training & Professional Development Activities Regularly	6	1	3	1	9	8	8	4	7	2	4	3	9	37	19	9
Utilise Updated Technology & Resources	7	1	3	1	6	7	9	4	6	2	3	3	8	34	18	8
Total	7	1	4	1	10	8	11	5	8	2	5	3	9	45	20	9

Discussion

The findings revealed that a RRSD should be established within UGBCL. As such the goals, service offerings, structure, staffing, budget and sustainability measures are discussed below.

Goals of RRSD

1. Enhance research support by providing comprehensive research assistance to patrons through consultation services.

2. Support academic writing by assisting with editing, proof-reading, formatting and citation guidance.
3. Foster collaboration with academic divisions to integrate research and reference services into the curriculum.
4. Improve IL by offering sessions, workshops, etc. on a regular basis to equip patrons with the necessary skills.
5. Expand digital services and resources by increasing availability and accessibility to databases, digital research tools and software to support academic work.
6. Sustain library infrastructure by continuously assessing and upgrading both the physical and digital infrastructure to meet patrons' needs.
7. Measure and enhance services by evaluating the effectiveness of the same on a regular basis and implement improvements based on patrons' feedback.

Service Offerings

Based on the survey as it relates to service offerings requested, service patrons used and felt need enhancement, the RRSD would offer the following services for starters then add new ones as the need arises.

1. Offering Advance Reference Services to assist patrons with identifying, accessing

and utilising materials relevant to their research interests.

2. Hosting IL Sessions –class, group and/or one-on-one sessions in various areas. This can further be extended to workshops/seminars to facilitate knowledge dissemination.
3. Offering Research Consultations to provide patrons with guidance in writing papers, citations & referencing of materials, formatting of papers, editorial and proofreading works, among others.
4. Using Research Tools to provide guidance to patrons on using data analysis tools, citation management tools, collaborative tools, plagiarism checkers, among others.
5. Reviewing Research Papers to ensure patrons comply with the style manual selected by the Faculty/University before accepting the same in the collection.
6. Teaching a Library Course (1 credit) which all students of the university must take to orient them in finding and using information resources critically and effectively.

As such, the topics/contents for the proposed mandatory library course were crafted (see Table 17 below) following patterns from other libraries [36, 37] while the outline template was taken from the University of Guyana (UG).

Table 17. Proposed course outline for the mandatory library course using UG course outline template

Proposed Outline for Library Course	
Course Outline: LIB1105 – Introduction to the Use of Library Services	
Course Credit: 1	
Academic Year:	
a) Name of Lecturer:	Office and Telephone:
b) Course summary and mode of delivery: This course is designed to introduce students to library resources and services available to them. The course will equip students with the necessary research skills needed for their academic journey at the university. Students will learn to use the library's physical and digital collections, develop information literacy, understand citation practices, and explore various research tools. The course also covers strategies for locating, evaluating, and integrating scholarly materials into academic work. By the end of the course, students will have a strong foundation in using the library's resources to support their academic studies.	

