ACADEMIC LIBRARIAN SEMINAR 2023
Theme: Social Media and Disruptive Technological Innovation in Libraries

LIBRARIAN'S ROLES IN SUPPORTING THE RESEARCH PROCESS USING DIGITAL RESEARCH TOOLS: THE CURRENT LANDSCAPE OF ACADEMIC LIBRARIES IN MALAYSIA

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Abstract

The purpose of this paper is to explore the professional opinion and current knowledge possessed by librarians with reference to digital research tools in supporting the research process in academic libraries in Malaysia.

DESIGN & METHODOLOGY

A quantitative research methodology was adopted in the form of a survey, developed using JotForm to collect data from academic librarians working in public universities in Malaysia.

LIMITATIONS

The research is limited to the academic librarian of public universities libraries in Malaysia and focuses on the current knowledge they have on digital research tools and determining librarians' opinions.

PRACTICAL IMPLICATIONS

The findings will be helpful to librarians, information professionals, libraries and library schools. The results will inform librarians on the research skills and digital competencies that are essential for continuing professional development, possible reorganisation of the functional units of the research department and the relationship between the librarian and the researcher in a changing environment.

ORIGINALITY

This study would be a worthwhile contribution to the literature on competencies of information professionals especially academic librarian as such no study appeared providing evidenced and field-based insights toward proposed reasearch area.

FINDINGS

The findings of the study indicate that there is a need for librarians to become more involved in the process of acquiring new skills, such as learning how to use research tools, so that they can play a more active role in the most advanced levels of academic research in the future.
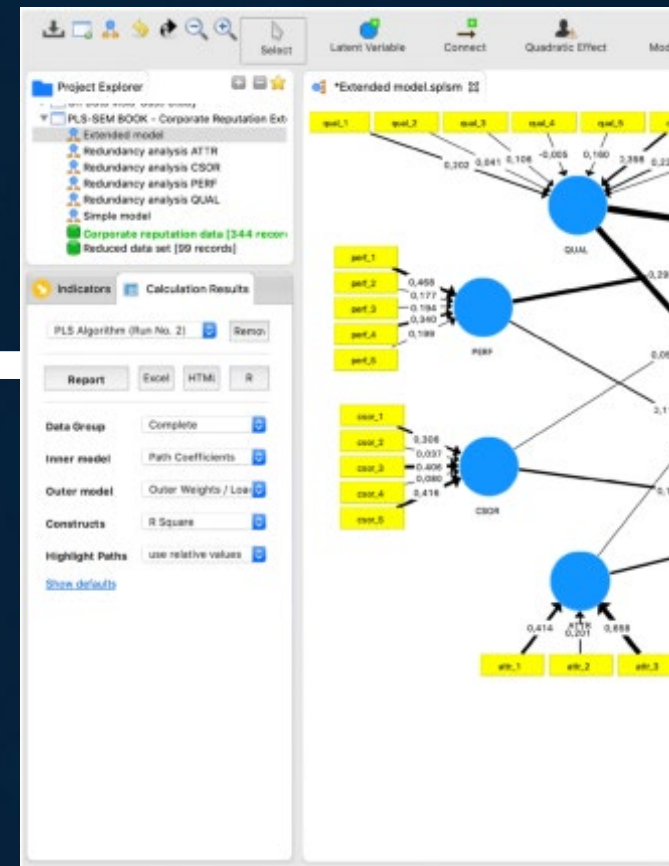
INTRODUCTION

The availability of software to assist researchers in their work has increased dramatically, whether it be for facilitating the creation of literature reviews or the execution of statistical analyses.
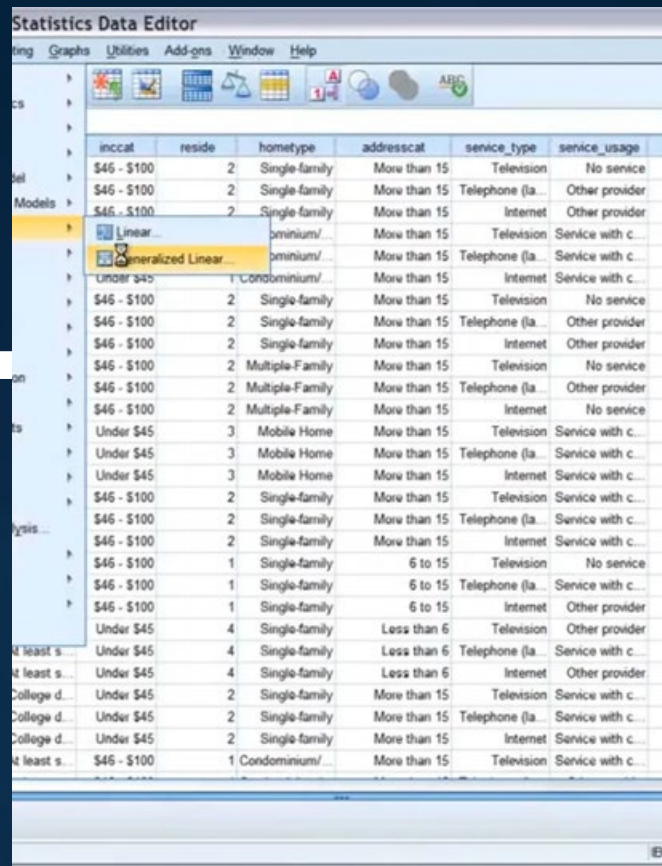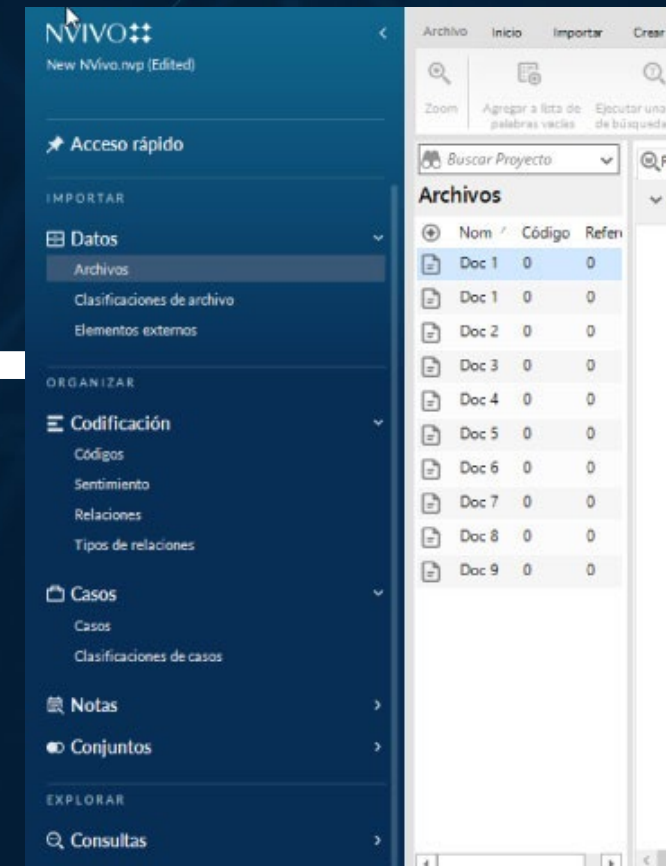

