

**Exploring the impact of library instruction  
on the Human Sciences Research Council staff,  
in support of achieving their research and academic goals**

by

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## **Abstract**

This study explored the impact of library instruction (LI) on the Human Sciences Research Council (HSRC) staff, in support of achieving their research and academic goals. The study used a mixed methods sequential explanatory design, which consisted of two separate phases: quantitative data collection followed by qualitative data collection.

The researcher surveyed the HSRC staff members, by using two online questionnaires. The first was for staff members who previously attended LI and the second for those who had never attended.

A Likert scale was used to gauge the extent to which a participant agreed or disagreed with certain statements posed. A combination of open and closed ended questions were used in the questionnaire. The researcher used the free survey software Google forms to create and disseminate the quantitative questionnaires. The data files were then downloaded from Google forms into an Excel file and uploaded into Statistical Package for the Social Sciences (SPSS) for analysis. Participants volunteered for a follow-up interview; this option was included in both questionnaires. The researcher had separate semi-structured interview guides for staff who attended and for those who never attended LI. Face-to-face and telephonic interviews were used to gather data. Interviewees were asked to sign a consent form, granting the researcher permission to audio record the interview.

The total number of staff members, with valid e-mail addresses that were sampled was 385. The total response rate was 27%. A total of 104 staff responded, with 69 staff members responding to the questionnaire for those who had attended LI and 35 staff responding to the questionnaire for those who had never attended LI. There were 40 staff members who volunteered to be interviewed, the researcher interviewed the first 30 who responded with signed consent forms.

The findings illustrated that LI had a positive influence on the ability of the staff to achieve some of their research and academic goals. Participants indicated that they developed and learned new skills by attending LI. They also attributed their ability to find relevant sources, critically evaluate information and use information responsibly

due to LI. LI however had little influence on staff publishing more, finding and applying for researching funding, or increasing citation counts. The findings provided an opportunity for the HSRC LI team to develop and explore alternative methods to contribute to staff success in these areas. The study also found that the HSRC library could explore the need for alternative instructional models, consider hosting LI sessions for similar post level groupings and consider offering more LI classes so staff could have more opportunities to attend.

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## **Abbreviations and Acronyms**

ACRL	Association of College and Research Libraries
ANT	Actor Network Theory
eRKC	eResearch Knowledge Centre
HSRC	Human Sciences Research Council
IC	Information Consultant
LI	Library instruction
LIS	Library and Information Services
NRF	National Research Foundation

# **Chapter 1:**

## **Introduction and overview of the study**

### **1.1 Introduction**

“Social science that makes a difference” is the motto of the Human Sciences Research Council (HSRC) of South Africa. Established in 1968 by an Act of Parliament, the HSRC has become the largest research institute in social sciences and humanities in Africa. The HSRC has regional offices in Pretoria, Cape Town, Port Elizabeth, Sweetwaters (Pietermaritzburg) and Durban. The HSRC is a parastatal organisation that reports into the Department of Science and Technology (DST). The purpose of the HSRC is to advise on and monitor government policy, encourage public debate through research results, nurture research collaboration, and to support research capability and infrastructure for the human sciences (HSRC, n.d.). The HSRC promotes and undertakes public interest research which intends to advance South Africa and Africa’s understanding of and engagement with its social conditions. Knowledge generated seeks to contribute to local, regional and global understanding of the human and social conditions of people.

This study intends to explore the perceived impact of Library Instruction (LI) designed to support the staff to achieve their research and academic goals. The researcher aims to demonstrate that the time, money and effort that is spent on LI aids in the production of high quality research and academic work. Research produced by the HSRC contributes towards its success and influences the lives of all South Africans. The research results inform decisions made in the South African Parliament.

The HSRC produces objective research and is committed to the dissemination of research that will impact on policy development and the solution of social problems such as unemployment, gender equity, and economic inequality in South Africa and worldwide. Methods for ensuring quality control of outputs include internal quality control processes, making research data openly available for secondary analysis, and requiring researchers to publish their work in peer reviewed journals, as well as open

access journals. Needless to say, because the HSRC is a research institution, most of the staff component is made up of researchers.

The HSRC library is located in the Pretoria office. It has a substantial heritage collection of approximately 155 000 print books, 55 000 electronic journals and HSRC research outputs, dating back to its inception. As the HSRC is committed to research excellence, it is essential that the HSRC library play a role in supporting all research processes to this end. Since the start of the financial year on 1 April 2018, the Library and Information Services (LIS) department incorporated two additional departments. Computational Social and Spatial Analytics and Research Management and Data Curation joined the LIS, now named the e-Research Knowledge Centre (eRKC). The eRKC envisages an electronic research information service that will enable better management, reporting, mapping and communicating of research and data outputs of the HSRC in a more effective way. eRKC also intends to move closer to a digital platform that includes artificial intelligence, supercomputing, different forms of data visualisation, cloud services and curation of data.

Thus the eRKC provides traditional library services in the form of storage and preservation of books, journals and other print material, which are accessible to HSRC staff only. There is an e-journal platform that provides access to the latest contents pages of e- journals, as well as full text articles. The journal subscriptions also cover about 110 different fields of research. eRKC subscribes to e-Book platforms, and regularly purchases items of interest for the collection. In the event that the eRKC does not have an item that a staff member or researcher requires, the option of requesting material via Inter library loan is available nationally and internationally.

The eRKC has a virtual library platform. Staff members have access to the virtual library, from anywhere in the world. The virtual library platform is located within the HSRC Intranet; therefore only HSRC staff members have access to this platform.

LI classes are offered in a variety of formats that are available to staff. Usually two formal comprehensive LI workshops are held in a financial year; in addition, smaller workshops are hosted as needed. Individual instruction and topic specific instruction are also offered.

LI gives library staff an opportunity to market the different products and services that the library has to offer, and imparts valuable search skills and strategies that staff can use to find, evaluate and use relevant information. LI is offered throughout the year due to the intake of interns, part-time staff and the movement of staff while collaborating with others in the field. The eRKC staff members scan, evaluate and update physical and electronic resources annually thereby creating a need for LI so that all HSRC staff are aware of and able to make use of newly acquired resources. Recently, most of the information resources which the library acquires are electronic, enabling staff in all regions to have access to resources simultaneously.

In a previous user satisfaction survey conducted at the HSRC by the eRKC in 2016, the general perception of LI was that staff who attended training (either at the HSRC or at their university) were more proficient and confident when seeking information on an electronic platform (Louw, 2016:69). The researcher sought to confirm that this is still the case, and wished to explore other aspects of success toward which LI may contribute, such as greater research visibility and increase in citation counts.

The primary objective of this research was to investigate staff perceptions of the influence of LI on their research and academic work. The findings could provide direction for eRKC to become more entrenched within the larger organisation and to reveal other opportunities that the eRKC can practice to enhance LI and add value to the whole organisation.

Mixed methodology was used to conduct this investigation, as is explained in Section 1.8. The research added to the body of knowledge in the LIS sector by providing insight into how LI may have an influence on research organisations.

## **1.2 Background**

Over the years, the eRKC has provided LI on a variety of products and services to which the library subscribes electronically. The purpose of LI is to ensure that staff are able to accumulate the most accurate, up to date and pertinent information, data and facts for their research.

Staff have different needs and preferences in terms of LI, however, during a session they are often taught in one group which is not similar in all aspects (Daland &

Walmann Hidle, 2016:35). A major challenge for LI at the HSRC is to accommodate how each individual prefers to learn, and identifying why the individual has something to learn. Senior researchers in particular are difficult to attract and convince that there is something they can learn from an LI session.

### **1.3 Library Instruction impact at the HSRC**

LI is conducted by the Information Consultants, previously known as Librarians at the HSRC. They are responsible for gathering information, planning the session using a lesson planner, creating presentations, arranging the venues and conducting the LI. They also gather feedback from participants, after training is conducted. At the end of a financial year, Information Consultants report back on all LI for the year. The report covers which aspects of LI were offered, the number of attendees at group and individual training sessions, how LI marketing was done, analysis of comments from attendees and the observations of the Information Consultants during instruction.

The eRKC Virtual Library is the most important point of access for all services offered by the Information Services division. Access to the Virtual Library is granted via the HSRC Intranet by using a private personnel log-in. LI is conducted on a variety of aspects, features and products hosted on the Virtual Library platform.

Library and Information Services often have to validate their existence to parent organisations and prove their worth. The HSRC has experienced budget cuts from Parliament. It is therefore imperative that the eRKC Department justify its continued existence in a variety of ways. As noted above this study intends to confirm that LI has an influence on the HSRC staff in support of achieving their research and academic goals. The Learning and Development Department of the HSRC supports the eRKC endeavours by collaborating, marketing and making learning recommendations in line with the HSRC strategic goals. According to Matthews (2004:109) library impact can be grouped into six categories, being Cognitive results, Affective results, Meeting expectations, Accomplishments, Time aspects and Money aspects. The researchers used using a combination of questionnaires and interviews to explore the influence of LI on staff. Aspects such as being able to acquire new research skills, save time when conducting research, evaluate sources

critically for reliability, publishing more and in suitably accredited journals are investigated in this study.

For a national South African research institution, such as the HSRC, to qualify for research funding from the South African Department of Higher Education and Training (DHET), researchers are required to publish peer-reviewed articles in scholarly journals accredited by the DHET.

For scholarly journals to be accredited by the DHET, they are evaluated against stringent criteria. The Academy of Science of South Africa [ASSAf], (n.d.) list criteria such as quality of the articles in the journal, number of articles published per annum, focus of content such regional problems, and so forth in order for a journal to have accreditation status. All applications for accreditation go through a dual assessment process with panels convened by both the DHET and ASSAf (ASSAf, n.d.)

### ***1.3.1 Expected impact of LI***

The researcher, in addition to the benefits above wishes to establish if LI affects the HSRC staff, so that they may demonstrate the attributes of successful learning proposed by Bicknell-Holmes and Hoffman (2000:2, cited verbatim):

- have the confidence to make use of the Virtual library to their maximum capability, are able to teach others the basics of how to navigate the Virtual library, especially due to the consistence mentoring programme in place, whereby Masters and PhD interns are mentored by researchers;
- use the skills they gain in other aspects of their lives and to problem solve, other than for work purposes;
- notice an increase in citations of HSRC research and in personal H-Indexes of researchers;
- demonstrate use of high quality sources that are reliable, accurate and up to date;
- publish in accredited journals that are of good standing with high impact factors;
- are able to create high quality, ethical research that can be added to existing knowledge;
- are able to find and evaluate sources effectively;
- make use of information in a responsible and ethically sound manner environment; and
- synthesis, evaluation, extrapolation, and analysis of the information.

These aspects were chosen by the researcher due to the variety of library instructional topics that are offered by the library as part of the LI programme, as explained in Chapter 1. LI workshops that are one-shot offer training on all of the above attributes. Staff may also request one-on-one personal training from an Information Consultant on all or any of the aspects offered.

Research produced by HSRC staff, contributes toward pre-set measures of achievement, in this case the HSRC performance agreement. This aspect of performance is reported upon in the annual report, which is submitted to the Department of Science and Technology, the HSRC's main source of financial support. Producing research is therefore expected from every member of the HSRC research staff.

### ***1.3.2 LI Instruction course contents***

To follow is a list of the most common LI sessions, with a brief description of what is covered during training. This list is continually changing due to changes in user needs, budget constraints and new products in the market:

#### *1.3.2.1 The virtual library*

An overview of the content of the virtual library and how to navigate the webpage. Content focuses on the variety of databases available, how to find journals, subject portals and open access content.

#### *1.3.2.2 E-books*

Information on how to access e-books using the different databases. An explanation of digital rights management and fair use of e-books.

#### *1.3.2.3 iThenticate*

Essentially, iThenticate is an online tool that provides similarity reports, thereby assisting in combating plagiarism. This system electronically crawls databases and the Internet to find matches for text. Information Consultants are able to draw similarity reports for researchers before they submit their work to journals for publishing. Researchers can then amend their research papers if need be by citing

and paraphrasing, if similarity is found to be too high. This encourages responsible authorship at the HSRC.

#### *1.3.2.4 Predatory publishing*

Information on the characteristics of publishers that are questionable in reputation is presented to staff. Content includes information on how to assess and evaluate a publishers' website for discrepancies that may indicate that they are potentially fake publishers. Often these publishers intend to cheat researchers and organisations for financial benefit.

#### *1.3.2.5 Accreditation, research outputs and indicators*

Information on what constitutes a research output at the HSRC is presented. Information about the Department of Higher Education Accreditation list and performance indicators that eRKC manage are included here. The Outputs Information Consultant informs attendees on the submission process and deadlines for submission so that research outputs may contribute toward individual and unit performance goals within a financial year.

#### *1.3.2.6 Open Researcher and Contributor Identity (ORCID)*

Information on how to manage ORCID profiles, as well as how to create and integrate the profile in order to promote research papers and findings are provided. This session encourages researchers to make their profiles and research visible for all to find, use and cite their work.

#### *1.3.2.7 Literature research methodology and database searching*

The definition and purpose of a literature review, analysing a topic and the stages of the information seeking process are discussed. Searching strategies and how to choose the most appropriate databases for your topic is demonstrated, using the virtual library. Information Consultants encourage the use of trusted information, available via the virtual library platform.

#### *1.3.2.8 Research Professional (Africa)*

This database hosts information on funding opportunities available to researchers throughout the world. It contains valuable information on the funder, how to go about applying and eligibility of applicants for funding. The database also has information on international research policy, news, careers and publications information. Researchers are encouraged to use this database to look for funding for projects, equipment and travel.

#### *1.3.2.9 Regional Explorer (ReX)*

ReX is a consolidated platform of integrated databases that provides accurate and up-to-date statistics, including local municipal statistics in South Africa. A practical demonstration on how to retrieve statistics to include in research is conducted during the class session.

#### *1.3.2.10 Bibliographic Management Tool - Mendeley*

Mendeley is a free reference manager and an academic social networking tool. Attendees create a profile and download the necessary software. A practical practice session on how to use the tool to cite-as-you-write is demonstrated. Mendeley can also assist researchers to showcase their work, connect to and collaborate with other researchers in the field.

### **1.4 Instructional models used at the HSRC**

Instructional models are procedures or sets of strategies on which the approaches to teaching are founded. The following models or approaches are used at the HSRC.

#### ***1.4.1 “One-shot”***

This is a single once-off training session, usually for large groups of staff. The programme at the HSRC is pre-planned by the Information Consultant and staff attend if the content is appropriate for their needs. One-shot sessions are usually used when a new product is being introduced to staff, such as a new database that has been added to the library e-resources collection. A one-shot session is relatively

brief, comprising of information being delivered in a session between 50- 75 minutes in total (Artman, Frisicaro-Pawlowski & Monge, 2010:94).

#### ***1.4.2 “Drop in” workshops***

A “drop in” workshop is a planned workshop for a particular group of staff, usually from the same business unit. It is usually interactive, hands on training using examples from the participants. “Drop in” workshops tend to be more casual and promote peer learning in a relaxed environment. Participation is voluntary and the library markets the workshop via internal communication channels (Burger, 2007:553).

If a HSRC business unit requests a drop in workshop, specific needs are discussed prior to instruction taking place, and the unit may arrange for example a session for all new interns. These sessions always seem to be more successful and interactive as the unit has specified their needs in advance and staff are usually comparable in terms of age, experience, qualification and skill level.

#### ***1.4.3 Video conferencing***

Video conferencing is rarely used. Previous experience of LI by video conferencing was found to be disengaging for staff dialling in from regional offices. The combination of a speaker and a Microsoft PowerPoint presentation posed a challenge, in terms of technology having to split screens to show both the presenter and the presentation. Co-ordinating video conferencing in terms of staff availability, planned breaks and staff dropping in and out of sessions was found to also be distracting for presenters and attendees. Connectivity and sound quality was another concern that was raised in the past. When library staff have no other option, video conference facilities are occasionally used for staff from regional offices based in Cape Town, Port Elizabeth, Durban or Sweetwaters who cannot travel to the Pretoria office.

#### ***1.4.4 Online tutorials***

Tutorials featured on subscribed databases on how to make use of or find relevant information, is recommended to users.

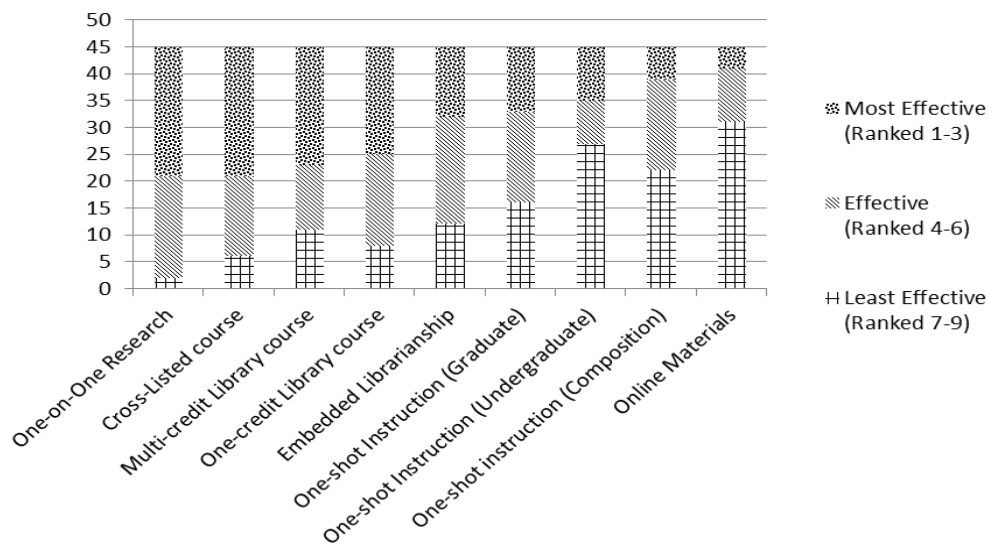
#### ***1.4.5 One-on-one instruction***

One-on-one instruction is often conducted, on request from a staff member who would like personal time with an Information Consultant to learn a very specific skill. Most often one-on-one instruction takes place with new staff members, who want to acquaint themselves with the library and a specific product or database to which the eRKC subscribes. This is also a wonderful opportunity to build a relationship with a researcher and fully understand the individual's research focus area and library needs.

#### ***1.4.6 Summary of instruction models***

The variety of instruction models offered take place without consideration of the class composition. They are not level specific in terms of rank of staff member, skill level, and level of computer competency, educational qualification, or number of years working experience. Another factor to consider is that attendees are not pre tested for competency or grouped according to competency levels for instruction. These factors are known to the Information Consultants, and are yet to be dealt with via the appropriate business channels. A suggestion made by the Learning and Development Department to the researcher in an unofficial capacity, was to encourage all Information Consultants who provide training, to register for and complete an assessor's course. This would allow Information Consultants to administer tests and issue certificates of completion.

Yearwood, Foasberg and Rosenberg (2015:190) represent the efficacy of instructional models as perceived by librarians in the graph in Figure 1.1, overleaf.



**Figure 1.1: Perceived effectiveness of learning methods**

It was found that librarians from the study above were of the opinion that One-on-One Research instruction was the most effective teaching method. The researcher believes that by offering multiple forms of instruction to staff, all staff members will have the choice to try the different options available until they find the right fit for their personal learning style.

At present, the library offers group instruction, one-on-one and one-shot options. The researcher has observed that the attendance at group instruction sessions are poor as they are held twice a year and many staff are unable to attend due to other commitments. These workshops are not on the corporate calendar, and that may be the reason many staff do not prioritise time to attend. It was also noted by the researcher that the intern staff members were encouraged by their mentors to attend more than any other staff category.

One-on-one instruction is offered to all staff members; however, very few make appointments with Information Consultants. The researcher believes that staff need constant reminders that Information Consultants are more than willing to provide instruction to staff on demand. This may be a library marketing strategy that needs to be addressed.

The one-shot instructional method, is most often used for new products that are added to the library's virtual platform. Usually those that will benefit the most are

the attendees from a particular department or unit, such as the Legal department would prioritise instruction on databases such as Lexis Nexis or Sabinet Legal.

### **1.5 Problem statement and research questions**

In view of the above discussion, the following problem statement was formulated:

This study explored the impact of Library Instruction (LI) on the Human Sciences Research Council (HSRC) staff, in support of achieving their research and academic goals.

Three key research questions were formulated to explore the main research question:

1. How has LI changed the participants' perceptions of their skills and competency levels?
2. What was the influence of LI on individual participants' success in research, study or career aspirations?
3. How has LI affected researchers publishing rate, ability to find research funding or achieved higher citation rates?

In addition, related research questions were the following:

1. Is there a need for alternative instructional models?
2. Is there a need for LI by occupation post level?
3. What are the reasons for non-attendance of LI?

LI takes place throughout the year. As previously noted, a variety of options are available in terms of class size, topics and medium of instruction. Lessons take time to prepare, are costly to deliver due to travel to regional offices and taking Information Consultants out of their normal working spaces to attend instruction sessions.

This study was intended to demonstrate a positive influence of LI on the HSRC, so that more could be invested in terms of making learning material available via other platforms such as Library Guides, on digital media style platforms and via assistance provided on a library chat platform. This was intended to enable the eRKC to expand their reach in terms of training library products, on alternative teaching mediums and possibly enabling higher quality of research output.

## **1.6 Objectives**

The primary objective of the study was to investigate if LI made a difference to the ability of the staff at the HSRC to achieve their research and academic goals. The aspects of influence that were studied were in the form of staff reports of their achievement of their research and academic goals. This study gave the researcher insight into whether or not LI was perceived to have had a significant influence on staff's ability to progress in their careers as researchers or achieve their academic targets.

An understanding of the benefit and value of the LI as experienced by the HSRC staff will provide valuable direction for the strategic management and direction of LI within the eRKC department. This study also aspired to reveal other opportunities that the eRKC could practice to enhance LI and add value to the organisation.

## **1.7 Significance**

The researcher wanted to highlight the need for and influence of LI in the workplace at the HSRC. LI skills are the foundation to achieving research and academic goals. LI has a role to play in the workplace. LI builds on to prior knowledge and experiences of staff, enabling critical thinking around the selection and use of information. Information is used and repurposed to produce valuable research that benefits all those who use it. This research contributes to readings on the influence that LI has on staff members at research-intensive institutions. The library staff members, particularly Information Consultants and the HSRC Learning and Development Department would benefit from these recommendations if they chose to implement them. Good experiences of LI could also be used to build relationships between the Information Consultants and the staff in their respective units.

## **1.8 Research methodology**

The theoretical knowledge that constitutes research methodology is organised around the operational steps that form the research process. All the information needed to take a certain step, during the research journey, is gathered in one place (Kumar, 2010:20). The subsections below outline the research methodology that was used for this study.

### ***1.8.1 Mixed methods***

The researcher has chosen to use mixed methodology for the study. The methodology accommodated both questionnaires and interviews with HSRC staff members to explore whether they believed that LI had a consequence on them achieving their research and academic goals.

The researcher believed that by making use of mixed methods, the final findings and recommendations are richer. The choice to use mixed methods is explained in more detail in Section 4.3.

The researcher surveyed the HSRC staff members by using online questionnaires. Two questionnaires were drawn up; the first for staff members that previously attended LI (Appendix 1) and the second for those who have never taken the opportunity to attend (Appendix 2).

At the end of both questionnaires, staff members were asked to volunteer to be selected to be interviewed later in the research process. Interviews were conducted, after the results of the questionnaires were collated.

### ***1.8.2 Population***

The population consisted of 385 HSRC staff members. The population were the staff members who had been allocated HSRC e-mail addresses, as at the date that the questionnaire was distributed.

### ***1.8.3 Data collection***

Data for the quantitative portion of the study were collected by means of electronic questionnaire. The qualitative study took the form of personal interviews. One rule one can apply if using mixed methods sequential explanatory design is that data found from the quantitative study can be used to enhance or create the instrument used in the qualitative study to further explain and add richness to the findings.

#### ***1.8.3.1 Questionnaires***

Questionnaires are used to describe and measure individuals or groups (Clarke & Dawson, 1999:68). Data can be collected easily and relatively cheaply. The

researcher used free survey software Google forms to create and disseminate questionnaires. A mixture of open- and closed-ended questions were used.

Two questionnaires were used in the study. The first was sent to staff members that attended LI, and the second to those who had never attended LI. The questionnaire that addressed those staff members who had previously attended LI aimed to pinpoint the influence LI on staff since attending. The questionnaire for staff who never attended any form of LI aimed to investigate why they never attended, and whether they had unmet needs.

### *1.8.3.2 Interviews*

One-shot or telephonic interviews (Appendix 3) were used to gather data from the survey population. Interviews were scheduled during working hours, by arrangement with the researcher's supervisor at the HSRC. The audio transcripts of the interviews were anonymised by making use of an alias per interviewee.

## **1.9 Ethics**

The researcher complied with the ethics committee rules of both the HSRC and the University of Cape Town. Approval to survey staff members was sought from UCT (Appendix 5) and then from the HSRC (Appendix 6). The participants were assured that their rights were protected when they were selected for the research project, and during the administration of the questionnaire and interviews. The researcher protected those surveyed and the institution where the surveys were conducted by anonymising the data collected. The HSRC staff members were informed of their right to take part freely and to abstain from any question posed, should they so wish. Participants were assured in writing by the researcher, that their responses would remain confidential and that their identities would remain anonymous.

The participants included in the interview portion of the study were informed of how they were chosen, even though the interviews were voluntary. Not all participants who volunteered were chosen. A random selection was made from the volunteers. Participants were also informed of how the information was used and that their responses would be anonymised, prior to the interview. A consent form (Appendix 4) was administered prior to the commencement of the interview.

### **1.10 Limitations**

The study was limited to staff employed at the HSRC in all offices being Pretoria, Durban, Sweetwaters (Pietermaritzburg), Cape Town and Port Elizabeth, at the time when the questionnaire was distributed via e-mail. The focus was on the LI content offered by the eRKC only, and not LI offered at other institutions to which staff may be affiliated. The questionnaires allowed staff to grant permission and leave their details, if they wished to be interviewed at a later stage. Not all staff members who volunteered were interviewed.

### **1.11 Research structure**

In order to place the research in the general body of scientific knowledge, the researcher highlighted in Chapter 2 pertinent research already conducted which relate to the current research project. A theoretical framework in Chapter 3 provided a lens through which sense was made of every day practices and observations. For this study, I chose to use Bruce's Seven Faces of Information Literacy through which to explore the influence of LI on the HSRC staff. The approach for this research used mixed methodology, as explained in detail in Chapter 4. Chapter 5 presents the findings, interpretation and discussions in the context of the problem statement, key research and related research questions. Chapter 6 concludes the study and provides recommendations.

### **1.12 Conclusion**

This research study considered the influence that LI had on the HSRC staff in achieving their research and academic goals. This study intended to encourage the attendance of LI for personal development and to make efficient use of the virtual library environment so that staff can retrieve better quality research, data and statistics for their research purposes, which should in turn have a positive influence on the organisation in achieving its performance goals. Chapter 2 covers the literature review of the study.

## **Chapter 2:**

### **Literature review**

#### **2.1 Introduction**

Library and Information Services have over the years been attempting to demonstrate the influence of their activities with quantitative performance data such as collection size, gate counts, number and type of interactions at service desks (Garipey, Stout & Hodge, 2016:492). These figures alone, however, do not demonstrate influence and have become outdated as indicators of impact. According to Stenström (2013:132) funders and public entities are asking for more meaningful information on the influence that libraries make on their communities.

In recent years, information such as library measures, student usage of references, LI services, circulation counts, downloads or library venue use has been found to be more relevant to depict influence on communities. Scholars are also looking at influence in terms of the difference made to users from using library resources and services.

LI, or the teaching of information literacy, is one aspect of library impact assessment that depicts the changing role of Library and Information Services, which is gradually coming to be viewed as vital to learning and critical thinking skills (Bryan, 2016:341). This means that the library can use information gathered after LI, in the form of evaluation forms and verbal feedback from attendees to demonstrate the difference LI has. Parent organisations according to Kendrick (2016:182) are increasingly focused on assessment; therefore it is up to the libraries to use results and not just report them.

The standard, ISO 16439 (2014:16, Section 4.4.3) states that by influencing individuals or groups, the scope of the library's influence can broaden to include the library's institution or community. The impact that ISO 16439 promotes is to include a larger and more positive prominence of the library to its parent institution, higher institutional prestige, increased institutional funding, and attracting accomplished researchers or other research entities to the organisation.

This study focused on the perceived influence of LI at the HSRC. The value and benefits of LI to the HSRC staff and researchers were investigated, using quantitative and qualitative methods. “Impact” and “outcome” are sometimes used interchangeably in the professional literature. Definitions of library outcome usually highlight the outcome on individual users or on users jointly. Impact associates this with the library’s aims and objectives, and their affiliation with its host institution’s goals (Poll & Payne, 2006:548).

The main term for articulating the influence of libraries and their services according to Poll (2012:123) is “impact”. She advises that the term “impact” should be used neutrally, describing an alteration or change in individuals or groups without saying whether the change was beneficial or not. The changes described by “impact” can be noticeable or imperceptible, direct (immediate) or long-term, small or extensive, intended or accidental, actual or impending. This study focused on the staff and their perceptions of the influence of LI.

The intention of the study was to demonstrate whether LI had a positive influence on the HSRC staff. The researcher intended to show the influence of LI on staff achieving their research or academic goals.

### ***2.1.1 Information literacy***

In 2015, the Association of College and Research Libraries (ACRL) published the *Framework for Information Literacy for Higher Education*, which envisions information literacy as extending the reach of learning during the course of students’ academic careers, and as linking with other academic and social learning goals. An expanded definition of information literacy is offered by ACRL (2015):

Information literacy is the set of integrated abilities encompassing the reflective discovery of information, the understanding of how information is produced and valued, and the use of information in creating new knowledge and participating ethically in communities of learning.

Markless and Streatfield (2013:5) had already been heading toward this definition in 2013 when they stated that since the emergence of the Internet, users need to be able to choose and discard information for a purpose, to recognise and take account of subjective information, and to decide whether information from a specific source may be regarded as authoritative.

For the purposes of this study the term LI is used, and the term encompasses library literacy as well as library user education. Essentially, these three concepts teach users how to make the most effective use of library systems, either physically or electronically.

Staff and academics employed at the HSRC may not fully appreciate the need and importance of information literacy skills beyond the academic environment. Stebbing et al. (2019:37) found that new employees cope by trial and error to learn information literacy skills to manage in the workplace. This study explores the relationship between information literacy skills and achievement of academic and research goals.

Like Bruce (1997:40), the researcher approached information literacy by exploring the experiential component which is based on the lived experience of staff at the HSRC; the relational component which focuses on both the staff members and information literacy; and the second order component which is represented by the view of the staff members rather than views of experts.

