

More Than a Human GPS? Opportunities for Aboriginal Peoples to Lead and Manage Land and Water Research On-Country in the Northern Territory, Australia

by

Hmalan Maureen Hunter-Xénié



Dhuwarrwarr Marika (2019) *Dhambaliya*

Submitted in partial fulfilment of the requirements for the degree of
Bachelor of Science with Honours
in the Fenner School of Environment and Society,
Australian National University
June 2020

© Copyright by Hmalan Maureen Hunter-Xénié 2020
All Rights Reserved



Australian
National
University

Disclaimer

Firstly, I acknowledge and pay my respects to the original custodians of the Acton campus in Canberra and the North Australia campus in Darwin where this thesis was written.

Aboriginal and Torres Strait Islander peoples are warned that the following content includes photos, references to and/or comments from people who have passed away.

All photos have been used with permission and are provided by the individuals or myself.

The featured artwork by Dhuwarrwarr Marika was purchased and consent was provided by her through the Buku Larrngay Mulka Centre in Yirrkala (dated 23 April 2020). Permission is granted to include the artwork in the Honours outputs (thesis, summary document and final presentation). In doing so, there is no financial gain to me personally. The intellectual property remains with the artist.

Written words are not the preferred medium of the oral cultures which I am a descendant of. So, I chose Dhuwarrwarr's artwork in depicting, without words, the essence of this Honours topic. She shares with us that land and water are inextricably linked. Her wealth of local knowledge is due to her connection with place. Marika (2019) provides a description to help viewers discern what we see.

Dhambaliya

This is a map of Dhambaliya or Bremer Island where I have lived for much of my life. Our homeland Gutjaŋan is where the point is on the top of the island. We go hunting all around this island. There are so many names of places everywhere on this island. Ruwakpuy is where the river is. It is called Yingiri. We collect shellfish in the mangroves here. It is a little estuary with a sandy bottom and lots of tiny colourful shells. The orange rocks are Barrarra. This gives us a special face paint for a Rirratjingu ceremony. We paint half our face white with Gapan (Kaolin) and half our face orange which looks dark on our black skin. This rock only comes from the island. It is special and will not fade even when we are dancing in the rain. Mawuka is a special yam which flowers white in the Wet season. It is beautiful. This yam only grows on the island and is part of the songs of this place. It sings of the connections between all of us. It is very much like the Duyŋa which grows on the mainland but its leaves are much finer.

Dolphins are an important part of the Rirratjingu ocean Gäma-wukitj which surrounds Dhambaliya. When the baby dolphin is born the water goes smooth and shimmering. The connections are similar to the birthing of Yolngu, when women and family join together for support for the new child and mother. The Mutjalanydjal (dolphin) is a Rirratjingu and Djambarrpuyngu clan totem.

Recognition

More than a human GPS is a comment from Dean Mununggullumurr Yibarbuk. His statement alludes to the past and how Aboriginal peoples have usually been at the lower end of the participation scale when they have been involved in research. This thesis is in response to this issue of—how to strengthen Aboriginal engagement in future land and water research on-Country. Thank you to Dean for allowing me to include his expression as the thesis title. Dean, Dr Bevyline Sithole, C. Wulumirr Daniels (deceased),¹ Grace Miguyie Daniels and Otto Bulmaniya Campion have shown me what researching with bininj² is about. This thesis will share a range of similar experiences with you.

¹ When an Aboriginal person has died, families usually request to not refer to them by name.

² In this thesis, bininj is used to refer to local peoples of a place.

Candidate's Declaration

This thesis contains no material which has been accepted for the award of any other degree or diploma in any university. To the best of the author's knowledge, it contains no material previously published or written by another person, except where due reference is made in the text.

Hmalan Maureen Hunter-Xénié

Drehu descent (Lifou, New Caledonia)

Iwaidja/Tiwi and Kaytej/Warlpiri descent (Northern Territory, Australia)

June 2020

Acknowledgements

I am thankful to the many people who have helped me. Their time, resources and reassurances have supported me in completing my studies. First and foremost, to my mother Anita Hunter, your constant love and spiritual training carries me through each day. My families from Australia and New Caledonia—Nana Duck, Papa Winny, Kojié, Irene, Kojié Jnr, Wahudra, Pinane, Ujë, Prokopia, mum's sisters and brothers, papa's sisters and brothers, and my brothers and sisters. To my extended families from Top End Northern Territory (NT), Central NT and the islands of Grand Terre, Lifou and Tiwi, I acknowledge your influences in developing and continuing my love for creation. To those who always made time for me outside of my study commitments—Braedyn Edwards, Bonnie Mackenney, Bridie Moy, Campbell family, Dr Carmen Cubillo, Elizabeth Atanasov, Gareth Mitchell, Geary family, Helen Fraser, Jeremy Holley, Jorge Iván Rivera Delgado, Joseph Lau, Josie Lardy, Kelly Anderson, Laka-Pearl Hayden, Leah Halliday, Lissy Werne, Megan English, Michaela Manasov, Michelle Smith, Natasha Williams, Petrina Verburg, Rosemary Wright, Sam Provost, Sarah Loynes, Springall family and the Verburg family.

And thanks to the following groups and peoples:

Aboriginal Research Practitioners' Network and supporters—Alycia Campion, Dr Bevyline Sithole, Christine Brown, Dean Mununggullumurr Yibarbuk, Edna Nelson, Eddie Phillips, Grace Migayie Daniels, Maisie Cameron, Mike Redford, Otto Bulmaniya Campion, Otto Dann, Roanne Ramsey, Serina Namarnyilk, Steve Sutton, Tahlia Timms, the Traditional Owners and Djunkayi across northern Australia.

My supervisors—Dr Virginia Marshall, Emeritus Professor Richard Baker, and your respective families for sharing you with me.

The Tjabal team—Dr Anne Martin OAM, Cathleen Nansen, Georgia North, Marcia Mitchell, Ravana Saifoloi, Robyn Dass and students—special mention to Bhiamie, Blake, Bobby, Courtney, Dave, Eddie, Ella, Emily, Gabi, Garigarra, Georgia, James, Jodene, Kade, Katchmirr, Kate, Lilli, Maddy, Maeve, Makayla, Mary, Pete, Sebastian, Steph, Tora, Ty, Sophia, Tamara and Vanamali.

The nearly 100 individuals who participated in this Honours research—Alycia Campion, Andrina Campion, Anna Morgan, Associate Professor Natasha Stacey, Associate Professor Payi Linda Ford, Beau Cubillo, Bhiamie Eckford-Williamson, Bobby Maher, Brenda Muthamuluwuy, Dean Mununggullumurr Yibarbuk, Dr Bentley James, Dr Bevyline Sithole, Dr Carmen Cubillo, Dr Dermot Smyth, Dr Emilie Ens, Dr Kathryn Andrews, Dr Lawrence Bamblett, Dr Robyn Ober, Dr Seán Kerins, Dr William Fogarty, Emeritus Professor Jon Altman, Glenn

James, Glenn Wightman, Godfrey Blitner, Grace Miguyie Daniels, Ian Gumbula, Jessica Champion, Jodie Kelly, Jolette Williams, Kate Harriden, Kathleen Fry, Leah-Anne Champion, Lorraine Williams, Maeve Powell, Maisie Cameron, Makayla-May Brinckley, Mark Mayo, Mercy Gumbula, Mike Redford, Otto Bulmaniya Champion, Paul Josif, Professor Asmi Wood, Professor Helen Ross, Professor Jeremy Russell-Smith, Professor Ram Vemuri, Professor Stephen Garnett, Rita Lawrence, Sam Provost, Tamara Riley, Traceylee Forester and Yasunori Hayashi. Thank you to 43 unnamed persons for completing the anonymous online survey.