SPSS

Software program used by researchers in various disciplines for quantitative analysis of complex data.
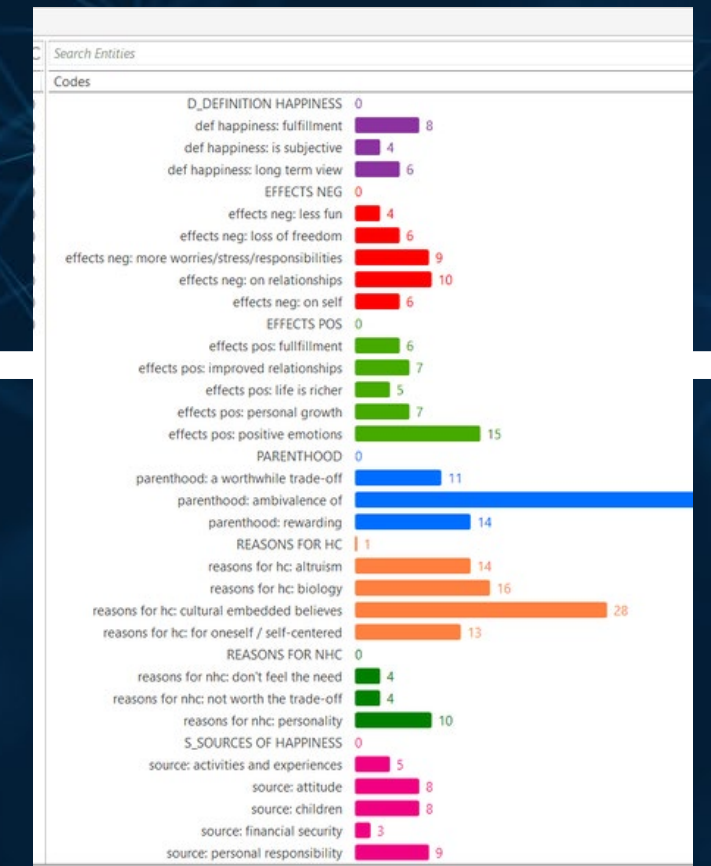

SMARTPLS

Software with graphical user interface for variance-based structural equation modeling using the partial least squares path modeling method.

NVIVO

Software for qualitative and mixed-methods research. It analyses interviews, focus groups, surveys, social media, and journal articles' unstructured text, audio, video, and image data.


ATLAS.ti

Computer-assisted qualitative data analysis software that helps analyse qualitative data for qualitative, quantitative, and mixed methods research.

INTRODUCTION

Academic library professionals have played a very significant role in supporting research, as well as teaching and learning, among university academics and students.

The changing landscape of information and information technology and services requires a certain level of digital skills from library professionals to handle the challenging work they face in academic libraries (Okeji et al., 2019).

Although librarians are frequently asked to teach student in these skills, the question now is how to most effectively teach these skills to students (Nadine et al., 2017).
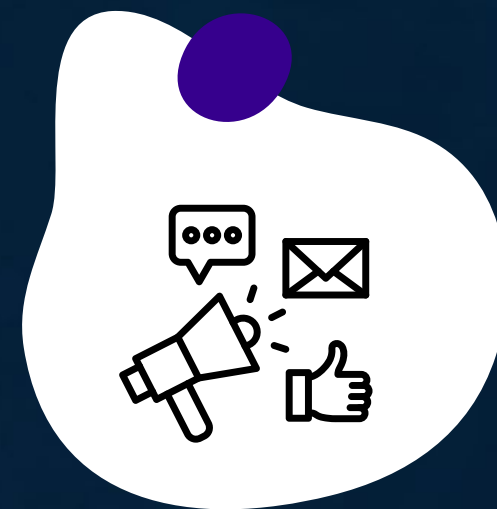
One of these changes is the interest in, need for, and, in some cases, the requirement that librarians conduct research and contribute to the body of evidence-based library scholarship (Whitmell, 2017).

Librarians with pedagogical knowledge and experience with students' research challenges and expectations should provide input into their research and replace traditional library instruction (Gallagher, 2009).

REVIEW FROM THE LITERATURE

- The application of computer-assisted qualitative data analysis software (also known as CAQDAS) has not been without its share of debate, with many academics displaying a pervasive sense of scepticism and resistance towards its adoption (Paulus & Lester, 2016).

- Despite the widespread adoption of qualitative data analysis software (QDAS) programmes, very little is understood about their actual implementation within the research process (Woods et al., 2016).