### ***2.1.2 Objectives of LI***

Johnson (1979:271) listed three important objectives of LI, which are still relevant today:

1. Users need to develop the aptitude to discriminate among the plethora of information sources available, which will enable them to critically evaluate the importance of information.
2. Users need to become independent learners; they need to be self-taught or self-teaching individuals.
3. Users need to become lifelong learners. This will enable them to keep up with the changing trends in the library sphere.

Tiefel (1995:326) agrees with Johnson, stating that the main objective of LI is to support the concept of educating users for a lifetime.

## **2.2 Impact of LI**

ISO 16429 (2014:13, Section 4.2) defines library impact as

the influence of libraries and their services on individuals and/or on society, at large. Impact must be distinguishable as either positive or negative by individuals and/or groups. Aspects of impact can be immediate or long-term,

far reaching or limited, intended or unintended and actual or potentially beneficial.

In this study, the following aspects of library impact on staff at the HSRC were investigated:

1. Skills and competencies
2. Impact on individuals
3. Success in researching, studying and career aspirations
4. Impact on the library's organisation or community.

De Jager (2017:284) recommends that in order to prove that instruction has been effective after LI has taken place, library staff should administer assessments. If the intention is to measure a difference, then pre-assessment should take place ahead of time (to set a baseline) and after instruction to measure improvement or lack thereof. It was not feasible due to time and monetary constraints for the researcher to conduct pre- and post- assessments, so it was only possible to rely on respondents' opinions about whether instruction had been effective.

It was assumed that LI could enhance the attendees' research abilities, which in time could contribute to lifelong learning skills. This assumption is supported in a study by Shao and Purpur (2016:673) who found that librarian partnerships in LI enriched students' written work and academic achievement. Written communication is fundamental at the HSRC, as researchers are expected to produce accredited journal articles, chapters, books and prepare policy briefs in line with the expected research output per unit. Evidence of such enrichment through LI was sought from respondents by way of questionnaires and interviews.

### ***2.2.1 Learning analytics and LI***

Learning analytics uses collected information to understand and increase the quality of a learning experience (Pardo & Siemens, 2014:1). An Institute for Museum and Library Services (IMLS) project known as Libraries Integration in Institutional Learning Analytics (LIILA) commenced in July 2017, at Syracuse University, in Syracuse, New York. This project was aimed at growing librarian consciousness of and engagement with learning analytics, creating a plan for incorporating academic libraries into learning analytics initiatives, developing sustaining learning analytics

partnerships and collaborations, and exploring, designing and developing library use cases and data profiles, based on learning analytics practices and interoperability standards that can be used to integrate library data with institutional data stores (Oakleaf et al., 2017:460). The experience of information literacy has to be a positive and engaging one to have maximum influence on learning and application of learning. Learning analytics is not being conducted at the HSRC; it is hoped that this study provides adequate proof that there is a need to gather, analyse and apply appropriate teaching methods that would benefit workplace LI. The survey instruments gave staff members the opportunity to comment on their experience of LI, thereby allowing the researcher to make recommendations to increase the quality of their future learning experiences.

### ***2.2.2 LI Impact and parent institutions***

Positive LI feedback can demonstrate library value to the parent institution. Feedback from staff members can be used to inform stakeholders about matters such as expenditure, allocation of training venues and creating additional positions to support LI at the organisation.

The South African National Research Foundation (NRF) website states:

The mandate of the NRF is to promote and support research through funding, human resource development and the provision of the necessary research facilities in order to facilitate the creation of knowledge, innovation and development in all fields of science and technology, including indigenous knowledge, and thereby contribute to the improvement of the quality of life of all South Africans. (National Research Foundation, n.d.).

This statement clearly demonstrates that proven influence is expected of research support services such as the library, to ensure organisational success.

This raises the point that the library should have the priorities of the parent institution at the forefront of its mandate at all times. In turn, the parent organisation needs to support the library in terms of funds and infrastructure to do so. The HSRC has reduced the eRKC annual budget for the past few years; this is due to the organisation's receiving a lower grant from Parliament.

### ***2.2.3 Research quality as impact***

Research quality can be measured by using metrics such as a bibliometric analysis. In some cases, as with the HSRC, bibliometrics involve studying citation counts of articles produced by staff members, as measurable indicators of research impact. Citation analysis is done at the HSRC over a 5-year period to ascertain how many citations per article were accumulated, using either the Scopus database or Google Scholar. Scopus and Google Scholar were chosen to conduct the analysis as they have wide national and international coverage. Articles that have a citation score of 10 or more citations count toward the research output indicator. The task of observing or appraising groups of researchers is motivated by the need to validate funding and to measure the effects of policy changes (Fairclough & Thelwall, 2015:895) thus making the measurement of library impact as expressed by an increase in publication output, critical at the HSRC.

This study intended to demonstrate that LI is perceived to have an impact on the production of high quality research. The Research Use and Impact assessment (RIA) unit of the HSRC conducted research, and developed research impact strategies for the HSRC's use, to measure its influence, validating a return on investment and improving accountability to taxpayers. The project investigated the numerous kinds of indicators and proof (metrics, narratives, surveys, testimonials and citations) used to assess research impact. The guidelines that were developed will be incorporated into the HSRC's Research Project Management Framework and the associated Research Management System as published in the HSRC - Integrated Annual Report of 2016/2017. These guidelines impact on the library, as certain metrics are the library's responsibility to report on. One of the key research questions of this study is to find out if researchers who publish more, obtain more research funding or achieve higher citation rates on account of attending library instruction.

The eRKC manages the Research Output office, and is responsible for reporting on the indicator Objective 1C: Promoting excellence, reach and impact of publications. The performance indicator requires: "Peer-reviewed journal articles with at least 10 citations listed." This aspect of LI encourages responsible authorship at the HSRC by promoting the use of accredited journals. iThenticate, a product that is able to detect

similarities and avoid plagiarism, is a mechanism used by the HSRC to promote research excellence.

### **2.3 Library Instruction**

LI involves librarians teaching certain library related skills, such as finding and using information in a responsible manner to library users. Librarians consequently have an influence on users by teaching them library related skills (Arp, 1994:163).

According to McAdoo (2012:3), in the 1960s, librarians increasingly started to provide instruction, referred to as library instruction, to emphasize a more composite, holistic perspective on the library. This model of instruction is still evident in many libraries today in the form of workshops or “one-shot” interventions wherein a class or group of people is given a single, broad exposure to critical library resources, tools, and services. On the other hand, Information literacy, according to Secker (2013:11), is a variety of skills, behaviours, approaches and values that may be developed over time as different information resources are used for learning, scholarship and research.

#### ***2.3.1 Benefits and value of LI***

To be information literate means one has a set of capabilities that are the underpinning of academic success, effective work performance, active social responsibility and lifelong learning (Cameron, Wise & Lottridge, 2007:229). A study by Wong and Cmor (2015:472) examining a library workshop audience and the graduation Grade Point Averages (GPA) of 8,000 students found that LI appeared to have had a constructive influence on GPAs. This signifies that attending LI impacted positively on academic achievement (Wong & Cmor, 2015:472). Lange, Canuel and Fitzgibbons (2011:76) also established value in embedded information literacy instruction at McGill University Library.

One of the key research questions of this study was to determine if LI has changed the participants’ perceptions of their skills and competency levels. A variety of different questions were posed in the questionnaire to determine if participants who attended LI, found certain tasks were now easier and faster to achieve.

Another key research question was to find if individual participants had higher success in research, study or career aspirations as the result of LI.

The last key research question was to ascertain whether researchers published more, obtained more research funding or achieved higher citation rates on account of attending LI. Questions addressing these issues were included in the research instruments to determine the influence of LI on staff members.

### ***2.3.2 Knowledge and skills requirements***

There is a variety of prerequisites before LI can take place. Pre-requisites may include computer literacy, basic understanding of what constitutes scholarly information and the awareness of information seeking tools. This aspect of LI is particularly difficult to handle, as the class composition is not homogenous at the HSRC. Watson et al. (2013:390) have identified and designed prerequisite activities and bracketed off concepts that could be conveyed through online tutorials and videos. This prompted the development of a menu of library instruction options intended to enable instructors to select the learning concepts prior to LI's taking place, thereby ensuring that the class comprised of individuals with a similar skill sets.

#### ***2.3.2.1 Participants***

Librarians often have to simplify instruction and communication approaches for students with unpredictable levels of language, library, and technology expertise. They also at times need to teach outside regular office hours to accommodate participants, or teach online and tailor communication for participants, and have to develop learning content based on the content specific to user needs (Lange, Canuel & Fitzgibbons, 2011:71). This level of commitment demonstrates that librarians are flexible and want to impart knowledge and skills to participants. Tailoring of LI and going the extra mile for a researcher or student in need impacts on a participant if they are aware of the effort the librarian has made to ensure that learning takes place and the individual's well-being has been considered.

Library anxiety might occur among novice or older library users due to the changes that have taken place in libraries, especially in the use of technology. Many

participants feel unwelcome or lost in a changed environment. LI can alleviate this phenomenon of anxiety if conducted in a gentle, nurturing manner with the understanding that the more knowledge and skill the participant gains, the fewer anxious moments the participants experience (McAfee, 2018:241).

Participants at the HSRC are made up of a variety of staff members, from interns all the way up to those staff who are awarded post retirement contracts. There are occasions when the class compliment is very diverse, in terms of age, skill level and computer literacy. The instructors are sensitive to the needs of all who attend. Often more than one instructor is in the venue to guide those who require additional assistance.

### *2.3.2.2 Information Consultants or Librarians*

HSRC Librarians have the job title “Information Consultant”. All Information Consultants have undergraduate degrees in LIS. Information Consultants as instructors constantly need to reskill themselves and become more aware of emerging trends in the LIS field. Trends such as data curation, facilitating partnerships, providing guidance on publishing, how to increase impact, support with copyright and other compliance matters, preservation of research outputs, and the campaign of pertinent emerging technologies are new concepts in the library field that Brewerton (2012:104) found to be part of the duties.

Bryan (2016:349) identified skills required by instructional librarians; these encompassed administrative skills, assessment skills, curriculum awareness, and information literacy integration skills, instructional design skills, advertising skills, subject proficiency, and teaching skills. He goes on to say that, either on the job training and/or professional development may complement these skills. Those Information Consultants who had prior work experiences had a significant advantage in their role as Information Consultants who provided instruction.

Information Consultants at the HSRC strive to keep up with information literacy trends. To the researcher’s knowledge, all but one of the staff members who provides training have formal teaching experience. Information Consultants could further develop their skills by taking continuous professional development courses. The

following section reports on key aspects found in previous studies regarding assessment of LI.

### ***2.3.3 Assessment of LI***

LI assessment initiatives serve as a means to determine whether LI skills were acquired, and effectively applied when an information need is identified in daily activities. Assessment can happen at any point during instruction. Some institutions do a pre- test and a post-test, others merely question the class before beginning instruction to have a casual understanding of how much students know or what degree of detail is needed for the sessions. To demonstrate impact however, a more formal approach is often needed. Information Consultants, also at the HSRC, have implemented lesson plans so that the outcomes of the lesson are stipulated ahead of the lesson-taking place, although they do not conduct assessment as none of the LI staff have assessor training. The Learning and Development Department of the HSRC has suggested that it would be beneficial for Information Consultants to consider taking a formal assessment course. The Institute of Museum and Library Services has funded RAILS (Rubric Assessment of Information Literacy Skills), a multiyear (July 2010–June 2014) research project, which enabled ten rounds of rubric research at nine institutions in the United States of America, whereby librarians from nine institutions engaged in rubric training, which involves developing and adapting custom-made information literacy rubrics to their specific campus circumstances (Belanger et al., 2015:624). A major aspect of learning discussed in this article, found that as librarians advance their knowledge of teaching and assessing, the idea of measuring library value by reporting information literacy learning performance, becomes a more achievable goal. Reporting on information literacy learning performance at the HSRC could be another avenue to highlight the influence that LI has on staff members.

The Library and Information Research Group and SCONUL (Society of College, National, and University Libraries) Impact Initiative was concerned with assessing the impact of higher education libraries in the United Kingdom. Aspects such as learning, teaching, and research by using rubrics to assess learning were incorporated in course integrated library instruction (Poll & Payne, 2006:555). Once the rubric is complete and artefacts of learning have been gathered, assessors can use the rubric to

generate clear, descriptive data about student performance in a systematic manner, reducing subjectivity and inconsistency in assessing student work. Due to criticism of such fixed-choice tests however, some recent literature calls for the use of more authentic assessments, which are designed to measure real-world skills and the ability to solve complex problems (Oakleaf, 2009:970). The eRKC would probably prefer to use the authentic assessment style that measures real world skills to depict influence.

Another approach, known as outcomes assessment, can be used to confirm the value of the library as a partner in teaching and learning. Outcomes assessment involve assessment data which can determine the degree to which learning objectives are being met and direct institutions in their efforts to develop curricula and instruction programs (Carter, 2002:37). A variety of other approaches such as fixed-choice tests, which include quizzes, pre- tests and post-tests, multiple-choice tests, and true / false tests, can also be used to assess learning. Walsh (2009:21) found that multiple choice surveys, analysis of bibliographies, quiz/tests, self-assessment, portfolios, essays and observation, simulation and final grades are examples of good practice in showing reliability and validity when assessing learning for LI. He goes on to state that when determining how to design assessment tools for LI, librarians should balance their needs for a test that is easy to oversee, with one that evaluates the diverse transferable information skills that LI implies (Walsh, 2009:25).

The HSRC is yet to implement assessment either prior to or after LI. Careful consideration needs to take place before an approach is adopted. Assessment type needs to suit the diverse staff complement. It is possible that more than one strategy would need to be used to assess learning.

#### ***2.3.4 Library Instruction and academic success***

Opinion surveys, studying bibliographies and analyses of student pass rates have been used to establish connections between LI and student academic success (Matthews, 2007:69).

Oakleaf (2010:37) states that according to Institute of Museum and Library Services, academic success can be viewed as

the benefits or changes for individuals or populations during or after participating in program activities, including new knowledge, increased skills, changed attitudes or values, modified behaviour, improved condition, or altered status

If Information Consultants clarify the outcomes of LI, as well as why they conduct instruction in the manner that they do and what outcomes they expect to see among staff, they can move away from satisfaction and opinion, and move towards proven influence of LI.

Poll (2003:331) lists the following attributes that illustrate academic “success”:

1. Shorter duration of studies.
2. Higher grades in examinations.
3. Student persistence (retention).
4. Employment rates after examinations.
5. Highly reputed publications (e.g. citation impact).

Such success can be set in relation to frequency of library visits, variety of services used and attendance of LI. The researcher, in the questionnaire to staff, asked about the duration of time taken to complete studies, and citation impact of research at the HSRC.

### ***2.3.5 LI in the workplace***

According to Stebbing et al. (2019:26), academics view LI for their students within the workplace as a positive step. They also think that LI would prepare higher education students for a competitive workplace and lead to them having successful careers.

They argue that the outcomes of information literacy can potentially

- facilitate practical understanding regarding where and how the information is located inside an organisation;
- identify activities which the organisation is involved in;
- facilitate the construction and reproduction of knowledge;
- promote the production of deep knowledge developed gradually and through experience at a workplace;
- offer opportunities for ongoing transformation and development of information about the organisation; and
- promote the protection and storage of organisational history.

These potential outcomes of information literacy, should be communicated to employers as they are qualities that underpin successful workplace performance (Lloyd, 2011:294). Many senior staff members, who supervise interns at the HSRC, encourage participation in LI. It is not a formal requirement for interns or new staff members to attend.

## **2.4 Adult learners and LI**

Information literacy instruction for adult learners such as senior researchers can be a difficult and uncomfortable experience for both the researcher and the Information Consultant. Adult learners and instructors usually have very little in common. This creates a distinctive information literacy challenge or opportunity, depending on one's view on life (Rhoden, 2015:30).

Adult learners may find it difficult to attend and prioritise LI due to work and family commitments. There may also be stigma attached to attending instruction at an advanced age. Nothing makes an adult feel more uncomfortable than being judged by another adult. For this reason, andragogy prescribes self-evaluation for the adult learner. This means that Information Consultants must set the example by welcoming feedback of their own performance (Daland & Walmann Hidle, 2016:36).

## **2.5 Academics' perceptions of LI**

Many of the research staff at the HSRC are seasoned academics. Stebbing et al. (2019:37) report that academics recognised that there is a role for LI in the workplace. Skills such as the evaluation, synthesis, contextualisation and application of information sources were reported as important and essential. The researcher believes that HSRC academics agree, as they continue to attend LI and encourage other staff members to do so as well.

## **2.6 Importance of Information Literacy**

The importance of information literacy is summarised by Bitso (2017:12) as follows (cited verbatim):

- it enables people to select (locate, evaluate and use) only the most useful information needed;

- it helps prevent information overload, with information literacy skills only the most relevant information will be retrieved;
- its application in academic studies, at work and in one's personal life, makes information literacy a lifelong learning experience;
- people who use their information literacy skills have an advantage as their lives are enriched and enhanced in many ways compared to people without skills;
- it prepares individuals to make use of a library immediately;
- it nurtures an individual's ability to make use of information independently and fosters critical thinking skills; and
- it evolves, adapts and changes according to changes in the information environment/

For the purpose of this study the following definition of information literacy is used: information literates are those persons who are able to determine what information they require, access relevant information, evaluate information and sources critically, use information retrieved to accomplish a task and clearly understand the ethical and legal use of information (Fullard, 2017:51).

## **2.7 Conclusion**

The positive influence, benefit and value of LI was demonstrated by the literature. The research shows that staff and researchers at the HSRC also reap the rewards of LI. The coming chapters demonstrate that the eRKC department efforts are not in vain. Senior staff who mentor and supervise interns and other junior staff members should take cognisance of the ongoing effort to impart crucial LI to young upcoming researchers that better prepare them for a career in research. New staff members should be encouraged by mentors and seniors to attend LI as soon as possible after having joined the organisation. The library should be seen as the central point of research at the HSRC, as it is the department where research begins and usually ends. LI sets the foundation for good, high quality, ethical research practices at the HSRC, and it has a lifetime of benefits.

Chapter 3, below, outlines the theoretical framework used to explore information literacy at the HSRC.

## **Chapter 3:**

### **Theoretical framework**

#### **3.1 Introduction**

Theories are formulated to clarify, forecast, and comprehend phenomena and, in many cases, to contest and extend existing knowledge within the confines of critical bounding assumptions. The theoretical framework is the structure that can hold or support a theory of a research study. The theoretical framework introduces and describes the theory that explains why the research question under study exists (Labaree, n.d.).

This chapter presents a review of particular models and theories from the literature relevant to this research. There is currently a large body of literature covering many different aspects of LI. The first theme in the study is an overview of instruction models used at the HSRC and the second is the variety of Information literacy programmes used worldwide.

The assumption of this study is that LI, has an influence on staff achieving their research and academic goals. LI involves Information Consultants teaching Information literacy, which implies that the recipients gain the ability to think critically about information and its use.

The Actor-Network Theory (ANT), which is a form of constructivism according to Latour (2005:88), was used as a lens with which to view the study. ANT is a sociological philosophy developed by Bruno Latour, Michel Callon and John Law and is set apart from other network theories in that an actor-network contains not only people, but objects and organizations as well (Garrety, 2014:15).

#### **3.2 The Big Six Skills approach**

The Big Six Skills approach consists of six steps that are required for the successful resolution of an information problem. The order and amount of time spent on a step may vary according to the information need. The six skill areas as described by Eisenberg and Berkowitz (1996:5) are quoted below:

1. Task definition: the researcher needs to decide the variety and nature of the tasks to be achieved. Task definition includes stating the limits of the problem.
2. Information seeking strategies: decisions have to be made about the assortment of information sources that are suitable for the problem are identified.
3. Location and Access: this involves physically finding the information sources identified. Certain tools and system commands may be necessary to locate and access the required information.
4. Use of information: This involves the skill set that users apply to an information source. They must be able to read, view or listen and then decide what is valuable for the situation and extract the information in some way, such as note taking, photocopies or citing the appropriate source.
5. Synthesis: synthesis involves applying the information to the problem. It involves reorganisation of information into innovative or altered formats to complete the task.
6. Evaluation: is the inspection and valuation of the information problem solving process with regard to how successfully and proficiently the task was completed. Users have to appraise their own expertise when solving a problem.

The Big Six approach incorporates higher levels of thinking as part of Library and Information skills instruction. Cognitive levels of knowledge, comprehension, application, analysis, synthesis and evaluation are necessary to solve a problem. This approach is applicable to any information problem or decision-making situation at any level. More importantly it can be applied by adults in the work situation and in their personal lives. It is a flexible process that allows the user to loop back to revise previous lessons at any stage. It provides a broad framework, and can be integrated and adapted with other instructional efforts. Lessons and activities can be created for instruction to develop and understand all six levels. LI workshops at the HSRC address task description, information seeking strategies, location and access and the use of information; however, they are not approached within the Big Six Skills framework, as this framework is regarded as more specifically directed at student learners.

### **3.3 REACTS model**

According to Bothma (2014:8), the REACTS model was developed as a model for preparing assignments. In the acronym REACTS, each letter represents a different

characteristic, “R” is recalling, “E” is explaining, “A” is analysing, “C” is challenging, “T” is transforming and “S” is synthesising.

The modes focuses on critical thinking in the research process, with six levels of activity:

1. Fact-finding involves searching for information in various sources.
2. Asking and searching involves asking the questions: ‘Who’, ‘What’, ‘Where’, and ‘When’, and trying to find the answers to these questions.
3. Examining and organising refers to more in-depth research about why and how, as well as arranging the information in a logical manner for your information need.
4. Evaluation and deliberation requires critique the information according to various criteria, such as authority and bias.
5. Integrating and concluding means adding your personal perspective, based on the information you have and draw conclusions.
6. Conceptualising refers to creating original solutions to the original problem.

The REACTS model would be difficult to apply to staff at the HSRC. This is mostly because the information sought is usually for reports, articles and books, and is not assignment style research questions. The REACTS model seems to be a model that was intended for learners at higher education institutions with undergraduate students and not a research institution such as the HSRC.

### **3.4 Bruce’s Seven Faces of Information Literacy in the workplace**

The skills students gain in college or university have a significant influence on expenses and throughput in the workplace. The corporate world has recognised the significance of information literacy on workplace success (Travis, 2011:19), as information technology has become more comprehensible and easy to use. The focus has moved to how people in the workplace are relating with and using information which information technology makes obtainable and accessible.

Bruce’s Seven Faces of Information Literacy in the workplace is the most applicable theoretical framework for the HSRC staff members. The Big Six and REACTS, are not as suitable to workplace learning as Bruce’s. Both the Big Six and REACTS

seem to be geared toward higher education academic libraries as their frameworks are more suitable to assignment style research conducted by students.

All seven faces of Bruce's framework are applicable and actively propagated at the HSRC. The faces are concepts that provide a depiction of information literacy that is unlike the lists of skills and aspects that are most often found in literature on the topic and frames the contribution of LI at the HSRC. The "faces" are discussed below.

- *The first face:*

"[I]nformation literacy is experienced as using information technology for information awareness and communication" (Bruce, 2016:36).

The first face involves information technology that enables staff to stay knowledgeable and to connect with colleagues within the organisation and around the globe.

The first face is applicable to e-mail communication within the organisation and worldwide. Staff members communicate with colleagues based in offices nationally, e-mail is used for more than communication but also for planning and scheduling of meetings and informal gatherings. Many researchers also use e-mail to make contact with collaborators and experts in their field of research. The HSRC e-mail address ending with @hsrc.ac.za adds credibility to correspondence by assuring the recipient that the e-mail being received is from a reputable organisation and not a personal or general inbox such as Gmail.

Other information technology products such as Mendeley enables HSRC staff to connect with people from across the globe by offering group collaboration functionality. Here staff members can share reading resources using Mendeley without duplication of work or effort.

- *The second face:*

"[I]nformation literacy is experienced as finding information from appropriate sources" (Bruce, 2016:37).

The focus is on knowledge of information sources in the second face. This includes organisational, human, computer and print sources. Information professionals such as Information Consultants can be used to help speed up the process.

The HSRC staff members are fortunate to have an Information Services department with qualified information professionals dedicated to their success. Information Consultants are allocated to all units to assist staff members to find relevant sources, readings, literature and more. The organisation has an Intranet which hosts a rich source of organisational and human resource information. The Intranet is meant to be an employee's first port of call when searching for organisational related information. It is host to information such as ongoing and upcoming projects, internal and external vacancies, past media briefs, research outputs, press clippings, events, tenders and supplier information, HSRC Press, fraud line, social media contacts, notice board, HSRC calendar, in house newsletters, policies and procedures, directories for all units, the Virtual Library, Legal services, Information Technology services such as help with passwords, e-mail, help desk and other related systems such as leave applications. The Intranet was updated in 2018, envisioning that staff would have even more meaningful engagements while using the new interface.

- *The third face:*

“[I]nformation literacy is experienced as executing a process” (Bruce, 2016:38).

Information processes are the focus of the third face. They are woven into problem solving or decision-making skills. The information processes themselves are not regarded as straightforward, but complex and often complicated, as well as implemented differently by different individuals in diverse contexts. In the HSRC context, the third face is expressed by the various processes that result in an output. An output is considered a result of research and means of communication. The following publications are considered research outputs: journal articles, books, chapters in books, seminar or conference papers, new clients or research reports, newspaper articles, journal reviews, MP4 videos, pamphlets and any other intellectual recordings.

When outputs are ready for submission (after it was accepted for publication, the client report has been approved) the author or administrator submits it to the Outputs consultant along with a completed authorship sign-off form and necessary evidence as specified for the indicator category. Only then is the Research Output added to the Research Outputs module of the bigger Research Management System (RMS). RMS reports can be generated for individual researchers, Research Programmes and at Organisational level. The RMS report is an integral part of Performance management at the HSRC.

- *The fourth face:*

“[I]nformation literacy is experienced as controlling information” (Bruce, 2016:39).

In this category people manipulate relevant information and manage it so that it is retrievable. It also involves making associations between information, projects and people. A very good example of this would be the HSRC Research data management and curation (RDMC) department. The major intention of the RDMC department is to make data generated by the HSRC discoverable, accessible, interoperable and reusable for the South African public and worldwide. There are strict policies that apply to data and expressing the fourth face of information literacy; a few of the most relevant are:

- Data curation is compulsory for every research project.
- Data originating from all projects should be deposited for conservation as soon as the first final version of the data is available after data collection or within six months after data collection.
- The HSRC expects the timely release and sharing of data. Data must be made available for sharing within 12 to 24 months after the official completion date of the project.
- The HSRC is not allowed to curate data not owned by the HSRC.
- Sharing of data informally is not permissible.
- Sharing of data with collaborators external to the original project team and which has not been curated yet, is subject to a data usage agreement.
- Data must be cited in all outputs based on analysis of the data.

- *The fifth face:*

“[I]nformation literacy is experienced as building up a personal knowledge base in a new area of interest” (Bruce, 2016:40).

Here the ultimate goal of the user is to learn. This involves the growth of personal viewpoints about the knowledge attained. It is highly reliant on critical thinking or analysis skills. The fifth face is an aspect encouraged among HSRC research staff and those who are pursuing research related studies; most especially to those who are conducting literature reviews, prior to starting the process of writing up papers, policy briefs, chapters and so on. Relevant literature for the purpose of the study has to be sourced (Welman et al., 2005:43) and evaluated for relevance, especially according to criteria such as recency, context, reliability, bias, value and precision. During this process of reading, reviewing and making decisions regarding appropriateness of literature for inclusion in a study, staff should automatically build individual awareness and understanding of new areas of interest. During this process staff have to read widely and explore all facets of the area under investigation, thereby forming a solid personal viewpoint on a particular topic.

- *The sixth face:*

“[I]nformation literacy is experienced as working with knowledge and personal perspectives adopted in such a way that novel insights are gained” (Bruce, 2016:41).

This sixth experience is embedded in personal knowledge and experience together with an ability for original acumen or intuition, to develop new forms of knowledge, new approaches to tasks or unique solutions. The sixth face whereby new forms of knowledge and solutions are developed can most often be seen in the completed HSRC policy briefs. Policy briefs are submitted to Parliament for consideration and usually recommend changes to existing South African policies.

- *The seventh face:*

“[I]nformation literacy is experienced as using information wisely for the benefit of others” (Bruce, 2016:42).

A personal quality of good judgment is applied to this involvement of information use. An awareness of personal values and ethics is united with an individual’s knowledge and experience when working with others. HSRC research is crucial to South Africa’s national development priorities. Research is used to formulate and monitor government policies and to evaluate the implementation of policy. Research outputs are also intended for the South African public, to stimulate debate based on facts. This links very clearly to the seventh face, whereby information is used for the benefit of others, in the case of the HSRC the benefit is directed at all South Africans.

Bruce’s Seven Faces of Information Literacy correspond very closely with the HSRC as an organisation that is focussed on research for the benefit of the public.

This framework can be applied to training and informing staff on how to successfully use the organisation’s Information Services department as providers of continued professional education in the workplace (Bruce, 1997:44). This theoretical framework thereby supports the statement that LI should have an influence on the HSRC staff in achieving their research goals.

The value of information literacy in the workplace can be seen when staff use their skills in the following areas, in the best interests of the organisation:

Environmental scanning, to gain a competitive edge, such as using information for grant applications. Competition for the awarding of grants in our economic climate is strong. Wise use of information for applications could mean more outcomes that are successful. Databases such as Research Professional (Africa edition), provide forecasts for the release of funding opportunities. This information is useful when a researcher needs to compile an application timeously. This also leads to an increase in organisational competitiveness and profitability.

Staying informed of trends in the research field. An excellent example of this is the Research Management and Data Curation (RMDC) unit, which was formed at the HSRC. This unit is on par with international trends and standards in the field of data curation, and make data available for reuse to others. The RMDC unit offers training on creating questionnaires, normalising of data after capturing, storage and retrieval of data. The Institutional Repository which stores all intellectual output, encourages organisation-wide knowledge sharing. Staff are able to retrieve outputs on a variety of topics using the institutional repository. This database is of enormous value, as it stores and makes HSRC research discoverable and available. Many researchers now form collaborations, use previous research and cite other colleagues due to the Repository.

One of the most important aspects of LI is the application of search strategy and methodology. This aspect of instruction is invaluable nowadays to overcome information overload. With the emergence of the Internet, Social media platforms and fake news, the information explosion is very real and frightening, more especially for junior staff members. Use of discretion and common sense is no longer enough, due to the high quality of fake news and fake websites. Search strategy, methodology and evaluation of information sources equip young researchers to use the most trustworthy sources and websites in their research. The value of information literacy in the workplace can also improve information pliability leading to more effective problem solving and managing new or changing demands. A very simple example of this is the use of 'Cite as you write' software. The HSRC promotes the use of Mendeley to ensure that researchers cite references in a professional, consistent manner. Often papers have to be reworked to suit the referencing styles or needs of the publisher. Mendeley is one of the products that allows effective solutions for researcher who need to work on papers before submission.