The methods for teaching will include: Lectures, class discussions and practicals in a blended mode.																		
c) Reasons for introducing the course: Equip students with the necessary research skills and tools to enhance their academic experience.																		
d) Are there similar courses in the faculty? There are no similar programs in the faculty.																		
e) Co-requisites and Pre-requisites: NIL																		
f) Learning Outcomes: By the end of this course, the students should be able to: • Possess strong research skills for academic success • Be proficient in using library databases and digital research tools • Be able to structure and write well-researched academic papers • Understand ethical research practices and proper citation techniques • Be prepared to conduct independent research for academic assignments																		
g) Contact Hours: <table><tr><td></td><td>Contact hrs. per wk.</td><td>No. of Wks.</td><td>Mode of Delivery</td></tr><tr><td>Lecturers</td><td>1</td><td>13</td><td>Blended</td></tr></table>					Contact hrs. per wk.	No. of Wks.	Mode of Delivery	Lecturers	1	13	Blended							
	Contact hrs. per wk.	No. of Wks.	Mode of Delivery															
Lecturers	1	13	Blended															
h) Methods of Evaluation/Assessment: <table><tr><td>Course Evaluation</td><td>Percentage Grade Component</td></tr><tr><td>Course Work (Practicals)</td><td>40%</td></tr><tr><td>Final Examination</td><td>60%</td></tr></table>				Course Evaluation	Percentage Grade Component	Course Work (Practicals)	40%	Final Examination	60%									
Course Evaluation	Percentage Grade Component																	
Course Work (Practicals)	40%																	
Final Examination	60%																	
i) Grading Scheme: <table><tr><td>A</td><td>-</td><td>75 – 100%</td></tr><tr><td>B</td><td>-</td><td>65 to less than 75%</td></tr><tr><td>C</td><td>-</td><td>55 to less than 65%</td></tr><tr><td>D</td><td>-</td><td>45 to less than 55%</td></tr><tr><td>F</td><td>-</td><td>0 to less than 45%</td></tr></table>				A	-	75 – 100%	B	-	65 to less than 75%	C	-	55 to less than 65%	D	-	45 to less than 55%	F	-	0 to less than 45%
A	-	75 – 100%																
B	-	65 to less than 75%																
C	-	55 to less than 65%																
D	-	45 to less than 55%																
F	-	0 to less than 45%																
j) Content: <table><tr><td>Week</td><td>Content</td></tr><tr><td>1</td><td>Overview and Introduction to Library Services • Reason to use the library • Membership & Registration • Resources and services available to students Library Tour</td></tr><tr><td>2-3</td><td>Academic Databases and Effective Research Strategies • Introduction to major academic databases (e.g. JSTOR, EBSCOhost) • Navigating databases and retrieving full-text articles • Identifying keywords and search strategies • Using of Boolean operators and advanced search techniques </td></tr></table>				Week	Content	1	Overview and Introduction to Library Services • Reason to use the library • Membership & Registration • Resources and services available to students Library Tour	2-3	Academic Databases and Effective Research Strategies • Introduction to major academic databases (e.g. JSTOR, EBSCOhost) • Navigating databases and retrieving full-text articles • Identifying keywords and search strategies • Using of Boolean operators and advanced search techniques									
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	Practical: <i>Database search exercises</i>
4-5	Information Literacy & Critically Evaluating Sources - Identifying different types of information sources (books, journals, articles, etc.) - Understanding scholarly vs. non-scholarly sources - Critical evaluation of websites, articles, online resources, etc. - Identifying bias and ensuring credibility in research materials Practical: <i>Differentiating and evaluating sources</i>
6	Academic Integrity & Plagiarism Awareness - Understanding the concept of academic integrity - Recognising the different forms of plagiarism - Using research materials ethically Practical: <i>Utilising plagiarism checkers</i>
7	Citation & Referencing - Introducing the different citation styles (APA, MLA, etc.) - In-text citation & referencing rules –APA Practical: <i>Generating in-text citations & reference list within a research paper</i>
8-9	Using Digital Tools -Bibliographic Management - Introducing bibliographic management tools (e.g., Zotero, EndNote, Mendeley) - Collecting, organising and citing sources using bibliographic management tools Practical: <i>Installing and using bibliographic management tools</i>
10-11	Using Digital Tools –Collaboration & Data Analysis - Introducing collaboration and data analysis tools - Using of collaboration and data analysis tools Practical: <i>Using collaboration and data analysis tools</i>
12-13	Academic Writing, Structuring & Formatting Research Papers - Guidance on research topics - Building strong arguments supported by credible evidence - Organising, structuring and formatting research papers Practical: <i>Preparing a paper with the necessary structure and formatting</i>
14	Final Exams
k) Recommended Readings: American Psychological Association. (2020). Publication manual of the American Psychological Association (7th ed.). American Psychological Association. Lipson, C. (2019). <i>Doing honest work in college: How to prepare citations, avoid plagiarism, and achieve real academic success</i> (3rd ed.). University of Chicago Press.	

