# Investigating Imposter Phenomenon Among New Zealand Librarians

by

## **Rosemary Patterson**

Submitted to the School of Information Management,

Victoria University of Wellington

in partial fulfilment of the requirements for the degree of

Master of Information Studies

## **June 2019**

## **Acknowledgements**

Unuhia te rito o te harakeke, kei hea te kōmako e kō?

Ui mai ki ahau, 'He aha te mea nui o te Ao?'

Māku e kī atu,

'He tangata, he tangata, he tangata.'

If you remove the central shoot of the flaxbush, where will the bellbird find rest?

If you were to ask me, 'What is the most important thing in the world?'

I would reply,

'It is people, it is people, it is people.'

(Royal, 2019)

To every single person who clicked on my survey, thank you for taking the time to contribute. An extra thanks for perservering through the wording of question 11.

To my supervisor Dr. Philip Calvert.

To my Library colleagues, for their encouragement.

To my friends, for tolerating my anti-social behaviour and giving your support.

To David, for all your support.

Thank you.

## **Table of Contents**

Table of Figures	4
Abstract	5
Research Problem	6
Literature Review	8
Research Questions and Objectives	12
Research Method	13
Methodology	13
Population and Sample	14
Ethics	15
Results	15
Data Collected	15
Analysis and Presentation of Data	16
Discussion	28
Assumptions and Limitations	28
Implications of Findings	28
Recommendations for Future Research	31
Appendices	32
Appendices I: Information Sheet	32
Appendices II: Survey	34
References	51

## Table of Figures

Figure 1: Table showing levels of imposter phenomenon among New Zealand         librarians16
Figure 2: Pie graph showing levels of imposter phenomenon among New Zealand librarians
Figure 3: Pie graph showing the high levels of imposter phenomenon among New         Zealand librarians
Figure 4: Table of years worked in libraries and levels of imposter phenomenon17
Figure 5: Table of the age of participants and levels of imposter phenomenon18
Figure 6: Table of years worked in the current role and levels of imposter         phenomenon
Figure 7: Table of the type of library and levels of imposter phenomenon19
Figure 8: Table of gender and levels of imposter phenomenon20
Figure 9: Cross tabulation of gender and levels of imposter phenomenon20
Figure 10: Chi-square test of gender and levels of imposter phenomenon20
Figure 11: Table of library qualification and levels of imposter phenomenon21
Figure 12: Table of responses if digital technology made roles easier or harder22
Figure 13: Table of interpreted responses if digital technology made roles easier or harder or both
Figure 14: Table of responses to technology training supporting role23

## **Abstract**

### **Research Problem**

Imposter phenomenon is also known as imposter syndrome and imposterism. It encompasses internal feelings of fraudulence in achievements, thinking you are fooling others in your skills, that your accomplishments are by luck and scared that you will be found out by your peers. International literature has shown it has a negative impact on one in eight librarians. The purpose of this research project is to investigate the imposter phenomenon levels among librarians working in New Zealand.

### Methodology

This research undertook quantitative research. A survey was emailed to librarians via library listservs and to Victoria University of Wellington's Information Studies students via the school and social media. The survey invited anyone who works a minimum of 10 hours a week in a library to participate. The survey was made up of demographic questions and the Clance Imposter Phenomenon Scale to determine levels of imposter phenomenon.

### Results

Three hundred and thirty people responded to the survey. Using the Clance Imposter Phenomenon Scale, it showed that 79% had moderate or higher levels of imposter phenomenon. The research compared demographic details, years working in a role, type of library, gender of participants and impact of a library qualification. Participants were asked about the role of digital technology in their current library work, and this resonated strongly with both negative and positive feedback.

### **Implications**

This research brought to light the seriousness of the issue. Proving that imposter phenomenon does exist for three in four librarians in New Zealand. This research should serve to inform library managers of the issue of imposter phenomenon in the industry, and inspire them to consider how to help and support their staff. It is also pertinent to other Librarians who had not previous known about the issue or that it is relatively common in libraries. Future qualitative research should be conducted to

gain narrative from librarians on why people feel like an imposter and how it impacts their careers. Leading to further research with a focus on managing the Phenomenon and the best ways to support library workers who suffer from it.

## Keywords

Imposter Phenomenon, Imposter Syndrome, Imposterism, Librarian, Digital Technology

### **Research Problem**

Imposter phenomenon impacts many people across different sectors. It is also known as imposter syndrome and imposterism. Due to it not being recognised as a medical condition, most academic research will refer to it as imposter phenomenon, as first coined by Clance and Imes (Clance & Imes, 1978). Imposter phenomenon is commonly associated with successful individuals who are doing well but have trouble accepting their success is well-deserved (Farrell, Alabi, Whaley, & Jenda, 2017, p. 58). It encompasses internal feelings of fraudulence in achievements, thinking you are fooling others in your skills, that your accomplishments are by luck and feeling scared that you will be found out by your peers.

Having imposter phenomenon can impact employees and prevents them in fulfilling their potential. With the "fear of discovery" as coined by Barrow, imposters feel less confident in putting forward their opinion and are less likely to reach their potential (2019, p. 131). This could be anything from not speaking up, following colleagues leads rather than voicing one's own opinion and not applying for new job roles. Literature has shown that it can hinder individuals from advancement in career, where individuals do not believe that they are qualified to apply for jobs (Clance & OToole, 1987, p. 53). With less career optimism, their satisfaction for their career and job is low (Neureiter & Traut-Mattausch, 2016, p. 7). If this is applicable in New Zealand, it could impact the industry quite widely. As Farrell et al. state, there could be a lack of prospective applicants to roles if qualified and experienced librarians are not applying due to imposter phenomenon (2017, p. 60).

It has been found that Imposter Phenomenon is linked to lower wellbeing and mental health of staff. The clinical symptoms are anxiety, lack of self-confidence, depression, and frustration (Clance & Imes, 1978, p. 242). Research using scales to measure the cognitive and impact aspects of imposter phenomenon have found that there is a negative impact on staff. This research has associated staff with imposter levels experiencing lower confidence, social anxieties and depression (Calvard, 2018, p. 215).

Imposter phenomenon is also linked to causing individuals to overcompensate, leading to unhealthy work patterns. Individuals are trying to fulfil their positions; they believe they are deserving of and adopt workaholic behaviour (Parkman & Beard, 2008, p. 31). They can retain work that should be shared or delegated, with individuals overcompensating and leading to burnout (Farrell et al., 2017, p. 60) (Parkman & Beard, 2008). Hutchins is a lead researcher in researching the negative work impact of imposter phenomenon, staff burnout and coping skills (Hutchins, 2015). She looks at the experience of imposter phenomenon within academic faculty and how it impacts their emotional exhaustion at work and their coping methods. Her findings highlight that avoidance strategies and coping methods of people with imposter phenomenon contributed to emotional exhaustion and lower job satisfaction (Hutchins, Penney, & Sublett, 2018, p. 40).

The unhealthy impact that imposter phenomenon can have on people working can have costly implications on organisations. Hutchins research related emotional exhausting to imposter phenomenon (Hutchins, 2015, p. 3). This emotional exhaustion and depression can impact on job performance (McGregor, Gee, & Posey, 2008, p. 47). With job performance down, this can take a toll on the productivity of an organisation. High rates of imposter phenomenon in New Zealand library staff, as indicated by this research, is very likely reducing the productivity of the sector. This costs New Zealand organisations financially and in holistic staff wellbeing and staff satisfaction.

If it is not spoken about, it will not help the library sector. Previous literature suggests that individuals have a fear of revealing their imposter phenomenon to others as it might be met with criticism and little understanding (Clance & Imes, 1978, p. 245). If it is not spoken about, librarians may be unaware, and think that it is only themselves that feels this way, continuing to live with the fear that they will be discovered as an imposter.