The question then becomes how a library and its librarian can become more deeply embedded in the research process.

Research methodology, data analysis support, research literature, management and organisational skills, and thesis support are all areas in which the library has been asked to either start offering new services or expand existing ones (Smith et al., 2019).

There is widespread hope that libraries will play a more active role in the highest levels of academic research in the future (Lewis, 2007).

ISSUES

While libraries understood that data services (the computing component of data services) would be useful, they initially lacked clarity regarding the breadth of the need or the specific forms the service could take in order to be implemented (Wang, 2013).

Although librarians are being asked to conduct research the expectation of what is meant by 'research' is often unclear and varies between universities (Whitmell, 2017).
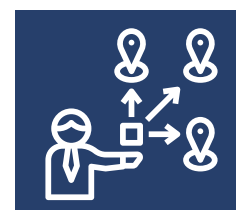
Design &
Methodology

Quantitative approach was adopted in the form of a survey, developed using JotForm .

Data were gathered from academic librarians working in Malaysian public universities.

Online survey links were distributed via WhatsApp to relevant groups, with the assistance of librarian networking .

FINDINGS OVERVIEW

STUDY POPULATION

Librarians working in Malaysian public universities.
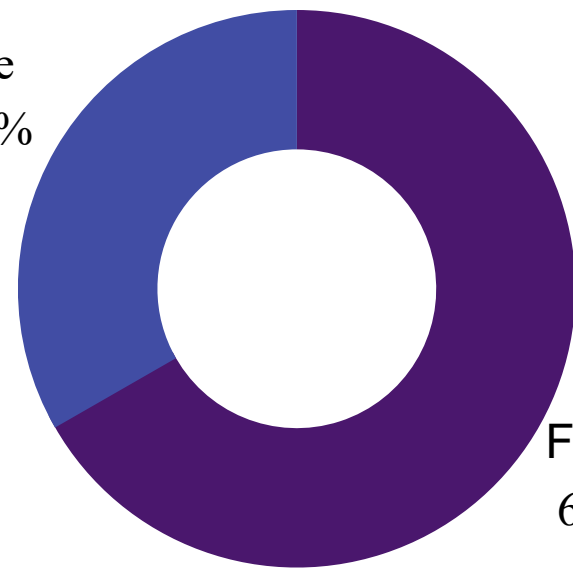
HIGHEST QUALIFICATION

The participants in the study had various levels of education, with a master's degree being the highest, followed by a degree, and a doctoral degree.
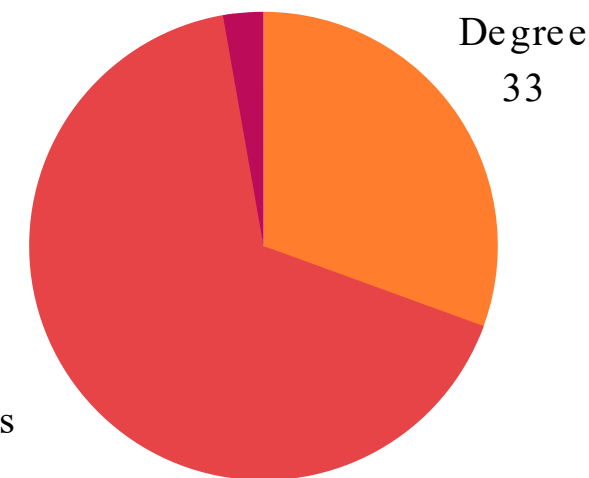
CURRENT POSITION

Participants in the study held a variety of positions in the library, with the reference department having the most librarians, followed by customer service and other departments.
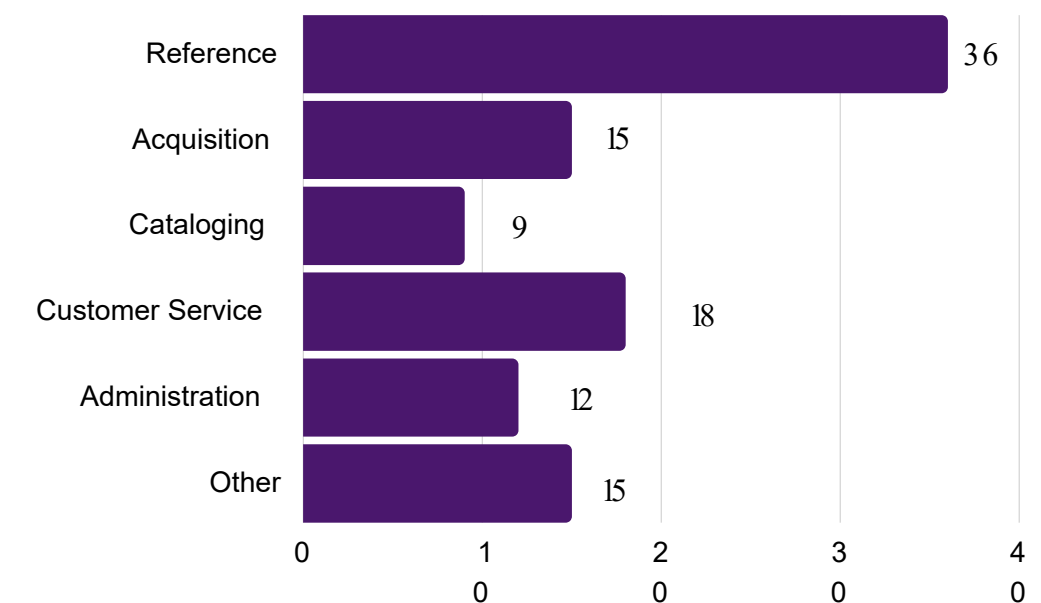
Male 33.3%