Structure

The RRSD division would operate in a blended mode, that is, both face-to-face and virtual to accommodate all of its patrons. This mode was supported by the majority of the respondents surveyed.

In terms of the hours of operation, the RRSD would operate a shift system just like the department. It must be noted that while the

majority of the respondents prefer a 24/7 access, the division would work towards this by implementing the use of chatbots.

The RRSD would be integrated into UGBCL existing structure as a separate division in a hierarchical structure with three (3) staff as supported by the majority of the respondents and institutional records. A proposed structure of the division can be seen in figure 15 below.



Figure 15. Proposed organisational structure for RRSD

Staffing

Three (3) staff designations/positions were proposed in the survey namely Research & Reference Services Librarian, Assistant Librarian and Digital Services Specialist. However, it must be noted that these designations/positions would be activated in parts, that is, the Research & Reference

Services Librarian and the Digital Services Specialist would be first activated followed by the Assistant Librarian. This is so because it will be too costly to activate all at the same time, space constraints, among others. Nevertheless, the job descriptions (JDs) for the three (3) designations/positions were crafted as shown in Tables 18-20 following patterns from other libraries [38-41].

Table 18. JD & specification for Librarian, RRSD

Job Description & Specification	
Job Title:	Research & Reference Services Librarian
Reports To:	Librarian, UGBCL
Department:	Research & Reference Services Division (RRSD)
Position Summary:	The Research & Reference Services Librarian will oversee the provision of academic support services at the University of Guyana Berbice Campus. This role entails actively collaborating with students, staff and members of the general public to support and promote their research and teaching goals via the use of library services and resources skillfully and ethically. The librarian will

	be responsible for developing, teaching and assessing information literacy programmes & instructional materials; providing reference and research support; maximising the benefits of research tools and information resources, among others. Evenings and weekends instruction/reference services may be required when necessary.
Key Responsibilities:	• Develop, deliver and assess formal learning opportunities (e.g. workshops, seminars, information literacy sessions, etc.) in collaboration with academic divisions to promote students' academic capabilities • Provide research assistance/consultations and reference services including use of research tools and databases as well as guidance in writing papers, citations and referencing of materials, formatting of papers, editorial works, among others to students, staff and members of the general public in a variety of formats (in-person, chat, phone, email, zoom, social media platforms). • Review research papers to ensure patrons comply with the style manual selected by the Faculty/University before accepting the same in the collection. • Coordinate, promote, and establish appropriate staffing and coverage for the services provided, and actively participate in all modes of services (in-person, chat, phone, email, zoom, social media platforms...). • Teach a library course with assistance from other staff within the division. This may require working during the evenings and weekends when necessary. • Contribute to the creation and development of tutorials, instructional videos, promotional materials and research guides on library resources • Conduct continuous analysis and evaluation of services and implement any needed changes to reference policies/procedures and services • Engage in continuous professional development by participating in activities pertaining to librarianship, contributing to the profession through research and presentations and maintaining current awareness of libraries' trends. • Supervise the work of the assistant librarian and support staff within the RRSD. • Perform any other related duties.
Qualifications:	• Master's degree preferably in Library Science (MLS) • Minimum of 3 years of experience with providing high quality research and reference services in an academic library setting. • Ability to work in a constantly changing environment while collaborating with diverse students, staff and members of the public. • Possess strong ICT Skills. • Excellent organisation, interpersonal, communication, time management and instructional skills.