When staff are mindful of the central value of knowledge in the office, it shapes their judgements and decisions around information. For example, the HSRC uses a product called iThenticate, which picks up similarities in texts thereby allowing the researcher to ensure all citations are correct and avoid to plagiarism issues. Prior to submitting to editors, supervisors or publishers staff can ask for a report for their

paper, make changes if need be and then submit their work, knowing full well it is an original piece of writing.

Bruce's seven faces of information literacy underpin many of the questions in the survey instruments used in this study, as the "faces" in the framework correlate closely with research activities in a research-intensive organisation such as the HSRC.

### **3.5 The Association of College and Research Libraries (ACRL) Framework**

This is the most recent and internationally recognised Framework for Information Literacy. The ACRL Framework for information literacy was adopted by the ACRL board on 11 January 2016. ACRL has a long history of supporting librarians in understanding and using the Association's standards and guidelines. ACRL offers consultation facilities to support librarians in accepting the Framework and relating it to the particular needs of their institutions and learners. The ACRL Framework is divided into six core concepts known as "frames" that are crucial to information literacy. Each frame contains a set of knowledge practices and dispositions (Kuglitsch, 2015:458). The frames comprise of the following six major components (ACRL, 2016:2):

1. Authority is constructed and contextual.
2. Information creation as a process.
3. Information has value.
4. Research as inquiry.
5. Scholarship as conversation.
6. Searching as strategic exploration.

Fullard (2017:48) investigated the use of the Framework for Higher Education and found that the six concepts that encompass the framework act as lenses through which to comprehend the work that is being done by students when they approach study responsibilities. In this way, the concepts help to foreground some of the conceptual understandings that tend to be implicit for lecturers who are academically expert. Each concept is characterised by a set of related knowledge practices and dispositions that characterise the exercise of each idea as a student moves from novice to expert.

Hess (2015:775) notes, however, that there had been little research on significant job-embedded or professionally-focused learning for academic Information Consultants. She also argues that there is even less research on how this group can be prepared to design and deliver instruction using these new professional guidelines. Her suggestion is that Information Consultants can use transformative learning theory, various social learning theories, and goal orientation, whereby academic library leaders can more successfully provide professional development in designing and delivering meaningful 21st century information literacy instruction. As previously mentioned, Information Consultants at the HSRC are being encouraged to take an assessor course. This enables them to administer tests, assess progress and issue certificates during LI.

Fullard (2017:53) also noted that to prepare faculty librarians, several internal workshops have to be conducted and one-on-one coaching is ongoing at her institution. Her intention was to have more active partnerships for the embedding of information literacy concepts within academic programmes in Higher Education.

The ACRL framework can to some extent be used at the HSRC, however it is more suited to Higher Education academic libraries, as the framework can be embedded within the study curriculum. There are certain aspects whereby the framework relates to research and scholarship, which can be applied to the HSRC situation, but the majority of the framework is not applicable for the HSRC circumstances.

### **3.6 Conclusion**

LI at the HSRC is certainly more based on organisational learning, rather than the curriculum. Practical, everyday office based skills to effectively select, use, manage and store information are the major focus of the eRKC staff. Responsible authorship is also a major focus, to ensure original, good quality research outputs. Chapter 4 sets out the methods used to gather information for the study.

# **Chapter 4:**

## **Research methodology**

### **4.1 Introduction**

The intention of this chapter is to explain the methodology that was used and procedures that were applied to gather information, and to examine and interpret the data that was collected. Hofstee (2006:107) states that methodology refers to the controlled and scientific process of fact finding which is intended to lead to the answers of particular questions or series of questions. The purpose of this research study was to investigate the influence of LI on the HSRC staff in support of achieving their research and academic goals. Below is the outline of how the researcher intended to come to a conclusion to the investigation, and how the researcher intended to gather data, sample the population and analyse the results. Methods tell readers all they need to know about how conclusions were attained.

The research question aims to explore the impact of LI on the HSRC staff, in support of achieving their research and academic goals.

The key research questions were the following:

1. How has LI changed the participants' perceptions of their skills and competency levels?
2. What was the influence of LI on individual participants' success in research, study or career aspirations?
3. How has LI affected researchers publishing rate, ability to find research funding or achieved higher citation rates?

Related research questions were the following:

1. Is there a need for alternative instructional models?
2. Is there a need for LI by occupation post level?
3. What are the reasons for non-attendance of LI?

## 4.2 Research paradigm

A paradigm refers to a philosophical understanding of the world whereby an academic is able to express a thought in scholarship. It is a structure for reflection and consideration that shapes how something is seen and comprehended (Raju, 2019:3). The paradigm through which this study was viewed was the interpretive paradigm, which focuses on the lived experiences of people in specific social contexts. Constructivism can be seen as a variant of the interpretive paradigm. An assumption of this paradigm is that human beings construct subjective meanings as they engage with the world. Researchers aim to capture and make sense of these meanings, using data collected in the field (Raju, 2019:5).

As noted in section 3.1, the Actor Network Theory was used as a theoretical lens to view the study. The leading thought of this theory is that scientific knowledge is an effect of conventional relations between objects, animals, and humans involved in scientific practices. An actor is, according to this theory, everything that in some causal way affects the construction of scientific statements and theories, not only scientists, but also, for instance, background assumptions, methodologies, techniques, social rules and institutions, routines, experiments, measurements and the appropriate instruments, scientific texts and external objects.

For a unit to be an actor in this sense it is understandably not required to have meaningful mental states, but to be able to perform activities as a kind of behaviour describable under some objective. Thus, there can be many sorts of relations and interactions between actors; in particular, some actors can transform other actors. These transformations are sometimes called translations (Garrety, 2014:15).

This theory was chosen for the study, as the staff members were seen as actors who engaged in LI. The effect of LI on the staff members (actors) could produce a scientific statement, theory or transformation. The study intended to gauge the influence of LI on staff, and to provide the answer to the question of whether or not LI had a positive or negative effect on staff, in terms of their research, academic and career aspirations. Peterson, Baker and McGaw (2010:85) state that learning is knowledge creation through social participation in everyday work. The conception is of mutual interaction and modification between individual actors. In most cases

learning is prompted by particular individuals (guides or mentors), events (conflict or disturbance), leaders (e.g., encouraging inquiry, supporting improvisation), or conditions (learning architecture). For the purposes of this study, learning was prompted by the Information Consultants offering LI. When staff members or actors learned and applied what they did, a modification occurred, resulting in knowledge creation. Knowledge creation in the form of research output is the core business of the HSRC, hence the applicability of the ANT theory to the current study.

### **4.3 Research approach: mixed methods**

Ngulube (2010:252) argues that in recent times, researchers have strictly used either qualitative or quantitative methods to understand social occurrences, in a mono-method mode. In the long term however, researchers realized that qualitative and quantitative methods were not entirely different and opposing one another as originally thought; instead they could complement and strengthen each other, giving the prospect of obtaining a more wide-ranging picture of social phenomena, when both methods are used in an inquiry.

Creswell (2008:9) defines mixed methods as gathering, evaluating, and incorporating quantitative and qualitative research in one study. He goes on to say that the purpose of this form of research is that both qualitative and quantitative research together, provide an improved understanding of a research question than either research approach individually. These are the reasons why the researcher chose to use mixed methodology. This approach accommodated both questionnaires and interviews with HSRC staff members. The following reasons, quoted from Creswell (2008:14), were used to make the decision:

1. The insufficiency argument – using either quantitative or qualitative methodology as a single approach, may be insufficient by itself, for the study.
2. Multiple viewpoints argument – quantitative and qualitative approaches provide different “pictures” or angles from which the study can be approached. By using both approaches, a wider picture of the problem can be represented.
3. The more-evidence-the-better argument – combined quantitative and qualitative approaches, provide more evidence, and in turn a stronger argument for the case.
4. The community of practice argument – mixed methods may be the favoured approach within the scholarly community.

5. The keen-to-learn argument – mixed methods is the latest methodology, researchers should make use of it and learn how to apply the approach to research.
6. The it's-intuitive argument – it mirrors “real life”. The use of mixed methods, enables the researcher to better understand phenomena as the combined study gives the researcher a frank understanding of problems and possible solutions.

Creswell's points above made a compelling argument for using mixed methods. The researcher believes that the use of mixed methods makes the final findings and recommendations of the study appropriate and enables a broader representation of LI to be understood in the context of a humanities research council workplace.

#### ***4.3.1 Research design: mixed methods sequential explanatory design***

The study made use of a mixed methods sequential explanatory design. This design consists of two separate phases: quantitative data collection followed by qualitative data collection (Creswell, 2014:5). In this design, quantitative data was collected first then the qualitative data was collected and analysed thereafter. The qualitative data assisted to explain and expand the quantitative results obtained in the quantitative data collection phase.

The foundation for this design was that the quantitative data analysis was intended to provide an understanding of the research question. The qualitative data and its analysis enhanced and clarified the statistical results, by delving into participants' views in more detail.

Leedy and Ormrod (2015:331) also recommended mixed methods sequential explanatory design and say that the first phase, the quantitative study which yields only numbers (e.g. percentages and/or averages) can be useful in gathering qualitative data. In phase two, the follow-up for example by asking a subsample of phase 1 contributors to describe what they were thinking during an experimental intervention or to expand on their answers to survey questions can support the researcher to add greater substance and meaning to the numbers.

Creswell (2014:50) also supports mixed methods sequential explanatory design by recommending that researchers first survey a large number of individuals and then

follow up with questioning a selected few participants to obtain their specific views and their opinions about the topic.

The researcher surveyed the HSRC staff members by using online questionnaires. Two questionnaires were formulated. The first was for staff members who previously attended LI and the second for those who never took the opportunity to attend. Participants could volunteer for an interview, this option was included in both questionnaires. Staff members left their details with the researcher and stood a chance to be contacted thereafter. A limited number were later selected to be interviewed in the research process. Interviews were conducted after the results of the questionnaires were collated. The researcher had separate semi-structured interview guides for staff who attended and for those who never attended LI.

#### ***4.3.2 Research methods: population and census***

According to Marsden and Wright (2010:85), a population is defined as a set of elements. An element is the basic unit that comprises the population. In this study the population are the HSRC staff members, each individual is considered an element.

The researcher used a census approach, which allows the measurement of one or more characteristics of each element. A census attempts to collect information on all eligible elements in a defined population. All HSRC staff members were eligible for this study. Lavrakas (2012:5) mentions that by attempting to cover the entire population, a census has advantages over a sample survey.

The researcher took the decision to exclude co-authors and collaborators from institutions outside of the HSRC. They were not part of this study, nor were they purposively included in any form of LI endeavours at the HSRC.

Short-term contract workers and field workers, who are not allocated HSRC e-mail addresses were excluded. It is important to note that certain staff members from departments such as facilities, building services and protection services do not have e-mail addresses and were therefore automatically excluded.

The total number of staff members, with valid e-mail addresses that were surveyed was 385. A total of 104 staff responded (resulting in a 27% response rate), with 69 staff members responding to the questionnaire for those who had attended LI and 35 staff responding to the questionnaire for those who had never attended LI.

Of the 69 staff members who responded to the questionnaire for those who had attended LI, 25 staff members volunteered to be interviewed. The researcher interviewed 20 of the 25 who responded with signed consent forms. Of the 35 staff members who responded to the questionnaire for those who had never attended LI, 15 staff members volunteered to be interviewed. The researcher interviewed 10 of the 15, who responded with signed consent forms.

It has to be noted that the researcher had to make numerous follow ups to receive signed consent forms in order to proceed with interviews. Interview candidates were eventually selected if they had returned a signed consent form.

### ***4.3.3 Data collection***

Data for the quantitative portion of the study was collected by two questionnaires. The quantitative study then informed the qualitative study, which consisted of personal interviews with the surveyed population. This was done in keeping with the guidelines of mixed methods sequential explanatory design, whereby data obtained from the quantitative study may be used to create the instrument used in the qualitative study to further explain and add richness to the findings. The researcher prepared a list of potential interview questions, which were included in the ethics application. The outcome of the quantitative study, led to a few changes to the interview schedule.

#### ***4.3.3.1 Questionnaires***

Questionnaires are concerned with description and measurement, they provide a wealth of descriptive data pertaining to individuals or groups (Clarke & Dawson, 1999:68). Data can be gathered easily and relatively inexpensively. The researcher used the free survey software *Google forms* to create and disseminate the quantitative questionnaires. Online survey software enables researchers to ask follow on questions, based on a previous answer and thus it enables respondents to skip

questions without compromising the integrity of answers (Leedy & Ormrod, 2015:175). The data files were then downloaded from Google forms into an excel file and uploaded into Statistical Package for the Social Sciences (SPSS). SPSS is a statistical software package used for statistical analysis.

According to Babbie and Mouton (2001:233), the term questionnaire suggests a collection of questions, but questionnaires are often made up of statements to which respondents have to respond positively or negatively. This type of statement is often used when the researcher is interested in determining the extent to which participants hold a particular attitude or perspective. A Likert scale was used to gauge the extent to which a participant agreed or disagreed with certain statements.

A combination of open- and closed-ended questions were used in the questionnaire. Creswell (2014:38) recommends open-ended questions so that participants can share their views easily. Open ended or free text answers were analysed and encoded using Microsoft Excel. In a closed ended question there are fixed possible answers. The respondent selects the most appropriate answer. Kumar (2010:151) recommends that it is wise to provide a category “Other/please explain” to accommodate any response that is not pre-listed.

In this study a combination of questions and statements were used to explore the extent to which LI has an influence upon staff in them being able to achieve their research and academic goals.

The questionnaire that addressed those staff members who had previously attended LI, intended to find out what influence, if any LI had on staff, since attending. The questionnaire for staff who never attended any form of LI, intended to investigate why they had never attended and whether they have any unmet needs.

A great deal of thought, time and effort went into formulating the questionnaires. Bruce’s Seven Faces framework discussed in Chapter 3 informed and enriched the process of preparing the instruments. Both questionnaires were piloted on four colleagues within the eRKC. All colleagues provided constructive feedback. Much of the follow up involved why certain types of questions or statements were used, duplication of themes or topics, language used in the questions, reduction of ambiguity, having two questions in one statement and general punctuation. The

researcher was grateful for the feedback and took all suggestions into consideration when formulating the final version of the questionnaires, please see Appendices 1 and 2.

#### *4.3.3.2 Interviews*

Face-to-face and telephonic interviews were used to gather data from the survey population. The survey interview is a social interaction and like other human interactions, it involves specific norms, expectations and social roles (Babbie & Mouton, 2001:249). The research interview is different from ordinary conversation in that the fundamental purpose is to obtain information from the participant.

The researcher allocated 15 to 20 minutes per interview. The allocated time was flexible depending on the candidates' responses to the questions and if the researcher needed to clarify any other aspects that were raised. Interviews were scheduled during working hours, by arrangement with the researcher's supervisor. Appointments were confirmed via e-mail at a time and venue that was convenient to both the researcher and the interviewee. The record of the interview appointment was deleted once the interview was granted, to protect the identity of the interviewee. Audio transcripts of the interviews were anonymised, by making use of an alias name per interviewee that was only known to the researcher.

Interviewees were asked to sign a consent form, granting the researcher permission to audio record the interview. The recordings were then transcribed, classified into themes and entered into Microsoft Excel. Sentences were abbreviated and only relevant themed concepts were captured. The researcher had to exercise discretion and sound ethics when transcribing notes.

Data was coded using Microsoft excel to find frequency relationship cases amongst the different responses. Each response was entered with a corresponding number. After this was done, common themes were identified. Codes were attached to each theme, and then the "COUNTIF" function was used to tally common themes from the responses. This information was then used to do data visualisation and make recommendations.

In semi structured interviews, the researcher has a list of pre-defined themes and questions to be covered, although these may vary slightly from one interview to the next (Welman et al., 2005:166). Two sets of semi structured interview schedules were drawn up. One set was for those that had attended LI and one for those who had not. As previously stated, the interviews were voluntary, and those who chose to participate shared their contact details when they completed the survey questionnaire. The questionnaire had made it clear that all those who volunteered, would not necessarily be chosen to be interviewed.

The number of respondents interviewed depended on how many staff members completed and returned the consent forms. Continuous follow up was required to enable the researcher to interview 20 candidates of the 25 that had volunteered and who had previously attended LI; and ten candidates of the 15 that had volunteered, had never attended LI.

#### **4.4 Delimitations**

The declaration of the research question pronounces what the researcher means to do, however it is also vital to understand what the researcher did not do during the study, which is stated in the delimitations (Leedy & Ormrod, 2015:62). As discussed earlier under Section 4.3.2, the researcher did not solicit the opinion of co-authors that were employed outside of the HSRC as they are not included when an invitation to participate in LI is circulated. As previously mentioned in Section 1.9, only HSRC staff members with e-mail addresses ending in the suffix @hsrc.ac.za were approached for this study.

#### **4.5 Ethical considerations**

The researcher complied with the rules of the Ethics Committees of both the HSRC and the University of Cape Town (UCT). Approval to survey staff members was sought from UCT and then from the HSRC. The rights of the participants were protected, when participants were selected for the research project, when the questionnaires and interviews were administered, as well as when the results were released of the study. The researcher protected the survey population and the institution where the surveys were conducted by anonymising the data collected. The survey population was informed of their right to take part freely and to abstain from

any question posed, should they wished to do so. Participants were assured of confidentiality and anonymity in writing by the researcher by way of the consent form.

The participants included in the interview portion of the study were informed of how they were chosen, even though the interviews were voluntary. Due to a low response rate, the researcher went ahead with interviews once there were 20 participants for the interview of those who had previously attended and ten participants who had never attended LI. Participants were informed of how the information would be used and that their responses would be anonymised, prior to the interview taking place. The consent form was administered prior to the commencement of the interviews.

#### **4.6 Conclusion**

This chapter has outlined the research approach and methods that were used in this study. The results of the research findings are presented in the next chapter.

## **Chapter 5:**

### **Data analysis and interpretation**

#### **5.1 Introduction**

This chapter reports on the information gathered by the researcher from the participants. Data was gathered for the quantitative aspect of the research in the form of two electronically disseminated questionnaires. One questionnaire was for those staff members who had attended LI, of which there were 69 respondents. The second questionnaire was for those who had not attended LI, and here there were 35 respondents.

The research design was a mixed methods sequential explanatory design, therefore the researcher first reports on the quantitative findings and then the qualitative findings. The qualitative aspect of the data gathering process was in the form of personal interviews with staff members who volunteered to be interviewed after completing the questionnaire, in order to enrich the findings of this study. The researcher interviewed two groups of staff; twenty from those who had attended LI, and ten from those who had not attended LI.

The questionnaire intended to obtain a general understanding of the influence of LI on HSRC staff members, and to answer the following key research questions:

1. How has LI changed the participants' perceptions of their skills and competency levels?
2. What was the influence of LI on individual participants' success in research, study or career aspirations?
3. How has LI affected researchers publishing rate, ability to find research funding or achieved higher citation rates?

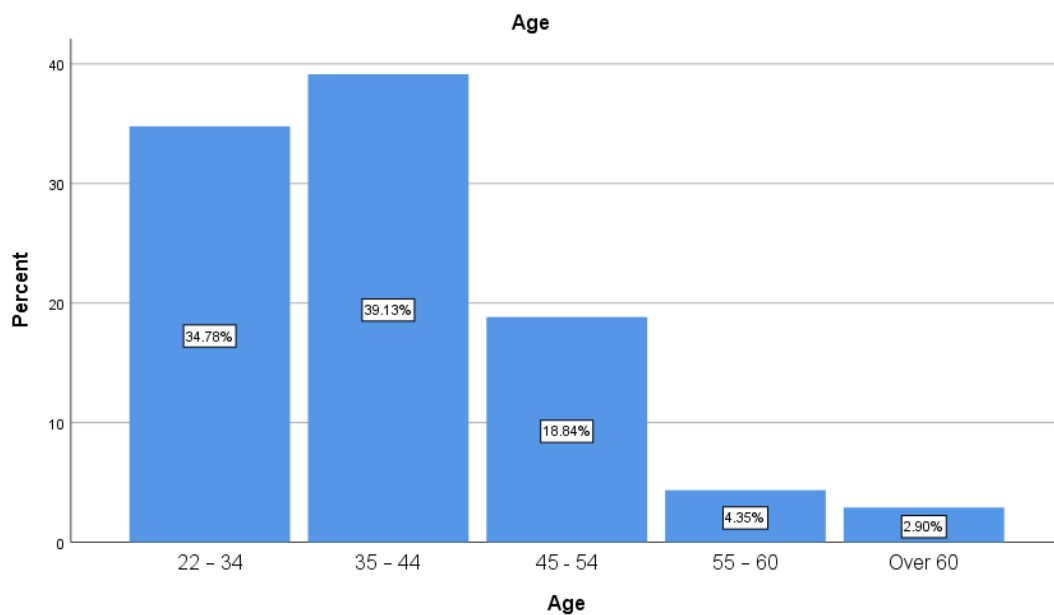
#### **5.2 Quantitative findings: questionnaire**

Results are reported in the same sequence as the questionnaires were set up. Each question has a figure detailing the responses from participants, with a summary at the end.

### 5.2.1 Results of the questionnaire for the staff members who have attended LI.

The questionnaire was distributed via internal electronic mail, and participation was voluntary. Participants were allowed to skip or choose not to answer questions and submit their responses, even if the questionnaire was not fully completed. The questionnaire is included as Appendix 1. There were 69 respondents.

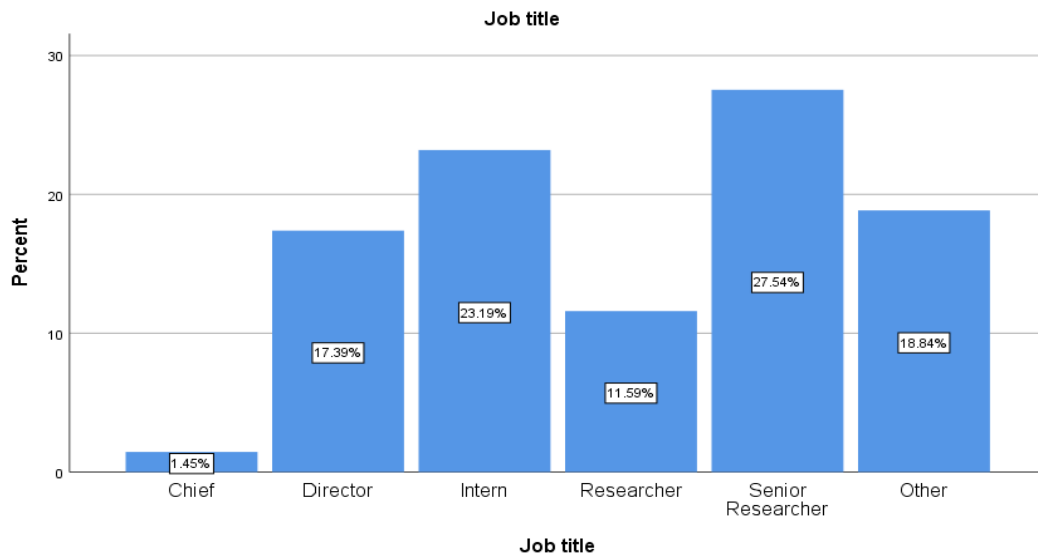
#### 5.2.1.1 Question 1: Respondents' Age Categories



**Figure 5.1: Age**

The largest number of participants, 39.13% (27) of the total, were between the ages of 35-44, followed by 34.78% (24) of participants aged 22-34. Participants in the 35-44 age category would be considered mid-career employees, responsible for much of the output production within the organisation.

### 5.2.1.2 Question 2: Occupation title at the HSRC



**Figure 5.2: Job title**

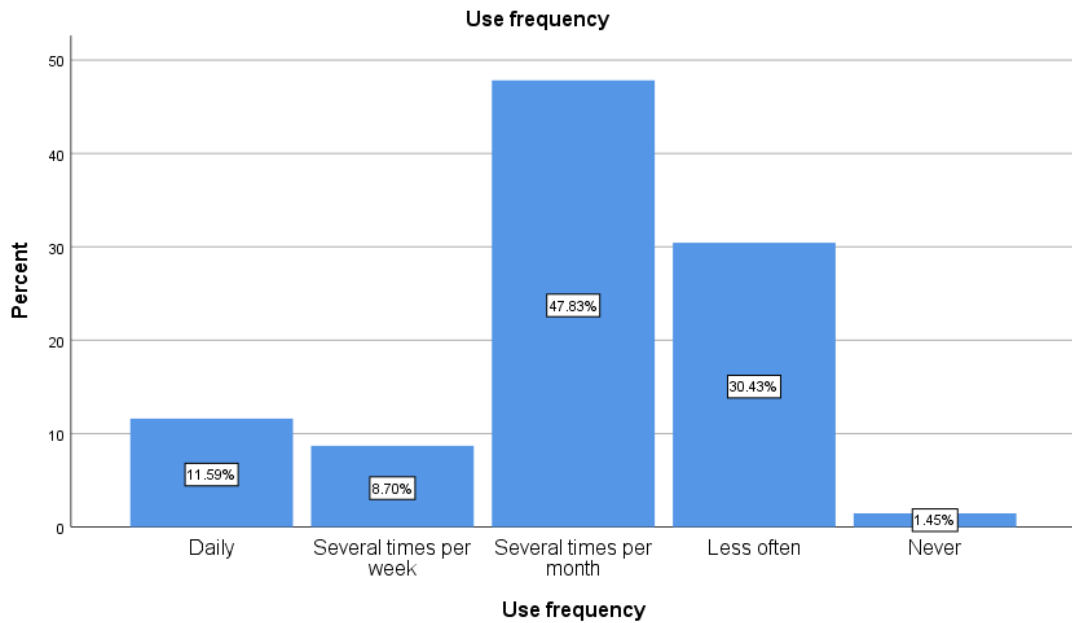
Most of the participants were senior researchers, making up 27.54% (18) of the total, followed by participants who are employed as part of the HSRC internship programme, with 23.19% (16). If the “other” option was selected in the questionnaire, an opportunity to add a comment (job title) was given:

The following job titles were added by participants:

- research assistant;
- technical expert;
- administrator;
- editorial project manager (research technical);
- fieldwork manager; and
- travel administrator.

The job descriptions listed above fall into the job titles that were included in the list of selections. An example would be an Administrator would hold the rank of Deputy Director.

5.2.1.3 Question 3: On average how often do you make use of library services (for example the virtual library platform, or contacting your Information Consultant)?



**Figure 5.3: Use frequency**

Most staff, 68.12% (47) used the library at least several times a month, and 31.88% (22) less often.

Respondents could add an optional comment (where comments by the participants are cited verbatim, these are printed in italics). The following two comments were received:

- *“Access via virtual library platform is necessary for accessing closed publications.”*
- *“I tried to get books in the past and it was very difficult.”*

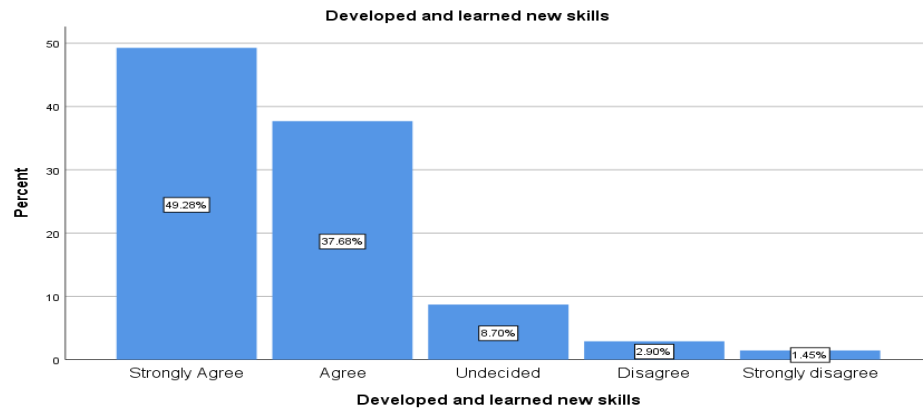
The first comment qualifies why the participant uses the virtual library and the second comment seems to be explaining the usage pattern of this patron.

In the questionnaire the following text preceded questions four to twenty:

You have already indicated that you have attended LI at some point during your employment at the HSRC. The following statements (4-20) relate to the impact that

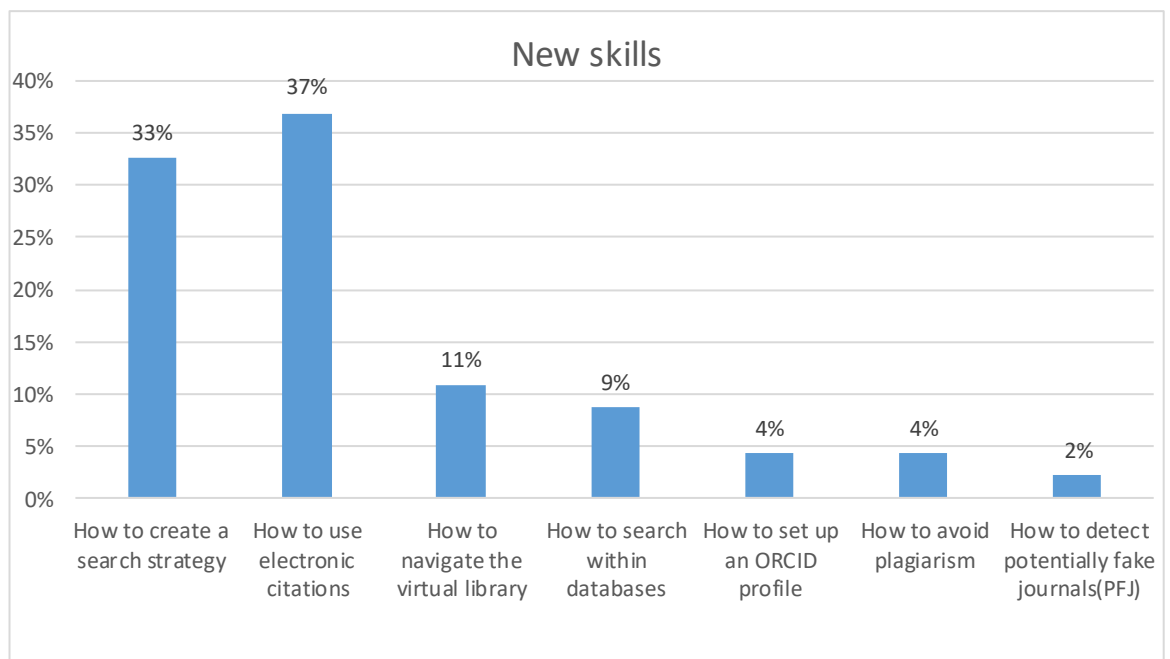
you perceive LI has had on you and your ability to achieve your research and/or academic goals. Please indicate the extent to which LI has had an impact on you.