Female 66.7%

PhD 3

Degree 33

Masters 72

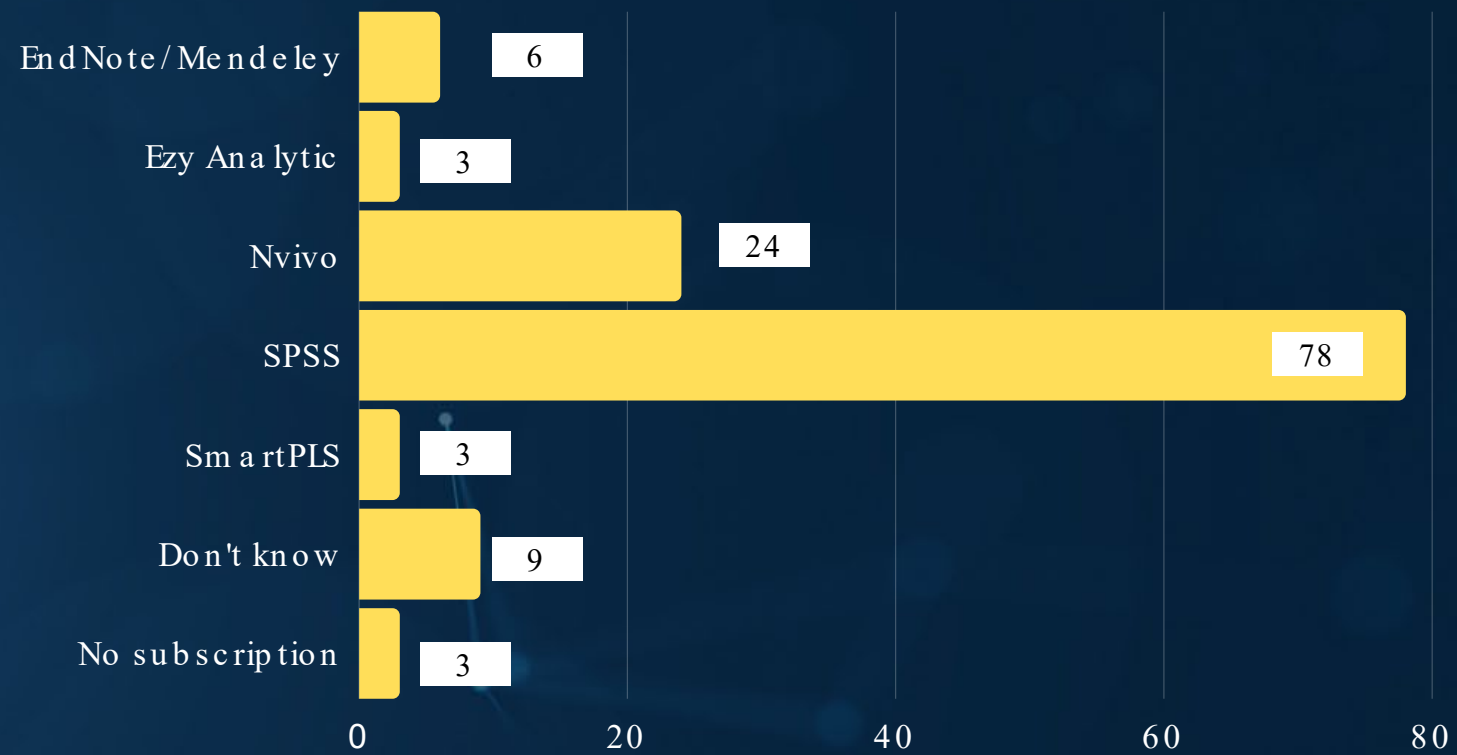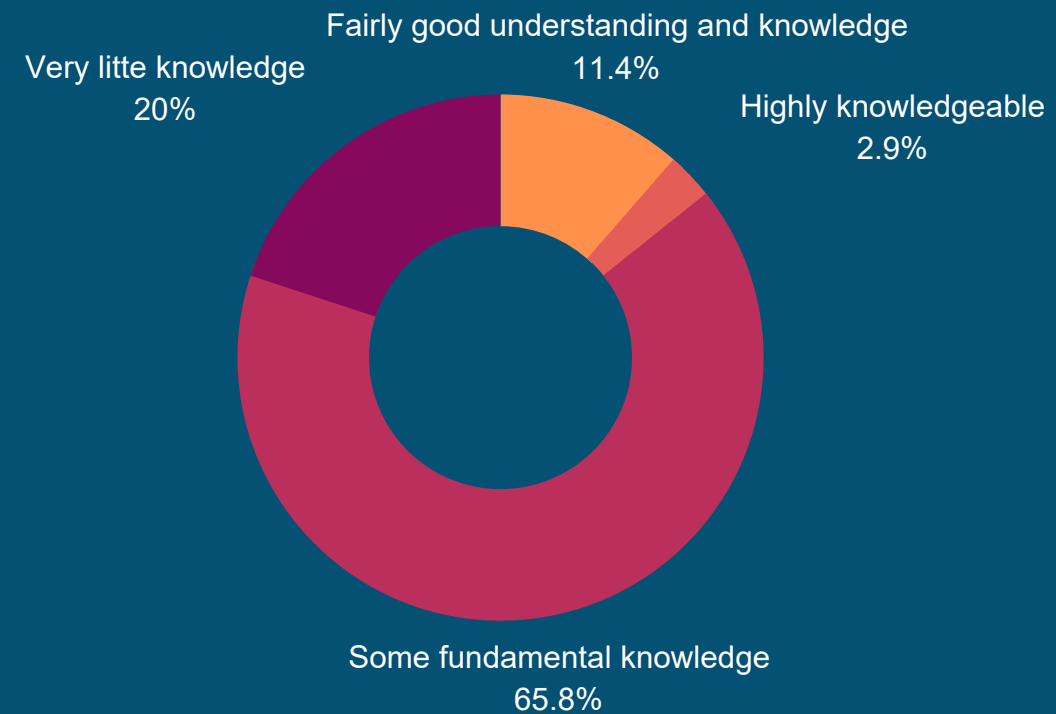| Department	Value
Reference	36
Acquisition	15
Cataloging	9
Customer Service	18
Administration	12
Other	15

0 10 20 30 40

FINDINGS

LIBRARIANS' KNOWLEDGE OF UNIVERSITY- SUBSCRIBED DIGITAL RESEARCH TOOLS

- **SPSS and NVIVO** are the most well-known among librarians as software/tools that their university subscribes to.