Currently, there is no research into the imposter phenomenon levels of New Zealand librarians. Unable to quantify it at present, it is not known how big this issue is. This new research will address the gap in the literature and help gain an understanding of how common imposter phenomenon is in New Zealand librarians.

### **Literature Review**

In the earliest account of imposter phenomenon research, undertaken by Clance and Imes in 1978, the theme of gender was significant. They specifically looked at a sample of high achieving women and discovered they do not experience the feeling of "success" (Clance & Imes, 1978, p. 241). This research can be faulted for not researching imposter phenomenon in men. The justification given is that men do not doubt themselves to the same extent as women, however, more research is needed to compare the differences between males and females (Cokley et al., 2015, p. 416). Literature has also shown that if there is a working environment with predominately one sex, this can make it more likely there will be higher levels of imposter phenomenon within the minority group (Parkman, 2016, p. 51). Previous research has indicated that women are more likely to attribute success to external factors and luck, rather than their own abilities (Rohrmann, Bechtoldt, & Leonhardt, 2016, p. 2). However, it is important to note that men are still susceptible to imposter phenomenon, and further research is needed to compare the difference between genders. Since Clance and Imes, there has been literature that shows imposter phenomenon is not just limited to women in academia and there has been ongoing research, which includes men, across professional fields, amongst students and also

focusing on minorities. Literature shows that imposter levels are not felt equally and this issue can be influenced by age, job position and contract type, gender and many more factors (Breeze, 2018, p. 192).

This research has turned to literature across multiple professional fields as well as research that focuses on the experience of librarians to help inform this research project. There is a lot of literature on academics with imposter phenomenon with only a small amount focused on librarians (McClurg & Jones, 2018, p. 11). The small amount in professional literature is blogs and editorials, rather than research projects (McClurg & Jones, 2018, p. 12). With the small amount of research focused on librarians and imposter phenomenon, the majority of it looks at librarians from academic libraries. This is made up of personal reflections, comparing the literature and research being conducted. In Wallach's research, she highlights imposter phenomenon as something academic librarians suffer from, but it is encompassed in the broader research of personal reflection (Wallach, 2017). This research looks at academic librarians, self-reflecting on their feelings on being authoritative in teaching qualitative and contextual research advice and thoughts on their field and own professional competence. The research was conducted through one-on-one interviews with eight academic librarians at one institution (Wallach, 2017, p. 42)... Through this method, they drew out personal reflections from each liason librarian. The main findings look at factors that influence the self-assurance of librarians; such as flexibility, maturity and personal experience affecting the self-confidence of academic librarians (Wallach, 2017, p. 68). Interviews were considered as a method however for the first research of its kind in New Zealand, it would like to see how big this issue is for this and a survey is a more appropriate method for this data collecting. Additional reasonings for not picking interviews is their qualitative nature of being subjective and very personal views (Leedy & Ormrod, 2016, p. 99). A personal interview might be emotional for participants and additionally, it may be hard to get honest results, whereas an anonymous survey allows participants to respond honestly with the assurance that their response will not be associated to them (Leedy & Ormrod, 2016, p. 160). To discover if it is an issue in New Zealand, interviewing will be too small of a sample size to get validity on the industry as a

whole. This research will conduct an online survey and use past literature to inform the questionnaire.

Across fields, imposter phenomenon has been linked to people who are newcomers in their careers. Clark et al. were able to connect years of experience to levels of imposter phenomenon through the Harvey imposter phenomenon scale(Clark, Vardeman, & Barba, 2014). Their results show imposter phenomenon is experienced higher among younger and newer librarians (Clark et al., 2014, p. 265). Clark et al. were significant for being the first piece of research conducted on librarians in correlation to imposter phenomenon. It reveals that age and experience do impact the levels of imposter phenomenon within Canadian and United States librarians. Their research showed that librarians with more experience and likely to be older, are more familiar with their role and likely to have lower levels. With research on academics, it shows that faculty in untenured positions have higher levels of imposter phenomenon (Hutchins, 2015, p. 3). Research showing higher levels of imposter phenomenon in academics that are in untenured positions in higher education needs to be taken cautiously as the research conducted is specifically focused on early career academics (Hutchins, 2015, p. 5).

A lot of literature frames imposter phenomenon as an individual problem, Breeze suggests that rather imposter syndrome can only be looked at in the social context that it inhabits (Breeze, 2018, p. 195). That imposter phenomenon is situational, created from the environments and social factors (Schubert, 2013, p. 11). This research is interested to see if the type of library might influence the level of imposter phenomenon. For example; if a librarian in an academic library has higher levels of imposter phenomenon than someone in a public library. Surveying librarians across different library organisations and comparing imposter phenomenon levels can reveal how different work environments can each have an impact.

There is international literature on imposter phenomenon across multiple fields, with a small amount that directly addresses librarians (Clark et al., 2014, p. 256). Clark et

al. research reports that imposter phenomenon is present in one in eight academic librarians in North America (Clark et al., 2014, p. 255). Clark et al. research revealed that academic librarians that have been working in the field less than three years, experience higher levels of imposter phenomenon (Clark et al., 2014, pp. 259–260). Clark et al. research was also conducted to investigate levels of imposter phenomenon among librarians in roles that required technical knowledge (Clark et al., 2014, p. 258). Due to an error with the survey questions, their research was unable to validate the findings (Clark et al., 2014, p. 258). Continuing on from Clark et al., this research hopes to find out if the use of digital technologies and other changes in technology within librarian roles creates higher levels of imposter phenomenon. Learning from Clark et al., this research gives participants multiple options, with the aim of having a large pool of participants.

Rakestraw highlights change as being a contributing factor to higher levels of imposter phenomenon (Rakestraw, 2017, p. 468). With the constant advancement in library technologies; there comes a change in roles. One piece of research has concluded that it is higher in systems librarians due to their ability to be working with every changing technology (Gordon, 2003). Librarians are currently working in a time where there has been an enormous development with online resources, management systems and processes. Sullo and Gomes write on the changing role of the reference librarian and the expectation to provide technology support, with an example in their research of one of the biggest challenges is providing help for students who ask questions about their iPad (2016, p. 151). Al-Qallaf research discovered lack of formal training programmes on technology causing the most stress to library staff (2007, p. 177). His participants did not believe that their training was up-to-date with the advancements of technology (Al-Qallaf, 2007, p. 177). If librarians who have been in these roles are not confident with the technology changes and are not receiving appropriate training, this could contribute towards higher levels of imposter phenomenon.

Current literature has shown there is a variety of scales used to measure levels of imposter phenomenon over the years. The three main scales are; the Harvey Imposter Phenomenon Scale (HIPS), the Clance Imposter Phenomenon Scale (CIPS) and the Perceived Fraudulence Scale (PFS) (Chrisman, Pieper, Clance, Holland, & Glickauf-Hughes, 1995, pp. 456–457). The leading piece of literature on imposter phenomenon in librarians has commented on the reliability of the HIPS with a .73 to .91 reliability (Clark et al., 2014, p. 257). However conflicting literature on imposter phenomenon across areas has called the HIPS as not reliable, with the inability to separate "imposters" with "non-imposters" (Cheung, 2018, p. 27; Whitman & Shanine, 2012, p. 181). The reliability of the CIPS is a .84 to .96 reliability (Chrisman et al., 1995, p. 457). It has been commented that the PFS also has "similar internal-consistency reliability" to CIPS (Whitman & Shanine, 2012, p. 181). Chrisman et al. conducted a study to compare CIPS and PFS and found that they were relatively similar in reliability and subject areas, both more sensitive than the HIPs. The HIPS is a 14-item scale that measures the impact of imposter phenomenon (Whitman & Shanine, 2012, p. 180). The CIPS is a 20-item scale and the PFS is a 51-item scale (Chrisman et al., 1995, p. 462). Further reading on studies on imposter phenomenon shows CIPS is the preferred scale of use (Sims, 2017, pp. 9-10) (Thompson, Foreman, & Martin, 2000, p. 633) (Mak, Kleitman, & Abbott, 2019, p. 2). The CIPS scale has been chosen for this research due to it's reliability, size and prevalence in similar literature.