Uncle Porkie who regularly fixed my muscles and body alignment. You made sure I could sit in front of the computer and finish writing this thesis.

My academic advisors—Professor Alan Andersen, Professor Andrew Campbell, Associate Professor Chris Wallace, Professor Jeremy Russell-Smith, Dr Larissa Schneider, Professor Owen Stanley, Associate Professor Payi Linda Ford.

ANU—Professor Asmi Wood, Dr Bruce Doran, Candida Spence, Glenn Althor, James Walsh, Professor Saul Cunningham, Dr Seán Kerins, Piers Bairstow and Veenita Vido.

Fenner School Honours buddies—Daniel Gautschi, Evangeline Packett, Helen Burke, Joshua Coates, Matthew Flower, Shoshana Rapley, Yee Seng Tay.

NARU—David Williams, Dr Jan Richardson, John Nai-Smith, Joice Lodu, Dr Karen Edyvane, Kristy Howey and Penny Taylor.

Valuable feedback on the drafts were provided by 23 participants in the Honours project. In addition to them, the following persons reviewed drafts and suggested edits for improvement—Braedyn Edwards, Jessica Urwin, Jessie Liu, Joseph Lau.

And finally, I am grateful for the funding and in-kind resourcing to assist Honours completion including fieldwork, feedback and project materials—the Aboriginal Research Practitioners' Network, Australian Government Indigenous Tutorial Assistance Scheme, Dr Bevyline Sithole, Dr Bruce Doran, Burgmann College New Beginnings Bursary, Caroline Green, Elspeth Young Memorial Grant, Dr Francis Markham, the Fenner School, Fenner School Scholarship for an Aboriginal or Torres Strait Islander student, Georgia Mokak, Glenn Wightman, Hannah James, the Tjabal Centre, Joint Colleges of Science Indigenous Honours Scholarship, the Lesslie Research Scholarship in Landscape Conservation and Ecology, Dr Matthew Colloff, Dr Michaela Spencer, the Nawarddeken Academy, the National Centre for Indigenous Studies, Nuoya Wang, Raramai Campbell, Emeritus Professor Richard Baker, Ringisai Campbell, Rohan Fisher, Sam Provost, Victoria Firth-Smith, Dr Virginia Marshall and Will Stubbs.

Rekai Ewan Campbell for the graphic designs.

Abstract

This Honours project is possible through a collaborative partnership between the Aboriginal Research Practitioners' Network (ARPN) and the Australian National University. Before commencing the thesis, I was employed with ARPN but took leave to complete this Honours research. The overarching research question is, *what are the opportunities for Aboriginal peoples to lead and manage land and water research on-Country in the Northern Territory, Australia?* Nearly 100 people participated in the research—from three groups—Aboriginal research teams on-Country, Aboriginal researchers in academia and non-Aboriginal scholars supporting Aboriginal-led initiatives. They were involved in either yarning sessions,³ interviews, focus group discussions or through an online survey. NVivo 12 Pro and Microsoft Excel were used for thematic analyses. The thesis structure follows a theoretical Indigenous knowledge framework involving respect, connect, reflect, and direct. This thesis is about how land and water research on-Country can be done better.

The Northern Territory (NT) has over 85 percent of its coastline and 50 percent of its landmass under formally recognised Aboriginal ownership. Nearly 30 percent of the population identify as being Indigenous.⁴ This means environmental research in the NT often impacts Aboriginal peoples and the places important to us. This thesis argues that environmental science research in the NT has the potential to further reform the Indigenous research agenda. The health sciences are referred to as a benchmark because it is the health sciences in Australia which initiated Indigenous research agenda reforms.

Focussing on land and water research on-Country is necessary to highlight the research needs and aspirations of Aboriginal peoples and our communities.⁵ Reducing harm to research participants is the basic premise of doing ethical research alongside marginalised groups. Related to that, this thesis found that the overwhelming response from participants was for research to be culturally responsive. Aboriginal and non-Aboriginal peoples can achieve this with the research action plan 'USMOB', to;

Understand and incorporate local knowledges

See Aboriginal peoples as research practitioners, not just research participants

Manoeuvre funding to match Aboriginal research needs

Organise projects, so methods include decolonised research tools

Be a champion—advocate for more Aboriginal-led research.⁶

³ Yarning is communicating in a culturally safe way.

⁴ The majority from Aboriginal First Nations and not from the Torres Strait Islands region.

⁵ Community covers a group of First Nation/s which an individual belongs to. A community will not necessarily hold the same views on a given topic/concern.

⁶ This is an original concept developed by the author.

Table of Contents

Disclaimer	i
Recognition	ii
Candidate's Declaration	iii
Acknowledgements.....	iv
Abstract.....	vi
Table of Contents	vii
List of Figures.....	viii
List of Tables.....	viii
List of Maps.....	viii
List of Boxes.....	viii
List of Acronyms and Abbreviations.....	ix
Glossary and Terms.....	ix
Preface.....	xi
Chapter 1: Introduction	1
Chapter 2: Document and Literature Reviews.....	7
Chapter 3: Research Approach	17
3.1 Methods.....	17
3.2 Context	23
Chapter 4: Respect.....	27
4.1 Acknowledgment of Country	27
4.2 Research is a Dirty Word.....	31
4.3 Doing Things ‘Right Way’	34
Chapter 5: Connect.....	37
5.1 Take Time.....	37
5.2 Gain Trust.....	40
Chapter 6: Reflect	43
6.1 Indigenous Research or Indigenist Research.....	43
6.2 Levels of Engagement	46

Chapter 7: Direct.....	51
7.1 Aboriginal Engagement in Research: Power-Sharing	51
7.2 Aboriginal Engagement in Research: Process.....	54
7.3 Aboriginal Engagement in Research: Participation.....	57
Chapter 8: Conclusion	61
8.1 Planning and Visioning for the Future.....	61
8.2 Calls for Action	65
References.....	71
Appendix 1: Dhuwarrwarr Marika Artist Profile	77
Appendix 2: Participant List.....	79
Appendix 3: Questions—Interviews, Online Survey, Yarning	83
Appendix 4: NVivo Word Clouds	89
Appendix 5: SurveyMonkey results	93
Appendix 6: Summary Document	101
Appendix 7: Workshop Report—Emerging Research Issues (AIATSIS 2014:12-13).....	107

List of Figures

Figure 3-1 Adapted theoretical Indigenous Knowledges framework by Mumma Doris in Yunkaporta (2019) ...	19
Figure 3-2 Honours thesis outline	20
Figure 3-3 Research tools used with each participant group.....	21
Figure 3-4 Average years working in research	24
Figure 3-5 NVivo weighting of power-sharing, participation and process by respondent group.....	26
Figure 6-1 Revised community research body diagram (Gumbula 2020)	44

List of Tables

Table 2-1 Ten principles identified by Jamieson <i>et al.</i> , (2012) and organised into three dimensions classified by Hill <i>et al.</i> , (2012).....	11
Table 3-1 Status of respondents	23
Table 8-1 Group expectations to support more Aboriginal-led research	66

List of Maps

Map 1-1 Top End, Northern Territory. Provost (2020).....	5
Map 3-1 Study site area. Provost (2020).....	25

List of Boxes

Box 8.1 Focus on the needs of Aboriginal research teams on-Country.	67
Box 8.2 Focus on the needs of Aboriginal academics.	67
Box 8.3 Focus on the needs of non-Aboriginal scholars.....	68