Bar chart values:
- End Note/Mendeley — 6
- Ezy Analytic — 3
- Nvivo — 24
- SPSS — 78
- SmartPLS — 3
- Don't know — 9
- No subscription — 3

FAMILIARITY OR UNDERSTANDING OF THE SOFTWARE / TOOLS

- Fairly good understanding and knowledge 11.4%
- Highly knowledgeable 2.9%
- Very litte knowledge 20%
- Some fundamental knowledge 65.8%

65.8%

have some fundamental understanding of the software or tools.
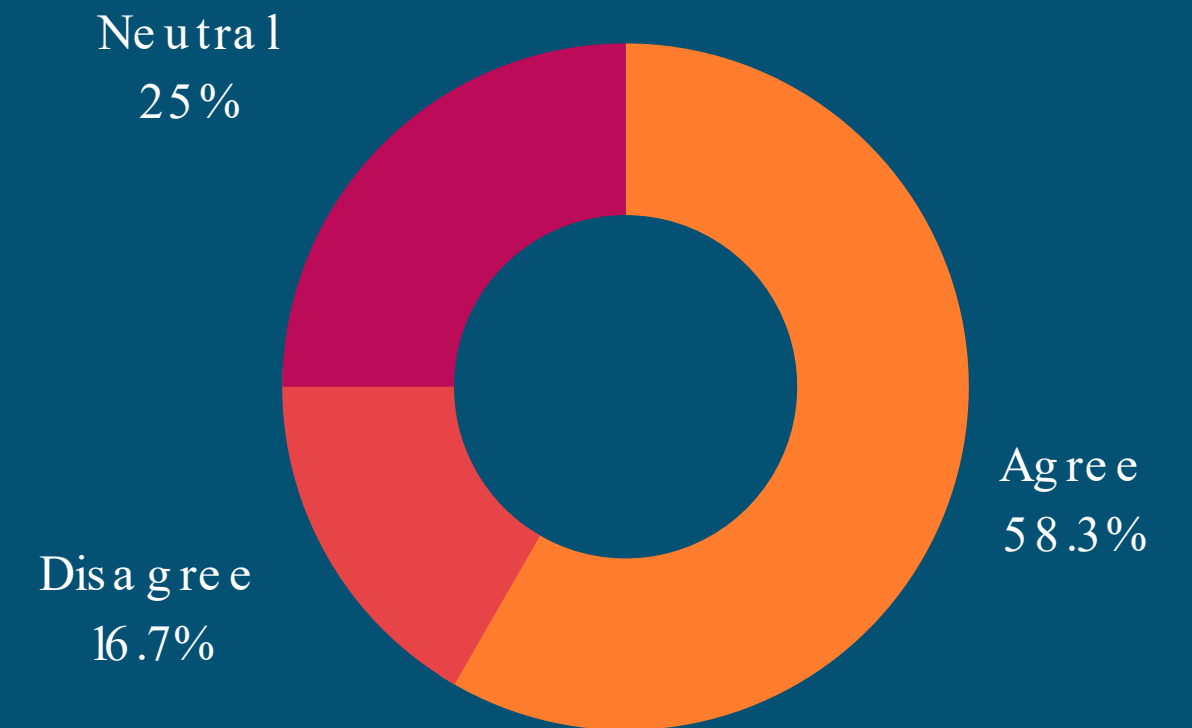
PRIOR EXPERIENCE USING THE SOFTWARE/ TOOLS

55.6%

have prior experience with these software/tools.

SOFTWARE OR TOOL INQUIRIES FROM LIBRARY USERS

58.3%

of library users asked librarians about these software or tools.

Neutral 25%

Agree 58.3%

Disagree 16.7%

PERCEPTIONS OF LIBRARIANS CONCERNING THE BENEFITS OF SOFTWARE OR TOOLS

97.2%

- agree that the software or tool benefit library users like students, researchers, and academics.