Table 19. JD & specification for Assistant Librarian, RRSD

Job Description & Specification	
Job Title:	Assistant Librarian
Reports To:	Librarian, RRSD
Department:	Research & Reference Services Division (RRSD)
Position Summary:	The Assistant Librarian will support the Research and Reference Services Librarian in delivering high-quality academic support services. This role involves assisting the librarian in collaborating with students, staff and members of the general public to support and promote their research and teaching goals via the use of library services and resources skillfully and ethically. It involves supporting the overall operations of the RRSD.
Key Responsibilities:	• Collaborate with faculty to integrate library resources into students' curriculum. • Assist in develop, deliver and assess formal learning opportunities (e.g. workshops, seminars, information literacy sessions, etc.) in collaboration with academic divisions to promote students' academic capabilities • Provide research assistance/consultations and reference services including use of research tools and databases as well as guidance in writing a paper, citations and referencing of materials, formatting of papers, editorial works, among others to students and faculty as well as members of the general public in a variety of formats (in-person, chat, phone, email, zoom, social media platforms...). • Assist in teaching aspects of the library course. This may require working during the evenings and weekends when necessary. • Assist in the creation and development of tutorials, instructional videos, promotional materials and research guides on library resources • Engage in continuous professional development by participating in activities pertaining to librarianship, contributing to the profession through research and presentations and maintaining current awareness of libraries' trends. • Provide general administrative support to the RRSD. • Perform any other related duties as assigned by the Research and Reference Services Librarian.
Qualifications:	• Bachelor's degree preferably in Library Science. • Previous experience with providing research and reference services in an academic library setting. • Proficiency in computer literacy including using research tools/software and databases. • Ability to work independently and as part of a team in a constantly changing environment while collaborating with diverse students, staff and members of the public. • Excellent organisational, interpersonal, communication, time management and instructional skills. • Customer service oriented with a focus on assisting library patrons.

Table 20. JD & specification for Digital Services Specialist, RRSD

Job Description & Specification	
Job Title:	Digital Services Specialist
Reports To:	Assistant Librarian, RRSD
Department:	Research & Reference Services Division (RRSD)
Position Summary:	The Digital Services Specialist will work collaboratively with the librarians in delivering high-quality academic support services. This role involves assisting the librarians in providing technical support and guidance to library patrons including students, staff and members of the general public on using the library services and resources and supporting the overall operations of the RRSD.
Key Responsibilities:	• Provide technical guidance as it relates to use of variety of applications, software, and equipment in formal learning opportunities, research assistance/consultations and reference services to students and faculty as well as members of the general public in a variety of formats (in-person, chat, phone, email, zoom, social media platforms). • Assist in teaching the technical aspects of the library course. This may require working during the evenings and weekends when necessary. • Create and design digital contents including tutorials, instructional videos, promotional materials and research guides on library resources • Troubleshoot and resolve issues for equipment/tools in the division. • Provide training on digital services/tools to staff as the need arises. • Engage in continuous and self-reflective professional development activities to stay current with emerging technologies. • Monitor and evaluate technology services as well as make recommendations for continual developments. • Perform any other related duties.
Qualifications:	• Associate degree in Computer Science, Information Technology or a related field. • Atleast 1-year experience in a technical support role, preferably in an academic library setting. • Strong technical skills in hardware, software and networking. • Ability to work independently and manage multiple tasks simultaneously. • Excellent problem-solving, troubleshooting, communication and instructional skills.

Infrastructure

Establishing a RRSD within UGBCL current physical space would be quite challenging, however, since this is a necessity, the Academia Research Space can be converted to

accommodate this division (see Figure 16 below); consultations with patrons will be done in the office and using the reading room/cubicle section of the library if its one-on-one and group respectively.