5.2.1.4 Question 4: *I have developed and learned new skills, through attending LI.*



**Figure 5.4: Developed and learned new skills**

Most participants strongly agreed 49.28% (34) or agreed 37.68% (26) that they had indeed developed and learned new skills. This question had the option to explain which new skills were acquired and Figure 5.5 represents the answers received:

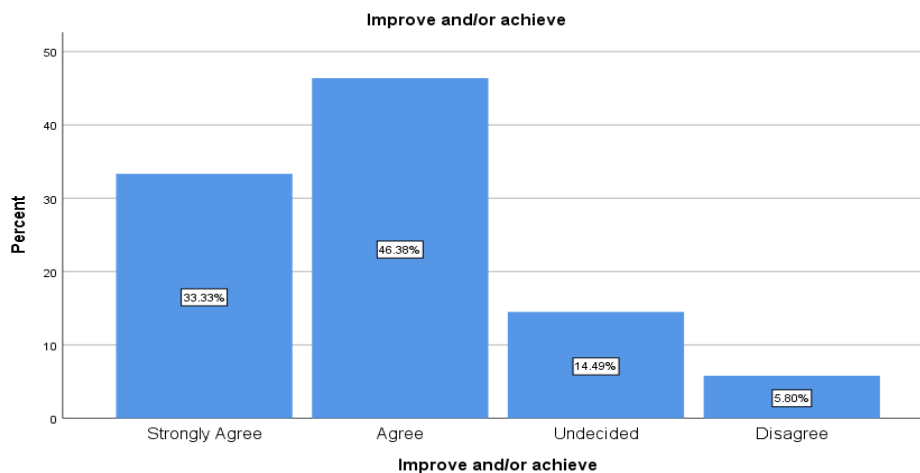


**Figure 5.5: New skills**

Most staff members, 37% (25) indicated that the new skill they use the most, was how to use electronic citations and a further 33% (22) indicated they are now able to create effective search strategies to find relevant information. Eleven percent are now able to navigate the virtual library, and another nine percent are able to search within databases. Four percent indicated they are now able to set up ORCID profiles, and a further four percent indicated they now know how to avoid plagiarism. The last two percent found that they were now able to detect potentially fake journals. This open-ended question has given the researcher some insight as to which skills staff used most after LI.

This finding answered to some extent the first of the key research questions, asking whether LI changed the participants' perceptions of their skills and competency levels.

*5.2.1.5 Question 5: I was able to improve my research and/or achieve academic goals due to information learned at LI.*



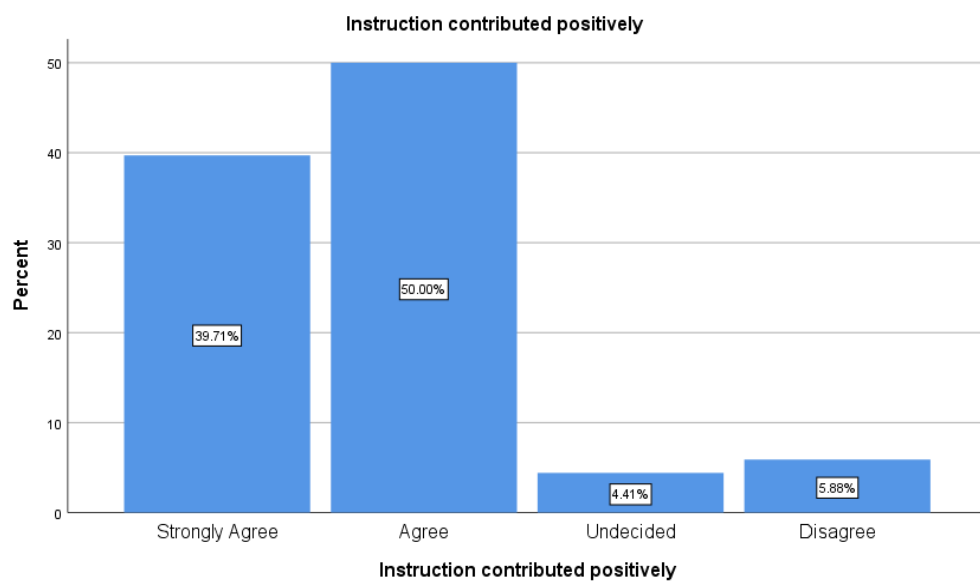
**Figure 5.6: Improve research and/or achieve academic goals**

The results of this question found that 46.38 % (32) agreed and a further 33.33% (23) of participants strongly agreed that they were able to improve their research and/or achieve their academic goals due to information learned at LI. In total 79.7% (55) of participants attributed their achievement of improved research or

achievement of academic goals to LI, which may be seen as a clear indication that majority of HSRC staff believe that they benefited from LI.

This finding to an extent answered the second of the key research questions, which was to find out whether individual participants believed that they had higher success in research, study or career aspirations as the result of LI.

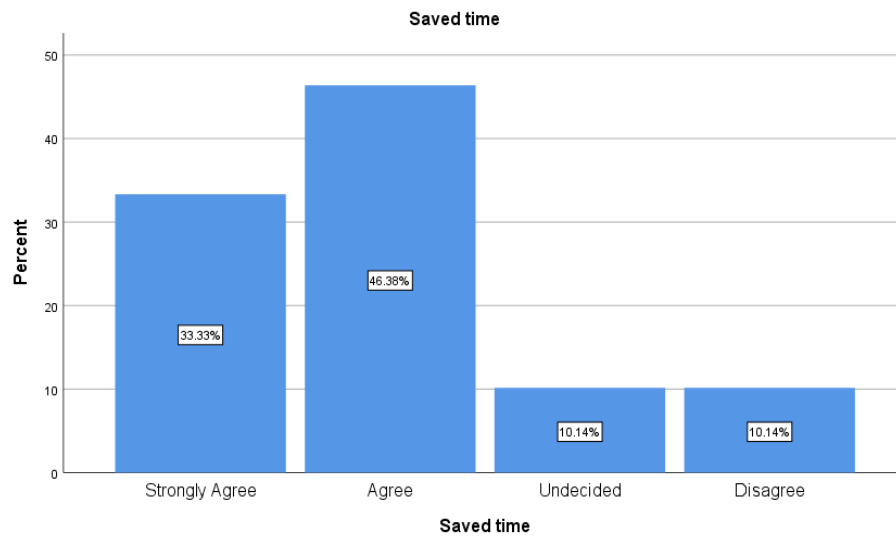
*5.2.1.6 Question 6: Overall LI has contributed positively to me personally and professionally.*



**Figure 5.7: Instruction contributed positively**

Half of the participants 50% (34) agreed and a further 39.71% (27) strongly agreed that overall LI contributed positively to them either personally or professionally. This question somehow answered the main research statement, to explore the impact of LI on the HSRC staff, in support of achieving their research and academic goals.

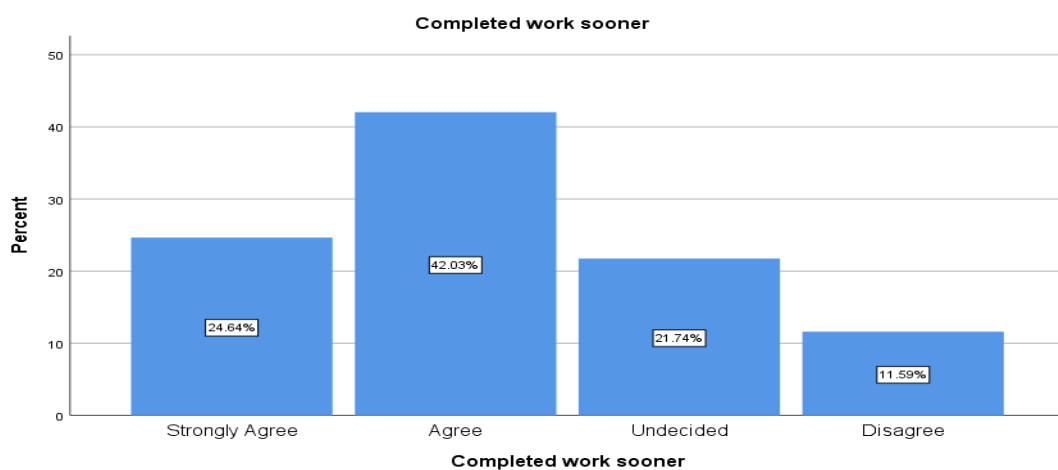
5.2.1.7 Question 7: After attending LI, I found that I was able to save time when conducting research.



**Figure 5.8: Saved time**

There were 33.33 % (23) of respondents who strongly agreed and a further 46.38% (32) who agreed that after attending LI they found that they were able to save time when conducting research.

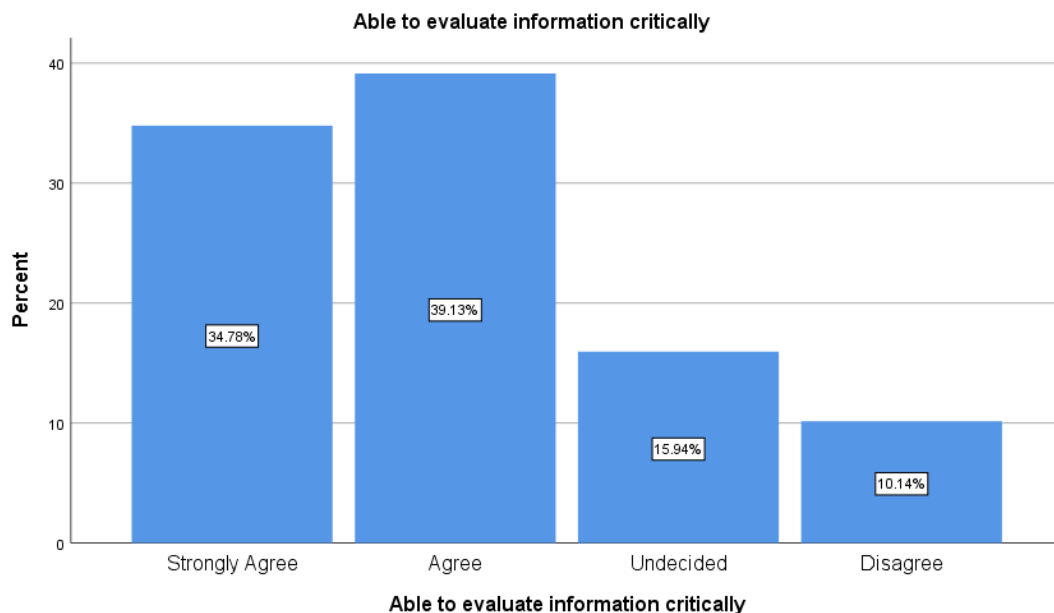
5.2.1.8 Question 8: After attending LI, I was able to complete my research and /or succeed in my professional endeavours sooner than before.



**Figure 5.9: Completed work sooner**

There were 42.03% (29) of respondents who agreed and a further 24.63% (17) who strongly agreed that they were now able to complete research and / or succeed in professional endeavours sooner. Time, and having more of it, is an important part of success for any employee. Being able to complete work and / or succeed sooner than expected merely allows an employee to endeavour to accomplish more at the work place. Strategies to save time are included in LI, for example the use of “Cite as You Write” software rather than manual referencing as discussed in Chapter 2.

5.2.1.9 Question 9: *I am now able to evaluate information resources more critically, including recognising when web and other resources may not contain reliable information.*

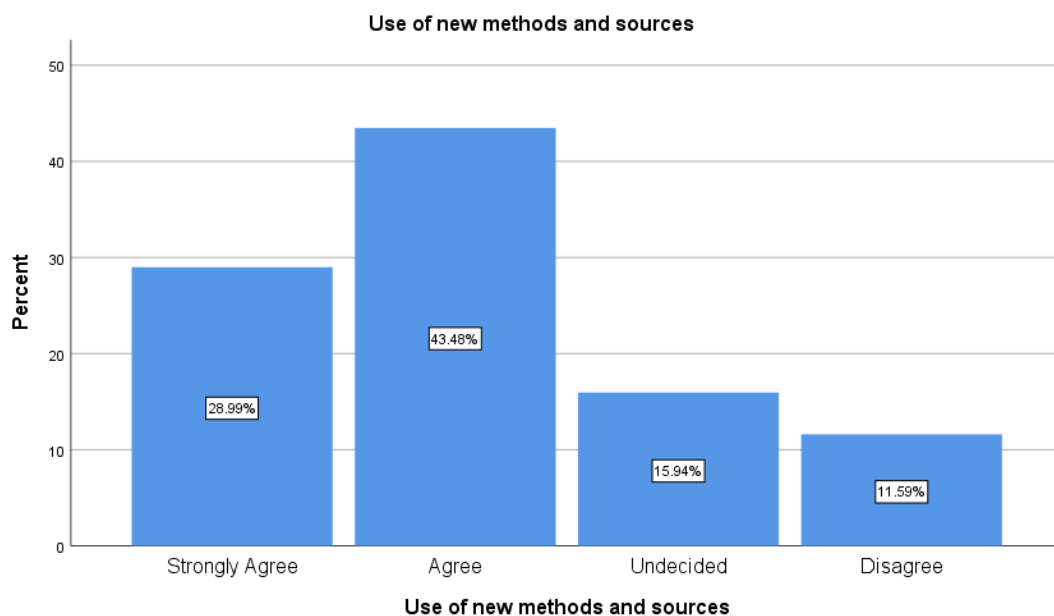


**Figure 5.10: Able to evaluate information critically**

Of the participants, 74% (51) agreed or strongly agreed that they were now able to evaluate information resources more critically. This result correlates with the objectives of LI that were listed in Section 2.1.2 stating that the aim of LI included producing discriminating, critical users. LI assists participants to recognise which web and other resources may not contain reliable information. Fake news and potentially fake journals have flooded electronic search engines. It is critical that researchers use trusted information from reliable websites. LI includes many helpful avenues or streams of information sources that researchers can use to ensure that the

information they are using is from a place of trust and is of scientific value. In a recent study El Rayess et al. (2018:156) recommend that students need to be educated and equipped with skills to become sceptical and impartial users of information, to help in the fight against the fake news and false information phenomenon.

5.2.1.10 Question 10: *LI has encouraged me to conduct research and to write academically, using new methods and sources, such as “Mendeley”, “iThenticate” and a variety of databases.*

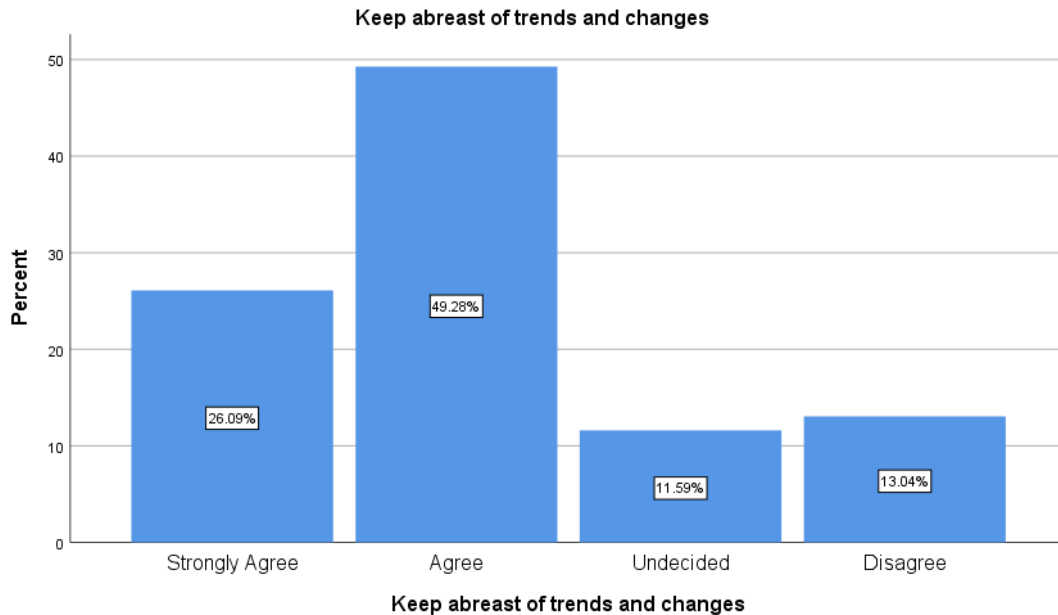


**Figure 5.11: Use of new methods and sources**

There were 43.48% (30) of participants who agreed and 28.99% (20) strongly agreed that attending LI had encouraged them to conduct research and to write academically, using new methods and sources. New methods of conducting research and new sources of information are of interest to the library. There are many new products to which one can subscribe, that make researching, data collection and data management easier for researchers. Library staff need to keep abreast of and advise on new methods and sources that could potentially make the lives of researchers easier. The request for “Cite as You Write” LI, has been popular among staff, as observed by Information Consultants. Information Consultants receive requests for personal one-on-one instruction and small groups from the different research units.

Staff often request trouble shooting sessions for individual problems that they experience.

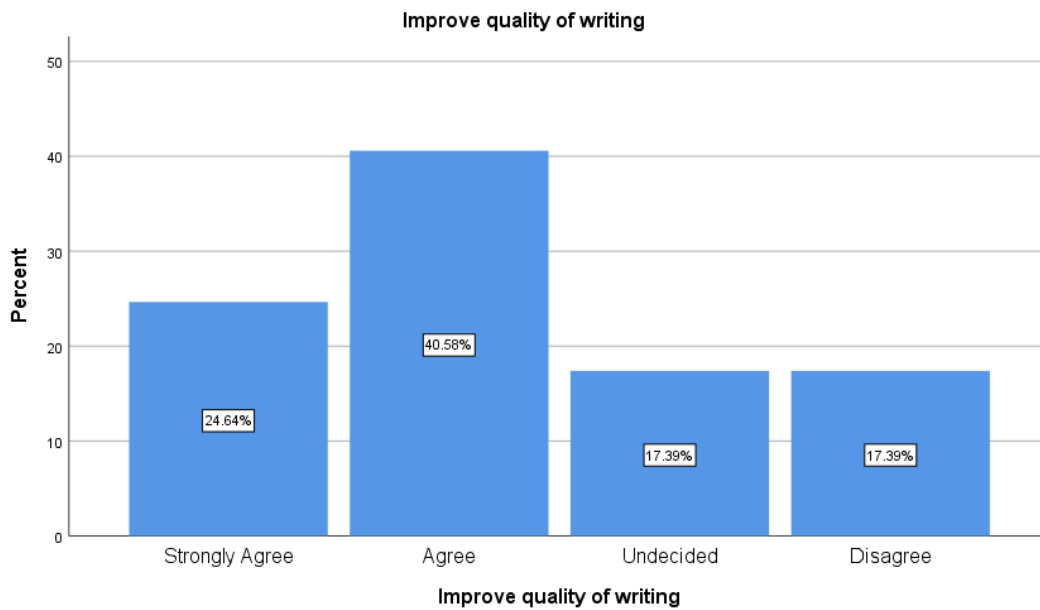
5.2.1.11 Question 11: *LI has kept me abreast of trends and changes in the field of research.*



**Figure 5.12: Keep abreast of trends and changes**

There were 49.28% (34) of participants who agreed and 26.09% (18) who strongly agreed that LI has kept them abreast of trends and changes in the field of research. Often staff members are unaware of the latest developments. The library staff members however, have a keen interest in and are consistently monitoring the environment for products and trends that might be suitable for HSRC staff. During LI, any new information or potential risks are included in instruction. Recently a new aspect within the field had to be added to instructional modules called “Potentially Fake Journals and Conferences”, exposing publishers and conference organisers who trick researchers into submitting to and paying money over to fake journal publishers and conference organisers. Library staff are now making researchers aware of these dangers, and teaching them about the tell-tale signs of potentially fake journal and conference websites. This in turn allows staff to protect themselves and the organisation from any harm and possible reputational risk.

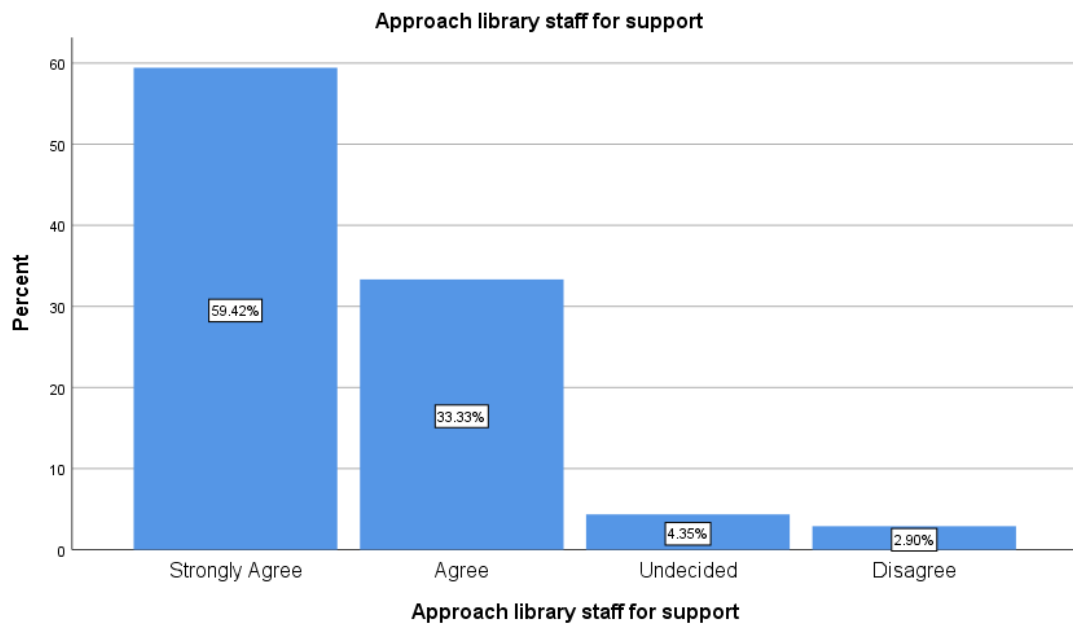
5.2.1.12 Question 12: *LI has helped me improve the quality of the research and academic writing that I produce.*



**Figure 5.13: Improve quality of writing**

There were 40.58% (28) of participants who agreed and a further 24.64% (17) who strongly agreed that LI has helped them improve the quality of the research and academic writing. The quality of research and academic writing can be reflected in the quality of the sources used, how recent the statistics are and the ranking of journals that a study has made use of. During LI, Information Consultants impart information on how to find the most highly cited articles, how to source the highest ranked journals and where to find the most recent and dependable statistics that one can use to ensure that the quality of the research and academic writing is at its best. The use of reputable sites such as Scimago, World Bank and Google Scholar citations are encouraged at HSRC.

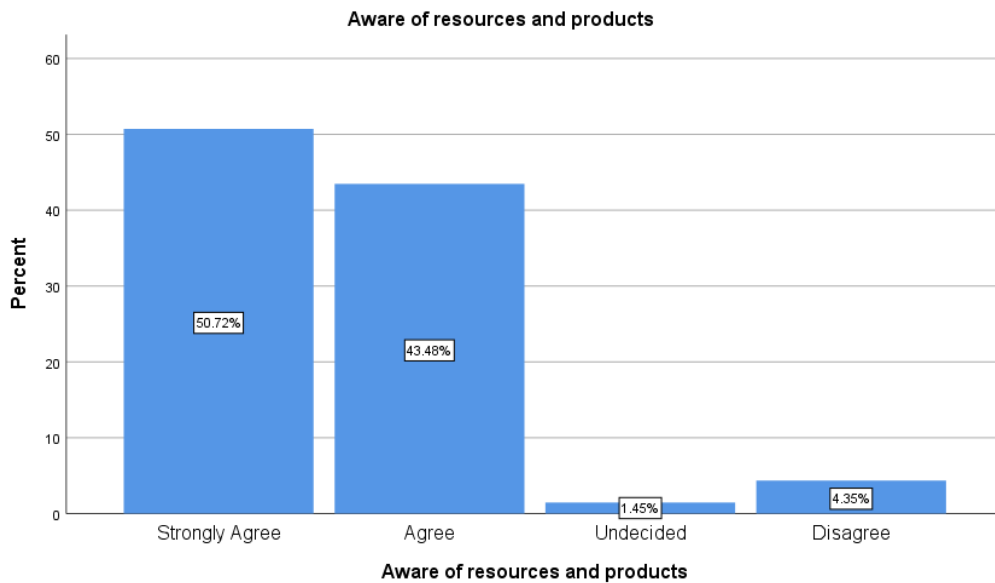
5.2.1.13 Question 13: *Ever since I attended LI, I found that I could approach library staff for support easily.*



**Figure 5.14: Approach library staff for support**

A clear majority of respondents 59.42% (41) strongly agreed, and a further 33.33% (23) agreed that after attending LI, they could approach library staff for support more easily than before. Information Consultants are allocated to each unit within the HSRC. When a new staff member is employed, the Information Consultant sends a welcome e-mail of introduction and an invitation to become a member of the library. The high percentages above suggest that staff members find it easier to approach the library for support once they have met their Information Consultant one-shot, as discussed in Chapter 2. As pointed out in the role of IC at HSRC, rapport and relationship building are expressions of the embedded nature of Information Consultants within units. These relationships allow the library to fully support all endeavours of the unit.

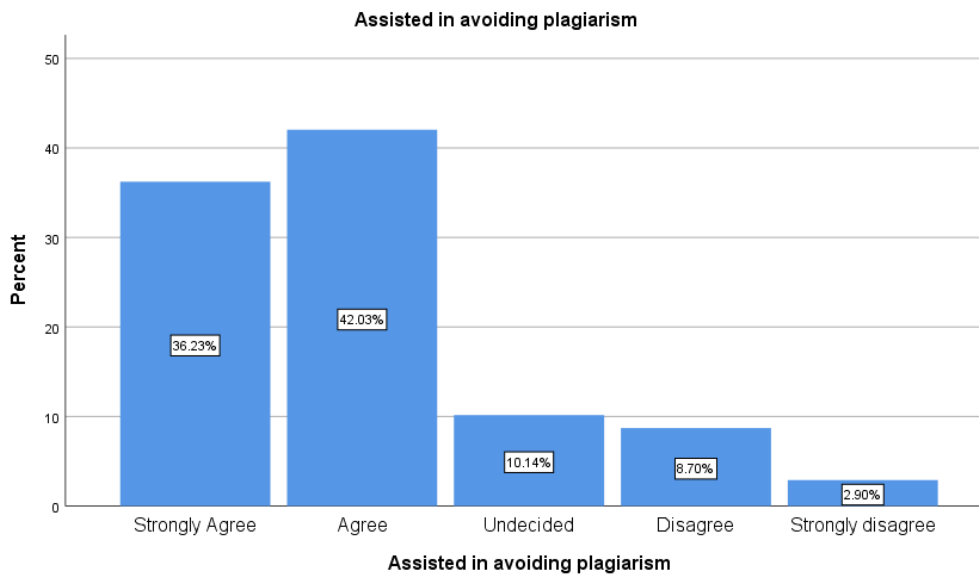
5.2.1.14 Question 14: Attending LI has made me more aware of the resources and products that can help me achieve my research and/ or academic goals.



**Figure 5.15: Aware of resources and products**

Nearly 95% (65) of respondents either strongly agreed 50.72% (35), or agreed 43.48% (30) that they are more aware of the resources and products that can help them achieve their research or academic goals. New resources and products that are added to the library are usually brought to the attention of staff by means of an internal branded e-mail communication piece. These internal communication pieces form part of the library's marketing strategy.

5.2.1.15 Question 15: *Attending LI has assisted me to avoid plagiarism.*

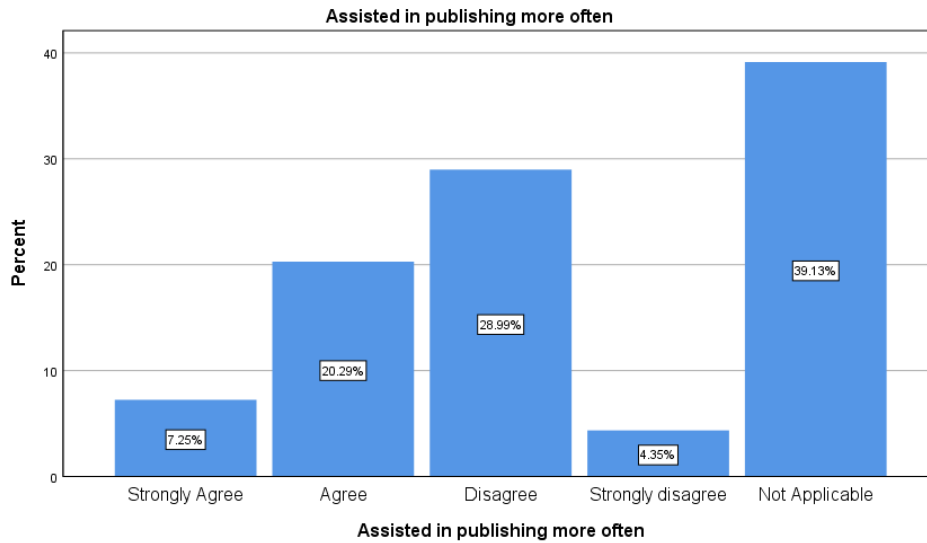


**Figure 5.16: Assisted in avoiding plagiarism**

There were 36.23% (25) respondents who strongly agreed and a further 42.03% (29) who agreed that LI assisted them in avoiding plagiarism. During LI, Information Consultants market iThenticate to users who are then encouraged to use it prior to submitting work to external clients, supervisors and editors. This allows users to submit work with confidence, to recognise and avoid plagiarism, and to practice responsible authorship.

For the following questions, numbered 16 to 22 in the questionnaire, the researcher replaced the optional answer of “Undecided” with “Not applicable”. This decision was taken to accommodate those staff members who do not conduct research as part of their daily work. Questions 16 to 19 addressed the third key research question to ascertain if researchers said that they published more, obtained more research funding or achieved higher citation rates on account of LI.

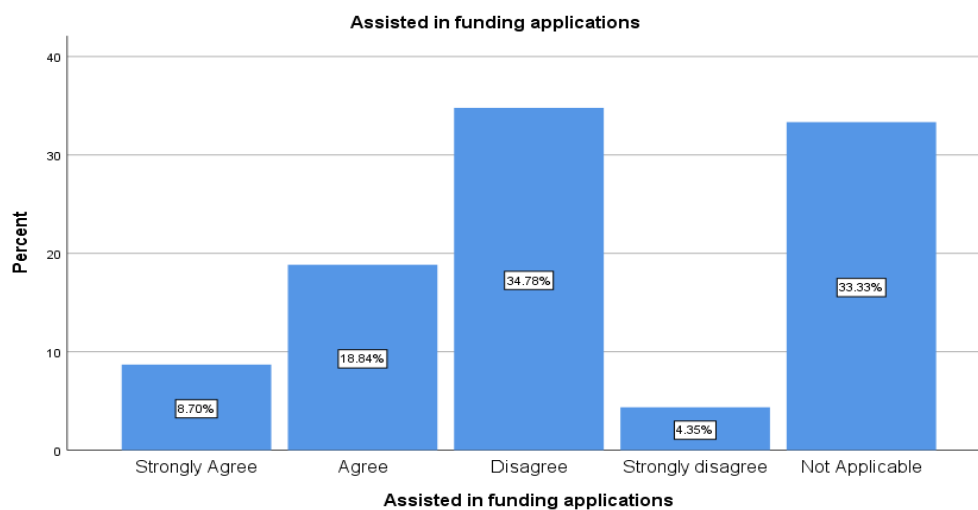
5.2.1.16 *Question 16: Attending LI has enabled me to publish more often than before*



**Figure 5.17: Assisted in publishing more often**

Only 21.54% (19) of 69 participants attributed their publishing success to LI. The bulk of the respondents 39.13 % (27) found this question not applicable to them. The other 28.99% (20) disagreed and nearly five percent strongly disagreed with this statement.