- this is evidence that today's librarians are aware of the existence of various software programmes and tools.
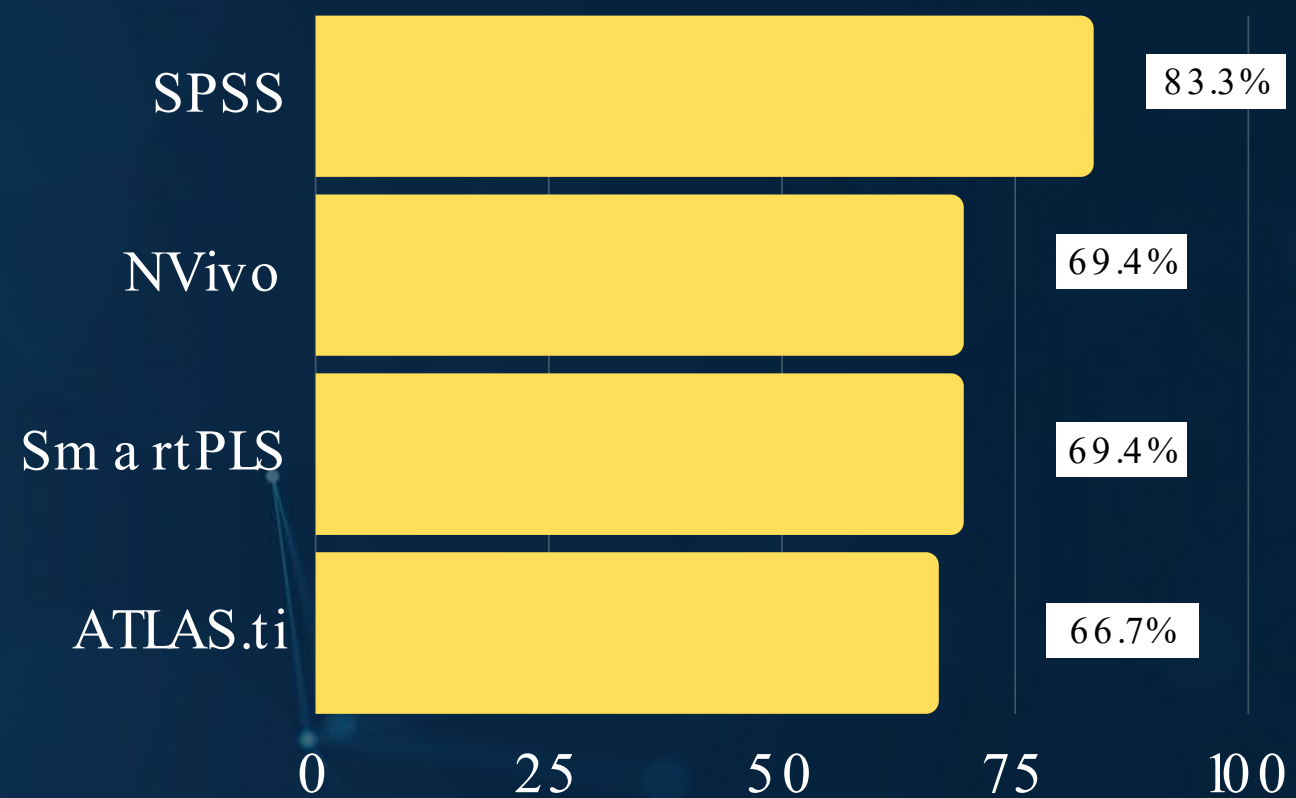
Neutral 2.8%

Agree 97.2%
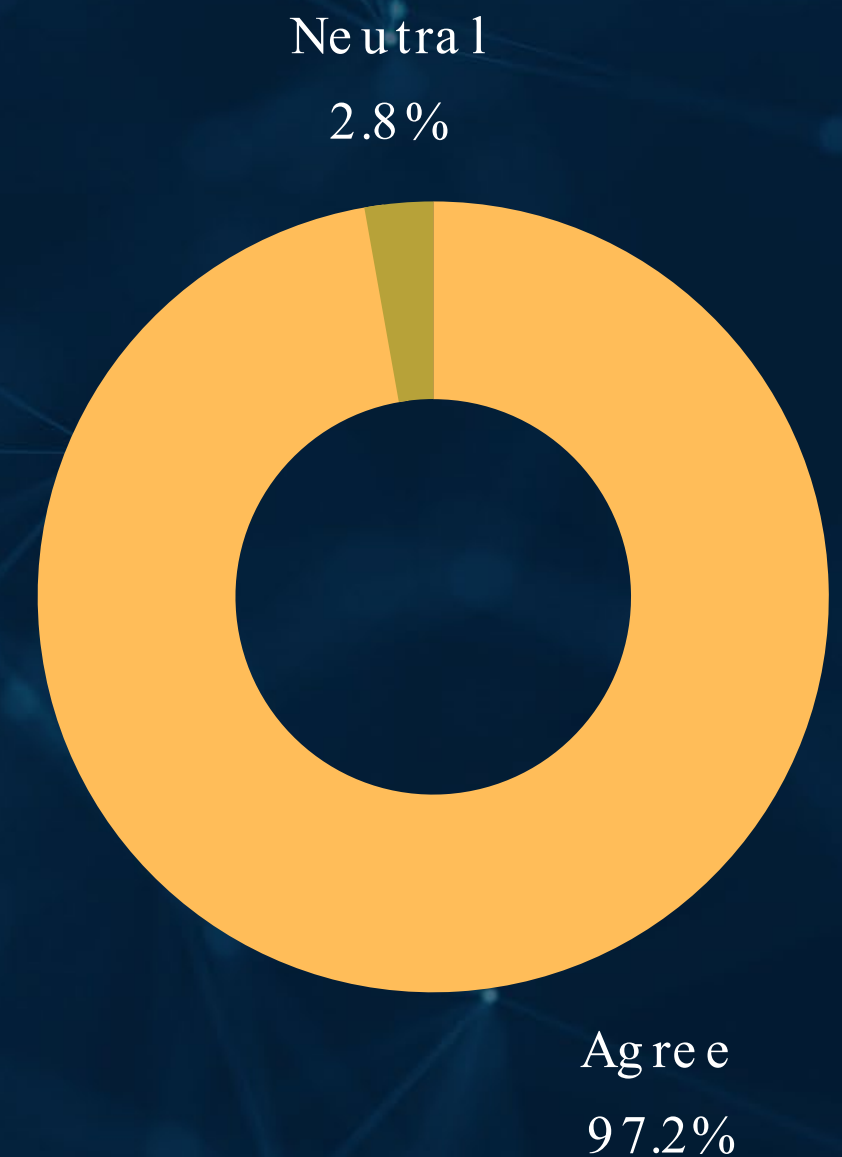
KEY FINDINGS

LIBRARIES' PERCEPTIONS OF THEIR ABILITY TO USE THE SOFTWARE OR TOOLS

83.3%

of respondents believe that a librarian must be able to use SPSS out of all the available software.

SPSS — 83.3%
NVivo — 69.4%
SmartPLS — 69.4%
ATLAS.ti — 66.7%

(axis: 0, 25, 50, 75, 100)

>50%

Librarian as respondents also believe that with all other software or tools, namely ATLAS.TI, NVIVO, and SMARTPLS were still having more than half of respondent believe that librarian should also be able to use it.