## **Research Objectives and Questions**

The objective of this research is to discover if imposter phenomenon is a significant issue facing librarians working in New Zealand. This research hopes to find out if the change of technologies to a librarian role creates higher levels of imposter phenomenon. Within these two main research questions, there are a narrower set of sub questions that aims to link demographic details, type of library, role and years of experience.

#### **First Research Question**

To what extent do New Zealand librarians experience imposter phenomenon?

### **Sub Questions:**

Is there a predictable correlation between years working in a library role and levels of imposter phenomenon?

Are there any parallels to be drawn from the type of library and the imposter phenomenon levels in their librarians?

What do the gender differences in the levels of imposter phenomenon in librarians tell us?

Does imposter phenomenon occur less in those with a library qualification?

### **Second Research Question**

Does an increase in digital technology use by New Zealand librarians result in higher levels of imposter phenomenon?

### **Sub Questions:**

Is there a predictable correlation between job responsibilities with digital technology and levels of imposter phenomenon?

Is there a predictable correlation between years working in a library role with digital technology and levels of imposter phenomenon?

### **Research Method**

### Methodology

This research project has undertaken quantitative research through the method of an online survey. Quantitative research was chosen for its ability to gather large samples and to test theories out (Leedy & Ormrod, 2016, p. 99). A survey was used for its ability to reach a larger population sample to have scope throughout the field. An anonymous survey allows participants to respond honestly with the assurance that their response will not be associated with them (Leedy & Ormrod, 2016, p. 160).

The survey used the 20-item questions from the CIPS, it uses a Likert scale to answer (Clance, 2013). Factoring in the reliability, size and literature has influenced this research to use the CIPS for measuring imposter phenomenon levels. To be able to obtain rights to use the CIPS for this research, the researcher emailed Dr Pauline Rose Clance and was granted permission (Clance, 2013).

Multi-choice questions were included to extract demographic details. This included the type of library organisation, role, years of experience, gender, and qualification. In addition to demographic information, this research was interested to see if imposter phenomenon had any direct link with digital technologies and asked for some details on if technology made their role easier or harder. To be able to extract some details on technology on the role, the survey asked participants to include an example of technology making the role easier or harder (see question 12 appendices II).

### **Population and Sample**

This involved sending out an online survey to librarians across the country through librarian distribution lists. To gain as much scope as possible, valid participants for the research were people who currently work a minimum of ten hours within a Library. This research is not as focused on professional librarians as it is concerned with everyone working in libraries. Today, libraries are made up of many different roles (Clark et al., 2014, p. 255). This research did not want to narrow it down to only those who have "librarian" in their role title or those who have a professional qualification. This is to get as many responses as possible from people working in libraries. This could include administrators, managers, shelf stackers, library assistants and others. This research sent the survey out to many listservs to gain as many prospective participants for a large sample. It sent a survey out via email to the following librarian listservs; Health-Info: health information, Law-Lib: NZ Law Librarians' Association, DigLibSIG: Digital Library SIG of LIANZA, NZ-Libs: General NZ library list, NZ-Libs-Acquisitions, PUBSIG-L: Public Libraries, Schoollib: School

Libraries, SLIS-NZ: Special Librarians. The email encouraged receivers of the email to share with colleagues who may not be signed up to a list. Two follow-up emails were sent afterwards to try to encourage more participants to respond to give a large enough sample to conduct data analysis.

One of the sub-questions was aimed at discovering if newcomers are likely to experience higher levels of imposter phenomenon. This research hoped to have a good size response from those in their first 1-3 years in their current role. It was promoted to current Victoria University of Wellington (VUW) information Studies students via two more methods of recruitment. The first through asking VUW's School of Information Management to send the survey out to their students. The second by posting the survey on the Facebook group; 'Vic MIS Students'. The members were those studying or having finished their studies in Information Management at VUW.

#### **Ethics**

The survey was anonymous, so the data that was collected could not be connected to an individual. For participants, the subject of imposter phenomenon can be highly personal. An anonymous survey allowed participants to respond honestly with the assurance that their response will not be associated with them. This research used the survey software Qualtrics, which keeps data anonymous and additionally separate the email addresses of those who wished to receive the report from the survey data. Ethics approval was gained by VUW School of Information Studies Human Ethics Subcommittee (Application number 0000027256).

## **Results**

#### **Data Collected**

There was 352 finished responses on Qualtrics. This was then filtered to those who answered every question of the CIPS and narrowed down to 330 responses. The

data was exported into an excel spreadsheet. The level of imposter phenomenon was calculated through the CIPS scores.

### **Analysis and Presentation of Data**

### To what extent do New Zealand Librarians experience imposter phenomenon?

The CIPS creates a mean total and places participants into four categories. If the participant's total was under 40 they have few imposter characteristics; if they were between 41-60, they have moderate imposter characteristics, if they were between 61-80 than they have frequent imposter characteristics and over 80 is intense imposter characteristics. Scores from this research ranged between 20-88. With nearly half experiencing moderate levels of imposter phenomenon. Showing 79% of New Zealand librarians experience moderate or greater levels of imposter phenomenon.

Levels of imposter phenomenon	Total participants	Total percentage
Few	70	21%
Moderate	153	46%
Frequent	101	31%
Intense	6	2%
Total participants	330	100%

Figure 1: Table showing levels of imposter phenomenon among New Zealand librarians

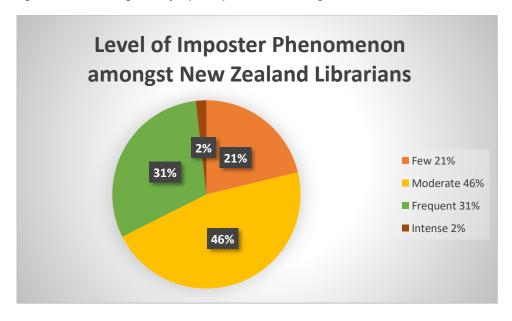


Figure 2: Pie graph showing levels of imposter phenomenon among New Zealand librarians

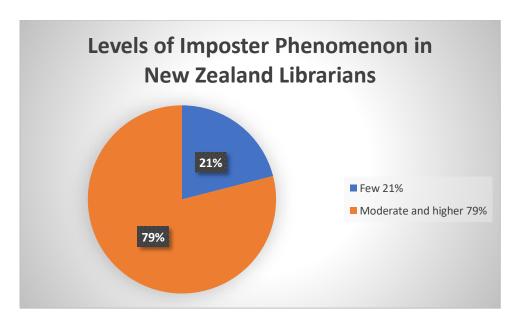


Figure 3: Pie graph showing the high levels of imposter phenomenon among New Zealand librarians

# Is there a predictable correlation between years working in a library role and levels of imposter phenomenon?

The research shows participants age, years in libraries and years in current role. It is not clear that years in libraries necessarily have an impact on levels of imposter phenomenon. For the data on under one year, this was only three participants and not high enough numbers to make summaries.

Years worked in libraries		Level of impo			
libraries	Few	Moderate	Frequent	Intense	Total participants
Under 1 year	0%	33%	67%	0%	3
1 to 3 years	18%	55%	9%	18%	11
4 to 6 years	27%	37%	33%	3%	30
7 to 10 years	8%	44%	44%	5%	39
11 to 20 years	21%	43%	35%	1%	112
20+ years	25%	52%	23%	0%	132
Unanswered	0%	67%	33%	0%	3
Total participants	70	153	101	6	330

Figure 4: Table of years worked in libraries and levels of imposter phenomenon

The results confirm that age does not prevent you from having imposter phenomenon. The figure below shows it is distributed throughout every age category. One figure that stands out is between the ages of 26-35; 50 % of participants had frequent or higher levels.