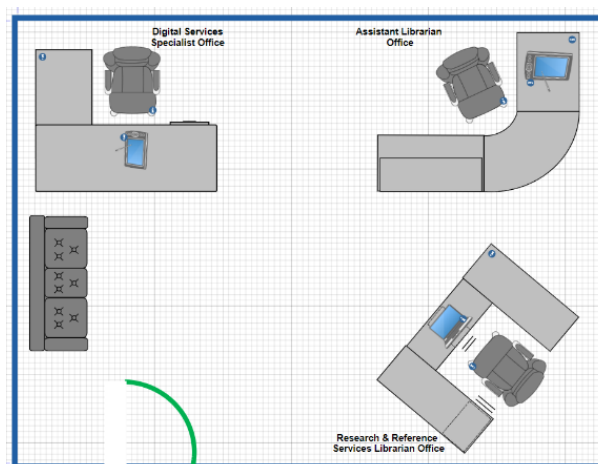


Figure 16. Layout for the proposed RRSD in the current UGBCL space

However, when the proposed new library is built, a new layout can be done (see Figure 17 below).

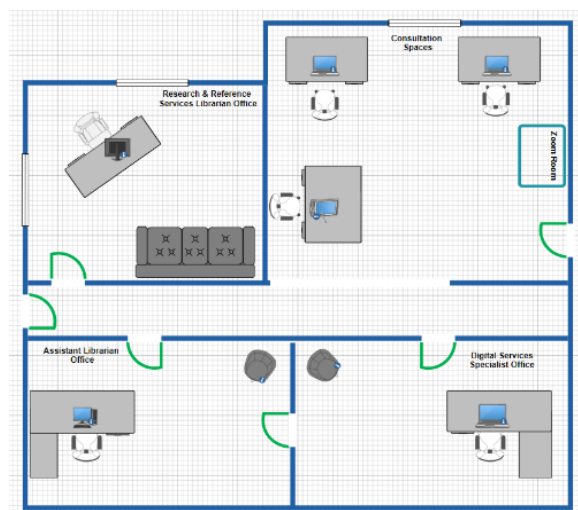


Figure 17. Layout for the proposed RRSD in the new UGBCL space

Overall, the space will be equipped with the necessary infrastructure including ergonomic furniture (desks and chairs), zoom room, consultation spaces and computers/laptops with the necessary research tools/software/databases to accommodate all patrons including those with special needs.

Budget

In estimating a budget for the proposed division, factors like infrastructure, marketing, staff salaries and training were taken into consideration.

Table 21 below displays an estimated budget for the establishment of the proposed division

during its first year. The budget covered costs including physical infrastructure, staff salaries, training & PD activities and marketing totaling GY\$7,385,000. It's important to note that research tools/software were not budgeted for because the division will utilise the free/trial versions then assess the feasibility of purchasing the same. Additionally, the Assistant Librarian position would not be activated in the first year of operation, as such, only two staff salaries were budgeted for while the office space will be used as a consultation space during the first year.

Table 21. Estimated budget for the proposed RRSD in the current UGBCL space

Description	Quantity	Unit Cost (GY\$)	Total Cost (GY\$)
Physical Infrastructure:			
• Desks	3	40,000.00	120,000.00
• Chairs	3	65,000.00	195,000.00
• Sofa	1	80,000.00	80,000.00
• Computers/Laptops	3	120,000.00	360,000.00
Staff Salaries & Benefits:			
• Research & Reference Service Librarian	1	4,320,000.00	4,320,000.00
• Digital Services Specialist	1	2,160,000.00	2,160,000.00
Training & Professional Development Activities:			
• Training Sessions	2	50,000.00	100,000.00
Marketing/Promotion			50,000.00
Total			7,385,000.00

It must be noted that the RRSD would seek to generate some amount of income to assist with its expenses. Firstly, it can generate

income through a mandatory library course (see Table 22 below).

Table 22. Income generated through library course

Course	Estimated Quantity of Students (per year)	Unit Cost (GY\$)	Total Cost (GY\$)
LIB1100	450	7,000.00	3,150,000.00

Additionally, income will also be generated through charging a fee on certain specialised services as agreed by patrons in the survey.

Table 23 below shows the estimated cost attached to these services.