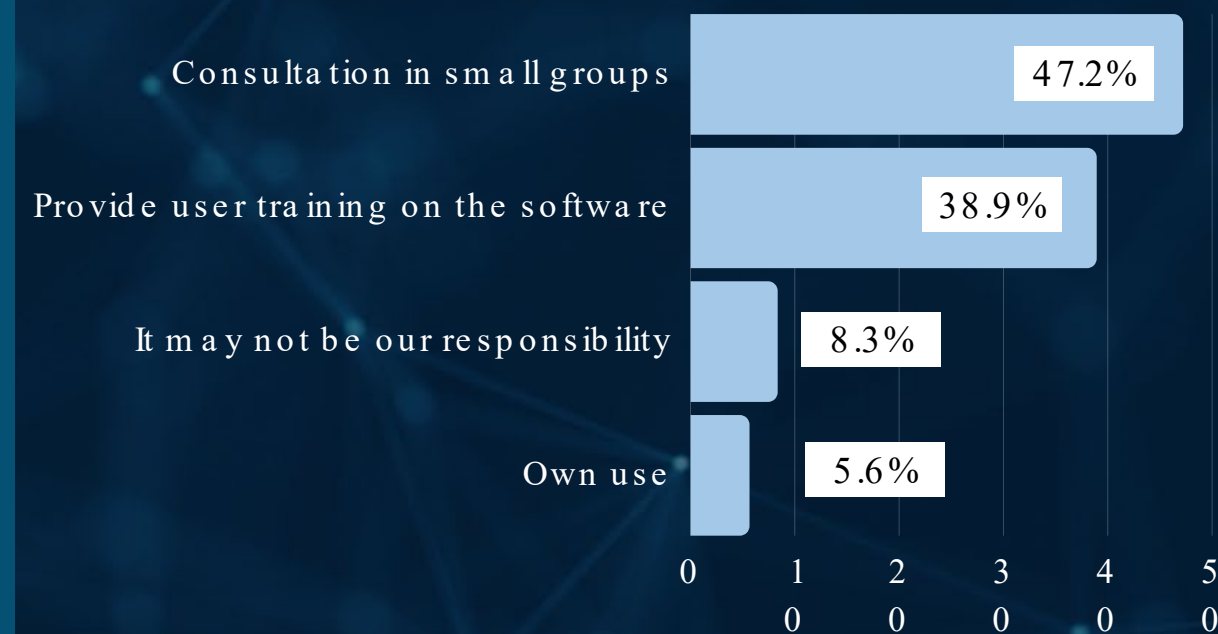## TO WHAT EXTENT SHOULD LIBRARIANS APPLY THEIR KNOWLEDGE OF THE SOFTWARE OR TOOLS

47.2%

believe that consultation services should only be provided to small groups

38.9%

believe that user training should be provided for these software or tools.

Consultation in small groups — 47.2%
Provide user training on the software — 38.9%
It may not be our responsibility — 8.3%
Own use — 5.6%

(axis: 0, 10, 20, 30, 40, 50)

DISCUSSION & CONCLUSION

- Academic librarians today are cognizant of and in agreement with the value of digital research tools.

- With the exception of Endnote and Mendeley, however, librarian did not yet have a role in assisting library users with the digital research tools that were available.

- In order to play a more integral role in the most cutting-edge forms of academic research in the future, the findings suggest librarians should take an active role in the process of learning new skills, such as using research tools.

- It is essential for librarians to have a comprehensive understanding of the activities in which their researchers are engaged so that they can determine the extent and breadth of the role they need to play.

- Librarians need to acquire new abilities to help them thrive in today's advanced research setting.

FUTURE
Research

- Future research, should and has been directed toward seeking out the current status of digital research tools used by postgraduate students and to learn about the challenges and suggestions that these students have .

- It also seeks to determine whether these graduate students believe the library plays a significant role in providing support for software training .

SOMETHING TO PONDER?

Will libraries work together, or will they avoid having the tough conversations about expertise and literacies that are necessary to ensure that no students is left behind?

Questions like these are crucial because they will determine the nature of librarianship roles, the way our specialised knowledge is characterised, and the approaches that are deemed most valuable.