Age		Levels of imp			
	Few	Moderate	Frequent	Intense	Total participants
19-25	33%	33%	33%	0%	3
26-30	17%	33%	38%	13%	24
31-35	10%	40%	43%	7%	30
36-40	3%	60%	37%	0%	30
41-50	22%	46%	31%	1%	98
51-60	26%	47%	27%	0%	100
over 60	30%	48%	23%	0%	44
Unanswered	0%	100%	0%	0%	1
Total participants	70	153	101	6	330

Figure 5: Table of the age of participants and levels of imposter phenomenon

Looking specifically at the time participants had in their current role, we can conclude that those in the first six years of a role show higher levels of imposter phenomenon. The columns for frquenta dn intense levels of imposter phenomenon are significantly more for those who have been in a role six years or less.

Years in current role	ı	Level of impo			
					Total
	Few	Moderate	Frequent	Intense	participants
Under 1 year	25%	39%	33%	2%	51
1 to 3 years	11%	48%	37%	3%	91
4 to 6 years	19%	44%	34%	3%	62
7 to 10 years	25%	50%	25%	0%	48
11 to 20 years	30%	46%	24%	0%	63
20+ years	29%	57%	14%	0%	14
Unanswered	0%	100%	0%	0%	1
Total participants	70	152	101	6	330

Figure 6: Table of years worked in the current role and levels of imposter phenomenon

# Are there any parallels to be drawn from the type of library and the imposter phenomenon levels in their librarians?

Looking at imposter phenomenon levels against different types of libraries in figure 7 shows a large percentage of participants were from academic and public libraries. There were 126 participants from public libraries, 115 participants from academic libraries, with the 12 from school libraries and 77 ranging across government, law, medical, research, corporate and more. Taking into account any library that had 5 or

more participants, academic, public, law, government and research libraries appear to have a higher percentage of staff with moderate or higher levels.

Type of library	I	Level of impos	enon		
	Few	Moderate	Frequent	Intense	Total participants
Academic	20%	50%	30%	1%	115
Architecture	0%	100%	0%	0%	1
Corporate	50%	33%	17%	0%	6
Engineering	50%	50%	0%	0%	2
Government	27%	47%	27%	0%	15
Law	22%	67%	11%	0%	9
Library for persons with sensory impairments	0%	100%	0%	0%	1
Medical	29%	29%	29%	14%	7
Museum	0%	50%	50%	0%	2
NGO	0%	100%	0%	0%	1
Prison	0%	100%	0%	0%	1
Public	21%	39%	38%	2%	126
Research	20%	60%	20%	0%	5
School	25%	58%	17%	0%	12
Theological	0%	100%	0%	0%	1
Other library	19%	50%	27%	4%	26
Total participants	70	153	101	6	330

Figure 7: Table of the type of library and levels of imposter phenomenon

# What do the gender differences in the levels of imposter phenomenon in librarians tell us?

Here 58 males answered, 268 females, one non-binary and three who preferred not to say. Making the totals numbers 17% male and the majority of participants female at 81%. The results for gender differences show slightly higher levels of imposter phenomenon felt in women. Looking at the "few" column, it is noticeably higher for males. Looking at the frequent and intense columns, show higher for females.

Gender	Lo	evels of impo			
	Few	Moderate	Frequent	Intense	Total participants
Female	19%	46%	32%	2%	268
Male	33%	47%	21%	0%	58
Non-binary	0%	100%	0%	0%	1
Prefer not to					
say	0%	33%	67%	0%	3
Total					
participants	70	153	101	6	330

Figure 8: Table of gender and levels of imposter phenomenon

Pearson's Chi-Square test determined that there is a statistically significant association between gender and the level of imposter, X2(2) = 7.093, p = .029. Being lower than .05 shows, it is significant. It appears that females were more likely to report frequent or intense than males (34.7% for females, 20.7% for males). This was calculated combining the Frequent and intense columns and taking out any rows that had lower than 5 participants.

### Level of Imposter Phenomenon \* Gender Crosstabulation

			Gen	der	
			Female	Male	Total
Level	Few	Count	51	19	70
of IP		% within Gender	19.0%	32.8%	21.5%
	Mod	Count	124	27	151
		% within Gender	46.3%	46.6%	46.3%
	F + I	Count	93	12	105
		% within Gender	34.7%	20.7%	32.2%
Total		Count	268	58	326
		% within Gender	100.0%	100.0%	100.0%

Figure 9: Cross tabulation of gender and levels of imposter phenomenon

#### **Chi-Square Tests**

_	4		
			Asymptotic
			Significance (2-
	Value	df	sided)
Pearson Chi-Square	7.093 <sup>a</sup>	2	.029
Likelihood Ratio	6.978	2	.031
N of Valid Cases	326		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 12.45.

Figure 10: Chi-square test of gender and levels of imposter phenomenon

### Does imposter phenomenon occur less in those with a library qualification?

The results show that participants without or in the process of gaining a library qualification have higher levels of frequent imposter levels.

Library qualification	Levels of imposter phenomenon				
	Few	Moderate	Frequent	Intense	Total participants
I am in the process of completing a qualification in library studies (or					
equivalent)	20%	30%	43%	7%	30
I have completed a qualification in library					
studies (or equivalent)	22%	49%	28%	1%	268
No	16%	44%	41%	0%	32
Total participants	70	153	101	6	330

Figure 11: Table of library qualification and levels of imposter phenomenon

# Does an increase in digital technology use by New Zealand librarians result in higher levels of imposter phenomenon?

An error in the wording of survey question 11 (see appendices II) has resulted in being unable to fully use the data provided by users to answer the second research question on digital technology. The researcher changed their questions in the last stage after receiving feedback from the ethics application and resulted in being worded in a way that was confusing to participants.

While unable to use all the data, the response from participants does reveal some things. An overwhelming 60% of respondents say that "yes" and "most of the time" the increase of increase in digital technology has made participants job easier or harder. They are showing that for 60%, they resonate that digital technology does impact their role most of the time.

Participant responses on if digital technology made the role easier or harder.	Total participants	Percentage
Yes	105	32%
Most of the time	91	28%
Sometimes	84	25%
Rarely	3	1%
No	15	5%
Unanswered	2	1%
Total participants	330	100%

Figure 12: Table of responses if digital technology made roles easier or harder (see question 11 in appendices II)

It was not clear if participants were referring to their role becoming easier or harder. Question 12 asked for participants to provide an example for their answer to question 11. The text examples that were given provided rich anecdotal evidence and helped interpret some of the responses. Even though this research was unable to interpret if 126 (38%) responses were about digital technology being easier, harder or both, for the more substantial portion of 204 (62%) participants, it was possible to decipher. From this interpretation, figure 12 shows the number of participants who felt their roles were made easier, harder or a combination from digital technology.

Participants responses on if digital technology made the role easier, harder or both	Total participants
Easier	115
Harder	41
Both	48
Unclear or blank	126
Total participants	330

Figure 13: Table of interpreted responses if digital technology made roles easier or harder or both

Do you feel with your levels of training on the job that you are able to use all the technology that is expected of you?	Levels of imposter phenomenon					
	Few	Moderate	Frequent	Intense	Grand Total	Percentage
Yes	38	64	37		139	42%
Most of the time	29	78	43	4	154	47%
Sometimes	1	10	19	2	32	10%
Rarely	1		1		2	1%
No	1		1		2	1%
unanswered		1			1	0%
Grand Total	70	153	101	6	330	

Figure 14: Table of responses to technology training supporting role

A strong response of 89% of participants felt they receive the right level of training in their roles to support the technology they are expected to use.