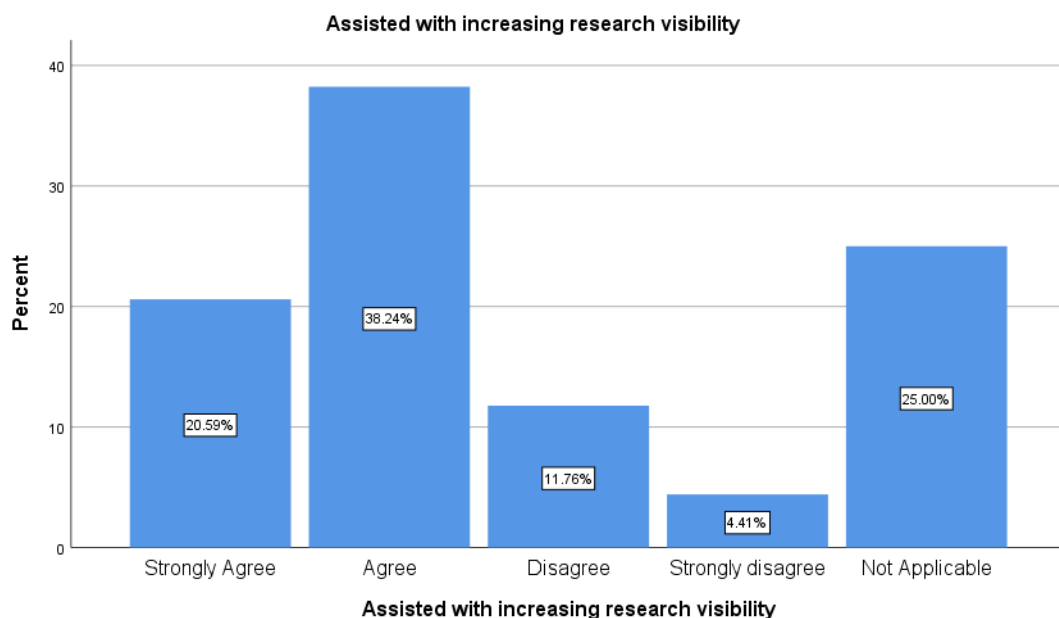
5.2.1.17 *Question 17: Attending LI has enabled me to successfully find, apply for and obtain more funding than before.*



**Figure 5.18: Assisted with funding applications**

Nearly 40% (27) of respondents either disagreed or strongly disagreed with this statement. This is probably due to the dedicated Business Development and International Liaison office (BDIL) at the HSRC, which coordinates funding opportunities within the HSRC. BDIL sends out an e-mail alert every Monday, with funding opportunities that may be of interest to the different units. During LI however, the Information Consultants include training on the funding database, “Research Professional (Africa)”. Researchers can use it for a variety of reasons, which includes finding funding for equipment, conferences and travel.

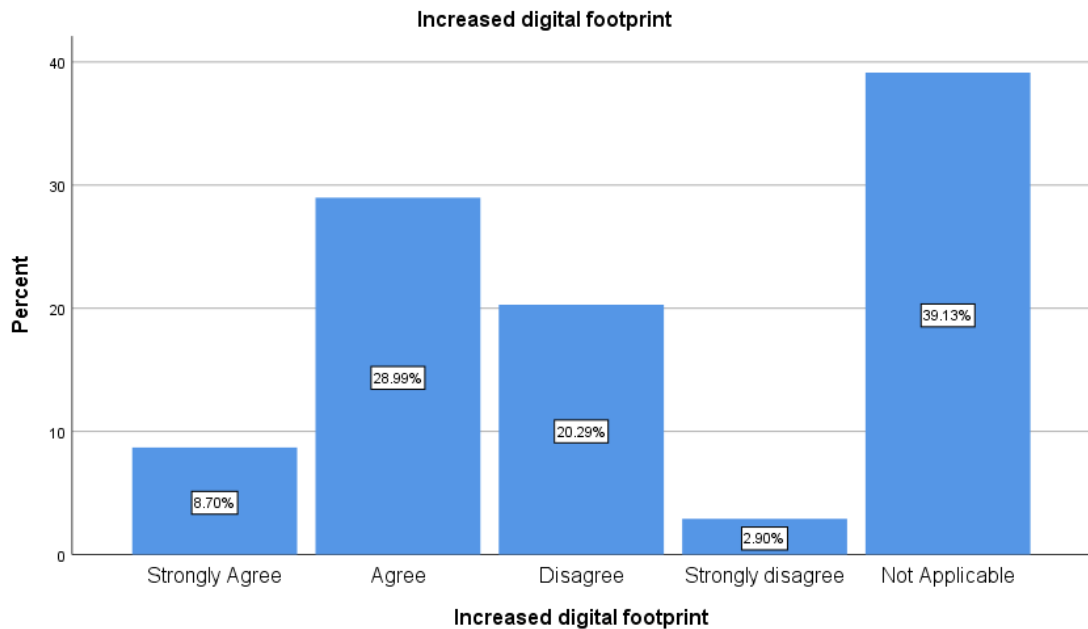
5.2.1.18 *Question 18: LI has taught me how to make my research more visible (for example I created an ORCID / Google Scholar profile, which has resulted in me achieving higher citation counts).*



**Figure 5.19: Assisted with increasing research visibility**

There were 20.59% (14) of respondents who strongly agreed, and a further 38.24% (26) who agreed with this statement. Since the release of the National Research Foundation (NRF) Statement that all applicants are obliged to have ORCID identification numbers, the library has included instructions for creating ORCID profiles. LI also includes short cuts on how to create, update and maintain researcher profiles on Google Scholar and the Scopus database.

5.2.1.19 Question 19: *Attending and applying what I have learned at LI has resulted in my profile as a researcher receiving more attention, or a larger digital footprint in my research field.*

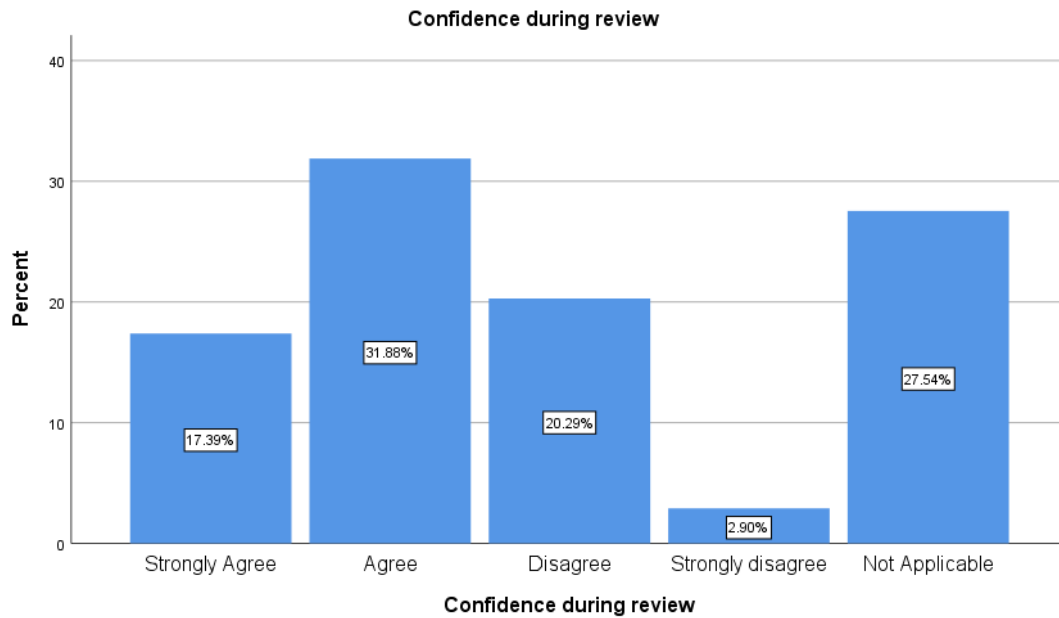


**Figure 5.20: Increased digital footprint**

Few participants found that this statement applied to them. Only 8.7% (6) of participants strongly agreed and a further 28.99% (20) agreed that their profiles have received more attention or a larger digital footprint in their research field. This is something Information Consultants need to note. Other researcher profiles such as those related to social media for example “LinkedIn”, “Academia.edu”, and “ResearchGate” can be promoted at LI.

HSRC outputs are valuable and applicable to all South Africans, as they usually address the quality of life. South Africans have a right to read and benefit from the research conducted on and about them. The HSRC communications department promotes research outputs on their Webpage, Facebook and Twitter. The researcher believes that more can be done by the HSRC to disseminate research conducted to ordinary South Africans.

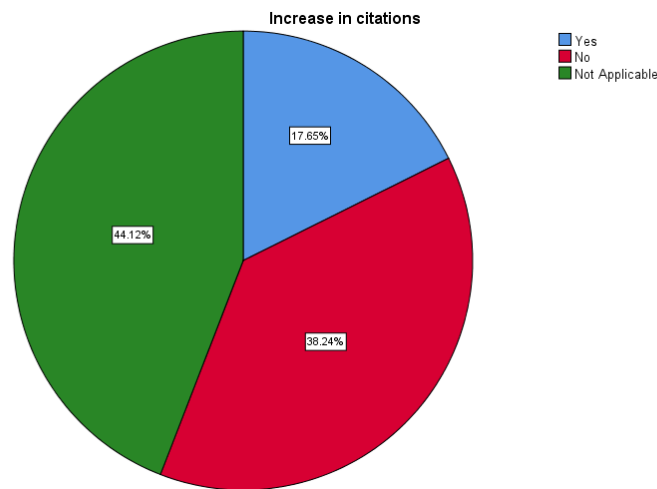
5.2.1.20 Question 20: *LI has increased the confidence I feel when submitting my research for either peer review, publication or to my study supervisor/lecturer for evaluation.*



**Figure 5.21: Confidence during review**

There were 31.88% (22) of participants who agreed, with a further 17.39 % (12) who strongly agreed with this statement. Clearly, LI has contributed to staff confidence when submitting research for peer review, publication or evaluation by a supervisor. Good quality results from trustworthy sources, and being able to have similarity reports prior to submission, are just a few examples of why staff feel that they have covered all bases, and can have confidence in submitting their work for scrutiny.

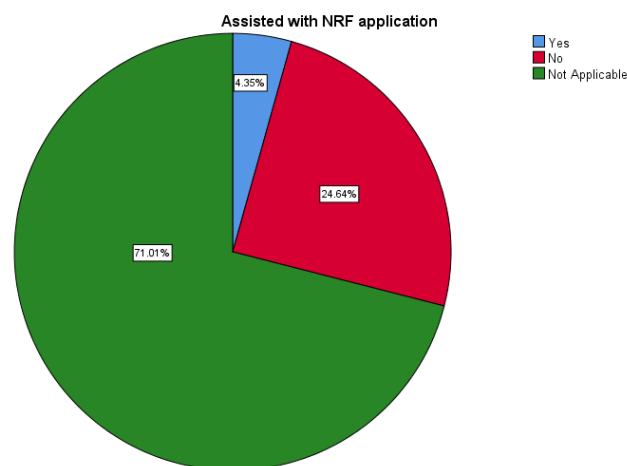
5.2.1.21 *Question 21: Have you noted an increase in the number of citations your research has accumulated, since having attended LI?*



**Figure 5.22: Increase in citations**

Most participants found this question not applicable 44.12% (30) and 38.24% (26) of participants said no. Only 12 of the 68 participants agreed that they had indeed noticed an increase in the number of citations for their research. The reasons many respondents found this question not applicable is possibly due to them not having noted the number of citations prior to attending LI, or they had not created and populated researcher identities that allowed them to track their citations.

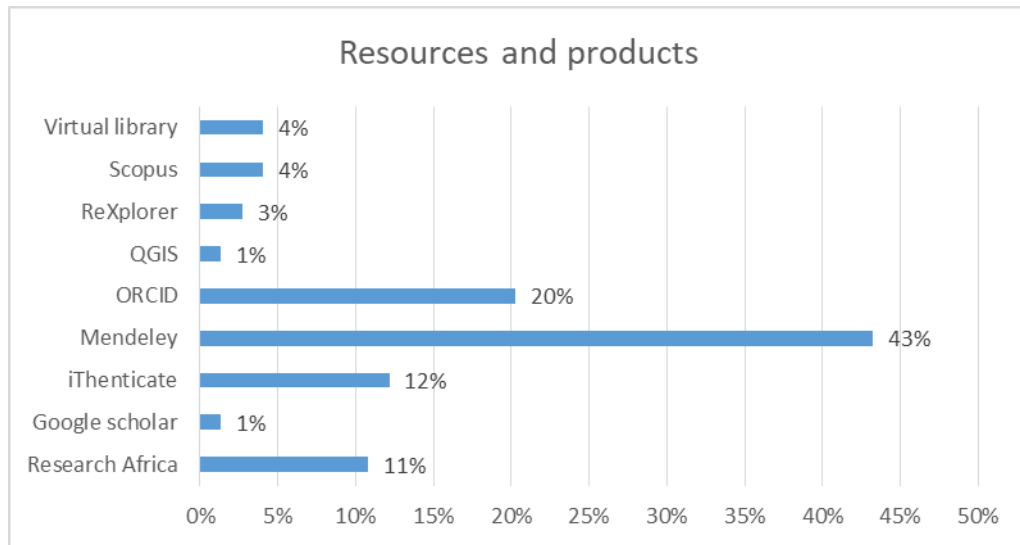
5.2.1.22 *Question 22: Have you applied for National Research Foundation (NRF) rating and found that the application process has been less stressful / tedious than expected, due to LI?*



**Figure 5.23: Assisted with NRF application**

An overwhelming 71.01% (49) of the 69 participants found this question not applicable. This low response could be attributed to the low number of applications that are submitted for rating to the NRF by the HSRC annually.

5.2.1.23 *Question 23: Which resources and products that you learnt about in LI session/s, such as Research Africa, Mendeley or ORCID and others, are you now able to use in your research and/ or academic writing?*



**Figure 5.24: Resources and products usage**

This open ended question yielded thought-provoking results. The library pays for subscriptions to resources and products that amount to millions yearly. The resource that participants found most useful is Mendeley, which happens to be the free version and not the subscription module. ORCID which came in second place, is another free online product that staff found valuable. The researcher believes that library staff should promote subscription software more vigorously.

As the researcher provided prompts in the question, such as Research Africa, Mendeley and ORCID in the question, these may have influenced the results.

Additional comments received regarding this question, were the following:

- *“I use iThenticate and ORCID, however, as noted these could probably have been shared in a newsletter or email update instead of via training.”*
- *“Mendeley has made a huge impact.”*
- *“None – the above did not exist when I attended the LI.”*

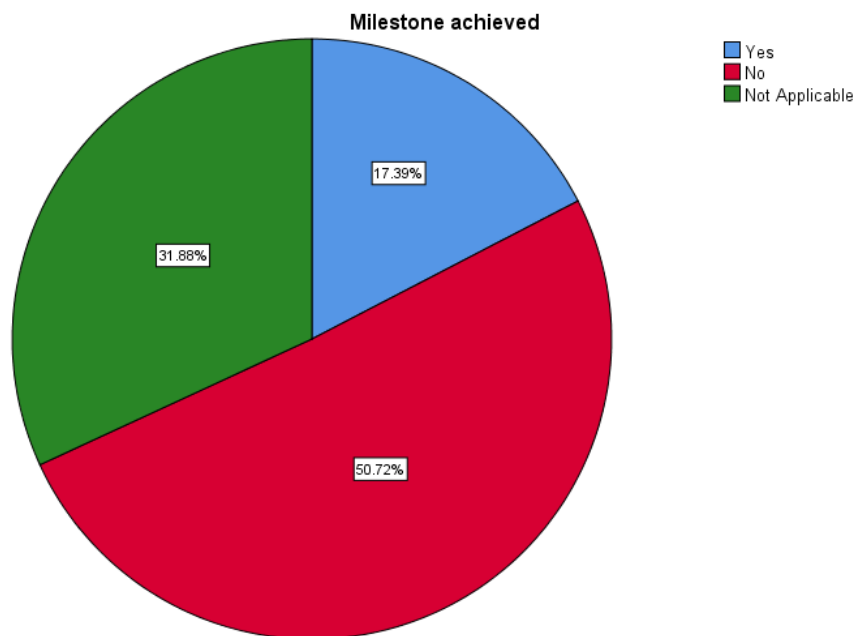
- *“I attended the Mendeley workshop but didn't gain much because I had already been using it for almost three years by the time HSRC adopted it.”*
- *“I am able to use Mendeley and reference easy now.”*

The first comment indicated that information about iThenticate and ORCID need not be included in the one-shot training, but that it could be distributed electronically instead. The library could send out tutorials on occasion to sensitise staff about these products, and staff who need one-shot training could attend LI.

The third comment regarding these products not being available when this staff member attended LI previously, should be an indication that it is time for this staff member to attend LI once more and refresh their knowledge of what LI entails.

The fourth comment indicated that the staff member did not learn anything new.

5.2.1.24 *Question 24: Have you achieved any milestones in your career or academically such as awards, promotion or qualifications, that you would attribute in some way to having attended LI?*



**Figure 5.25: Milestones**

Only twelve (17.39%) of the 69 participants attributed their achievements to LI. As this is a relatively low number, it would be prudent of Information Consultants to

understand the career aspirations of staff members in order to help them achieve their milestones, either sooner or to make the journey easier for them.

5.2.1.25 Question 25: Would you recommend LI to other staff members?



**Figure 5.26: Recommendation of LI**

An overwhelming 97.1% (67) of participants agreed that they would recommend LI to other staff members. This is a very positive response.

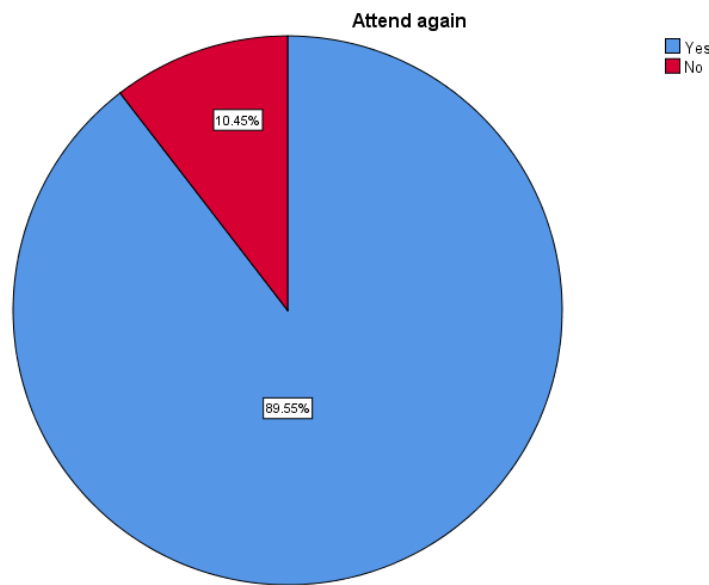
An additional comment received read as follows:

*“Whilst training may be important for aligning researchers in the organisation, in general I would suggest that staff members request a short email summary of items covered and key tools that are recommended for use. Researchers and interns at the HSRC should be familiar with most of the tools and concepts already, but need short, regular updates on new ideas and tools”.*

This participant has made a helpful suggestion to provide shorter, regular updates advertising new ideas and tools. This could keep the library on the forefront of staff members’ minds, as the more they hear from and about the library, the more they should consider using it.

This strategy could however also fail in terms of marketing. Often when staff members frequently receive e-mails from a certain unit and one or more of the emails are not applicable to them, they may delete all emails from that unit, assuming that they are all not applicable. The library has to take a risk in this regard.

5.2.1.26 Question 26: Would you attend further LI in the future?



**Figure 5.27: Re attend LI**

The majority of participants 89.55% (60) indicated that they would attend LI again. Two participants chose not to answer this question. Those who selected no were given an opportunity to comment. The following comments were received:

- *“The training has not really enhanced the skills I had already acquired in my studies”.*
- *“It depends on what's on offer”.*
- *“I have experienced a mixed effect following the instruction, e.g. some instructions were very useful, and others were useless”.*
- *“If an opportunity avails”.*
- *“We are constantly chasing time to deliver on our targets. It is difficult to set aside time for these kinds of activities”.*
- *“Not applicable to my job but I contact the consultant on an ad-hoc basis.”*
- *“No longer applicable for my work.”*

Information Consultants need to find ways to attract those who think that they do not need to acquire any more library related skills. The research field does change, and a participant who feels this way, could potentially miss out on good opportunities to upskill themselves. Once again fluid, innovative marketing ideas for different products could assist in getting more staff members to attend LI. The participant who mentioned time as a constraint, may need to be convinced to prioritise LI over something else.

5.2.1.27 *Question 27: Any additional comments you would like to make, regarding the impact that LI, has had on you being able to achieve your research goals.*

Many comments were received and the researcher grouped them under several headings.

**Information consultancy service and presenters:**

- *“When I do request assistance from our unit librarian, she is quick to respond and always comes through with the article, book chapter or book I was looking for, which is awesome!”*
- *“I appreciate the quick and effective responses of the library team.”*
- *“Many of the tools assisted in creating an awareness of what is available, but the presenter did not always have the knowledge to answer research questions related to the tool.”*
- *“Not only the information itself has been useful, but also the very kind manner in which the library/information team conducts the training.”*
- *“So in other words, is not so much the content, but how it is presented, the context set for it and how researchers are engaged to feel interested.”*
- *“The Information Consultants are the hearts of the library, without their helpful nature and support and ability it would [be] difficult to navigate the resources of the library.”*
- *“The staff are particularly helpful and invaluable.”*
- *“Library staff is accommodative and always willing to help.”*
- *“The staff are very helpful and professional, notably Shingi and Jackie.”*
- *“The ability to receive requested information timeously.”*

- *“Keep up the good work.”*
- *“The personal consultant is always helpful and willing to assist.”*

**How LI has assisted participants:**

- *“I was able to achieve a lot academically and also in my day-to-day work.”*
- *“It has made me aware of the resources at my disposal and enabled me to use them optimally.”*
- *“It has helped me keep abreast with the latest development in the information sectors.”*
- *“I have enjoyed the training and learnt a lot particularly regarding citations and my digital footprint.”*
- *“After LI I am more confident that my literature reviews will have sufficient scope and I am less likely to be overwhelmed by hundreds of results since learning how to filter searches.”*
- *“LI is great and helpful, it makes life so much easier.”*
- *“Quite helpful.”*
- *“It's helpful to have such a unit in the organisation, to assist researchers in keeping updated on developments and to assist in literature searches.”*
- *Improved search skills.”*
- *“My studies benefited the most from the training because my topic is difficult to source literature for but now I am able to find articles that previously could not be found.”*

**Recommendations and suggestions from participants:**

- *“I would recommend LI to all interns especially as early as possible.”*
- *“This type of training should be compulsory for staff members.”*
- *“The training seems a bit outdated, for a time when people were less IT and information-literate. A more condensed training followed by regular newsletter with example stories of what different HSRC researchers/ units “are doing with the tools may be more useful.”*
- *“Maybe a good thing to invite staff who have been here longer than 5 years for a refresher course.”*

- *“My biggest issue with the workshops offered is that they largely describe services; almost nice to know without a clear understand[ing] of how they are meant to achieve all the outcomes inferred in the questions above.”*
- *“What is missing is a Theory of Change that clearly outlines the intended impacts of LI. This should start with all the outcome areas in your questionnaire. Using 16 as an example, you need to develop an outcomes map. Starting with the desired change that LI seeks to achieve. For 16 it can be framed as; to increase the publication output of researchers. Then you can proceed by framing what exactly LI needs to do to get to this outcome. Doing this will force you to understand what part of publishing requires an LI intervention. What information services do researchers struggle with the most when it comes to publishing? You could find out that a particular outcome might not be one that can be addressed with LI. The point is, defining an LI TOC will force you to think about what researchers really struggle with. The information problems that researchers face. This will make LI sessions more than info sharing workshops.”*
- *“I really enjoyed and feel I benefited from the LI. I feel that some of the more senior staff members think that LI is merely a type of "induction" and therefore they do not attend. However I think that there a many senior researchers who would benefit greatly from learning 'newer' packages (such as Mendeley for those still referencing manually).”*
- *“Maybe for the library to have good editors that would read and edit our work before we submit for reviews.”*
- *“I think technology is fast changing hence, LI should be made attractive enough for everyone to attend. Maybe create a visible footprint regularly in Regional office.”*
- *“Library lessons should be more regular than they are at the moment.”*

**General comments:**

- *‘The LI was great, but it is difficult to use the library because of the limited access to databases and journals. I find I have to use my university library often to locate PDF copies of articles.’*
- *“LI has made the library the best support unit in the HSRC, in my opinion.”*
- *‘Most of the instructions given in library training were already known to me from previous institutions where I worked.’*

- *“I think the book loans take too long and even e-books take too long or are only delivered in part. I often have to use other ways (contacting friends from other universities, google) to get the material I need for writing.*
- *The sessions were short, meaning we were not given enough time to learn, it was only for one week.”*

Library staff need to take careful note of these comments. Issues raised could be rectified relatively easily, for example the comments regarding limited access can be addressed by promoting Inter library loans when an item is not held in the collection.

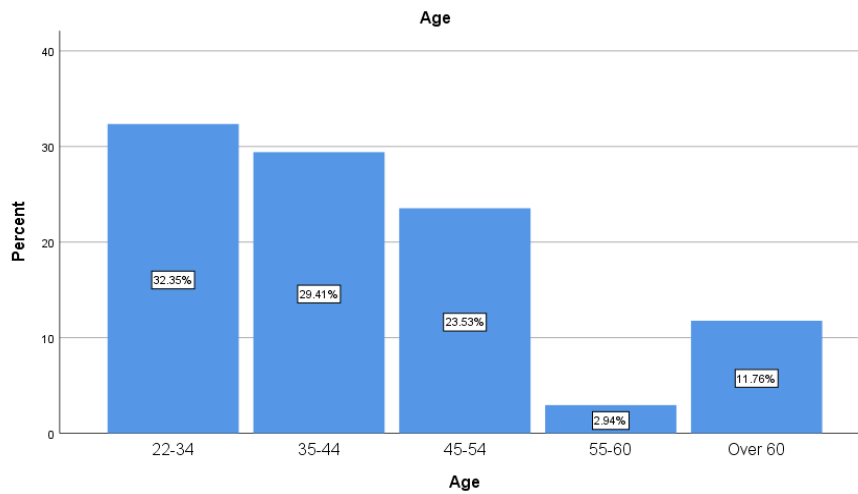
### ***5.2.2 Results of the questionnaire for the staff members who have not attended LI.***

This questionnaire was distributed at the same time as the previous questionnaire. When staff members received the invitation to complete the questionnaire, they could choose to answer either of the questionnaires, depending on whether or not they had attended LI. It was distributed via internal e-mail, and participation was voluntary. Participants were allowed to skip or choose not to answer questions and submit their responses even if the questionnaire was not fully completed (see Appendix 2). There were 35 respondents to this questionnaire.

### ***5.2.3 Results of the questionnaire for those staff members who have never attended library instruction***

The intention of this questionnaire was to explore reasons why staff do not attend LI.

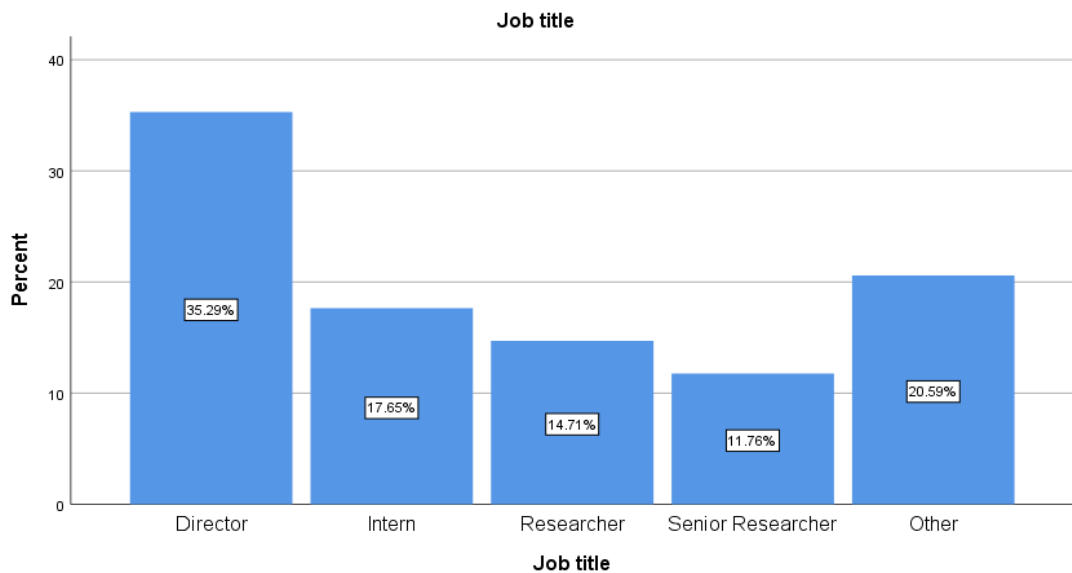
5.2.3.1 Question 1: Which age category do you belong to?



**Figure 5.28: Age of participants**

The largest number of participants, 32.35% (11), fell into the 22-34 year age category. They were closely followed by those in the 35-44 year age category with a percentage of 29.41% (10).