We must assume greater responsibility for these institutional barriers.
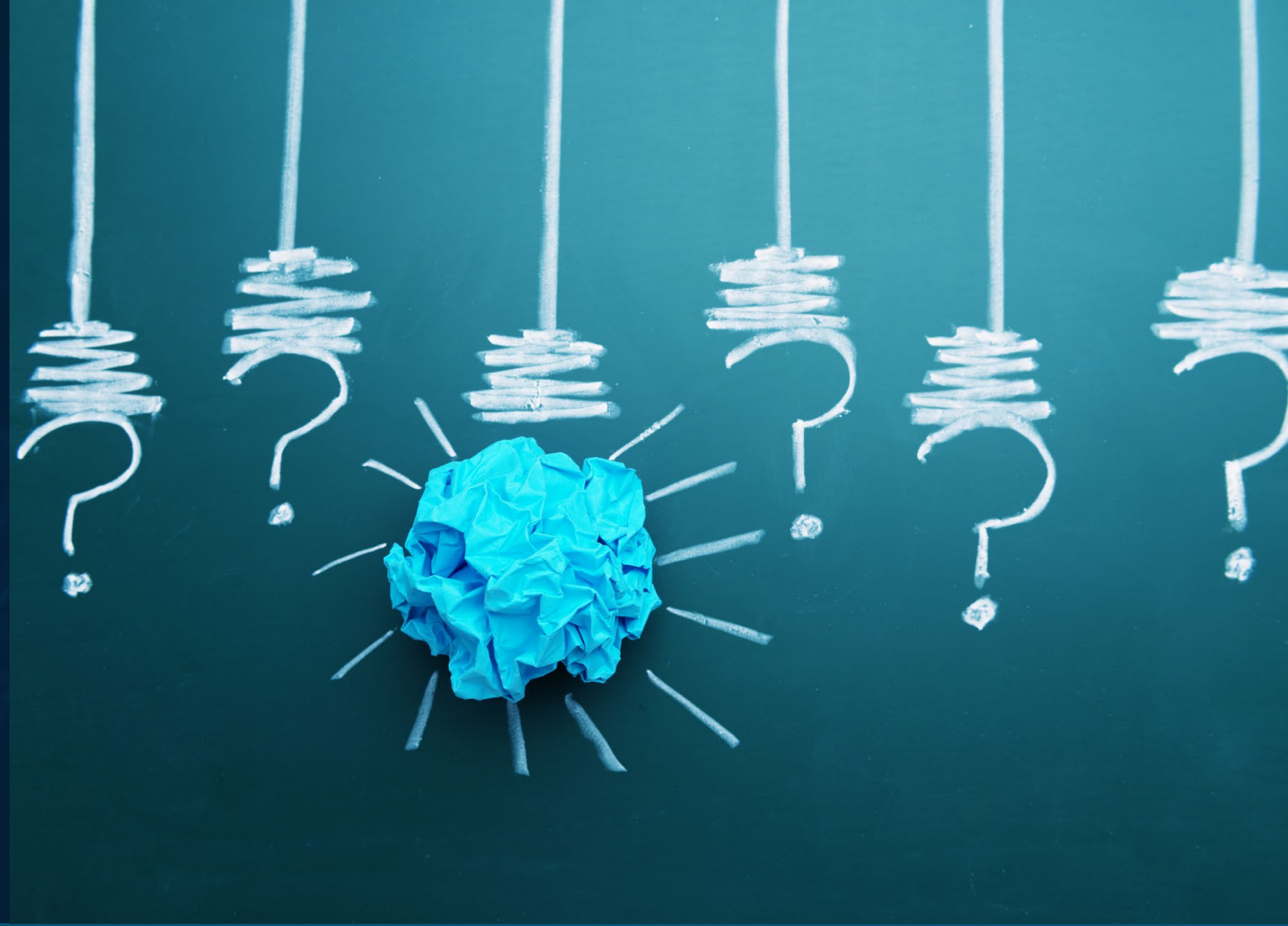
REFERENCES

ATLASti. (2022). Turn your data into qualitative insights, faster and easier. https://atlasti.com

Gallagher, K. (2007). From guest lecturer to assignment consultant: Exploring a new role for the teaching librarian. LOEX Conference Proceedings 2007, Paper 31, 39–43. https://commons.emich.edu/loexconf2007/31

Lacy, M., & Hamlett, A. (2021). Librarians , step out of the classroom !: How improved faculty-led IL instruction improves student learning. Reference Services Review, 49(2), 163–175. https://doi.org/10.1108/RSR-09-2020-0062

Lewis, D. W. (2007). A strategy for academic libraries in the first quarter of the 21st Century. College & Research Libraries, 68(5), 418–434.

Maclaran, P., & Catterall, M. (2002). Analysing qualitative data: Computer software and the market research practitioner. Qualitative Market Research: An International Journal, 5(1), 28–39. https://doi.org/10.1108/13522750210414490

Mamtora, J. (2013). Transforming library research services: Towards a collaborative partnership. Library Management, 34(4/5), 352–371. https://doi.org/10.1108/01435121311328690

Nadine, H., Susan, B., Patrick, F., & Jennifer, L (2017). Teaching research skills through embedded librarianship. Reference Services Review, 45(2), 211–226. https://doi.org/10.1108/RSR

Okeji, C. C., Tralagba, E. C., & Obi, I. C. (2020). An investigation of the digital literacy skills and knowledge- based competencies among librarians working in university libraries in Nigeria. Global Knowledge, Memory and Communication, 69(4/5), 311–330. https://doi.org/10.1108/GKMC-05-2019-0054

O'Neill, M. M., Booth, S. R., & Lamb, J. T. (2018). Using NVivo TM for literature reviews: The eight step pedagogy (N7 + 1). The Qualitative Report, 23(13), 21–39.

Paulus, T. M., & Lester, J. N. (2016). ATLAS . ti for conversation and discourse analysis studies. International Journal OfSocial Research Methodology, 19(4), 405–428. https://doi.org/10.1080/13645579.2015.1021949

Scales, B. J. (2013). Qualitative analysis of student assignments: A practical look at ATLAS . ti. Reference Services Review, 41(1), 134–147. https://doi.org/10.1108/00907321311300956

Siccama, C. J., & Penna, S. (2008). Enhancing validity of a qualitative dissertation research study by using NVIVO. Qualitative Research Journal, 8(2), 91–103.

Smith, S. A., Lubcke, A., Alexander, D., Thompson, K, Ballard, C., & Glasgow, F. (2019). Listening and learning: Myths and misperceptions about postgraduate students and library support. Reference Services Review, 47(4), 594–608. https://doi.org/10.1108/RSR-03-2019-0019

Wang, M. (2013). Supporting the research process through expanded library data services. Program: Electronic Library and Information Systems, 47(3), 282–303. https://doi.org/10.1108/PROG-04-2012-0010

Whitmell, V. (2017). Building research competencies in Canadian Academic Libraries: The CARL Librarians' Research Institute. International Information & Library Review, 49(3), 230–236. https://doi.org/10.1080/10572317.2017.1353379

Woods, M., Paulus, T., Atkins, D. P., & Macklin, R. (2016). Advancing qualitative research using Qualitative Data Analysis Software (QDAS)? Reviewing potential versus practice in published studies using ATLAS . ti. Social Science Computer Review, 34(5), 597–617. https://doi.org/10.1177/0894439315596311

THANK YOU!

for listening...

Librarian's Roles in Supporting The Research Process Using Digital Research Tools: The Current Landscape of Academic Libraries in Malaysia

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