The annotated feedback was abundant in the information given for reason of how their jobs were easier, harder or a combination of both with digital technology. The feedback was read over and used thematic analyse to discover themes that emerged. These themes have been divided into three categories of easier, harder and both.

## Examples of digital technologies making roles easier

- Library processes are done more efficiently; cataloguing, Schools
   Catalogue Information Service, RFID, circulation via self-service
   machines, sending overdue notices, leave approval, processing
   withdrawals, applications for automatic scanning and label formatting.
- HR responsibilities; leave approval, communicating with team using a mobile app, paperless systems for invoices.
- Collection development; usage statistics, analytics information, ordering online with automation in Library Management System (LMS), collection purchasing, automatic/evidence-based book selection, easier to manage.
- Cloud services; easier global changes and no longer managing networks and operating systems.
- Speed; can do job faster; look up information from the desk, emailing a colleague to ask for help.

- It is easier to find more and better quality information online. Discovery
  and search engines are searching across platforms at one time, easier
  than indexes or by hand. Finding peer-reviewed material and high quality
  material found online to help us do our job, on referencing and academic
  writing. Access to to eBook/Journal databases and online legal databases
  make finding legal info simpler.
- Digital access instantaneously; IP authentication, no relying on memory, unmediated access 24/7.
- Supplying information; Interloan easier, distant requests enable easy, remote access to physical material., services more automated, requests for digital material that saves the library from scanning (for school database, document delivery), research, document supply easier.
- Physical storage; not having to store print journals, not having to keep as many hardcopy technical manuals
- Troubleshooting and technical support; help videos and troubleshooting help available online, more user-friendly than paper manuals, self-help info on websites.
- Access to tools and applications; live chat, Nvivo for data crunching,
  Google docs to share with students or colleague, technology to help
  librarians work with statistics and create reports/graphs, Kahoot to
  discover feedback from a library workshop, PowerBI makes data analysis
  easy, video conferencing through zoom or skype.
- Digital storage; easy to update information and keep in the central repository, ability to digitise.
- Easier to communicate; with IT, in general, with colleagues via email, reach clients, social media as an enabler to reach the audience, used for promotion and communication, 2-way dialogue, community engagement with events, library brand promo and marketing easier.
- Work remotely; able to work away from the office in other branches, do the job online.
- Open source technology. Open journal system for academic staff and researchers.
- Shelf scanner; do inventory at shelf point with mobile software, wireless and handheld set-up, making stocktaking and searching easier.

- Synchronous and asynchronous online services for referencing and information literacy made reference services easier.
- Sharing of information; to share information with colleagues, share and collaborate on documents online, to send PDFs or a link to an online journal
- Now enablers of access rather than limiting gateways to information, providing more equitable for distance/flexible learners, mobile and remote services for students with laptops and other devices
- Increased access to the number of technologies available, digital format online more access to uses.

## **Examples of digital technologies making roles harder**

- Speed spent on learn technology; learning new systems, training staff with new technology, no time to learn, constantly learning new software and systems, requires lots of training, time spent troubleshooting, time to configure systems.
- Collection development; harder to manage digital material compared to print.
- A higher level of troubleshooting; expected to be IT troubleshooter had no training (high level of troubleshooting, particularly for providing access to electronic resources across distinct organisations and license limitations)
- Communication; harder to connect with people.
- Technology that is not easy to use but spent lots of money.
- Communicating with vendors.
- Budget restraints hard with digital technology.
- Upgrades; one librarian reported they happen every six months, and as the sole librarian is time-consuming, another commented on the impact on workflows.
- Too many devices; working with customer devices and lacking knowledge, printing when they have Chromebook devices, the library buys eBooks and there are so many eBook devices, public contacts when things go wrong, and staff don't know how the device works. Many times we have to look up on Google or similar. This all takes time, and the customer usually says it is too hard and walks away. This leaves us with the feeling we have

failed and don't know our job.) so many different tools, laptops (windows, macs, tablets, phones (ios and android), hundreds of apps and programs that librarians are expected to troubleshoot and give advice on them all (even though they haven't used them before). Cannot always meet their need. All the different devices users are using; the LMS not translating well, staff knowledge.

- A misunderstanding from the public of what services they expect from library staff. More is expected than ever before, to be IT experts and technology support. Library customers often not specific for library-related things, e.g. Facebook, uploading images, printing, work applications, devices.
- An uneven balance of workload among teams, as a result of colleagues who feel less confident with technology, so things get dumped on those who know.
- Harder to keep up. There are more things to keep up with, requires constantly learning new software and systems requires lots of training and feeling the more you learn, the less you know. Now predominantly electronic has a vastly increased number of resources we are expected to understand and work with. Remembering the best way to access each database (when there are so many. Staying relevant when teaching technology. Needing to adapt and learn new tools (surface pros) and databases (with updates).
- Systems set-up that led to difficult conversations and unable to fulfil the
  requests. For example, access the internet on PCs requires a library card;
  this requires asking the customer for items that they might not have ID.
  Results in regular (difficult) conversations about access. Another being
  two-step email verification (barriers for customers who might need to use
  scanning but unable to complete the second step of verification).
- Swapping to new technology and realising the older technology was more efficient.
- Understanding with multiple systems; knowledge base, discovery layer,
   LMS, and figuring out how they interact to produce certain outcomes.

- When the technology doesn't work; outages/upgrades/temperamental
   PCs. Digital technology not working well, erratically or not designed for the purpose. Old PCs.
- License restrictions with digital media; client expectation that if it is online, we have unlimited access, an increased client expectation of eBooks, available instantaneous and no copyright limitations.
- Providing off-campus access, systems more complex; Lexis Advance going to SSO and hard to set-up for an organisation.

### Examples of digital technologies making roles easier and harder

- Reaching people, both easier and harder with online tools.
- The amount of information available.
- Technology has made the job more complex; need to navigate information security and data sovereignty.
- Roles are more complex; keeping up with new developments.
- · Some technology tools easier and others harder.
- Quicker to search for cases; however, requires accurate input of data.
- Age of equipment determines ease; new PCs can help immensely while old PCs can cause frustrations.

### **Summary of Results**

Imposter phenomenon levels were moderate or higher in 79% of people working within the library. Years in libraries, age and years in role do not have a clear correlation with levels of imposter phenomenon. Looking at types of libraries; academic, public, law, government and research have the highest percent of moderate and higher levels. There are statistically significantly higher levels of imposter phenomenon in females than males. Regarding library qualification, those without or in the process had higher score of frequent and higher levels.

The research was unable to answer all of the research questions around digital technology impact on roles. It was not possible to compare this data with demographic details to be able to draw correlations and answer the questions on digital technology and imposter phenomenon levels. However, this research was

able to make something of the data that was collected. This research concludes that 60%, agree that digital technology does impact their role most of the time.

Comments from participants gave evidence on how the digital technology made their roles easier, harder or a combination of both. These drew on themes around speed, access, troubleshooting, public expectations, devices, tools and equipment.

## **Discussion**

## **Assumptions and Limitations**

There were a couple of significant limitations with the survey given to participants. The most significant limitation was the error with the wording of Question 11, leading to confusion amongst participants and also making the data less authoritative. Many participants commented on the unclearness of the question. Many went the extra step and helpfully explained in their comment if it was easier or harder

The second was not making questions compulsory to answer. Many participants skipped the odd questions that could have been avoided by making questions compulsory. This included the 22 participants who finished the survey but did not answer all CIPS questions, resulting in the researcher removing their responses from the final data.

When comparing data across libraries, there was not an even distribution of participants across libraries. A great representation from academic and public libraries, leaving only 23% of participants to represent a vast number of specialised libraries.