List of Acronyms and Abbreviations

AIATSIS	Australian Institute of Aboriginal and Torres Strait Islander Studies
AIMS	Australian Institute of Marine Science
ARPN	Aboriginal Research Practitioners' Network
ANU	Australian National University
BIITE	Batchelor Institute of Indigenous Tertiary Education
CDU	Charles Darwin University
CSIRO	Commonwealth Scientific and Industrial Research Organisation
GPS	Global Positioning System
NAILSMA	North Australian Indigenous Land and Sea Management Alliance
NLC	Northern Land Council
NT	Northern Territory
PAR	Participatory Action Research
STEM	Science, Technology, Engineering and Mathematics
UNDRIP	United Nations Declaration on the Rights of Indigenous Peoples
YACI	Yolngu Aboriginal Consultants Initiative

Glossary and Terms

Aboriginal peoples	The original owners of the continent known today as Australia
Academia	Specifically, tertiary institutions concerned with the pursuit of research, education, and scholarship
Balanda	A term used by some Aboriginal peoples in Arnhem Land to refer to non-Indigenous people
Bininj	A term used by some Aboriginal peoples in Western and Central Arnhem Land to refer to ourselves, the peoples of that place

Country	Defined by Yunupingu and Muller (2009:158) as an “Aboriginal English term that recognises the relationships, authority and responsibilities of particular groups of ... [people] to particular areas of land and sea”
Djunkayi	A term used by some Aboriginal peoples in the ‘Top-End’ for maternal responsibilities for a specific area of Country
Indigenous or indigenous	Indigenous is specifically grouping Aboriginal and Torres Strait Islander peoples of Australia together whereas indigenous also includes first nation peoples internationally
Indigenist Research	Research by Indigenous peoples
Indigenous Research	Research with Indigenous peoples
Munanga	Kriol word used in the Roper River district meaning non-Indigenous people
Shaming	Aboriginal use of the word shame “embodies knowledge and emotions associated with situations in which a person is singled out from the group, for either praise or punishment” (Sharifian, 2005:79)
Top End	Most northern area of the Northern Territory including the regions of the Anindilyakwa, Northern and Tiwi Land Councils
Traditional Owner	Paternal responsibilities for a specific area of Country
Yarning	Defined by Yunkaporta (2019) as oral culture exchanges: like conversations but as a traditional form to create and transmit knowledge

Preface

For someone who has grown up in two indigenous cultures, I have found the academic process of writing an Honours thesis a challenge. A key part of this has been the issue of my right to speak for others. I also feel that I have been mining Indigenous people for their information then writing this up as if it is only my work. Given this thesis has relied so heavily on the work of others I am very uncomfortable with the requirement of sole authorship. This research is a joint product of nearly two decades of work with Dr Bevyline Sithole and the Aboriginal Research Practitioners' Network (ARPNNet). I would not be able to do the project if not for them. Can I include them as authors on the title page of an academic thesis? The negative answer upsets me. In Aboriginal culture the focus is not on the individual but how we work together for the betterment of our clans and communities. For me, the ideal cover page for this thesis would be shared authorship with the full Honours team;

More Than a Human GPS? Opportunities for Aboriginal Peoples to Lead and Manage Land and Water Research On- Country in the Northern Territory, Australia

by

Hmalan Maureen Hunter-Xénié
with
Bevyline Sithole, C.Wulumirr Daniels (dec),
Dean Munuggullumurr Yibarbuk,
Grace Miguyie Daniels, Otto Bulmaniya Campion,
Richard Baker, Sam Provost and
Virginia Marshall

Submitted in partial fulfilment of the requirements for the degree of
Bachelor of Science with Honours
in the Fenner School of Environment and Society,
Australian National University
June 2020



It is important to note that in the Aboriginal and Kanak cultures in which I have been raised and taught—questioning is not encouraged or indeed allowed on particular occasions. Moreover, both cultures have strong patriarchal elements which can make settings sensitive if women speak up publicly. Not participating in many ceremonies also limits the levels of knowledge I am permitted to know. For these reasons, I think my upbringing has shaped my decision making—for example, when I choose to question or politely remain silent. Silence in this sense is still a form of communication. Indeed, on many occasions, silence is a very important factor in being respectful and not shaming the governance structures in Aboriginal communities. In academic pursuits for knowledge gathering through the academy I must balance what is required for this system and what I need to do for my peoples and communities. I think the Aboriginal people I work with know which side I would rather stay onside with. Many non-Indigenous people are deeply unaware of this, and many of the other dilemmas this Honours research has raised.

This year has been challenging, and I worry about doing a PhD if tertiary institutions are not culturally safe spaces for us to be in. This thesis draws out what is required of the academy—specifically in the sciences—to create an environment that paves a way to working with Aboriginal peoples in a more meaningful and engaged way. I encourage you to read on and decide for yourselves if I have been successful in this bold aim. My conclusions in Chapter 8 include some deeply personal reflections on how universities could increasingly do research that provides safe cultural spaces for Aboriginal research teams on-Country, Aboriginal academics, and non-Aboriginal scholars.



Chapter 1: Introduction

I stumbled into research by accident. Growing up, I did not know that research was a job that people did. I didn't understand that the policies impacting me and my family, our communities, our lands and waters were a direct link to that research world. All I knew from growing up in remote areas of Australia and New Caledonia was that I loved being a part of the natural and cultural environments. For a job, I wanted to be able to look after these places and work with my people. So, I made sure to do well in high school so I could get into university down south to study environmental science. I got into the degree I wanted but as a teenager I didn't cope well with being so far away from my family. I knew I wasn't happy with my decision to pursue tertiary education, so I left. I deferred my university studies and returned to the Northern Territory (NT). I applied for volunteer work in the environmental sciences and was fortunate enough to meet Dr Bevyline Sithole (skin name Darritjan). Darritjan's continued mentorship at CSIRO, from 2005 onwards, has helped me to better understand why and how research is undertaken.

Over the past 15 years, I have also been educated in the bininj ways⁷ and trained on-Country by founding members of the Aboriginal Research Practitioners' Network (ARPNNet)—C. Wulumirr Daniels (deceased), Dean Mununggullumurr Yibarbuk, Grace Migayie Daniels and Otto Bulmaniya Campion (skin name Gamarran). These individuals have seen researchers come and go; they know very well the impacts of when research is not done properly. Sadly, they have witnessed many researchers and research projects that have failed to meet their needs and aspirations. That's why they established ARPNNet with assistance from Darritjan. Working for Darritjan and ARPNNet has clearly shown me that research can happen the way Aboriginal peoples want. The ARPNNet model emphasises that Aboriginal peoples can and should be engaged in all aspects of the research, from start to finish. However, those of us in ARPNNet are concerned that research, as a whole continues, to occur in a way that is not informed by Aboriginal ways of valuing, knowing, being and doing.

⁷ Bininj education is taught differently to formal western education systems.

ARPNet is a loose network of practitioners⁸ undertaking research with their peoples on their traditional estates. ARPNet founding members and executives, Dean, Grace and Gamarran, have around 50 ARPNet members who work in research teams across Arnhem Land and the Roper River District. ARPNet has been in operation since 2007 working mainly in and around Gunbalanya, Maningrida, Ngukurr, and Ramingining. Nearing 20 years, ARPNet has been articulating to funders the value added to research when it is undertaken by Aboriginal peoples with Aboriginal peoples. Considering this, in 2012 a research training guide was written by Sithole, which details the Participatory Action Research (PAR) tools adopted and adapted by ARPNet.