Table 23. Income generation through specialised services

Service	Description	Cost Per Page (GY\$)
Editing	Comprehensive editing for grammar, syntax, and style	1,500.00
Proof-Reading	Basic review for typos, grammar, and punctuation errors	500.00
Formatting	Ensuring proper citation style, layout, and structure	1,000.00
Combined Service Package	Includes editing, proof-reading, and formatting	3,000.00

Potential Challenges & Solutions

It must be noted that the survey highlighted a number of potential challenges of establishing the RRSD and their proposed solutions; these were taken into consideration while developing the framework for the RRSD such as operating hours, stakeholders' support, infrastructure including resources, qualified staff, awareness of services and collaboration with academic divisions.

Sustainability Measures

As indicated in the survey, it is important for the RRSD to engage in the following practices to ensure its sustainability.

1. Obtain regular feedback from patrons to improve services.
2. Engage in training and PD activities on a regular basis.
3. Utilise updated technology and resources.

Conclusion

While the current academic environment demands research assistance and advanced reference services, the UGBCL does its best to meet the evolving needs of its patrons without a designated division for the same. As such, in concluding this study, the way forward is to establish the RRSD within the UGBCL. This is both a necessary and feasible decision in order to enhance the academic support services offered to patrons. Further, this will in itself take the pressure off the staff, avoiding the existing staff' perception of feeling overwhelmed and burnout by working beyond the call of duty to deliver these services, in addition to their regular duties. As such, for this study a robust framework for the RRSD was drafted encompassing its goals, service offerings, structure, staffing, infrastructure and budget; possible challenges along with their solutions were also taken into consideration for the way forward.

Additionally, while UGBCL on a previous work plan structure had proposed a division for the same purpose based on observations, this

study sought to support the initial idea of establishing the same. Through the analysis of the students and staff feedback, it is evident that there is a significant need for improvement in the availability and quality of academic support services at the Berbice Campus.

Hence, by investing in the necessary infrastructure, engaging in training personnel, fostering stakeholder support, among others, the RRSD will offer a solution that not only meets the immediate research needs of the campus community but also supports long-term academic growth and success. Furthermore, this initiative will also position UGBCL on par with other institutions in this regard.

Recommendations

Based on the findings of this study, the following recommendations are made for the successful establishment and implementation of the RRSD:

1. **Engage Stakeholders Actively:** There must be active collaboration among the administration, library, faculty, students and members of the general public. Also, regular feedback should be obtained from them to customise the services to suit their needs.
2. **Engage in Effective Resource Allocation:** The university should invest in the necessary resources and allocate the same effectively as it relates to infrastructure development such as research tools/software, consultation spaces, etc.
3. **Employ Qualified Staff & Support PD:** The university administration should employ persons with the expertise needed, provide regular training sessions and support PD opportunities. This is critical so as to keep up to date with the evolving research environment.
4. **Engage in Evaluation and Expansion:** The RRSD should be regularly evaluated to ensure that it meets its patrons' needs and

depending on the success of the division, it can offer additional services.

5. **Practice Sustainability Measures:** The university should develop a sustainability plan for the RRSD.
6. **Foster Collaboration with Academic Divisions:** The RRSD should partner with the academic divisions to integrate library resources into the curriculum.
7. **Promote Awareness/Marketing:** The RRSD should actively promote its service offerings through the various platforms, especially through the library's social media pages on a regular basis.
8. **Provision of Additional Databases:** The RRSD should explore other databases and subscribe to the same for patrons to access.
9. **Extend Operating Hours:** The RRSD can consider a shift system and later explore chatbots to offer a 24/7 hrs. service.

These recommendations will aid UGBCL in establishing and implementing a robust division which enhances the academic support at UGBC, thus improving its patrons' university journey/experience and at the same time positioning the library as a central hub supporting the university in its teaching, learning and research.

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Conflict of Interest

There is no conflict of interest.

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