### **Implications of Findings**

The purpose of this research was to investigate if imposter phenomenon is an issue in New Zealand libraries. This research has revealed that 79% of people in libraries across New Zealand have moderate or higher levels of imposter phenomenon. Whereas Clark et al.'s research showed one in eight, only 12.5% have imposter phenomenon. This shows it is an issue that needs to be spoken about more widely

to gain awareness, with the hope it will be researched further in the future. Imposter phenomenon is causing staff to overcompensate in their work, not apply for senior positions and holding people back from what they want. It has negative affects on library workers mental health and should be considered a serious issue for New Zealand libraries. Library staff are they key to New Zealand libraries. Libraries need to ensure their staff feel confident, capable and deserving in the work they do.

58 (17%) of the participants in this research were male and 268 were female (81%), making the apparent suggestion that more females work in libraries in New Zealand. Parkman has suggested that if a working environment is predominately made up of one sex, this can impact the minority sex to have higher levels of imposter phenomenon. This is not the case for males and following the pattern of previous literature, the females do have higher levels than men. Looking at figure 9, it might not seem worth noting, but running a chi-square test confirmed that it is statically significant. Females have higher number of frequent or more levels and also smaller number that have few levels of imposter phenomenon. Looking specifically at moderate numbers, 81% of females have moderate or higher levels and males have 67% moderate or higher.

It's not just the newcomers who experience imposter phenomenon. Clark et al. showed that younger academic librarians those newer to the field experienced higher levels. Unlike Clark et al., this research shows it is not clear that years in libraries necessarily has an impact on levels of imposter phenomenon across experience, age and years in role. It is showing that people with years of experience may also have imposter phenomenon. Older people and those working longer in libraries show high levels of imposter phenomenon. It could be that younger generations are more confident with technology and feel more confident in their role. The responses and patterns that emerged around digital technology making roles harder, suggest that this could be a contributor to higher levels of imposter phenomenon. More research is needed to look at this specific topic. Previous research has targeted newcomers but with massive digital technology changes to roles, it is equally important to survey those who have been in the field longer.

This research has endeavoured to see if there could be correlations made between type of library and levels of imposter phenomenon. Table 7 shows the figures and percentage of imposter phenomenon levels within each type of library. This is the first time this sort of research has been done and it is clear that if there were larger participant numbers from more libraries, this could be revealing about different work organisations and impacts on library staff. From the data collected, it appears that academic, public, government, law and research have the highest percent of moderate and higher levels. There is already literature out there looking at academic libraries, from here more research needs to be looking across the sector and at some of these other libraries such as public libraries.

This research attempted to investigate correlations between imposter phenomeon levels and digital technology. While there was an error that made the data unauthoritative to use, there was a lot of rich annotated detail from those working in libraries. Expressing examples of how digital technology made roles easier, harder and a combination of the two. Participants gave great detail into the variety of technology creating ease or pressure onto the people in the library sector. These recent digital technology changes speak of the adaptability of librarians in roles and how they are now also taking on more responsibility and expectations over the years. This research had the aim to investigate if the change of digital technology may be a contributor to spreading the imposter phenomenon levels across age groups and years of experience and role. While this was not achieved, there were a few important notes. When asked if participants felt they received enough training to use the technology required of them, the majority of 89% said that they felt 'most of the time' and 'yes', that was true. This is contradictory to Al-Qallaf's research whose research found librarians did not believe their training was keeping them informed with advancing technologies. A positive sign and suggestion that technology may not contribute greatly to imposter phenomenon levels. More research could be looked at the 11% who require more training to meet the demands of their jobs.

This research will serve to raise awareness of imposter phenomenon within New Zealand librarians. Craddock states that sharing imposter phenomenon feelings with a person new in the field, such as a new student, normalises the feelings for a new student (Craddock, Birnbaum, Rodriguez, Cobb, & Zeeh, 2011, p. 439). Making this research public will bring awareness and relief to librarians experiencing imposter phenomenon and help them understand it is a common phenomenon that they are not experiencing in isolation. The findings in this report can give librarians the confidence to take on leadership opportunities and give library managers a greater understanding of the challenges facing their staff currently. By raising awareness in the industry, it will encourage more research to be conducted in this area. More research could help the libraries to know if the industry needs to develop in areas such as work training, education or future support to those working at lower levels.

## **Recommendations for Future Research**

This research looked into how much of an issue imposter phenomenon is with librarians in New Zealand. The result shows that it is visible and an issue. To build on from this research, there needs to be qualitative research conducted that involves interviews for future research to gain more personal narratives on the issue. Qualitative research would be beneficial to discover why librarians think they have imposter phenomenon and how it is impacting their career. Seeing that it is common for 79% of librarians to be experiencing imposter phenomenon, is this stopping librarians from fulfilling activities, for example, leadership roles? More research should be conducted on how it is impacting individuals and organisations, such as emotional exhaustion and the use of coping mechanism on individuals. With 79% of librarians experiencing imposter phenomenon we should study how this is impacting applicant numbers for leadership roles and the subsequent effect this has on the makeup of library management.

Research should also focus on means of combatting imposter phenomenon. One recommendation is looking at the impact of having mentors in the field and whether this would reduce the occurrence of imposter phenomenon within New Zealand librarians. Farler and Broady-Preston write; "people are at the heart of librarianship, rather than the collection" (2012, p. 226).

## **Appendices**

## **Appendices I: Information Sheet**



# Investigating Imposter Phenomenon in New Zealand Librarians. INFORMATION FOR PARTICIPANTS

You are invited to take part in this research. Please read this information before deciding whether or not to take part. If you decide to participate, thank you. If you decide not to participate, thank you for considering this request.

#### Who am I?

Tēnā koutou, my name is Rosemary Patterson and I am a Masters student in Information Studies at Victoria University of Wellington.

### What is the aim of the project?

I am undertaking an investigation to find out how many people working in New Zealand libraries experience imposter phenomenon. Imposter phenomenon is also known as imposter syndrome and imposterism. It encompasses internal feelings of fraudulent in achievements, thinking you are fooling others in your skills, that your accomplishments are by luck and fearful that you will be found out by your peers. I hope this study will uncover how much of an issue this is for librarians working in New Zealand.

This research has been approved by the Victoria University of Wellington Human Ethics Committee [0000027256].

### How can you help?

You have been invited to participate because you may work 10 hours within a New Zealand Library. I would be most grateful if you could take part in this survey. Additionally, please feel free to share among your colleagues in your work organisation. If you agree to take part you will complete a survey. The survey will ask you questions about imposter phenomenon. The survey will take you 10 minutes to complete.

### What will happen to the information you give?

This research is anonymous. This means that nobody, including the researchers will be aware of your identity. By answering it, you are giving consent for us to use your responses in this research. Your answers will remain completely anonymous and unidentifiable. Once you

submit the survey, it will be impossible to retract your answer. Please do not include any personal identifiable information in your responses.

Personal details will be collected only for those who wish to request a copy of the final report. All personal details will be received separately from the survey data. This ensures that your answers to the survey questions are anonymous.

## What will the project produce?

The information from my research will be used in my Masters report.

### If you have any questions or problems, who can you contact?

If you have any questions, either now or in the future, please feel free to contact me:

Student:	Supervisor:
Name: Rosemary Patterson	Name: Dr Philip Calvert
University email address: rosemary.patterson@vuw.ac.nz	Role: Academic Staff
	School: Information Management
	Phone: 04 4636629
	Philip.Calvert@vuw.ac.nz

### **Human Ethics Committee information**

If you have any concerns about the ethical conduct of the research you may contact the Victoria University HEC Convenor: Dr Judith Loveridge. Email hec@vuw.ac.nz or telephone +64-4-463 6028.