ARPNet is not the only Aboriginal research network in the NT. There are several Aboriginal research organisations based across the NT. For example, in Central Australia, there are the Aboriginal Community Researchers based at Ninti One (Ninti One Limited, 2020) and the Tangentyere Research Hub (Tangentyere Council, 2020). In Northern Australia there exists the Aboriginal health researcher network within Menzies Health (Menzies School of Health Research, 2020), the Nawarddeken researchers based at Warddeken Land Management (Nawarddeken Academy, 2020), the Yolŋu Aboriginal Consultants Initiative (YACI) based at Charles Darwin University (Charles Darwin University, 2020) and the Yalu researchers at Galiwinku (YALU Aboriginal Corporation, 2020). Each of these networks has its own way of researching differently to ARPNet. Notably, the commonality among the networks is that they promote local Aboriginal employment in the research sector, or ‘on-Country research’. ‘On-Country research’ refers to research which impacts areas of the NT that are owned/accessed by the rightful First Nations. It is essential that research jobs for Aboriginal people are prioritised on-Country. Doing so is a key step in encouraging Aboriginal communities to participate in research where they live and work. In turn, this will allow research outputs that reflect Aboriginal people’s knowledge and greatly enhance policy outcomes.

The research-policy space is closely linked to what happens to Aboriginal Territorians. Currently, Aboriginal peoples, hold inalienable freehold title to 50 percent of the NT landmass and 85 percent of the NT coastline (Northern Land Council, 2018). The NT has the highest percentage of the Australian population identifying as Indigenous, at nearly 30 percent (Australian Bureau of Statistics, 2016). A great portion of Aboriginal inhabitants live remotely

⁸ Practitioners who are connected to the issues they research and consider themselves accountable to the research undertaken.

or very remotely (Taylor and Dyrting, 2019). Remarkably, many of these locations have been able to escape large development projects. Relevant to development on Aboriginal lands are the *Aboriginal Land Rights (Northern Territory) Act 1976* and section 19 land use agreements (Northern Land Council, 2020). The Northern Land Council (NLC) facilitates section 19 agreement discussions with native title holders regarding possible commercial, economic, and social advancement for Aboriginal peoples and communities. The promotion of ‘development’, including jobs for locals, usually accompanies section 19 agreement discussions. However, a lot of Aboriginal groups continue to have fraught dealings with mineral exploration companies, irrigators, pastoralists and recreational fishers (Chambers *et al.*, 2018). Because of these tensions, some Aboriginal people elect to stay away from those industries and maintain access to Country in other ways (Zander *et al.*, 2014).

Despite the various manifestations of colonialism in the NT, Aboriginal Territorians’ connection to Country remains strong. Aboriginal peoples have been active in human rights debates to maintain access to traditional estates (National Native Title Tribunal, 2017). There is a long history in the NT regarding Aboriginal people’s interest in issues surrounding land and water. Well known advocates for Aboriginal people’s rights in NT include Albert Namatjira, Big Bill Neidjie, Dr Charles Perkins, Dr Miriam-Rose Ungunmerr, Galarrwuy Yunupingu, Joseph McGinness, Malarndirri McCarthy, Marion Scrymgour, Pat Turner, Rosalie Kunoth, Roy Marika and Vincent Lingiari. Certain individuals were instrumental in actions including the Yirrkala Bark petition, the Wave Hill Walk-Off, the handback of Uluru, and the establishment of Joint Managed Parks; Aboriginal Ranger Groups; Indigenous Pastoral Programs; Indigenous Protected Areas and Learning on Country Programs (Gorman and Vemuri, 2012).

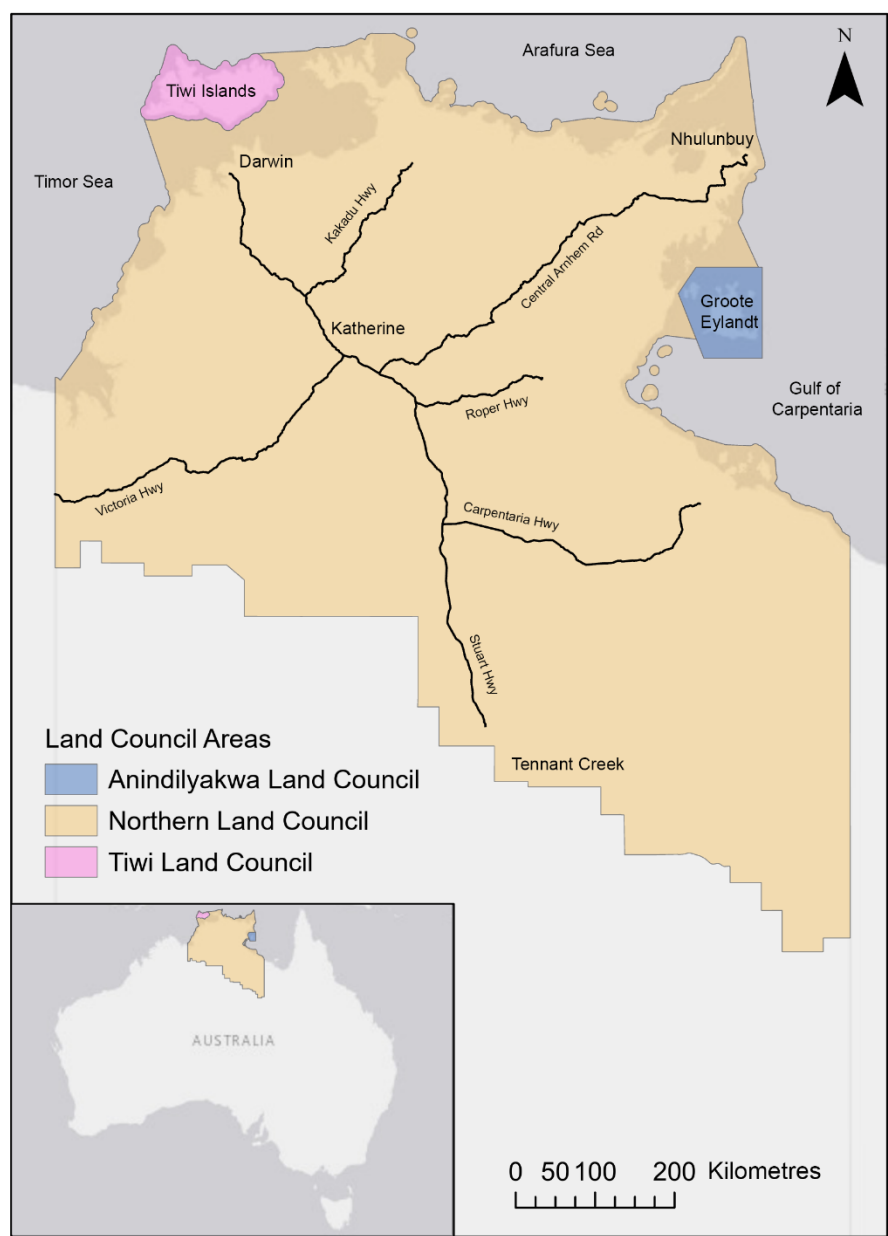
The Australian Government Working on Country Program—a natural resource management⁹ initiative—owes its success to key Aboriginal Territorians mentioned previously and their more recent counterparts. In the early 1990s Aboriginal people in Arnhem Land initiated land and sea ranger programs with little government backing (Cochrane, 2006; Hoffmann *et al.*, 2012). Since then the Caring for Country movement, which started in the Northern Territory, has expanded across the continent. Now, there are nearly 1000 Indigenous peoples employed as rangers in 123 locations (National Indigenous Australians Agency, 2020). The federal government has extended funding for this until 2028 (Wyatt, 2020). While it is impressive to have an increased number of Aboriginal peoples employed in land and sea

⁹ Natural resource management considers the role of humans in sustainably utilising the environment for profit.

management there has not been a concerted effort to increase the number of Aboriginal scientists or researchers. In response to scepticism raised by funding bodies, ARPNet produced a video to document Aboriginal people researching on-Country (The Aboriginal Research Practitioners' Network, 2014).