5.2.3.2 Question 2: Which of the following best describes your job title at the HSRC?



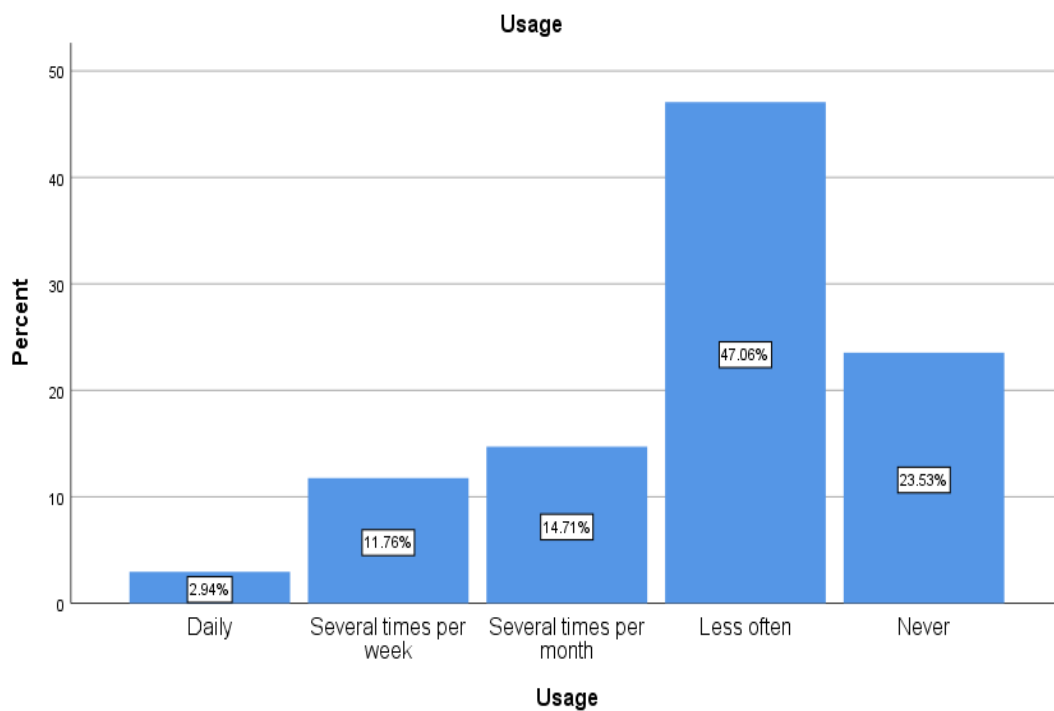
**Figure 5.29: Occupation**

There were 35.29% (12) of participants who selected Director as their job title, this includes Assistant, Deputy, Executive and Adjunct Directors.

If a respondent selected “other” they were encouraged to mention their job title, the following job titles were added:

- Administration
- contract position
- programme administrator
- National Research Foundation (NRF) Intern

5.2.3.3 Question 3: *On average how often do you make use of library services (for example the virtual library platform, or contacting your Information Consultant)?*



**Figure 5.30: Use frequency**

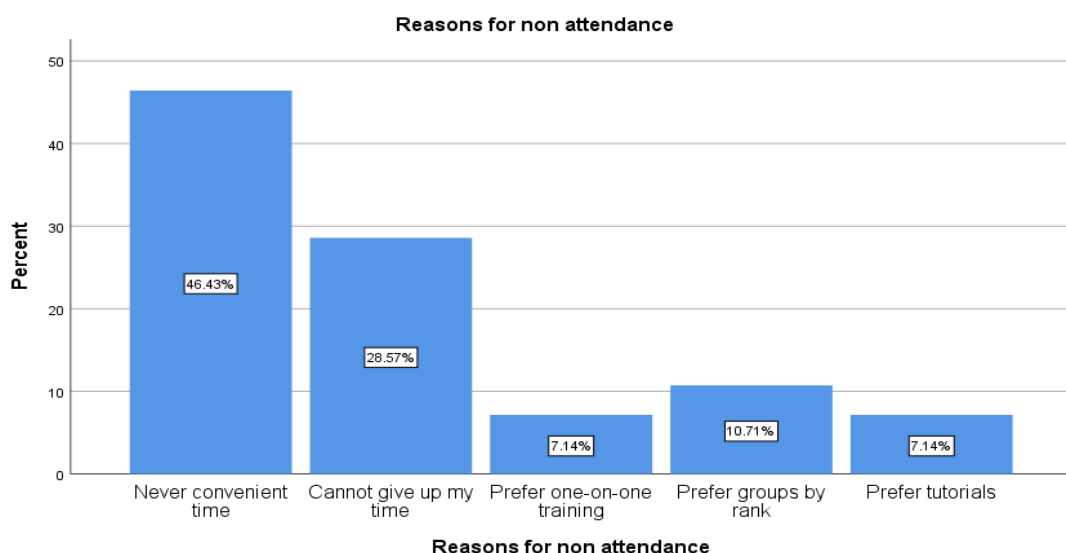
Most participants 47.06% (16) use the library only occasionally. For those who selected “never”, the opportunity to comment was given. The following comments were received:

- *“I am able to access information quickly through other avenues. I do find the summary of key documents very helpful though and read those often.”*
- *“I am not involved in research activities.”*
- *‘Not part of current priorities.’*
- *“I haven't used the virtual library yet, but have a need to access articles that are not freely available.’*
- *“I don't know how to use the library.”*
- *“I am a cataloguer and I don't do any research.”*

Of the six comments, the most concerning were the staff member who accessed information through other avenues, and the person who did not know how to use the library. The library needs to urgently address these issues. It is unfortunate that a staff member would choose to access information through avenues other than their workplace library, and that a staff member continues at their workplace not knowing how to use the library. These issues are addressed in Chapter 6 of the study.

#### 5.2.3.4 Question 4: I do not attend LI, because:

The instruction was: “Please choose the most appropriate options for the following statement. You may tick all the reasons that apply to you.”



**Figure 5.31: Non-attendance**

Most participants 46.43% (13) said that LI was never held at a convenient time. A further 28.57% (9) said that they cannot give up time in their day to attend. The purpose of this question was to ascertain to what extent time constraints impact LI attendance and this issue is addressed in more detail in Chapter 6.

5.2.3.5 *Question 5: Any additional comments you would like to make regarding LI, at the HSRC?*

The following comments were received:

- *“Information Consultants are always very helpful when instruction or advice is required. Personally I do not require instruction in all the modules offered in the consolidated training events, but have attended individual modules that are excellent and well prepared.”*
- *“I work in library environment. Therefore familiar with the services and resources offered.”*
- *“I have seen pamphlets around the lifts and a glance at the Agenda tells me that they are worthwhile to attend, unfortunately I am on fieldwork exercises. I thus make use of the librarians who are tremendously helpful.”*
- *“It would be useful to have a library training for interns only which can also serve as a session to help us search for academic literature relevant to post-graduate studies. Given it is a more academic process, we need to understand the process behind it. It can be a workshop in collaboration with L&D and be a compulsory session.”*
- *“It would be helpful announcing these session sooner, so that I could reschedule my meetings, activities to make time for this event.”*
- *“This is done in a highest level of excellence with additional efforts of sharing reading materials that serves as future references. The feedback received is always positive and encouraging.”*

All the comments received were very encouraging, however it seems that the assistance from the Information Consultants encouraged the attitude that the library provides everything staff need, so there is no need for them to know how to use the library by themselves. This attitude could prove to be detrimental to staff members who may move on in their careers, never knowing how to make use of a library.

Skills learned during LI should be lifelong skills, and could be applied, due to standardisation of library systems, to libraries around the world.

### **5.3 Qualitative findings: Interviews**

The qualitative interviews were used to clarify and expand some of the aspects brought to the fore by the quantitative results. Interviews were also used to answer the following related research questions:

1. Is there a need for alternative instructional models?
2. Is there a need for LI by occupation post level?
3. What are the reasons for non-attendance of LI?

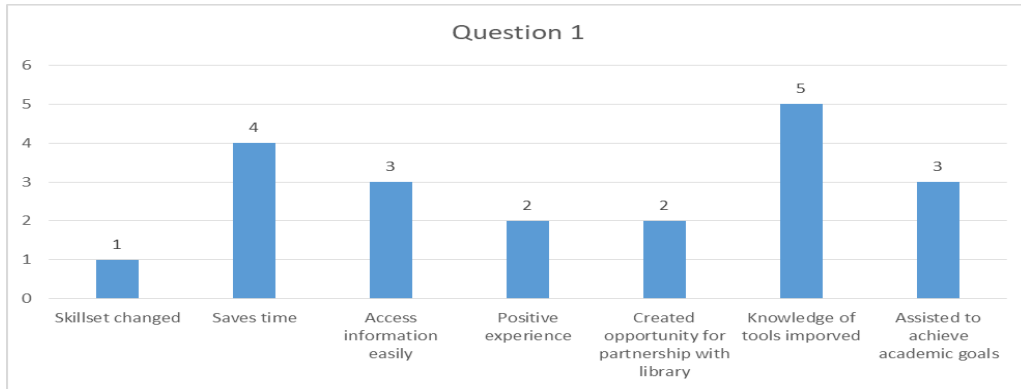
#### **5.3.1 Participants who have attended LI**

Respondents of the quantitative questionnaires were asked to volunteer for the qualitative interviews. The researcher intended to interview the first twenty volunteers who responded with signed consent forms. There were twenty five volunteers, from the group who had previously attended LI. Due to the poor response to the call for consent forms, the researcher had to send numerous follow up e-mails and eventually managed to secure twenty participants. Participants were interviewed over the course of six weeks. The interview protocol is presented in Appendix 3.

The interviews were intended to provide an enriched and expanded view of the questionnaire responses. Each participant was asked to discuss the same questions, with an open-ended question at the end. In many cases, the researcher found that participants had to be prompted for more detail regarding their responses. Results were analysed using Microsoft Excel. Data was grouped and then coded thematically, to create charts representing the responses received.

*5.3.1.1 Question 1: Do you think that LI had changed your skill set and/ or competency levels with regard to being able to achieve your research or academic goals?*

The researcher was looking for either positive or negative changes.

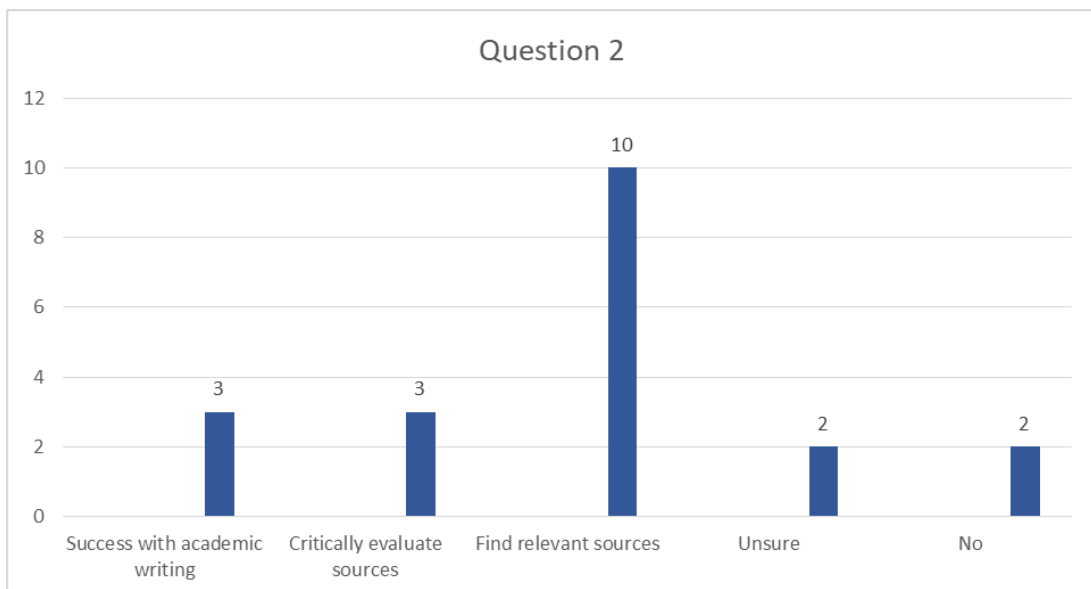


**Figure 5.32: Skill set**

All participants responded to say that they had experienced a positive change since having attended LI. There were a variety of positive comments. A quarter of the responses (5) noted that LI had improved their knowledge of tools available via the library. A further four found that they were able to save time now that they were able to use the library effectively and three are now able to access information easily, and found that LI assisted them with their academic studies.

*5.3.1.2 Question 2: Do you think that you have had higher success with your research or academic studies since you attended LI?*

The researcher was looking for the ability to find, evaluate and use different resources; and the ability to look critically at sources.

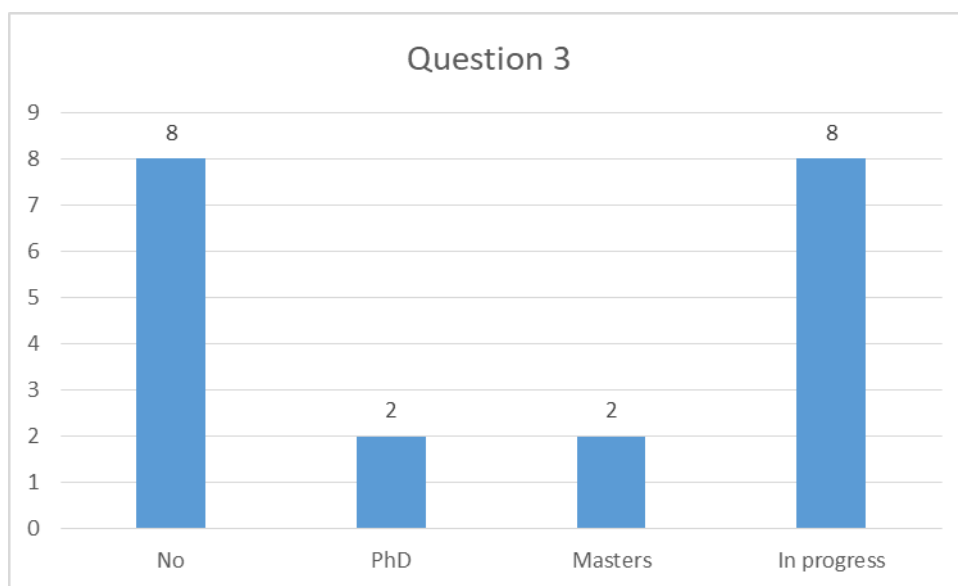


**Figure 5.33: Completion of studies**

Four of the twenty interviewees either said no or were unsure if LI could be attributed to higher success with their research or academic studies. The rest agreed that they had higher success, with 10 stating that they were now able to find relevant sources, three had success with academic writing and three are now able to critically evaluate sources before making use of them.

*5.3.1.3 Question 3: Have you achieved any study aspirations, since having attended LI?*

The researcher was looking for completed studies, higher degrees.

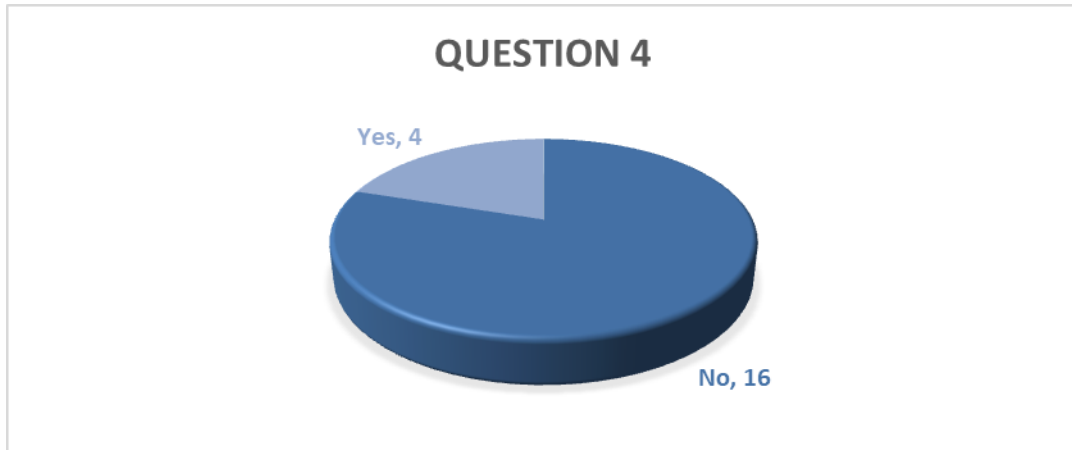


**Figure 5.34: Achievement of study aspirations**

Most of the interviewees either said no (eight) or that they were in progress (eight) with the other two each having attained either a masters or PhD qualification since attending LI.

*5.3.1.4 Question 4: Have you achieved any career changes since having attended LI?*

The researcher was looking for evidence of promotion, project leadership or career advancement.



**Figure 5.35: Career achievements**

The majority of interviewees (16) have had no change in their careers after attending LI, and of the four that said yes, the researcher could not attribute their success purely due to having attended LI, since many variables contribute to academic success.

*5.3.1.5 Question 5: Do you think that you are able to produce more, higher quality work, after learning how to efficiently make use of the library?*

The researcher was looking for

- number of outputs, chapters or theses and dissertations produced, and
- number of accredited peer reviewed journal articles produced.

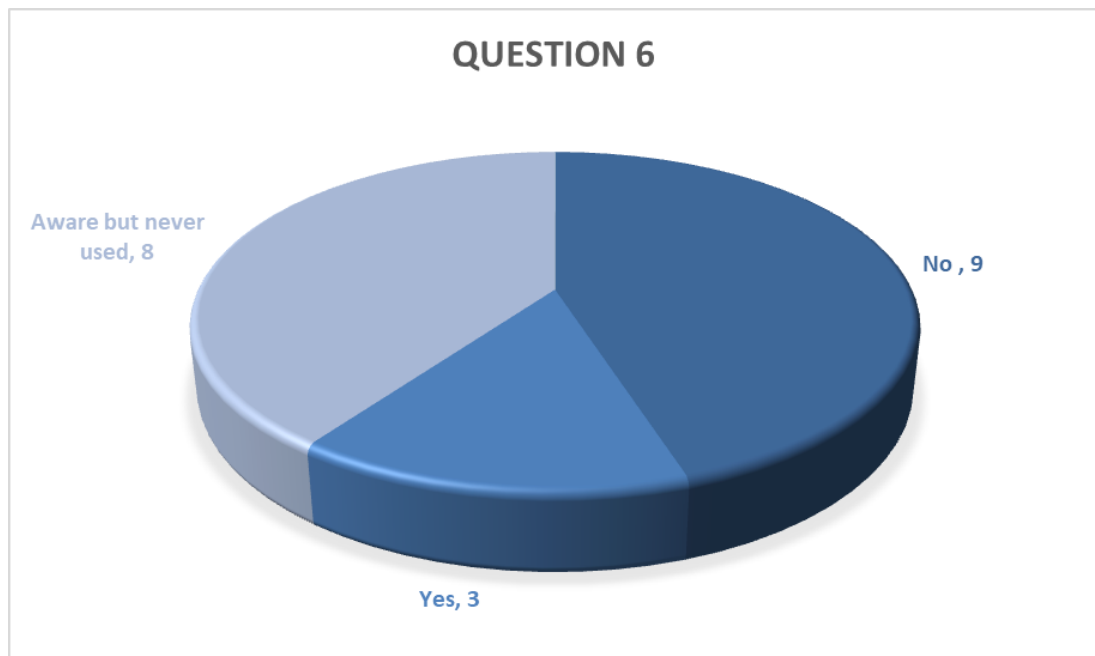


**Figure 5.36: Quality of work**

There were four interviewees who responded negatively, however thirteen responded to say that the accuracy of the research resources that they retrieved after having attended, has improved the quality of their work. A further three found that being able to use referencing software, which they learned about in LI, improved the quality of their work.

*5.3.1.6 Question 6: Do you find and apply for more research funding opportunities, now that you are able to navigate the funding opportunity platform better?*

The researcher was looking for staff taking an interest in business development and staff making use of the database Research Professional: Africa.

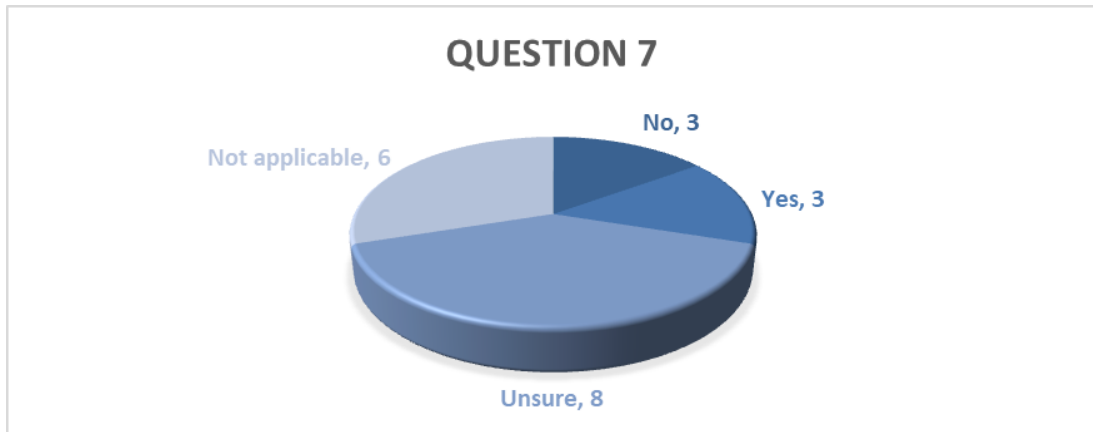


**Figure 5.37: Funding opportunities**

There were nine interviewees who said they had not applied for research funding as a result of LI. A further eight saying that after LI they are now aware of the funding opportunity database, but have never used it. Only three agreed that they are now able to find and apply for funding opportunities using the database.

5.3.1.7 Question 7: Do you think that your research has received more attention in the form of citations, since you have attended LI?

The researcher was looking for research visibility using researcher profiles such as ORCID, Scopus or Google Scholar.

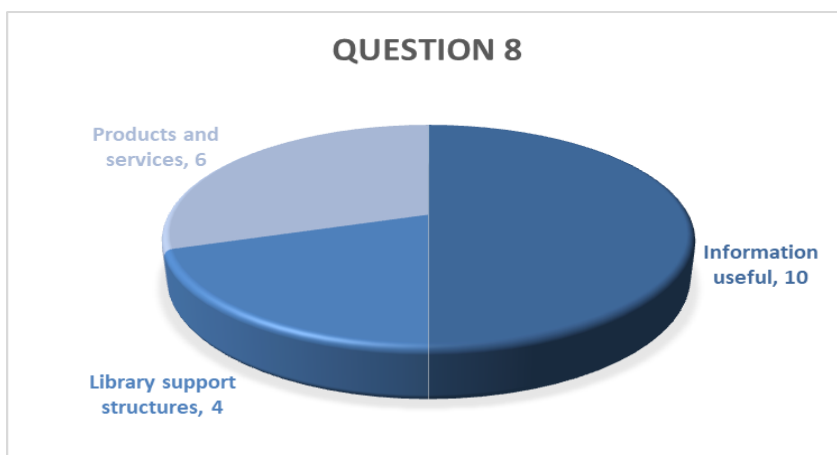


**Figure 5.38: Citation increase**

There were eight interviewees who were unsure, six found this question not applicable, three said “no” and the other three found that their research has received more attention since LI, as they are now aware of the different researcher profiles such as ORCID, Scopus and Google Scholar that they can use to promote their work.

5.3.1.8 Question 8: Would you recommend LI to other staff members?

The researcher was looking for reasons for recommendation, in order of priority.



**Figure 5.39: Recommend LI**

All 20 participants agreed that they would recommend LI to other staff members. Half of them said that the information was useful, four said that they were now aware of the different library support structures and six said that it was important for all staff to be aware of the products and services offered by the library.

*5.3.1.9 Additional comments: Participants were given an opportunity to make further comments. Comments were grouped under formulated subheadings, as follows:*

**Problems experienced:**

A participant commented that the virtual library was difficult to access. Another two found that inter library loans take too long to arrive and that they have limited access to journal articles via the databases to which the library subscribes.

**Aspects of library services that support research activities:**

Two participants commented that alerts received from Information Consultants such as contents pages from specific journals or government publications are helpful. One participant mentioned that when an article is unavailable, inter library loans had been useful. Another participant commented that the new virtual library platform, “World share discovery” had been very enjoyable to use. One participant found that LI had been an enjoyable and informative experience.

There were ten comments whereby participants expressed their appreciation, they mentioned the following:

- *“The library had been a consistent supportive department within the HSRC.”*
- *“Funding proposal assistance was always forth coming.”*
- *“The library efficiently assisted with identifying potential collaborators worldwide.”*
- *“Appreciation for assistance with literature reviews.”*
- *“Appreciation to the Information Consultants for sourcing articles and pdfs.”*
- *“Information Consultants overall provided good service in all library aspects.”*
- *“Library staff have great humanity and carry out their work with a helpful attitude.”*
- *“The virtual library allowed users to access sources at their leisure.”*
- *“Library staff members are professional.”*

- *“The library has a good reputation in the organisation and should keep it up.”*

**Recommendations from respondents on how to improve LI:**

- *“Staff in regional offices need more time with Information Consultants when they are on the LI roadshows.”*
- *“Participant did not want to attend LI with those who do not publish.”*
- *“Participants wanted to attend LI with those of same post level.”*
- *“LI should happen more often.”*
- *“Timing of LI should be a priority, it should not clash with other organisational calendar events.”*
- *“LI needed practice or a practical component so attendees could practice under the guidance of the instructors.”*
- *“LI needed assessment, so attendees could gauge how much they have learned.”*
- *“LI needed more time per session.”*
- *“LI information should be more detailed.”*
- *“My experience was that the trainer was aiming to finish, and kept giving contact information for assistance. I want to be able to do it myself.”*
- *“Market library products more, so users are aware of them before training.”*
- *“Information Consultants needed to spend more time one-shot with regional staff members.”*
- *“I enjoy group training, because I can learn from others in class also.”*
- *“Need tutorials in print and video for later reference to LI content.”*
- *“More marketing needed for LI.”*
- *“Market new products through the various in-house channels.”*
- *“Need print tutorials to refer to afterwards.”*
- *“Need level specific training for different groups of staff members.”*

The feedback from the interviews of those who had previously attended LI, not only enriched the researcher’s understanding of the results from the quantitative survey, but also answered two of the related research questions, which were whether alternative instructional models were necessary, and whether staff wanted to attend LI in similar occupational post level groups. There was an indication that print and video style instruction models would be a good addition to LI. Interview feedback also highlight the need for training groups to have similar staff grouped together in

terms of occupational post level, for example all senior researchers grouped together for training and in a second session all interns group together. Currently LI takes place with mixed groups of staff members, whereby an administrator of a unit may attend with a senior research manager. Their reasons for attending and desired learning outcomes are most probably very different. This could have an influence on both their learning experiences, either positively or negatively. The third related research question about reasons for non-attendance at LI classes, was answered by responses from staff who had not attended LI, as shown in Section 5.3.2.1.

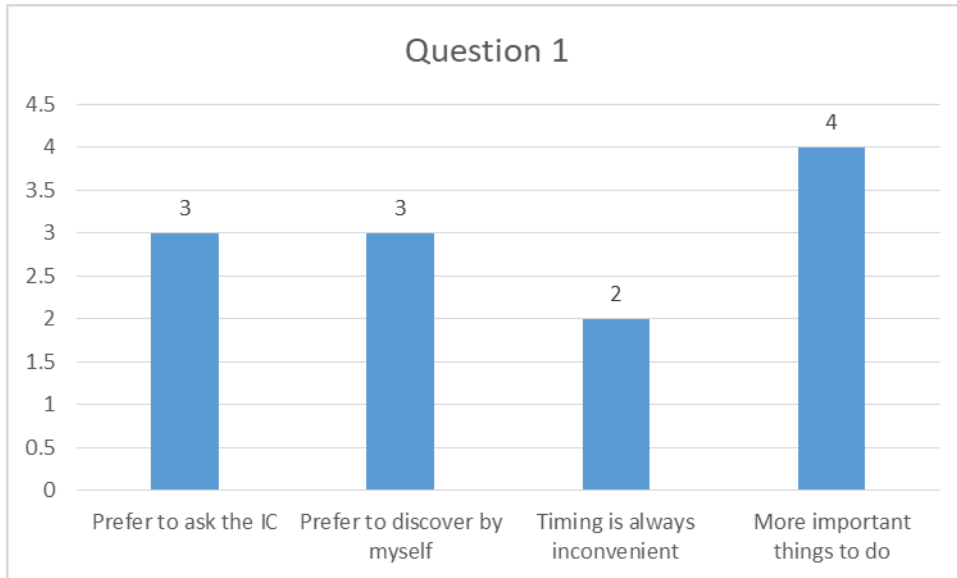
### ***5.3.2 Participants who have not attended LI***

Participants who answered the quantitative questionnaires were asked to volunteer for the qualitative interviews. The researcher intended to interview the first ten volunteers who responded with signed consent forms. There were fifteen volunteers from the group who had not attended LI. Due to the poor response to the call for consent forms to be signed and returned, the researcher sent follow up e-mails and eventually managed to secure ten participants. Participants were interviewed over the course of six weeks. The interview guide for participants who have not attended LI can be found in Appendix 4.

Each participant was posed with the same questions. Results were analysed using Microsoft Excel. Data was grouped and coded, charts were then drawn to represent the responses received.

#### *5.3.2.1 Question 1: Why haven't you attended LI during your career at the HSRC?*

The researcher was looking for reasons for non-attendance.

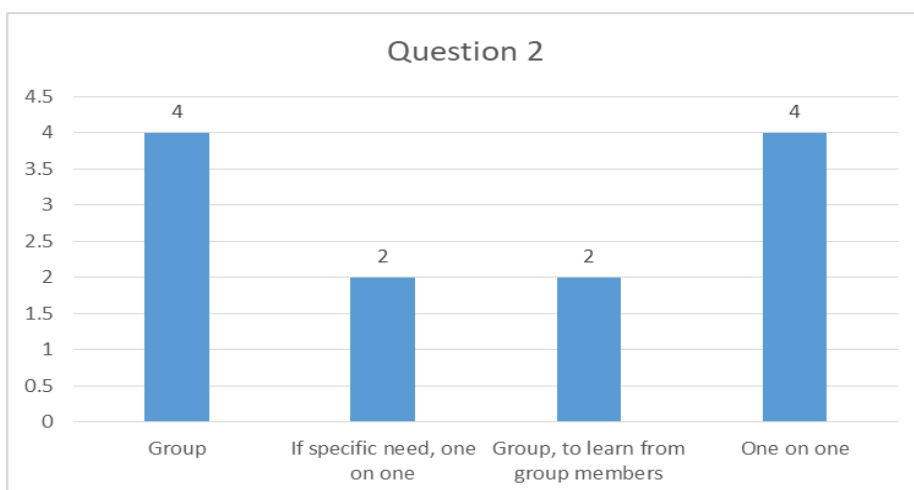


**Figure 5.40: Reasons for non-attendance**

Four said that they had more important things to do with their time. A further three said they would prefer to ask the Information Consultant, three said they prefer to discover information by themselves and two found that the timing of LI was always inconvenient for them to attend. This question answers one of the related research questions, which was: “What are the reasons for non-attendance of LI?”

#### 5.3.2.2 Question 2: Do you prefer one-on-one training to group classes?

The researcher was looking for flexibility with regard to class type.