## **Appendices II: Survey**

Star	t of Block: Part 1 of Questionnaire
Q1 [	Do you work a minimum 10 hours in your organisation?
	O Yes (1)
	O No (2)
Q2 F	Please select your age range.
	O under 18 (1)
	O 19-25 (2)
	O 26-30 (3)
	O 31-35 (4)
	O 36-40 (5)
	O 41-50 (6)
	O 51-60 (7)
	O over 60 (8)

## 301028469

Q3 Please select your gender.
O Male (1)
O Female (2)
O Non-binary (3)
O Prefer not to say (4)
Q4 Please pick the number of years employed in Libraries.
O Under 1 year (1)
O 1 to 3 years (2)
○ 4 to 6 years (3)
O 7 to 10 years (4)
O 11 to 20 years (5)
O 20+ years (6)

Q5 Please pick the number of years employed in your current role.
O Under 1 year (1)
O 1 to 3 years (2)
O 4 to 6 years (3)
7 to 10 years (4)
O 11 to 20 years (5)
O 20+ years (6)
Q6 Have you completed, or are you in the process of completing, a qualification in library studies (or equivalent)?
I have completed a qualification in library studies (or equivalent) (1)
O I am in the process of completing a qualification in library studies (or equivalent) (2)
O No (3)
Q7 What is the name of the qualification?
Masters of Information Study (1)
O Diploma of Information of Information Studies (2)
Certificate of Information Studies (3)
Other (please specify) (4)

## 301028469

Q8 In what type of library are you currently working in?
O Academic (1)
O Public (2)
O School (3)
O Special (please describe) (4)
O In a librarian or related position in an organisation without a formal library (5)
O In a consulting position (6)
Other (please describe) (7)

Q9 Which of the following best describes your job function? (Choose multiple)
Access Services (1)
Acquisitions (2)
Administration (3)
Cataloging/Metadata (4)
Collection development (5)
Development/fund-raising (6)
Digital services (7)
Distance/distributed education (8)
Electronic resource management (9)
Government documents (10)
Information literacy/instruction (11)
Interlibrary loan/document delivery (12)
Library and information school educator (13)
Media services/audiovisual (14)
Print Preservation (15)
Rare books and special collections (16)
Reference/research services (17)
Scholarly Communication/repository services (18)
Systems and network services (19)

301028469

Web services (20)
Other (please specify) (21)
Q10 Do you feel with your levels of training on the job that you are able to use all the technology that is expected of you?
Click to write Yes (1)
O Most of the time (2)
O Sometimes (3)
○ Rarely (4)
O No (5)
Q11 Do you feel that an increase in digital technology has made your job easier or harder?
O Yes (1)
O Most of the time (2)
O Sometimes (3)
O Rarely (4)
O No (5)
Q12 Please provide an example of when this is the case.

End of Block: Part 1 of Questionnaire
Start of Block: Part 2 of Questionnaire
Q16 <b>Clance IP Scale</b> For each question, please pick the number that best indicates how true the statement is of you. It is best to give the first response that enters your mind rather than dwelling on each statement and thinking about it over and over.
Q18 I have often succeeded on a test or task even though I was afraid that I would not do well before I undertook the task.
1 - not at all true (1)
2 - rarely (2)
3 - sometimes (3)
O 4 - often (4)
O 5 - very true (5)
Q21 I avoid evaluations if possible and have a dread of others evaluating me.
1 - not at all true (1)
O 2 - rarely (2)
3 - sometimes (3)
O 4 - often (4)
O 5 - very true (5)

Q22 When people praise me for something I've accomplished, I'm afraid I won't be able to live up to their expectations of me in the future.
1 - not at all true (1)
O 2 - rarely (2)
3 - sometimes (3)
O 4 - often (4)
○ 5 - very true (5)
Q23 I sometimes think I obtained my present position or gained my present success because I happened to be in the right place at the right time or knew the right people.
1 - not at all true (1)
O 2 - rarely (2)
2 - rarely (2) 3 - sometimes (3)
3 - sometimes (3)
3 - sometimes (3) 4 - often (4)

Q24 I'm afraid people important to me may find out that I'm not as capable as they think I am.
1 - not at all true (1)
O 2 - rarely (2)
3 - sometimes (3)
O 4 - often (4)
5 - very true (5)
Q25 I tend to remember the incidents in which I have not done my best more than those times I have done my best.
have done my best.
have done my best.  1 - not at all true (1)
have done my best.  1 - not at all true (1)  2 - rarely (2)
have done my best.  1 - not at all true (1)  2 - rarely (2)  3 - sometimes (3)
have done my best.  1 - not at all true (1)  2 - rarely (2)  3 - sometimes (3)  4 - often (4)

Q26 Trarely do a project or task as well as I'd like to do it.
1 - not at all true (1)
O 2 - rarely (2)
3 - sometimes (3)
O 4 - often (4)
O 5 - very true (5)
Q27 Sometimes I feel or believe that my success in my life or in my job has been the result of some kind of error.
kind of error.
kind of error.  1 - not at all true (1)
kind of error.  1 - not at all true (1)  2 - rarely (2)
kind of error.  1 - not at all true (1)  2 - rarely (2)  3 - sometimes (3)
kind of error.  1 - not at all true (1)  2 - rarely (2)  3 - sometimes (3)  4 - often (4)

Q28 It's hard for me to accept compliments or praise about my intelligence or accomplishments.
1 - not at all true (1)
O 2 - rarely (2)
3 - sometimes (3)
O 4 - often (4)
O 5 - very true (5)
Q29 At times, I feel my success has been due to some kind of luck.
1 - not at all true (1)
O 2 - rarely (2)
3 - sometimes (3)
O 4 - often (4)
O 5 - very true (5)

Q30 I'm disappointed at times in my present accomplishments and think I should have accomplished much more.
1 - not at all true (1)
O 2 - rarely (2)
3 - sometimes (3)
O 4 - often (4)
O 5 - very true (5)
Q31 Sometimes I'm afraid others will discover how much knowledge or ability I really lack.
1 - not at all true (1)
2 - rarely (2)
3 - sometimes (3)
O 4 - often (4)
O 5 - very true (5)

well at what I attempt.	ri generally do
1 - not at all true (1)	
O 2 - rarely (2)	
3 - sometimes (3)	
O 4 - often (4)	
O 5 - very true (5)	
Q33 When I've succeeded at something and received recognition for my accomplish doubts that I can keep repeating that success.	ments, I have
	ments, I have
doubts that I can keep repeating that success.	ments, I have
doubts that I can keep repeating that success.  1 - not at all true (1)	ments, I have
doubts that I can keep repeating that success.  1 - not at all true (1)  2 - rarely (2)	ments, I have
doubts that I can keep repeating that success.  1 - not at all true (1)  2 - rarely (2)  3 - sometimes (3)	ments, I have
doubts that I can keep repeating that success.  1 - not at all true (1)  2 - rarely (2)  3 - sometimes (3)  4 - often (4)	ments, I have

discount the importance of what I've done.
O 1 - not at all true (1)
O 2 - rarely (2)
3 - sometimes (3)
O 4 - often (4)
○ 5 - very true (5)
Q35 I often compare my ability to those around me and think they may be more intelligent than I am.
am.
am.  O 1 - not at all true (1)
am.  1 - not at all true (1)  2 - rarely (2)
am.  1 - not at all true (1)  2 - rarely (2)  3 - sometimes (3)
am.  1 - not at all true (1)  2 - rarely (2)  3 - sometimes (3)  4 - often (4)

Q34 If I receive a great deal of praise and recognition for something I've accomplished, I tend to

me have considerable confidence that I will do well.
O 1 - not at all true (1)
O 2 - rarely (2)
3 - sometimes (3)
O 4 - often (4)
○ 5 - very true (5)
Q37 If I'm going to receive a promotion or gain recognition of some kind, I hesitate to tell others until it is an accomplished fact.
O 1 - not at all true (1)
O 2 - rarely (2)
3 - sometimes (3)
<ul><li>3 - sometimes (3)</li><li>4 - often (4)</li></ul>
O 4 - often (4)