The government and academy must consider what levels of Aboriginal participation in land and water research they seek. Iman academic, Professor Marcia Langton holds a strong view about green activism negatively impacting Aboriginal people's livelihoods. Langton (2018) describes how the return of the 'noble savage' trope in the wilderness conservation movement is hindering Aboriginal peoples' economic participation in natural resource management. The number of jobs available locally within most Aboriginal communities is extremely limited, but there are workers travelling in regularly. They are working for academic institutions as researchers, independently as private consultants or facilitators for both government and non-government organisations. Clearly more local Aboriginal people could be employed to do aspects of this research work. This thesis, therefore, asks the crucial question, *'what are the opportunities for Aboriginal peoples to lead and manage land and water research on-Country in the Northern Territory, Australia?'*

This question is important to answer as it is crucial to Indigenous livelihoods on-Country and for the continued management of land and water resources in the Top End, NT (Map 1.1). As outlined in section 3.3, the methods I use to answer this question include online surveys, PAR tools and yarning. Nearly 100 people participated in this project. The research approach sits within an overarching theoretical Indigenous knowledge framework explained by Mumma Doris in Yunkaporta (2019) to, first—respect, second—connect, third—reflect and fourth—direct. For this Honours project, three subsidiary questions relating to respect, connect and reflect are addressed in Chapters 4, 5 and 6, respectively. While the thesis statement—linked to direct—is considered in Chapter 7. Chapter 8 details the key finding from this research—that the correct order for approaching Indigenous research must start with respect and end with direct.



Map 1-1 Top End, Northern Territory. Provost (2020)



Chapter 2: Document and Literature Reviews

To offer insight on what the opportunities are for Aboriginal peoples to lead and manage land and water research on-Country in the NT, this Honours thesis considers the following subsidiary questions;

1. What are the experiences of Aboriginal people's participation in research?
2. What are Aboriginal peoples advocating for regarding stronger participation and ownership in research?
3. What are the challenges for increased Aboriginal owned and controlled environmental management research on-Country in the Top End, NT?

To answer these questions the research approach has been place-based. Firstly, the need for this Honours research project was identified by Aboriginal peoples. The project was jointly developed with the executive members of ARPNet with the aim of showcasing Aboriginal engagement in research in the NT. Second, the project applies a multi-method approach involving the framework of PAR, yarning¹⁰ and targeted snowball sampling. A focus on predominately qualitative sources allows for Aboriginal and non-Aboriginal peoples participating to share their experiences in a rich and nuanced manner. This was only made possible because of established relationships I had developed through ARPNet prior to this project. Lastly, a theoretical Indigenous knowledge framework underpins the project.

The thesis topic advocates that research meets the requirements identified by Aboriginal peoples. To do so, I have referred to Australian health science literature which has been successful in increasing Aboriginal research participation. By referring to the Australian health science literature, we clearly see learnings from this sector in reforming the Indigenous research agenda. I consider a case study in the Australian health sector which has increased Aboriginal research participation. A critique of relevant documents has highlighted five essential principles and three dimensions which the environmental sciences should refer to in

¹⁰ Yarning is explained by Frazer and Yunkaporta (2019:3) as "a traditional process of knowledge sharing in which community and family members produce and keep knowledge through story, negotiation, disagreement and humour".

order to increase Indigenous participation in research. If we thoughtfully incorporate ideas from the health sector, then the environmental sciences will have a strong foundation to build from. In doing so, the environmental sciences could improve in 1) doing research with and for Aboriginal peoples and 2) protecting places of interest to Aboriginal peoples.

Indigenous Research Reform Agenda

Academics in the health sciences have been active in reforming the Indigenous research agenda for over thirty years (Houston, 1987). Aboriginal Health professionals have been leading the way in promoting and applying Indigenist research (Dunbar *et al.*, 2004; Boyd, 2014) which, in the Australian context, is explained by Martin (Martin and Mirraboopa, 2003), Rigney (2017) and West (2000; 1990);

- Values resistance to dominant western research culture
- Recognises Aboriginal worldviews as vital to our lives and lands
- Ensures political integrity of Indigenist research
- Privileges Indigenous voices; and
- Emphasises looking back to learn and move forward.

Much of the literature and documents produced by Aboriginal health researchers and practitioners have advocated that research should be undertaken by Aboriginal peoples, for Aboriginal peoples.

The key referring document regarding Australia's Indigenous research reform agenda in the health sciences is, 'Indigenous Research Reform Agenda: Rethinking Research Methodologies' by Henry *et al.*, (2002). The authors detailed the need to reform and stress the importance of a workshop in 1987 at Camden, New South Wales. It was there that three key issues on the ethics of Aboriginal health research were highlighted; funding should be directed to and controlled by Indigenous community-run organisations; adoption of a needs-based approach to research; and the training of Indigenous researchers should be prioritised.

These reforms were later endorsed and adhered to regarding the distribution of Aboriginal health funding (Humphery, 2001). The main aim of this was to ensure that research is of benefit to Indigenous peoples. The report by Henry *et al.*, (2002) continued this line of reasoning stating that an overarching goal is for health research to be controlled by Indigenous peoples.

For this to happen, the authors argued that it is necessary to involve Indigenous peoples at all stages of the research process.

Four years later an article was written by Brands and Gooda (2006) entitled, 'Putting the Users of Research in the Driver's Seat: the Cooperative Research Centre for Aboriginal Health's new Approach to Research Development'. It was a follow-up to Henry *et al.*, (2002), focussing attention on further reforming the Indigenous research agenda. Brands and Gooda (2006), note that from the Henry *et al.*, (2002) document, one challenge remains—the prioritisation of training additional Aboriginal researchers. Brands and Gooda (2006) asserted that Aboriginal peoples with research experience would be qualified to lead Indigenous research projects. However, they flagged that there remains a “shortage of Aboriginal researchers with project management or senior research expertise” (Brands and Gooda, 2006:32). Brands and Gooda (2006:28) advised that future work in the health sciences must focus on “research transfer and capacity development”. In line with this, Brands and Gooda (2006) encouraged a program to develop postgraduate Indigenous health scholars. Subsequently, Brands and Gooda (2006) contributions ensure health science research happens the ‘right way’¹¹ (Lowitja Institute, 2013; Ewen *et al.*, 2019a).

Aboriginal and Torres Strait Islander health research principles

‘Right way’ research is an attempt to improve the way research happens with Aboriginal peoples and communities. Many have contributed suggestions on how health research with an Aboriginal focus (peoples or interest) should be undertaken. The premise is that ‘right way’ research is, “relevant, effective and culturally respectful” (Jamieson *et al.*, 2012:16). Jamieson and nine colleagues, working in Indigenous health, co-authored the article titled ‘Ten Principles Relevant to Health Research Among Indigenous Australian Populations’. Jamieson *et al.*, (2012), gained attention because their information helps medical researchers address the National Health Medical Research Council guidelines for ethical research in Indigenous health research (McFarlane *et al.*, 2016). However, environmental health researchers, O'Donahoo and Ross (2015:2504), argue that Jamieson *et al.*, (2012),

¹¹ Lowitja (2013) explains ‘right way’ research for Indigenous peoples as an ethical approach guided by local knowledges and practices. Right way is a complex term to unpack. In its simplest form, the operator attempts to abide to Aboriginal cultural practices as fully as possible.

“Lacks emphasis on the contribution that communities themselves can make to the research process and how culturally appropriate engagement, can allow this contribution to be assured, specifically with respect to engagement with remote communities”.