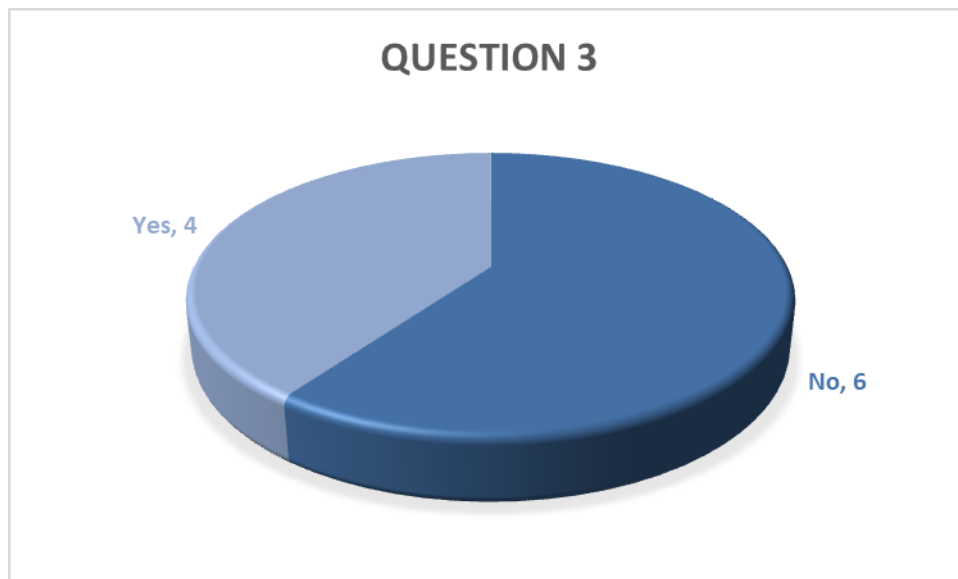


**Figure 5.41: Preferred class configuration**

There were four participants who said they prefer group training. A further two participants also prefer group training as they felt that in a group setting one could learn from others and from the questions that others raise in a group setting. There were four participants who said that one-on-one training would suit them, and two said that they would prefer one-on-one training, if they had a very specific training need.

### 5.3.2.3 Question 3: Do you think that training is unnecessary?

The researcher was exploring whether Google Search is staff members' first choice when there is an information need.



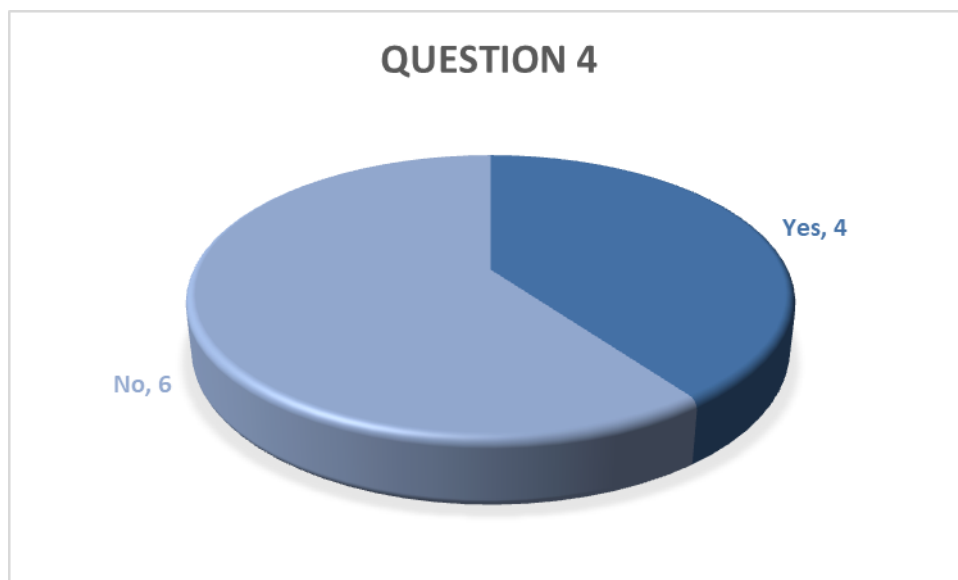
**Figure 5.42: Training necessity**

The majority, six participants, said no, and added that LI should be compulsory, incentivised, included as part of a continuous professional development programme or included as part of the performance appraisal of junior researchers. One participant mentioned that staff needed to consider attending just to refresh their knowledge, another raised the point that due to the explosion of false news and information overload, it would be prudent to attend LI. One of the most encouraging comments received was that LI is critical and that Google cannot possibly replace a library.

- The other four participants said yes, they did find LI unnecessary, and qualified their responses with the following comments:
- “I use Google Scholar and feel safe, as information is peer reviewed.”
- “I feel free to approach library staff for help when necessary.”
- “I know how to find trusted information on the Internet.”
- “I know how to evaluate a source for trusted information.”
- “Unnecessary as I am not studying at present.”

#### 5.3.2.4 Question 4: *Have you struggled with any library related issues?*

The researcher was looking for lack of support from library

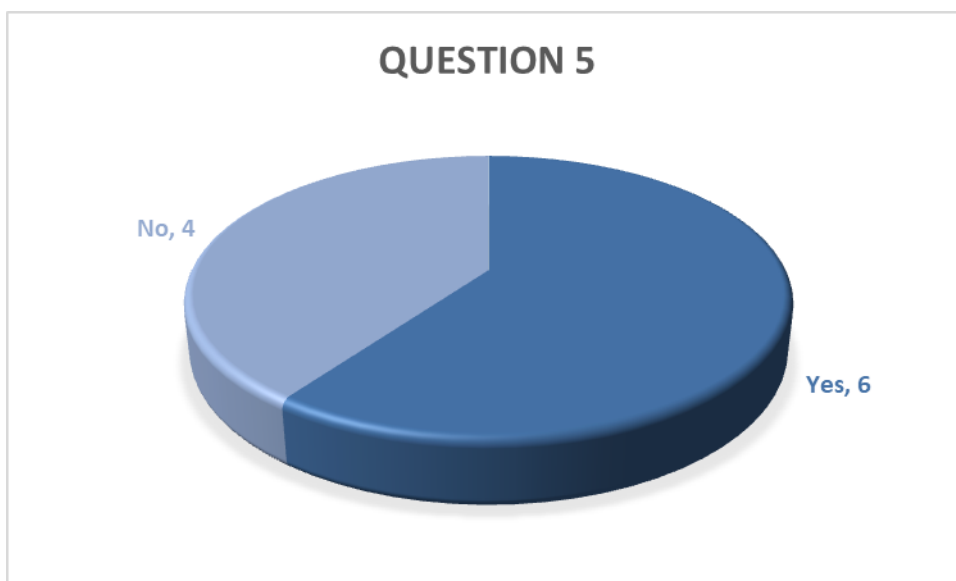


**Figure 5.43: Library support**

There were four participants who said yes, they had struggled with library related issues. They listed access to the virtual library, finding relevant results and e-Book access as issues that they struggled with. One participant said that they normally used Google to find a solution to solve their library related issues. The other six participants said no, they have never had any library related issues.

#### 5.3.2.5 Question 5: *Have you had any problems when writing, researching, publishing or producing research outputs?*

The researcher was exploring whether LI could have helped with these problems.



**Figure 5.44: Problems (writing, research, publishing or production)**

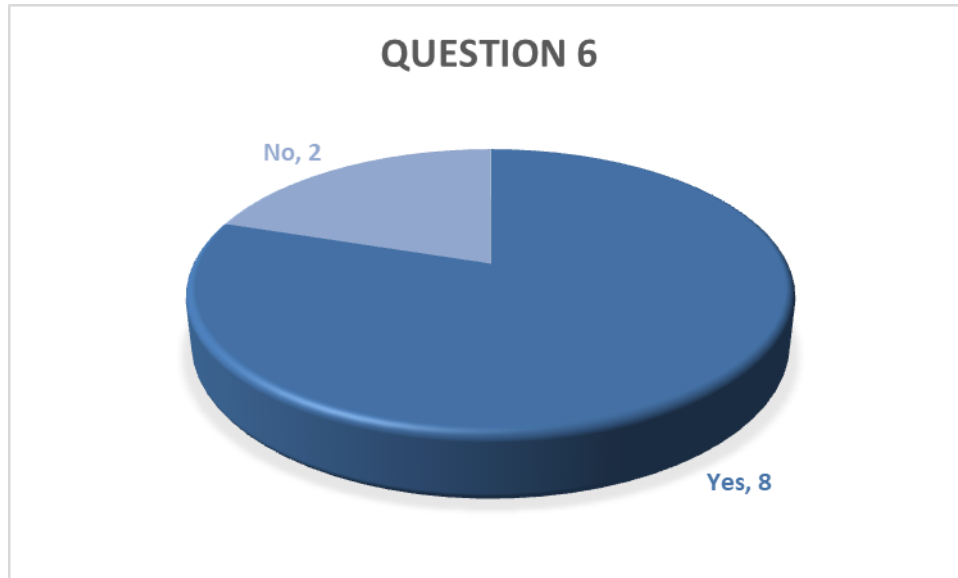
Four participants said no, the other six agreed that they had problems. For those that said yes, there were a few comments explaining what they were:

- *“Collaborators do not follow the same rules around authorship that HSRC employees do. For example, the Library assists with iThenticate reports to combat plagiarism.”*
- *“Due to limited library access to journals, I struggle to find relevant results.”*
- *“I miss the old Bubble system (catalogue), I struggle to find journals on the new virtual library.”*
- *“I needed more information on how to choose an appropriate research instrument.”*
- *“I had a problem and library staff helped and supported me.”*
- *“Library helped me out.”*

The comments received indicate that these staff members do value and would benefit from LI. Had they attended, they could have used the “iThenticate” software for co-authored articles, known about inter library loans, had sufficient information on the World Share discovery catalogue to find journals, and got advice from the data curation team regarding difficulties with their research instrument. The last two comments indicated that even though the participants did not attend training, they did ask for and received assistance from library staff.

### 5.3.2.6 Question 6: Are you able to navigate the virtual library effectively?

The researcher was looking for navigation of the discovery tool as a potential lifelong skill set.



**Figure 5.45: Navigating the virtual library**

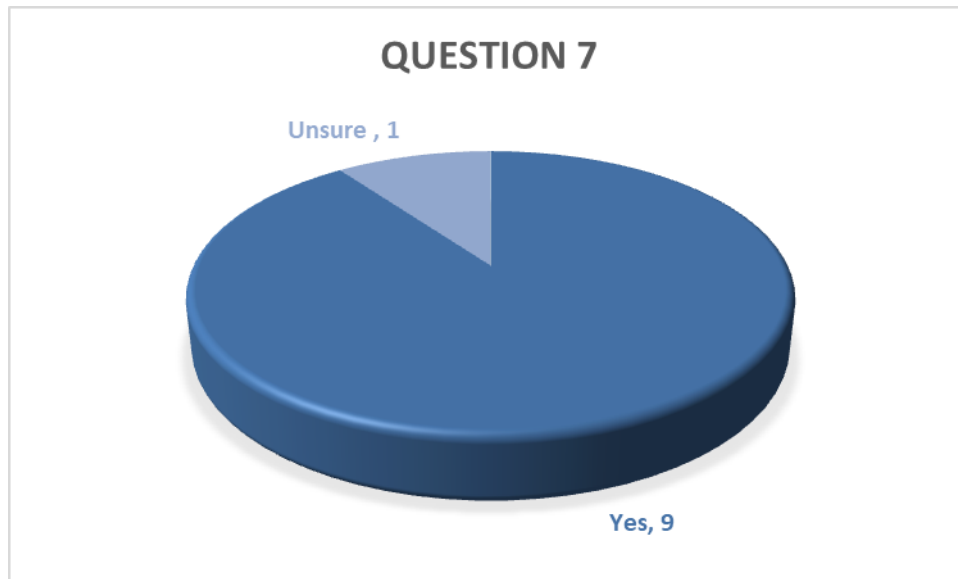
The virtual library catalogue runs on the World Share Discovery module of WorldCat. It allows for the catalogue to be searched using free text and is an intuitive, friendly system. The HSRC library adopted this system in July 2018. At the time of this survey, two participants indicated that they were unable to navigate the virtual library. The other eight agreed that, yes they were able to navigate the system. The following additional comments were received from the participants who said yes:

- *“I rarely use it.”*
- *“I hardly ever make use of the virtual library.”*
- *“Prefer Google scholar, to the virtual library.”*
- *“I find the virtual library confusing.”*
- *“The set up could be better.”*
- *“Free text search is good.”*

The comments indicate that the virtual library should be improved upon for a better user experience. The virtual library is consistently being enhanced by the eRKC, and these comments provide direction as to what needs attention.

### 5.3.2.7 Question 7: Would you consider attending LI in future?

The researcher was looking for marketing opportunities.



**Figure 5.46: Future attendance**

There was one participant who was unsure, the other nine said yes, which the researcher found very encouraging. There was an opportunity to comment, the following comments were received from those who said yes, they would consider attending LI in future:

- *“A certificate on completion would be appreciated.”*
- *“Would consider if I could attend only those modules of interest.”*
- *“Need more options to attend time wise for flexibility.”*
- *Three participants said “if time permitted I would attend.”*
- *“More awareness about LI needs to be done by the library.”*
- *“Once or twice a year is inadequate, more opportunities need to be created.”*
- *“Consider alternative formats for different people such as video and print.”*
- *“Consider the length per session.”*
- *“Segment training by post level.”*
- *“Offer tailored training for researchers only.”*
- *“Target interns.”*
- *“Liaise with Executive Directors about compulsory training.”*
- *“Add LI to the performance appraisal and people will attend.”*

The comments received were thoughtful and indicated that staff have a positive attitude toward LI. They have a stake in LI success, and therefore provided good suggestions that are practical to apply in future.

*5.3.2.8 Additional comments: participants were also given an opportunity to make additional comments.*

The following were received:

- *“A formal approach is needed by the library.”*
- *“Assessment with certification would encourage attendance.”*
- *“Consider different formats for different learners, audio, visual and print.”*
- *“Consult with users more about their needs.”*
- *“More information needed around how to choose trusted publications.”*
- *“Alerts are good, however need to be more personalised per person.”*
- *“Show researchers how to find collaborators.”*
- *“Library has information on who is doing what in a silo style organisation, use this information to help researchers to collaborate.”*
- *“Advertise your support more.”*
- *“Time your sessions better.”*
- *“Add training to the performance appraisal system of the HSRC.”*

The additional comments were valuable in terms of the kinds of changes staff would like the library to implement. Not all suggestions can be implemented at once and some, for example certification, would require long-term commitment and planning. Other suggestions such as how to choose trusted publications, personalising of alerts, finding collaborators and marketing can be addressed immediately. The researcher will ensure that library management are alerted to all of the suggestions received by this study.

## **5.4 Conclusion**

The researcher found that all participants were candid in responding to both the qualitative and quantitative phases of the research. The findings were rich and clear, and illustrated how Bruce’s theory of the Seven Faces of Information Literacy (Section 3.4) were incorporated into all aspects of LI at the HSRC. The feedback shows that staff found that they had transformed, as per the ANT theory in chapter

four, in many aspects of how they use and create new knowledge. The response to Question 5.3.1.1 regarding skill set change, clearly indicates that LI has far reaching consequences in terms of transforming staff into responsible information users. This feedback has allowed the researcher to address key research and related research questions, as set out in Chapter 1, and are discussed in detail in Chapter 6.

## **Chapter 6:**

### **Conclusion and Recommendations**

#### **6.1 Introduction**

This study intended to explore the impact of library instruction on the HSRC staff, in support of achieving their research and academic goals. Three key research and three related research questions were formulated around the problem statement. The key research questions, were answered by the quantitative aspect of the study in the form of questionnaires. The related research questions were answered by the qualitative aspect of the study in the form of voluntary personal interviews with HSRC staff members.

The researcher used the ANT theory, as discussed in Chapter 3 to understand the role played by LI at the HSRC. As the study progressed, the researcher was able to construct meaning and understanding of the different aspects of LI and the influence, they have on staff and their ability to accomplish career and academic goals.

#### **6.2 Problem statement**

The problem statement, of this study that explored whether LI makes a difference to the ability of the staff at the Human Sciences Research Council (HSRC) to achieve their research and academic goals, was answered in part by question 6 of the quantitative questionnaire to staff members who had attended LI. The statement read: “Overall LI has contributed positively to me personally and professionally.”

Half of the participants 50% agreed and a further 39.71% strongly agreed that overall LI contributed positively to them either personally or professionally. LI had made a positive contribution to the majority of the participants, 61 of the 69 participants found that overall LI had contributed positively toward either their personal or professional endeavours.

The key research and related research questions below, clarified aspects of LI that the researcher investigated, with more detail to determine the perceived influence of these aspects.

### 6.3 Key research questions

There were three key research questions that were answered as follows:

#### 6.3.1 *How has LI changed the participants' perceptions of their skills and competency levels?*

This question was answered by question four of the quantitative questionnaire to participants who had previously attended LI; the statement read: "I have developed and learned new skills, through attending LI." The responses were recorded in Figure 5 and indicated that most participants strongly agreed 49.28% or agreed 37.68% that they had indeed developed and learned new skills. This question had the option to explain which new skills were acquired and most staff members 37%, indicated that the skill they valued the most, was how to use electronic citations, and a further 33% indicated they are now able to create effective search strategies to find relevant information. Eleven percent of respondents said they were now able to navigate the virtual library effectively, and another nine percent are able to search within databases. These findings are in line with Bruce's Seven Faces of Information literacy as was noted in Section 3.4 where the second face is described as being able to find information from appropriate sources of information. Four percent indicated they are now able to set up ORCID profiles, and a further four percent indicated they now know how to avoid plagiarism. Two percent valued the ability to detect potentially fake journals.

During the qualitative interviews with participants who had attended LI, further clarification was sought by the researcher, and all participants responded that they had experienced a positive change since having attended LI. There were a variety of positive comments. Figure 5.32 shows that a quarter of participants found that LI had improved their knowledge of tools available via the library. A further 20% found that they were able to save time now that they were able to use the library effectively and 15% are now able to access information easily, and found that LI assisted them with their academic studies. It is therefore clear that participants' skills and competency levels changed positively because of LI.

### ***6.3.2 What was the influence of LI on individual participants' success in research, study or career aspirations?***

This question was answered by question five of the quantitative questionnaire to participants who had previously attended LI; the statement read: "I was able to improve my research and/or achieve academic goals due to information learned at LI". There were 46.38 % of participants who agreed, and a further 33.33% of participants strongly agreed that they were able to improve their research and/or achieve their academic goals due to information learned at LI. Figure 5.6 depicts that of the 69 participants, 55 attributed their achievement of improved research or achievement of academic goals to having attended LI.

This finding supports the findings of Shao and Purpur (2016:673), as noted in Section 2.2, who state that librarian involvement enriches the written work and academic achievement of students.

During the interviews with participants that had attended LI, the researcher asked for more information regarding respondents' success in research, study or careers. Four of the twenty interviewees either said no or were unsure whether LI could be attributed to higher success with their research or academic studies. The rest agreed that they had indeed achieved higher success, with 50% stating that they were now better able to find relevant information sources, 15% have had success with academic writing and 15% were now able to critically evaluate sources before making use of them. Findings therefore indicate that participants had higher success in research, study or career aspirations as a result of LI, which was also found in the quantitative portion of this study.

### ***6.3.3 How has LI affected researchers publishing rate, ability to find research funding or achieved higher citation rates?***

This question was answered by Questions 16, 17 and 21 of the quantitative questionnaire to participants who had previously attended LI.

Question 16 read: "Attending LI has enabled me to publish more often than before". Figure 5.18 depicts that only 19 of 69 participants attributed their publishing success to LI. The bulk of the respondents 39.13% found this question not applicable to

them, which probably meant that they were not research staff. The other 33.34% either disagreed or strongly disagreed with this statement. It therefore has to be acknowledged that LI did not seem to play a positive part in enabling staff to publish. The eRKC need to explore different ways in which to assist researchers to publish more.

Question 17 read: “Attending LI has enabled me to successfully find, apply for and obtain more funding than before”. Figure 5.18 depicted that 33.33% of participants found this question not applicable to them. Only 27.54% strongly agreed or agreed with this statement. There were 39.13% who either disagreed, or who strongly disagreed. Therefore successfully finding, applying for and obtaining funding cannot be attributed to attending LI.

Question 21 read: “Have you noted an increase in the number of citations your research has accumulated, since having attended LI?” Figure 5.22 indicates that most participants found this question not applicable 44.12%. There were 38.24%, of participants who said no and only 17.65% (12 of the 68 participants) said yes, they had indeed seen an increase in the number of citations. LI apparently has a very low influence on increasing the citation rates of research within the HSRC. More can be done during LI to assist researchers increase their citation counts. Staff can assist with the setup of a wider variety of researcher identities, add the ORCID link to e-mail signatures and set up twitter accounts linked to the HSRC’s existing account to share posts on latest research available.

During the interviews with participants who had attended LI, the researcher delved into these three aspects of funding, publishing and citations once more. The following questions were posed:

“Do you think that you are able to produce more high quality work, after learning how to efficiently make use of the library?” Figure 5.36 shows that there were 20% of interviewees who responded negatively, however 65% responded to say that the accuracy of the results that they retrieved after having attended had improved the quality of their work. A further 15% found that being able to use referencing software, which they learned about in LI, had improved the quality of their work.

“Do you find and apply for more research funding opportunities, now that you are able to navigate the funding opportunity platform better?” Figure 5.37 depicts that 45% of interviewees said no, with a further 40% saying that after LI they are now aware of the funding opportunity database, but have never used it. Only 15% agreed that they are now able to find and apply for funding opportunities.

“Do you think that your research has received more attention in the form of citations, since you have attended LI?” Figure 5.38 shows that 40% of interviewees were unsure, 30% found this question not applicable, 15% said no and the other 15% found that their research had received more attention since LI, as they were now aware of the different researcher profiles such as ORCID and Google Scholar that they can use to promote their work.

There isn't overwhelming evidence to attribute LI as a factor that has had a positive influence on whether researchers published more, obtained more research funding or achieved higher citation rates. Many responses received were either unsure or not applicable to participants. The eRKC department should consider playing a more active role to support scholarship activities.

## **6.4 Related research questions**

There were three related research questions. They were answered during the qualitative interview with participants.

### ***6.4.1 Is there a need for alternative instructional models?***

During the interviews, the researcher asked participants for suggestions to improve LI. Participants suggested printed tutorials that they could take away and refer to after training. Other suggested videos that they could learn from at their leisure, or to refresh what they had learned in the face-to-face class. These suggestions could be relatively easy to implement. This recommendation is supported by Yearwood, Foasberg and Rosenberg (2015:190) as noted in Section 1.4.6, where they confirmed that a variety of instructional models were required for LI to be effective for different learners and their learning styles.

#### ***6.4.2 Is there a need for LI by occupational post level?***

Many participants agreed that instruction with staff of the same or similar rank and post level would be more suitable than the current situation. One participant went as far as to say that he did not want to be in an LI class with staff members who did not conduct research. A senior researcher mentioned that he enjoyed learning in a group class setting as he was able to learn from his contemporaries and often they asked questions he had not thought of, and answers or solutions were useful for him.

#### ***6.4.3 What are the reasons for non-attendance of LI?***

This question was posed in the quantitative questionnaire to those staff members who had never attended LI. Their responses, as depicted in Figure 5.31, indicate that 46.43% found that LI was never held at a convenient time to attend. A further 28.57% said that they could not give up time in their day to attend; 7.14% said they would prefer one-on-one training; and 10.71% would attend training sessions if session were grouped by occupational post level. The remainder, 7.14%, would like to make use of tutorials instead of face-to-face instruction. Eight respondents chose not to answer this question.

During the interviews, most interviewees, as depicted in Figure 5.40, 33% said that they had more important things to do with their time than attend LI, 25% said they would prefer to ask the Information Consultant, 25% said they prefer to discover information by themselves. The other 17% found that the timing of LI was always inconvenient for them to attend. Time, timing, and having what is perceived to be more important things to do with their time, as well as convenience, are aspects that need to be addressed with regard to encouraging more staff members to attend LI.

### **6.5 Limitations**

The researcher asked participants during the quantitative aspect of the study to volunteer for the qualitative interviews. Although many had responded to this request, very few returned signed consent forms. The researcher then limited the interviews to twenty participants for those that had previously attended and ten participants who had never attended LI. This was disappointing as the study was

being conducted at a national research council, however, rich feedback was received from those who had participated.

The questionnaires and interviews included all staff members, therefore response to purely research related questions included answers such as ‘unsure’ and ‘not applicable’, making it difficult for the researcher to come to a clear conclusion in some instances. The questionnaires and interviews could have been further subdivided to distinguish between support and research staff members, however time constraints did not allow for this. This could be an opportunity for further investigation.

## **6.6 Recommendations**

The intention of this study was to explore the influence of information literacy on the Human Sciences Research Council (HSRC) staff, in support of achieving their research and academic goals. The recommendations that result from the investigation are grouped below into categories that may be considered by the eRKC to increase the influence of LI on staff:

### ***6.6.1 Marketing of LI***

The Information Services department of the eRKC is responsible for marketing LI. Information to be shared with the whole organisation is sent to the Communications department of the HSRC, and Communications are responsible for the e-mail dissemination of library related marketing material. They should be alerted to the following:

- The library needs to consider new product launches to introduce products and services to staff. Live demonstrations, practice sessions and take away style tutorials should leave more lasting impressions on attendees.
- More marketing of one-on-one and group LI sessions should take place. The feedback from participants of the study indicated that very few staff members were aware that they could request an appointment or arrange for a unit or department to be trained at their own convenience.
- The library also has to keep users informed when old products acquire new tools or features. This can be done via the internal communication channels.

- The library can embed LI modules within the virtual library for staff to use, at their convenience.

### ***6.6.2 Recommendations for Information Consultants***

- Information Consultants should make follow up enquiries with users after LI. This would serve as a reminder that participants should practice what they have learned or ask for assistance if they have experienced any problems when using the different systems.
- Information Consultants need to know the products and features of the product explicitly. They should consult with service providers and have a better understanding of the product than anyone else in the organization.
- Information Consultants should share their lesson plans with participants that attend LI. Participants need to know the minimum outcomes expected from a session.
- Information Consultants need to include practice sessions or learning activities during instruction. Staff could use this time to practice what they have learned with guidance. Learning activities can be guided activities, group work, discussions, creation of citation lists or even creation of summaries of information literacy sessions.
- Information Consultants could also implement pre- and post-testing to provide hard evidence of whether learning has taken place, or whether more instruction is needed.
- Information Consultants should do learner analysis, so that they are aware of who is attending their sessions. This will allow for better preparation. Appropriate examples could be prepared ahead of time and consultants could be ready for any special needs for which they have to cater.
- Consider adopting a framework or frameworks that work together. Opt for a framework that is flexible and adaptable for a national research council such as the HSRC and use it to create a scaffold-style or layered instructional offering, from basic to advanced skills for the different staff members and their needs.
- Adopt self-assessment or reflective practice, whereby after a session, the Information Consultant looks at what worked and what needed to improve for the next session.

### ***6.6.3 Recommendations for the HSRC Learning and Development Department***

- The Learning and Development Department of the HSRC could get involved in LI. They could arrange for and provide off campus locations for LI. This reduces distractions, encourages staff to attend the full day of instruction and provides an opportunity to learn away from the distractions of the office environment.
- The Learning and Development Department could make LI a compulsory component for all Internships served at the HSRC.
- This department could also assist Information Consultants to become certified assessors. In doing so, Information Consultants could administer tests and sign off on certification of either attendance or achievement for staff members. This could be an incentive for staff to attend LI.

### ***6.6.4 Recommendations for staff in regional offices (long distance learners)***

- “Skype” and “Vidyo”, which are two products the HSRC currently use for meetings, could be used for LI. One-on-one and group instruction sessions could take place virtually.
- Long-distance learners may benefit from receiving learning material in advance for them to work through, before a virtual class takes place.

### ***6.6.5 Time aspects***

- Participants from regional offices indicated that they needed more time with Information Consultants when they were on LI roadshows. After the formal instruction takes place, Information Consultants should do follow ups before leaving the regional offices so they are able to see that staff are comfortable with what they have learned.
- More opportunities to attend LI should be made throughout the year. Participants of the study indicated that they were often out of office, in the field gathering data or had other engagements. The library should plan around the corporate calendar of the HSRC. If more opportunities are created and participants reply timeously, more LI opportunities can be fulfilled during a year.
- Participants also mentioned that certain products save time, e.g. Citation software make a big difference in assisting them to meet deadlines, and to finish work

faster and more efficiently. This type of product needs to feature at least monthly on the LI calendar.

- Printed manuals and video tutorials need to be available for different products to enable staff to learn or to refer to information when time permits them to. A lot more content could be included in these tutorials, as staff can work through them in their own time.

#### **6.6.6 Class components**

- Participants should be given the flexibility to attend or arrange LI with their contemporaries or units.
- Level or post specific instruction needs to be added as an option to LI, many participants raised this as a concern.

#### **6.7 Recommendations for future studies**

The researcher would recommend a follow-up exploratory study, after changes have been implemented to the current model, to explore how the influence of LI might have changed.

#### **6.8 Conclusion**

This study has enabled the researcher to highlight aspects of LI that have made an influence on staff members of the HSRC. Most staff agreed that they developed and learned new skills. In this process of creating new knowledge, the participants were able to demonstrate that they have underwent a transformation as per the ANT theory discussed in Chapter 3.

LI had an influence on staff being able to complete either research or academic work sooner, and also enabled staff to evaluate sources of information critically for use in their work. Respondents also agreed that due to LI they found it easier to approach staff for assistance and LI has also improved the quality of their writing, helped them avoid plagiarism and be aware of trends in their research fields. Findings showed that overall LI contributed positively to the majority of respondents. They also indicated that they would consider attending LI again in future, and would encourage and personally recommend LI to other staff members.

The study also found many opportunities for the library to improve on and increase influence in different segments of the HSRC, such as finding funding opportunities, publishing scholarly work, career advancement and increasing research and researcher visibility. Other opportunities for improvement could be the timing of LI and the number of opportunities that are made available for staff to attend instruction, making a variety of material such as print and video tutorials available via the library landing page and creating the opportunity for similarly ranked staff to attend in homogeneous groups.

The recommendations made in this study could strengthen the already considerable influence of LI at the HSRC in the future. This study has provided many new approaches from which LI influence can be viewed and improved to benefit all staff members and other research organisations.