Q36 I often worry about not succeeding with a project or examination, even though others around

Q38 I feel bad and discouraged if I'm not "the best" or at least "very special" in situations that involve achievement.
1 - not at all true (1)
O 2 - rarely (2)
3 - sometimes (3)
O 4 - often (4)
O 5 - very true (5)
End of Block: Part 2 of Questionnaire
Start of Block: Part 3 from Questionnaire
Q38 Would you like to be sent a copy of the final report?
O Yes (1)
O No (2)
End of Block: Part 3 from Questionnaire
Participants who want to be sent a copy of the final report.
Start of Block: Default Question Block
Q1 Please provide your email address.
End of Block: Default Question Block

## References

- Al-Qallaf, C. L. (2007). Librarians and Technology in Academic and Research Libraries in Kuwait: Perceptions and Effects. *Libri*, *56*(3), 168–179. https://doi.org/10.1515/LIBR.2006.168
- Barrow, J. M. (2019). Impostorism: An evolutionary concept analysis. *Nursing Forum*, *54*(2), 127–136. https://doi.org/10.1111/nuf.12305
- Breeze, M. (2018). Imposter syndrome as a public feeling. In Y. Taylor & K. Lahad (Eds.),

  Feeling Academic in the Neoliberal University: Feminist Flights, Fights and Failures

  (pp. 191–219). https://doi.org/10.1007/978-3-319-64224-6\_9

- Calvard, T. (2018). Imposter syndrome as a way of understanding gender and careers. In Research Handbook of Diversity and Careers. Cheltenham, United Kingdom: Edward Elgard Publishing Ltd.
- Cheung, L. (2018). Understanding imposter phenomenon in graduate students using achievement goal theory (Ph.D., Fordham University). Retrieved from http://search.proquest.com/docview/2088412722/abstract/1A746E5D3AC14E92PQ/1
- Chrisman, S. M., Pieper, W. A., Clance, P. R., Holland, C. L., & Glickauf-Hughes, C. (1995).

  Validation of the clance imposter phenomenon scale. *Journal of Personality*Assessment, 65(3), 456–467. https://doi.org/10.1207/s15327752jpa6503\_6
- Clance, P. R. (2013). Clance IP Scale. Retrieved from http://paulineroseclance.com/pdf/IPTestandscoring.pdf
- Clance, P. R. (2013). Impostor Phenomenon (IP). Retrieved from http://paulineroseclance.com/impostor\_phenomenon.html
- Clance, P. R., & Imes, S. A. (1978). The imposter phenomenon in high achieving women:

  Dynamics and therapeutic intervention. *Psychotherapy: Theory, Research & Practice*, *15*(3), 241–247. https://doi.org/10.1037/h0086006
- Clance, P. R., & OToole, M. A. (1987). The imposter phenomenon. *Women & Therapy*, *6*(3), 51–64. https://doi.org/10.1300/J015V06N03\_05
- Clark, M., Vardeman, K., & Barba, S. (2014). Perceived inadequacy: A study of the imposter phenomenon among college and research librarians. *College & Research Libraries*, 75(3), 255–271. https://doi.org/10.5860/crl12-423
- Craddock, S., Birnbaum, M., Rodriguez, K., Cobb, C., & Zeeh, S. (2011). Doctoral students and the impostor phenomenon: Am I smart enough to be here? *Journal of Student Affairs Research and Practice*, *48*(4), 429–442. https://doi.org/10.2202/1949-6605.6321
- Farrell, B., Alabi, J., Whaley, P., & Jenda, C. (2017). Addressing psychosocial factors with library mentoring. *Portal: Libraries and the Academy*, *17*(1), 51–69. https://doi.org/10.1353/pla.2017.0004

- Hutchins, H. M. (2015). Outing the imposter: A study exploring imposter phenomenon among higher education faculty. *New Horizons in Adult Education and Human Resource Development*, 27(2), 3–12. https://doi.org/10.1002/nha3.20098
- Hutchins, H. M., Penney, L. M., & Sublett, L. W. (2018). What imposters risk at work:

  Exploring imposter phenomenon, stress coping, and job outcomes. *Human Resource Development Quarterly*, 29(1), 31–48. https://doi.org/10.1002/hrdq.21304
- Leedy, P. D., & Ormrod, J. E. (2016). *Practical research: planning and design* (Eleventh edition). Boston: Pearson.
- Mak, K. K. L., Kleitman, S., & Abbott, M. J. (2019). Impostor phenomenon measurement scales: A systematic review. *Frontiers in Psychology*, *10*. Retrieved from https://doaj.org
- McGregor, L. N., Gee, D. E., & Posey, K. E. (2008). I feel like a fraud and it depresses me:

  The relation between the imposter phenomenon and depression. *Social Behavior & Personality: An International Journal*, 36(1), 43–48.
- Neureiter, M., & Traut-Mattausch, E. (2016). An inner barrier to career development:

  Preconditions of the impostor phenomenon and consequences for career

  development. Frontiers in Psychology, 7. https://doi.org/10.3389/fpsyg.2016.00048
- Parkman, A. (2016). The imposter phenomenon in higher education: Incidence and impact. *Journal of Higher Education Theory & Practice*, *16*(1), 51–60.
- Parkman, A., & Beard, R. (2008). Succession planning and the imposter phenomenon in higher education. *CUPA-HR Journal*, *59*(2), 29–36.
- Rakestraw, L. (2017). How to stop feeling like a phony in your library: Recognizing the causes of the imposter syndrome, and how to put a stop to the cycle. *Law Library Journal*, 109(3), 465–477.
- Rohrmann, S., Bechtoldt, M. N., & Leonhardt, M. (2016). Validation of the impostor phenomenon among managers. *Frontiers in Psychology*, 7. https://doi.org/10.3389/fpsyg.2016.00821

- Royal, T. A. C. (2019). Te Ao Mārama the natural world The importance of the land. In *Te*Ara the Encyclopedia of New Zealand. Retrieved from

  http://www.TeAra.govt.nz/en/photograph/7963/flax-bush
- Schubert, N. (2013). The imposter phenomenon: Insecurity cloaked in success (M.A.,

  Carleton University (Canada)). Retrieved from

  http://search.proquest.com/docview/1437635191/abstract/E3461A56C66D436DPQ/1
- Sims, J. D. (2017). A phenomenological examination of imposter phenomenon in music therapy students (M.M.E., University of Kansas). Retrieved from http://search.proquest.com/docview/1926769555/abstract/FFDE3C1B665B497FPQ/1
- Sullo, E., & Gomes, A. W. (2016). A Profession Without Limits: The Changing Role of Reference Librarians. *Medical Reference Services Quarterly*, 35(2), 145–157. https://doi.org/10.1080/02763869.2016.1152141
- Thompson, T., Foreman, P., & Martin, F. (2000). Impostor fears and perfectionistic concern over mistakes. *Personality and Individual Differences*, *29*(4), 629–647. https://doi.org/10.1016/S0191-8869(99)00218-4
- Wallach, R. (2017). Constructing authority in professional practice: Personal reflections. In Advances in Library Administration and Organization: Vol. 37. Emotion in the Library Workplace (Vol. 37, pp. 57–70). https://doi.org/10.1108/S0732-067120170000037004
- Whitman, M. V., & Shanine, K. K. (2012). Revisiting the impostor phenomenon: How individuals cope with feelings of being in over their heads. In *Research in Occupational Stress and Well-Being: Vol. 10. The Role of the Economic Crisis on Occupational Stress and Well Being* (Vol. 10, pp. 177–212).
  https://doi.org/10.1108/S1479-3555(2012)0000010009

Name: Rosemary Patterson

Word Count: 8,442