While the bulk of work centred on community involvement has come from the health sciences, increasingly there is acknowledgement of its importance in the environmental sciences (Neale *et al.*, 2019; Potter *et al.*, 2016). An article from the environmental sciences, by Hill *et al.*, (2012) focused on supporting Indigenous governance arrangements. Hill *et al.*, (2012) lists three dimensions influencing governance: power-sharing, participation, and process. For this thesis, I elected to integrate the ten principles of Jamieson *et al.*, (2012) and the three dimensions by Hill *et al.*, (2012). The ten principles were analysed for content and sorted into the three dimensions of Hill *et al.*, (2012). For a detailed breakdown, see Table 2.1.

Table 2-1 Ten principles¹² identified by Jamieson *et al.*, (2012) and organised into three dimensions classified by Hill *et al.*, (2012).

Power-sharing	
Principle 1. Addressing a priority issue as determined by the community	Principle 8. Preparing for Indigenous leadership turnover
Principle 2. Conducting research within a mutually respectful partnership framework	Principle 9. Supporting community ownership
Participation	
Principle 3. Capacity building is a key focus of the research partnership, with sufficient budget to support this	Principle 6. Recognising the diversity of Indigenous Australian populations
Principle 5. Respecting communities' past and present experience of research	
Process	
Principle 4. Flexibility in study to implementation while maintaining scientific rigour	Principle 7. Ensuring extended timelines do not jeopardise projects
	Principle 10. Developing systems to facilitate partnership management in multicentre studies

The principles and three dimensions proposed by Jamieson *et al.*, (2012) and Hill *et al.*, (2012) respectively can be understood as a proxy for achieving Indigenous engagement in research activities, which make them key materials for my Honours research. Essential principles, one to five, and the three dimensions will provide a benchmark for Indigenous research in environmental sciences. By extension, we can consider levels of engagement to determine if research aligns with the needs of Aboriginal peoples and their communities (Ewen *et al.*, 2019a). Lower levels of engagement will undoubtedly mean that research fails to meet the interests of Aboriginal peoples whereas higher levels of engagement will better facilitate Aboriginal-led and directed research. Unpacking this concept further allows one to see what Indigenous engagement requires. I will do this by detailing the five essential principles within the three dimensions of power-sharing, participation, and process.

¹² Jamieson *et al.*, (2012) list principles 1-5 as essential and principles 6-10 as desirable.

Power-sharing

The first of the ten principles proposed by Jamieson *et al.*, (2012) relates to researching issues defined by the community. Murrawarri Professor of Indigenous Health, Kathleen Clapham, makes this point stressing that, “the importance of an Indigenous research paradigm ... prioritises community needs and voices” (Clapham, 2011:41). Clapham goes on to argue that Indigenous peoples on the ground should say what research occurs and how. By carrying out research this way, Clapham argues that approaches can be developed which are informed by Indigenous needs. Clapham (2011:45) reflects on her past research stating,

“One of the key lessons learned from my research ... over many years is that research works best when it is invited, informed and led by members of the Indigenous community or group which is the target group for the research”.

Clapham (2011:45) identifies that it is more beneficial if Aboriginal people’s research needs are addressed within institutions highlighting that, “Indigenous leadership at both the community and academic level is crucial to the success of such research”. Therefore, strong Indigenous engagement in research should mean the research need is identified by Aboriginal peoples and their communities and facilitated by staff in academic institutions. Ideally this approach would apply to all stages of research from the project design, data collection, analysis, and feedback for both desk-top and field-based assignments.

The second of the ten principles written by Jamieson *et al.*, (2012) encourages research partnerships which are mutually beneficial and respectful. Brands and Gooda (2006:29) identify “the power imbalance between Indigenous and non-Indigenous research participants” as key barriers or reasons why Aboriginal peoples fail to direct research agendas. Yolŋu, working with non-Aboriginal researchers in the field of environmental science, report something similar, Sloane *et al.*, (2019) reveal that scientists need to release power early on to local peoples and remain flexible in working together. Understanding and factoring in the variety of forces at play are necessary. Through articulating power structures and struggles, we recognise the gamut of knowledge which different people hold. As quoted in Horstman and Wightman (2001:100) Yawuru Senator Patrick Dodson eludes to this,

“Knowledge is a very powerful thing. It’s not to say that knowledge is not to be shared, but how do we encourage the people who don’t live in our country to respect our interests?”

Strong Indigenous engagement in research should mean all holders of knowledge receive recognition and that their expertise is incorporated into project planning, actualisation, and benefit sharing.

Participation

The third principle of Jamieson *et al.*, (2012) relates to strengthening Indigenous research capacity. Associated with this activity is adequate research planning to provide the time and resources required. Professor Clapham mentions fostering the capacity of Indigenous research students as one way of contributing to the pool of Indigenous researchers,

“One of the most important challenges in enhancing Indigenous research leadership is to increase the number of Indigenous research students. Honours and higher degree research programs have been the traditional ways of achieving this, **but other more innovative approaches are also needed**” (Clapham, 2011:45 **emphasis added**).

One innovative approach has been posited by on-Country research practitioners to enhance research leadership within communities. Through supporting Aboriginal research teams on-Country. This is an efficient approach because Aboriginal peoples working in research on-Country will know what the specific research needs are. Additionally, the application of local knowledge has much to contribute to ensuring ethical research on-Country follows cultural protocols. Mayo and Tsey (2009:138) believes that universities and communities need to work together for mutual benefit, “I recommend every Aboriginal community to latch onto a university and have a working relationship which benefits both”.

Therefore, strong Indigenous engagement in research requires that research capabilities are developed and nurtured. This can only happen if local knowledge gained outside of the confines of academic institutions are considered as valuable to the western knowledge obtained through tertiary education. This is a requirement because what Aboriginal peoples

learn on-Country cannot be sufficiently taught in academia. Local knowledge, complementing western training in academia, is integral to strengthening Indigenous research.

The next principle focussing on participation urges researchers to consider Indigenous participants' research experiences, both good and bad, drawing on the past and the present. For Indigenous Australians it is common knowledge that most research previously undertaken in the academy has excluded Aboriginal peoples and their interests. For these reasons, the *United Nations Declaration on the Rights of Indigenous Peoples* (UNDRIP) promotes Aboriginal peoples to be active agents and undertake research on their terms (United Nations, 2008). Critical to UNDRIP is the inclusion of Aboriginal peoples in research from the planning process (Lehmann *et al.*, 2008). Vital to this is the recognition that the act of researching is a part of Aboriginal cultures too. An Aboriginal health research practitioner explains their personal awakening;

“We didn’t realise that our ancestors have been practicing research and passing it on reflecting that their elders had practices of observing, interpreting and analysing that were similar to western research processes” (Haynes *et al.*, 2019:47).

By extension, Palawa woman—Professor Maggie Walter encourages more Aboriginal peoples to position themselves as researchers (Walter, 2005). Walter notes the culture of ‘poverty discourse’. ¹³ To counter this, Walter (2005:31) states that Aboriginal peoples need to direct social policy by contributing to research which informs policies,

“The current direction of Indigenous social policy makes it vital for Indigenous researchers to be fully participative in the research processes and practices relevant to Indigenous communities. It is only by Indigenous researchers taking hold of research that is fundamentally about Indigenous peoples will we be able to reframe the analyses of these issues to reflect an Indigenous perspective, purpose and reality”.

Because of steps taken to include Aboriginal peoples in health sciences research Ewen *et al.*, (2019a:16) have seen, “a sharp increase both in research projects led or co-designed

¹³ Poverty discourse as explained by Walter (2005) is when data is used to focus on Aboriginal deficits in failing to meet targets that have been defined by the dominant culture.

by Aboriginal and Torres Strait Islander health researchers and in the governance of health research". Therefore, to ensure more robust Indigenous engagement in environmental research, participation levels must be focused on empowerment.