## References

- ACRL. 2015. *Framework for Information Literacy for Higher Education*. Association of College & Research Libraries (ACRL). DOI: 10.1016/S0167-8760(98)00006-3.
- ACRL. 2016. *Framework for Information Literacy for Higher Education*. March: 1–13. DOI: 10.1080/00049670.1995.10755718.
- Arp, L. 1994. Library literacy. *American Library Association*. 34(2): 158-163. DOI: 10.2307/20862641.
- Artman, M., Frisicaro-Pawlowski, E. & Monge, R. 2010. Not just one-shot: Extending the dialogues about information literacy in composition classes. *Composition Studies*. 38(2): 93–110. Available: [https://auth.lib.unc.edu/ezproxy\\_auth.php?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ944333&site=ehost-live&scope=site;http://www.compositionstudies.uwinnipeg.ca/archives/382.html](https://auth.lib.unc.edu/ezproxy_auth.php?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ944333&site=ehost-live&scope=site;http://www.compositionstudies.uwinnipeg.ca/archives/382.html) [2019, October 07].
- Babbie, E.R. & Mouton, J. 2001. *The practice of social research*. Cape Town : Oxford University Press Southern Africa.
- Belanger, J., Zou, N., Mills, J. R., Holmes, C. et al. 2015 Project Rails: lessons learned about rubric assessment of information literacy skills. *Portal: Libraries and the Academy*. 15(4): 623–644.
- Bicknell-Holmes, T. & Seth Hoffman, P. 2000. Elicit, engage, experience, explore: Discovery learning in library instruction. *Reference Services Review*. 28(4):313–322. DOI: 10.1108/00907320010359632.
- Bitso, C. 2017. Librarian as a teacher [LIS5036S Lecture notes]. Department of Library and Information Studies Centre, University of Cape Town.
- Bothma, T.J.D. 2014. *Navigating information literacy: your information society survival toolkit*. Pinelands, Cape Town: Pearson Education. Available: <https://univofpretoria.on.worldcat.org/search?queryString=no:910836520&data baseList=283,638&scope=> [2018, July 07].

- Brewerton, A. 2012. Re-Skilling for research: investigating the needs of researchers and how library staff can best support them. *New Review of Academic Librarianship*. 18(1): 96–110. DOI: 10.1080/13614533.2012.665718.
- Bruce, C. 1997. *The seven faces of information literacy*. Adelaide: Auslib Press.
- Bruce, C.S. 2016. Workplace experiences of information literacy. *International Journal of Information Management*. 19(1): 33–47. DOI: 10.1016/S0268-4012(98)00045-0.
- Bryan, J.E. 2016. The preparation of academic librarians who provide instruction: a comparison of first and second career librarians. *Journal of Academic Librarianship*. 42(4): 340–354. DOI: 10.1016/j.acalib.2016.05.010.
- Burger, M. 2007. Designing successful workshops for digital tools. *Reference Services Review*. 35(4): 552–559. DOI: 10.1108/00907320710838372.
- Cameron, L., Wise, S.L. & Lottridge, S.M. 2007. The development and validation of the Information Literacy Test. *College & Research Libraries*. 68(3): 229–237. DOI: 10.5860/crl.68.3.229.
- Carter, E. W. 2002 Doing the best you can with what you have: lessons learned from outcomes assessment. *Journal of Academic Librarianship*. 28(1-2): 36–41.
- Clarke, A. & Dawson, R. 1999. *Evaluation research : an introduction to principles, methods, and practice*. London: Sage.
- Creswell, J.W. 2008. *Mixed methods research: design and procedures* [Lecture]. University of Pretoria. 21 October. [https://webcache.googleusercontent.com/search?q=cache:4Eg3SaQpQiwJ:https://www.up.ac.za/media/shared/Legacy/Education/mixed-methods-research\\_-design-and-procedures\\_-by-john-w-creswell.zp37294.ppt+&cd=2&hl=en&ct=clnk&gl=za](https://webcache.googleusercontent.com/search?q=cache:4Eg3SaQpQiwJ:https://www.up.ac.za/media/shared/Legacy/Education/mixed-methods-research_-design-and-procedures_-by-john-w-creswell.zp37294.ppt+&cd=2&hl=en&ct=clnk&gl=za) [2019, August 11].
- Creswell, J.W. 2014. *Research design: qualitative, quantitative and mixed methods approaches*. 4th ed. Berkeley, CA: Sage.
- De Jager, K. 2017. Approaches to impact evaluation in academic libraries: a review of a new ISO standard. *IFLA Journal*. 43(3):282–287. DOI: 10.1177/034003517696321.

- El Rayess, M., Chebl, C., Mhanna, J. & Hage, R.M. 2018. Fake news judgement: the case of undergraduate students at Notre Dame University-Louaize, Lebanon. *Reference Services Review*. 46(1):146–149. DOI: 10.1108/RSR-07-2017-0027.
- Eisenberg, M. & Berkowitz, R. 1966. *Information problem solving: the big six skills approach to library and information skills instruction*. Norwood, NJ: Ablex Publishing.
- Fairclough, R. & Thelwall, M. 2015. More precise methods for national research citation impact comparisons. *Journal of Informetrics*. 9(4):895–906. DOI:10.1016/J.JOI.2015.09.005.
- Fullard, A. 2017. Using the ACRL Framework for Information Literacy to foster teaching and learning partnerships. *South African Journal of Libraries and Information Science*. 82(2): 46–56. DOI: 10.7553/82-2-1627.
- Gariepy, L.W., Stout, J.A. & Hodge, M.L. 2016. Using rubrics to assess learning in course-integrated LI. *Portal: Libraries and the Academy*. 16(3):491–509. DOI:10.1353/pla.2016.0043.
- Garrety, K. 2014. Actor Network Theory - IS Theory. *Theories used in IS research wiki*. 15–19. Available: [https://is.theorizeit.org/wiki/Actor\\_network\\_theory](https://is.theorizeit.org/wiki/Actor_network_theory) [2019, November 17].
- Hess, A.N. 2015. Equipping academic librarians to integrate the framework into instructional practices: a theoretical application. *Journal of Academic Librarianship*. 41(6):771–776. DOI: 10.1016/j.acalib.2015.08.017.
- Hofstee, E. 2006. *Constructing a good dissertation: a practical guide to finishing a Master's, MBA or PhD on schedule*. Sandton: EPE.
- HSRC Integrated Annual Report 2016/2017*. n.d. Available: [http://www.hsrc.ac.za/uploads/ebooks/integratedAnnualReport201616\\_17/files/assets/basic-html/page-3.html](http://www.hsrc.ac.za/uploads/ebooks/integratedAnnualReport201616_17/files/assets/basic-html/page-3.html) [2018, June 03].
- HSRC*. n.d. Available: <http://www.hsrc.ac.za/en/about> [2018, March 10].

- ISO 16439:2014 - Information and documentation. Methods and procedures for assessing the impact of libraries. Available: <https://www.iso.org/standard/56756.html> [2018, June 02].
- Johnson, R.D. 1979. New horizons for academic libraries. *College & Research Libraries*. 40(2):101–101. DOI: 10.5860/crl\_40\_02\_101.
- Kendrick, K.D. 2016. *The small and rural academic library: leveraging resources and overcoming limitations*. Chicago, IL: Association of College and Research Libraries: Association of College and Research Libraries.
- Kuglitsch, R.Z. 2015. Teaching for transfer: reconciling the framework with disciplinary information literacy. *Portal: Libraries and the Academy*. DOI: 10.1353/pla.2015.0040.
- Kumar, R. 2010. *Research methodology : a step-by-step guide for beginners*. London : Sage. Available: <https://univofpretoria.on.worldcat.org/oclc/764574079> [2019, April 13].
- Labaree, R. V. n.d. *Research guides: organizing your social sciences research paper: theoretical framework*. Available: <http://libguides.usc.edu/writingguide/theoreticalframework> [2018, July 08].
- Lange, J., Canuel, R. & Fitzgibbons, M. 2011. Tailoring information literacy instruction and library services for continuing education. *Journal of Information Literacy*. 5(2). DOI: 10.11645/5.2.1606.
- Latour, B. 2005. *Reassembling the social: an introduction to actor-network theory*. Oxford : Oxford University Press.
- Lavrakas, P. 2012. *Encyclopedia of survey research methods*. Sage. DOI: 10.4135/9781412963947.
- Leedy, P.D. & Ormrod, J.E. 2015. *Practical research: planning and design*. Harlow: Pearson Education.
- Lloyd, A. 2011. Trapped between a rock and a hard place: what counts as information literacy in the workplace and how is it conceptualized? *Library Trends*. 60(2):277–296. DOI: 10.1353/lib.2011.0046.

- Louw, E.L. 2016. The utilisation of information resources in a social sciences research organisation – a value assessment of library services and resources. M.Sc. (Professional) dissertation, Aberystwyth University.
- Markless, S. & Streatfield, D. 2013. *Evaluating the impact of your library*. 2<sup>nd</sup> ed. London: Facet.
- Marsden, P. V. & Wright, J.D. 2010. *Handbook of survey research*. Bingley: Emerald.
- Matthews, J.R. 2004. *Measuring for results: the dimensions of public library effectiveness*. Westport, CT: Libraries Unlimited.
- Matthews, J.R. 2007. *Library assessment in higher education*. Westport, CT: Libraries Unlimited.
- McAdoo, M.L. 2012. *Fundamentals of library instruction*. Chicago, IL: American Library Association.
- McAfee, E. L. 2018. Shame: the emotional basis of library anxiety. *College & Research Libraries*, 79(2): 237–256.
- National Research Foundation. n.d. Mandate. Available: <http://www.nrf.ac.za/about-nrf/mandate> [2018, June 02].
- Ngulube, P. 2010. Mapping mixed methods research in library and information science journals in Sub-Saharan Africa 2004–2008. *International Information Library Review*. 42(4):252–261. DOI: 10.1016/j.iilr.2010.10.005.
- Oakleaf, M. 2009 Using rubrics to assess information literacy: an examination of methodology and interrater reliability. *Journal of the American Society for Information Science and Technology*. 60(5): 969–983. DOI: 10.1002/asi.21030.
- Oakleaf, M. 2010. *The value of academic libraries*. Chicago, IL: Association of College and Research Libraries.

- Oakleaf, M., Whyte, A., Lynema, E. & Brown, M. 2017. Academic libraries and institutional learning analytics: one path to integration. *Journal of Academic Librarianship*. 43(5):454–461. DOI: 10.1016/J.ACALIB.2017.08.008.
- Pardo, A. & Siemens, G. 2014. Ethical and privacy principles for learning analytics. *British Journal of Educational Technology*. 45(3):438–450.  
DOI: 10.1111/bjet.12152.
- Peterson, P.L., Baker, E.L. & McGaw, B. 2010. *International encyclopedia of education*. Amsterdam : Elsevier.
- Poll, R. & Payne, P. 2006. Impact measures for libraries and information services. *Library Hi Tech*. 24(4):547–562.
- Poll, R. 2003. Impact/outcome measures for libraries. *LIBER Quarterly*. 13(3–4).  
DOI: 10.18352/lq.7746.
- Poll, R. 2012. Can we quantify the library’s influence? Creating an ISO standard for impact assessment. *Performance Measurement and Metrics*. 13(2):121–130.  
DOI: 10.1108/14678041211241332.
- Raju, J. 2019. Research approaches and paradigms [Lecture]. University of Cape Town. 17 May.
- Rhoden, L. 2015. Designing information literacy instruction for adult learners. *The Christian Librarian*. 58(1). Available: [s://www.google.com/search?rlz=1C1GCEU\\_enZA819ZA819&ei=Q-81XcPLAYHDwQL7ka\\_ICA&q=%22Information+literacy+instruction+for+adult+learners+such+as+senior+researchers+can+be+a+difficult+and+uncomfortable+experience+for+both+the+researcher+and+the+librarian.](https://www.google.com/search?rlz=1C1GCEU_enZA819ZA819&ei=Q-81XcPLAYHDwQL7ka_ICA&q=%22Information+literacy+instruction+for+adult+learners+such+as+senior+researchers+can+be+a+difficult+and+uncomfortable+experience+for+both+the+researcher+and+the+librarian.) [2019, July 22].
- Scholarly Publishing Resources - DHET: Submissions for journal inclusion*. n.d. Available: <https://sites.google.com/view/assaf-scholarly-pub-resources/dhet-accreditation/dhet-submissions-for-journal-inclusion?authuser=0> [2020, August 31].

- Secker, J. 2013. *Rethinking information literacy: a practical framework for supporting learning*. Edited by Jane Secker and Emma Coonan. London: Facet.
- Shao, X. & Purpur, G. 2016. Effects of information literacy skills on student writing and course performance. *Journal of Academic Librarianship*. 42(6): 670–678. DOI: 10.1016/J.ACALIB.2016.08.006.
- Stebbing, D., Shelley, J., Warnes, M. & McMaster, C. 2019. What academics really think about information literacy. *Journal of Information Literacy*. 13(1): 21. DOI: 10.11645/13.1.2338.
- Stenström, C. 2012. Factors influencing funding decisions by elected politicians at the state/provincial level: a case study of public libraries in Canada. Queensland University of Technology.
- Tiefel, V. 1995. Library user education: examining its past, projecting its future. *Library Trends*. 44(2): 318 Available: [https://www.ideals.illinois.edu/bitstream/handle/2142/8026/librarytrendsv44i2h\\_opt.pdf](https://www.ideals.illinois.edu/bitstream/handle/2142/8026/librarytrendsv44i2h_opt.pdf) [2019, July 24].
- Travis, T. 2011. From the classroom to the boardroom: the impact of information literacy instruction on workplace research skills. *Education Libraries*. 34(2): 19–31. DOI: 10.26443/el.v34i2.308.
- Walsh, A. 2009. Information literacy assessment. *Journal of Librarianship and Information Science*. 41(1):19–28. DOI: 10.1177/0961000608099896.
- Watson, S.E., Rex, C., Markgraf, J., Kishel, H., Jennings, E. & Hinnant, K. 2013. Revising the “one-shot” through lesson study: collaborating with writing faculty to rebuild a library instruction session. *College and Research Libraries*. 74(4):381–398. DOI: 10.5860/crl12-255.
- Welman, J.C., Kruger, F., Mitchell, B. & Huysamen, G.K. 2005. *Research methodology*. Cape Town: Oxford University Press.
- Wong, S. H. R. and Cmor, D. 2015. Measuring association between LI and graduation GPA. *College and Research Libraries*. 72(5):464–473.

Yearwood, S., Foasberg, N. & Rosenberg, K. 2015. A survey of librarian perceptions of information literacy techniques. *Comminfolit*. 9(2):186–186. DOI: 10.15760/comminfolit.2015.9.2.185.

## Appendices

### Appendix 1:

#### Questionnaire for staff members who have attended LI

Dear Candidate

You have been selected to participate in this questionnaire as you are a staff member at the HSRC. You have had the opportunity to attend LI or to request LI on specific topics at your convenience during your employment, and have taken the opportunity to do so. Your feedback is therefore critical to this study. Please respond to the following questions and statements:

**1. Which age category do you belong to?**

1. 22–34
2. 35–44
3. 45–54
4. 55–60
5. Over 60

**2. Which of the following best describes your job title at the HSRC?**

1. Chief (including Executive Officer or Research Manager)
2. Director (including Assistant, Deputy, Executive or Adjunct)
3. Intern (including Honours, Masters or PhD)
4. Researcher (including Junior and Assistant)
5. Senior Researcher (including Specialist, Manager or Fellow)
6. Other

If other, please comment (optional).....

**3. On average how often do you make use of library services (for example, the virtual library platform, or contacting your Information Consultant)?**

1. Daily
2. Several times per week
3. Several times per month
4. Less often
5. Never

If never, please comment (optional) .....

**You have already indicated that you have attended LI at some point during your employment at the HSRC. The following statements (4-20) relate to the impact that you perceive LI has had on you and your ability to achieve your research and/or academic goals. Please indicate the extent to which LI has had an impact on you:**

- 4. I have developed and learned new skills, through attending LI.**
  1. Strongly Agree
  2. Agree
  3. Undecided
  4. Disagree
  5. Strongly disagreeOptional: Please explain which new skills were acquired (for example, creating an effective search strategy or learning to use citation software such as Mendeley).....
  
- 5. I was able to improve my research and/or achieve academic goals due to information learned at LI.**
  1. Strongly Agree
  2. Agree
  3. Undecided
  4. Disagree
  5. Strongly disagree
  
- 6. Overall LI has contributed positively to me personally and professionally.**
  1. Strongly Agree
  2. Agree
  3. Undecided
  4. Disagree
  5. Strongly disagree
  
- 7. After attending LI, I found that I was able to save time when conducting research.**
  1. Strongly Agree
  2. Agree
  3. Undecided
  4. Disagree
  5. Strongly disagree
  
- 8. After attending LI, I was able to complete my research and /or succeed in my professional endeavours sooner than before.**
  1. Strongly Agree
  2. Agree
  3. Undecided
  4. Disagree
  5. Strongly disagree

- 9. I am now able to evaluate information resources more critically, including recognising when web and other resources may not contain reliable information.**
1. Strongly Agree
  2. Agree
  3. Undecided
  4. Disagree
  5. Strongly disagree
- 10. LI has encouraged me to conduct research and to write academically, using new methods and sources, such as Mendeley, iThenticate and a variety of databases.**
1. Strongly Agree
  2. Agree
  3. Undecided
  4. Disagree
  5. Strongly disagree
- 11. LI has kept me abreast of trends and changes in the field of research.**
1. Strongly Agree
  2. Agree
  3. Undecided
  4. Disagree
  5. Strongly disagree
- 12. LI has helped me improve the quality of the research and academic writing that I produce.**
1. Strongly Agree
  2. Agree
  3. Undecided
  4. Disagree
  5. Strongly disagree
- 13. Ever since I attended LI, I found that I could approach library staff for support easily.**
1. Strongly Agree
  2. Agree
  3. Undecided
  4. Disagree
  5. Strongly disagree
- 14. Attending LI has made me more aware of the resources and products that can help me achieve my research and/ or academic goals.**
1. Strongly Agree
  2. Agree
  3. Undecided
  4. Disagree
  5. Strongly disagree

- 15. Attending LI has assisted me to avoid plagiarism.**
1. Strongly Agree
  2. Agree
  3. Undecided
  4. Disagree
  5. Strongly disagree
- 16. Attending LI has enabled me to publish more often than before.**
1. Strongly Agree
  2. Agree
  3. Disagree
  4. Strongly disagree
  5. Not Applicable
- 17. Attending LI has enabled me to successfully find, apply for and obtain more funding than before.**
1. Strongly Agree
  2. Agree
  3. Disagree
  4. Strongly disagree
  5. Not Applicable
- 18. LI has taught me how to make my research more visible (for example I created an ORCID / Google Scholar profile, which has resulted in me achieving higher citation counts).**
1. Strongly Agree
  2. Agree
  3. Disagree
  4. Strongly disagree
  5. Not Applicable
- 19. Attending and applying what I have learned at LI has resulted in my profile as a researcher, receiving more attention or a larger digital footprint in my research field.**
1. Strongly Agree
  2. Agree
  3. Disagree
  4. Strongly disagree
  5. Not Applicable
- 20. LI has increased the confidence I feel when submitting my research for either peer review, publication or to my study supervisor/lecturer for evaluation.**
1. Strongly Agree
  2. Agree
  3. Disagree
  4. Strongly disagree
  5. Not Applicable

- 21. Have you noted an increase in the number of citations your research has accumulated, since having attended LI?**
1. Yes
  2. No
  3. Not Applicable
- 22. Have you applied for NRF rating and found that the application process has been less stressful / tedious than expected, due to LI?**
1. Yes
  2. No
  3. Not Applicable
- 23. Which resources and products that you learnt about in LI session/s, such as Research Africa, Mendeley or ORCID etc. are you now able to use in your research and/ or academic writing?**  
 Comment: .....
- 24. Have you achieved any milestones in your career or academically such as awards, promotion or qualifications that you would attribute in some way to having attended LI?**
1. Yes
  2. No
  3. 3. Not applicable
- 25. Would you recommend LI to other staff members?**
1. Yes
  2. No
- If no, please comment .....
- 26. Would you attend further LI in the future?**
1. Yes
  2. No
- If no, please comment .....
- 27. Any additional comments you would like to make regarding the impact that LI, has had on you being able to achieve your research goals.**  
 Comment  
 (optional).....

**Voluntary interview**

This is a mixed method study. The researcher will be conducting voluntary interviews with those staff members who agree to participate. If you are willing to participate, please leave your details below and you will be contacted by the researcher at a later stage. Please note, that this does not affect the anonymity of the questionnaire in anyway.

- 1. Yes
- 2. No

If yes, please fill in your name, e-mail address and telephone number in the space provided below.

.....

.....

**Results of the study**

If you are interested in the results of the findings and wish to have these shared with you, please select ‘yes’ below and complete the details required. Providing this information will not affect the anonymity of your responses to the survey. The results of the findings will be shared as a research project, in electronic format via e-mail.

- 1. Yes
- 2. No

If yes, please fill in your name, e-mail address and telephone number in the space provided below.

.....

.....

**Thank you for your participation.**

**Kind regards**

**Viveka Pillai**

## Appendix 2:

### Questionnaire for staff members who did not attend LI

Dear Candidate

You have been selected to participate in this questionnaire as you are a staff member at the HSRC. You have had the opportunity to attend LI or to request LI on specific topics at your convenience, during your employment. You have indicated that you have not attended thus far. Your feedback is therefore critical to this study. Please respond to the following questions and statements:

**1. Which age category do you belong to?**

1. 22–34
2. 35–44
3. 45–54
4. 55–60
5. Over 60

**2. Which of the following best describes your job title at the HSRC?**

1. Chief (including Executive Officer or Research Manager)
2. Director (including Assistant, Deputy, Executive or Adjunct)
3. Intern (including Honours, Masters or PhD)
4. Researcher (including Junior and Assistant)
5. Senior Researcher (including Specialist, Manager or Fellow)
6. Other

If other, please comment (optional).....

**3. On average how often do you make use of library services (for example the virtual library platform, or contacting your Information Consultant)?**

1. Daily
2. Several times per week
3. Several times per month
4. Less often
5. Never

If never, please comment (optional) .....

**Please choose the most appropriate options for the following statement. You may tick all the reasons that apply to you.**

**4. I do not attend LI, because:**

- 4.1 It is never held at a convenient time for me to attend.
- 4.2 I cannot give up so much of time in my day to attend.
- 4.3 I have more important things to do with my time.

- 4.4 I prefer one-on-one training.
- 4.5 I would prefer it if staff of similar rank were grouped together.
- 4.6 The pace of group training does not suit me.
- 4.7 LI is not helpful for my research and/or academic goals.
- 4.8 I learn better from video clips, which I can review at my convenience.
- 4.9 I prefer print tutorials that I can keep and refer back to if the need arises.

5. **Any additional comments you would like to make regarding LI, at the HSRC?**

Comment (optional).....

**Voluntary interview**

This is a mixed method study. The researcher will be conducting voluntary interviews with those staff members who agree to participate. If you are willing to participate, please leave your details below and you will be contacted by the researcher at a later stage. Please note, that this does not affect the anonymity of the questionnaire in anyway.

- 1. Yes
- 2. No

If yes, please fill in your name, e-mail address and telephone number in the space provided below.

.....  
 .....

**Results of the study**

If you are interested in the results of the findings and wish to have these shared with you, please select 'yes' below and complete the details required. Providing this information will not affect the anonymity of your responses to the survey. The results of the findings will be shared as a research project, in electronic format via e-mail.

- 1. Yes
- 2. No

If yes, please fill in your name, e-mail address and telephone number in the space provided below.

.....  
 .....

**Thank you for your participation.**

**Kind regards**

**Viveka Pillai**

## Appendix 3:

### Interview guide questions

**Semi structured interview guide:**

Have you attended LI at any point in your career at the HSRC?

If **yes** the interviewer will continue with the following questions, if **no**, see below:

Question	Look for
Do you think that LI had changed your skill set and/ or competency levels with regard to being able to achieve your research or academic goals?	Positive or negative change?
Do you think that you have had higher success with your research or academic studies since you attended LI?	Ability to find, evaluate and use different resources. Ability to look more critically at sources.
Have you achieved any study aspirations, since having attended LI?	Completed studies, Higher degrees.
Have you achieved any career changes since having attended LI?	Promotion, project lead.
Do you think that you are able to produce more high quality work, after learning how to efficiently make use of the Library?	Number of outputs, chapters of thesis/dissertation, Accredited peer reviewed journals.
Do you find and apply for more research funding opportunities, now that you are able to navigate the funding opportunity platform better?	Business development Research Africa.
Do you think that your research has received more attention in the form of citations, since you have attended LI?	Research visibility: ORCID, Google scholar profile.
Would you recommend LI to other staff members?	Reasons, in order of priority

Thank you for your participation.

If **no**, the interviewer will continue with the following set of questions:

<b>Question</b>	<b>Look for</b>
Why haven't you attended LI during your career at the HSRC?	Reasons, in order of priority.
Do you prefer one-on-one training to group classes?	Flexibility.
Do you think that training is unnecessary?	Google is my go to.
Have you struggled with any library related issues?	Lack of support.
Have you had any problems when writing, researching, publishing or producing research outputs?	Could LI have helped?
Are you able to navigate the virtual library effectively?	Skill set.
Would you consider attending in future?	Marketing.

Thank you for your participation.

## Appendix 4:

### Combined consent form and request for results

#### INTERVIEW CONSENT AND REQUEST OF RESULTS FORM

University of Cape Town (UCT)

Faculty of Humanities

Department of Information & Knowledge Stewardship (DKIS)

Date: 24 July 2019

Dear Participant

I am currently conducting research for a research project as part of my Masters degree in Library and Information Studies, under the supervision of Emeritus Associate Professor Karin de Jager at the University of Cape Town (UCT). The primary objective of this research study is to understand perceptions of impact of LI on the Human Sciences Research Council (HSRC) staff in achieving their research and academic goals.

This is an independent research study and is for academic purposes. Participation is voluntary, and respondents may choose to not answer specific questions or you may choose not to participate at all. Responses will be strictly confidential, and the anonymity of individuals is assured. Demographic questions will be asked but are not compulsory to complete.

The researcher will allocate 5 to 10 minutes per interview. The interview will be held at a location that is convenient for you (participant), preferably your or my HSRC office at a time that is convenient for you. Data gathered will be anonymised, by allocating an alias to your name and data will be stored securely in a locked office, in the HSRC Library, Pretoria office.

I consent to my interview being recorded, using an audio recording device. (Tick applicable box)

Yes

No

\_\_\_\_\_  
Full Name of Participant

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

For clarity with any section of the questionnaire, or if you have specific queries, please do not hesitate to contact me:

Viveka Pillai

Cell: 082 499 2595

E Mail: PLLVIV002@myuct.ac.za

***Statement of Agreement to Participate in the Research Study:***

- I hereby confirm that I have been informed by the researcher, Viveka Pillai, about the nature and conduct of this study.
- In view of the requirements of research, I agree that the data collected during this study can be processed in a computerised system by the researcher.
- I am aware that the results of the study, including personal details regarding my age, position in the company and level of education will be anonymously processed into a study report, in such a way that it will not be possible to link my response to me.
- I understand that I may, at any stage, without prejudice, withdraw my consent and participation in the study.
- I have had sufficient opportunity to ask questions and (of my own free will) declare myself prepared to participate in the study.
- I understand that if any significant new findings developed during the course of this research, which may relate to my participation, it will be made available to me.

\_\_\_\_\_  
Full Name of Participant

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

I herewith confirm that the above participant has been fully informed about the nature, conduct and risks of the above study.

Viveka Pillai

*V. Pillai*

\_\_\_\_\_  
Full Name of Researcher

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

If you are interested in the results of my findings and wish to have these shared with you, please complete the details below. The results of my findings will be shared as a research project, in an electronic format via e-mail.

Name:

E-mail address:

Telephone No:

Thank you for your participation.

V. Pillai

Student: Viveka Pillai

Student number: PLLVIV002

Contact Details: 082 499 2595

## Appendix 5:

### University of Cape Town Ethics Approval letter



**Department of Knowledge & Information Stewardship**  
University of Cape Town  
Upper Campus

Private Bag X1, RONDEBOSCH, 7701 South Africa  
Level 6 Hlanganani, The Chancellor Oppenheimer Library  
Tel: +27 (0) 21 650 4546 Fax: +27 (0) 21 650 2529  
E-mail: [lisc@uct.ac.za](mailto:lisc@uct.ac.za)  
Internet: [www.lib.uct.ac.za/lisc](http://www.lib.uct.ac.za/lisc)

Ref No.: UCTDKIS201905-02

2 May 2019

Ms Viveka Pillai  
Department of Knowledge & Information Stewardship  
Chancellor Oppenheimer Library  
University of Cape Town

#### **Ethics approval for Master's research**

Dear Ms Pillai

I am pleased to inform you that ethics clearance has been granted by an Ethics Review Committee of the Department of Information & Knowledge Stewardship, Faculty of Humanities, for you to proceed with collecting data for your Master's study on '**Exploring the impact of LI on the Human Sciences Research Council (HSRC) staff, in support of achieving their research and academic goals**'.

As a next step, please ensure that you obtain approval from the relevant ethics committees to collect data at your data collection site(s), as necessary.

We wish you well with your data collection and the completion of your research.

Yours faithfully,

#### **Signature withheld for security purposes**

Mr Richard Higgs  
Chair: Department (DKIS) Research Ethics Committee

# Appendix 6:

## Human Sciences Research Council Gatekeeper letter



13 June 2019

To: Ms Viveka Pillai  
Master Student: University of Cape Town  
Department of Knowledge & Information Stewardship  
Student Number: PLLVIV002  
E-mail: VPillai@hsrc.ac.za

Cc: Ms K Sithole, REC Administrator

Dear Ms Pillai

### Gatekeeper approval for Protocol No 2-05-2019: Exploring the impact of library instruction on the Human Sciences Research Council staff, in support of achieving their research and academic goals

I acknowledge receipt of the proposal outline for the abovementioned study and the informed consent document, as well as the ethics approval granted by the Faculty Ethics Committee of the University of Cape Town.

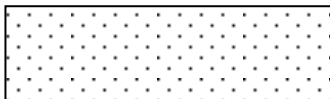
You are granted approval to undertake the said study in the HSRC, subject to the following conditions, as outlined in the HSRC's guideline document regarding gatekeeper approval (attached herewith for your ease of reference):

- (1) Potential respondents will have the right as individuals to decide whether they are willing to participate in the proposed study, or not, as per national ethics guidelines (2015) on informed consent.
- (2) Ideally, the identity of individual HSRC participants and that of the HSRC as a participating entity should be anonymised. Should you wish to publish the findings in a manner that renders the HSRC or participants identifiable, the draft final report should be submitted to the DCEO: R and if necessary, participants, for review and response before such publication is finalised or published.
- (3) You are required to submit a copy of the dissertation and any subsequent report or other publication that was based on the research, once completed and approved, to the DCEO: R for record-keeping purposes.

If you are in agreement with the above-mentioned requirements, please sign and return the response on the next page.

I wish you well with the proposed study.

Yours sincerely



Professor Leickness C Simbayi  
Deputy CEO: Research

HSRC Board: Prof Mavuso Tsim (Chairperson), Prof Lindane Lungu, Prof Mahomed Bhana, Ms Precious Gonye, Dr Abdulla Hamdoh, Ms Nastina Badsha, Prof. Rebeccah Moletsane, Advocate Roshan Denai, Prof. Mark Busani, Prof. Craig Soudien (CEO)

[www.hsrc.ac.za](http://www.hsrc.ac.za)

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