Process

The final essential principle mentioned by Jamieson *et al.*, (2012) relates to flexibility in all areas of the research process. Failing to include Aboriginal peoples in the planning process can mean timelines do not fit with what is happening on-Country. A simple example of this could be the timing of fieldwork. In the Top End, monsoons bring torrential rains cutting off road access to remote areas in Arnhem Land for six months of the year. Beyond practical knowledge of known weather conditions, there are other schedules which Aboriginal peoples must account for. Information regarding cultural activities occurring in an Aboriginal community is not necessarily open knowledge. This is especially so regarding matters of ceremony (James and James, 2019; Sithole *et al.*, 2019; Woodward and Marrfurra McTaggart, 2019). The Aboriginal land councils are advised of annual events and must inform travellers in advance before road closures occur. Adherence is a requirement. For Aboriginal peoples, ceremonies (attached to the land, water, and sky) are interlinked with the very notion of being and existing. Nyikina woman, Dr Anne Poelina and her colleagues explain why this is so,

"Traditional Owners¹⁴ consider the river to be a living ancestral being that is the source of their culture and spirituality, food and medicine, health, ceremony and recreation" (Poelina *et al.*, 2019:242).

Timing of research activities, therefore, need to be considerate of cultural events which take precedent in Indigenous communities.

Like many others, Aboriginal peoples must juggle multiple calendars. Importantly, many First Nations peoples have an additional duty—the task of responding to our cultural obligations as well as maintaining personal and professional responsibilities. For these reasons, Kingsley *et al.*, (2008:37) are alert to the burnout of Aboriginal community members, "Traditional Owners have their own personal and work life too, so they are limited in time". Outsiders need to be mindful of their requests, asking Aboriginal peoples to participate in

¹⁴ In the Top End NT, 'Traditional Owner/s' is a term used by Aboriginal peoples to determine paternal responsibilities for a specific area of Country.

research could be increasingly viewed as an unnecessary bother. Therefore, regarding the need for more robust Indigenous engagement in research, research processes must be flexible in responding to multiple events occurring in Aboriginal people's lives. To aid this, Aboriginal people should be compensated appropriately for their time and contributions to the planning process before defining and undertaking research.

The environmental sciences can learn a lot from the health sciences in improving Indigenous research. Currently, the environmental sciences do not have a critical mass of Aboriginal scientists or researchers. Therefore, the focus must begin by improving the way environmental research happens with Aboriginal peoples. I believe that the facets of the five essential principles by Jamieson *et al.*, (2012) and the three dimensions described by Hill *et al.*, (2012) could help guide this process. The detailed consideration in joining these two components identify a gap. Currently, research in environmental science is not adequately responding to the needs of Aboriginal peoples. This means there is room for improvement, in ensuring research works better for both researchers and participants alike.



Chapter 3: Research Approach

3.1 Methods

The focus of this Honours research has been shaped by ARPNet and Darritjan. Because of the previous training and mentoring from them, ARPNet's vision heavily influences my determination to do research the right way, at the right time with the right people. ARPNet talks about doing research 'right way', to respect, recognise, and adhere to Aboriginal customs and culture. 'Right way' research aims to make every aspect of the research process align firstly with Aboriginal ways of valuing, knowing, being and doing. Additionally, I was greatly aided by a supervisory team who understand and support Indigenous-led research. My primary supervisor is a Wiradjuri Nyemba Law academic and my co-supervisor is a Human Geographer. They both have established careers researching with, for and alongside Aboriginal peoples. Their work experience and familiarity with institutional arrangements at the Australian National University (ANU) was necessary to support this culturally driven Honours research.

Theoretical Indigenous Knowledge framework

In the health sciences, a shift has occurred over the last 30 years. The health sciences now request that research teams working on Indigenous issues have an Aboriginal majority. Senior Aboriginal health academics are developing terminology to align with this. At the 2019 ANU symposium on 'Data Sovereignty: Translation and Health Tools Assessment', Aboriginal health professionals signalled a move away from 'co-developed' research, opting for a more powerful phrase: 'Indigenous-led' research. Street *et al.*, (2007:377) allude to similar shifts in terminology,

"A shift away from non-Indigenous, individualistic, investigator-driven research ... [has] potential to provide a system that more accurately reflects Indigenous community priorities and values in research processes".

Indigenous-led research must factor in Indigenous ways of valuing, knowing, being and doing. Moving away from western ways of thinking and doing is crucial to this. A key ingredient

in facilitating Indigenous-led research is decolonising¹⁵ research practices and processes. Moving away from western ways of thinking and doing is crucial to this. This is why Indigenous researchers seek to carry out research informed by Indigenous theories and concepts. In undertaking Indigenous-led research Wik man, Dr Tyson Yunkaporta provides a framework for this process. In his book, 'Sand Talk: How Indigenous Thinking Can Save the World', Yunkaporta (2019) highlights the four key steps toward decolonising research and as explained by Mumma Doris as—respect, connect, reflect and direct. Mumma Doris identified that “non-Aboriginal people seemed to work through the same steps but in reverse order” (Yunkaporta 2019:274). This non-Indigenous tendency to do things in the opposite order to Indigenous people is particularly evident in the research space where historically, mostly top-down approaches by westerners (both individuals and institutions) have been applied. Typically, I have seen that;

- The funding body defines the research focus and what it will fund
- A non-Aboriginal researcher develops a project with little or no Aboriginal engagement
- The researcher applies for funding
- If funding is granted the researcher applies for necessary ethics approvals
- Ethics is secured, and the researcher undertakes the project seeking involvement and backing from Aboriginal peoples/communities.

Researchers continually approach knowledge gathering in this way. Perhaps unaware to many, the current status quo, which defines how research is carried out, is seen as disrespectful to many Aboriginal peoples and cultures. This may seem too harsh a judgement, but the truth hurts. In not demanding change, researchers and the Australian academy are silently supporting an ethos which counters the values and practices of Aboriginal peoples (Figure 3.1).

¹⁵ 'Decolonising research' is “concerned with the institution of research, its claims, its values and practices, and its relationship to power” (Tuhiwai Smith, 2013:iii).

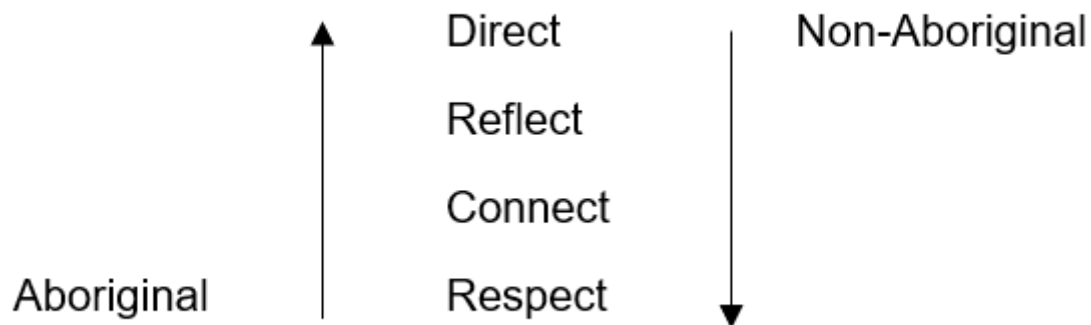


Figure 3-1 Adapted theoretical Indigenous Knowledges framework by Mumma Doris in Yunkaporta (2019)

Indigenous-led research must be on Indigenous people's terms. This means that bottom-up research is required as opposed to the usual western approach of top-down. Bottom-up research starts with respect. At the forefront of respect is finding out the values and protocols of those you are working with. This takes time. Gaining trust and learning what is expected of you is not simple or quick. The second step—connect—builds on those foundations of respectful interactions to then form stronger relationships. Third, the role of reflecting is to re-visit the past and meditate on how it impacts the present and future. Lastly, the fourth step—direct—is the actual doing of the work that needs to get done. For over thirty years, the Australian health sciences continue to promote that Indigenous-led research be undertaken in the correct order with the goal of health research being done by Aboriginal peoples for Aboriginal peoples (Lovett *et al.*, 2019). For **Respect**, the health sciences identified that health research must be based on Aboriginal values regarding health and wellness (Burgess *et al.*, 2009). Concerning **Connect**, the health sector has actively sought to increase the numbers of Indigenous staff through training and employment initiatives. Regarding **Reflect**, the discussions within health on reforming the Indigenous research agenda remains relevant in wanting to learn from the past to improve future research in the Aboriginal health practice. Finally, regarding **Direct**, Aboriginal health professionals and practitioners stay at the forefront in designing, leading, and managing projects to ensure Aboriginal health research is done the way Aboriginal peoples demand. In emulating this process for the environmental sciences, this Honours thesis is outlined as follows (Figure 3.2);

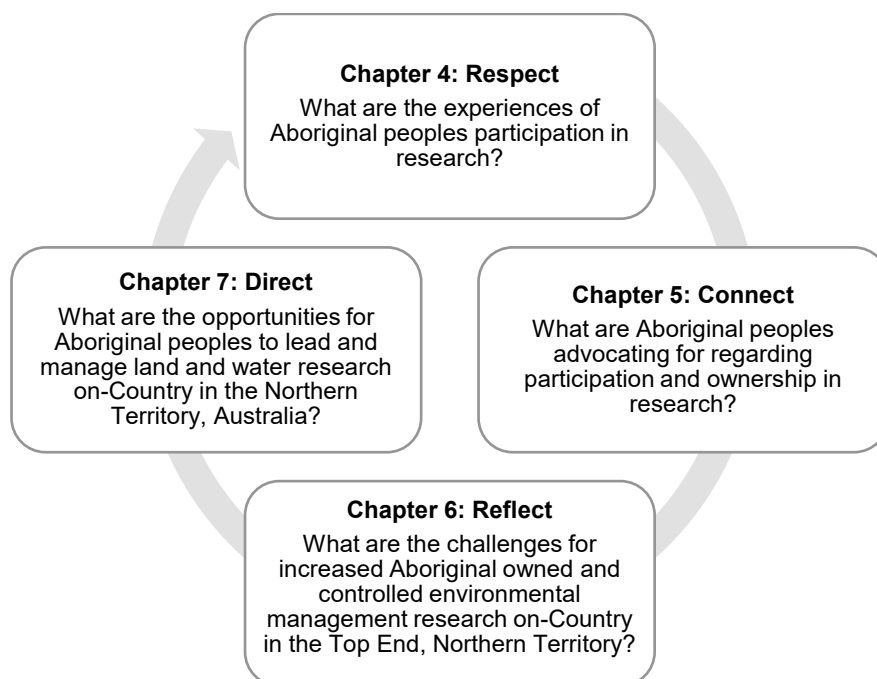


Figure 3-2 Honours thesis outline

The thesis affords us an outlet to inform the broader public on views surrounding Aboriginal engagement in research. To help articulate this, this Honours project was supported by the following persons and organisations;

- Aboriginal research teams on-Country in the NT
- Aboriginal academics working at research institutions, and
- Non-Aboriginal scholars working with Aboriginal peoples and communities in the NT (including private consultants).

In preparation for this Honours project, ARPNet executives wrote letters of support. ARPNet research teams in Ngukurr, Maningrida and Ramingining confirmed interest and availability to participate. A full ANU Human Ethics application was submitted and approved in late 2019 (protocol 2019/312). NLC permits were issued to visit ARPNet members from Ngukurr, Maningrida and Ramingining in January and February 2020. Most of the conversations occurred in Aboriginal English or English. I used local Aboriginal words and terms wherever possible.¹⁶ ARPNet members usually participated in focus group discussions. The YACI were invited to participate and yarning sessions were held at the Charles Darwin

¹⁶ To prioritise Aboriginal languages, Aboriginal words in this thesis remain in the normal font and are not italicised.

University (CDU) Casuarina campus in early 2020. A separate research agreement with the Warddeken Land Management Board was approved for the Nawarddeken researchers. Sadly, travel to Kabulwarnamyo outstation was cancelled due to the outbreak of COVID-19. For this reason, researchers from Nawarddeken were unable to participate. But Aboriginal academics and non-Aboriginal scholars were still involved in key interviews. Most of these were by phone, some face to face and a few by email replies. An online survey was made available as an alternative to the yarning sessions or interviews. Critical reflections through observation were also included. Thematic analysis was undertaken using NVivo 12 Pro and Microsoft Excel. The research tools applied in each participant group are provided in Figure 3.3.

Aboriginal research teams on-Country in the NT	Aboriginal academics working at research institutions	Non-Aboriginal scholars working with Aboriginal peoples and communities
• Focus group discussion • Participant observation • Yarning	• Critical reflection • Online survey • Participant observation • Yarning	• Critical reflection • Interviews • Online survey • Participant observation

Figure 3-3 Research tools used with each participant group

The questions asked in key interviews, from the online survey and in yarning sessions, gauged levels of power-sharing, participation, and process as defined in Hill *et al.*, (2012). The list of questions are provided in Appendix 2. Qualitative responses provided context to determine if any issues raised correlated to the five essential principles listed by Jamieson *et al.*, (2012). Participation occurred through a targeted snowball sampling approach. For the key interviews and yarning, ARPNet, Nawarddeken researchers and YACI provided a list of possible participants. Confirmed participants would then suggest others for me to contact. The online survey was broader in scope. A link was provided to staff mailing lists at research institutions in the NT including—ANU, Batchelor Institute for Indigenous Tertiary Education (BIITE), CDU, Cooperative Research Centre's, Commonwealth Scientific and Industrial Research Organisation (CSIRO), the four NT Aboriginal Land Councils, Menzies School of Health Research, North Australian Indigenous Land and Sea Management Alliance (NAILSMA) and NT Government. Respondents were encouraged to circulate the survey within their professional networks. To include researchers who fly in and fly out of the NT previous or current work in the NT was a prerequisite whereas living in the NT was not.

No Indigenous ecological knowledge was sought. No audio recording or filming was done. I purposely decided not to record conversations because it can make people nervous, and I also didn't want to rely on recording equipment. Instead, I preferred to write detailed notes so people could see, check, and correct what I was writing as we went along. Only information relating to personal experiences of Aboriginal research processes were transcribed. This helped respondents to establish the challenges and opportunities they face in their research. Written transcripts and the draft theses were provided to participants for fact checking. I requested a timeframe of two weeks to return any edits. Honours materials, including the final thesis, will be accessible on CloudStor.¹⁷ These items will be available to download until one year after Honours completion, June 2021. All respondents were provided with the link, along with the password, on the project information sheet. Several ANU scholarships enabled the completion of the Honours research. Funds have been set aside to carry out necessary feedback on-Country once the coronavirus pandemic subsides.

¹⁷ Data centres are in Australia and fall under Australian law to ensure Indigenous data sovereignty.

3.2 Context

From the beginning, this Honours project has followed the correct ordering of respect, connect, reflect, and direct. My hope was that undertaking an ANU Honours thesis could help Aboriginal voices to travel off Country with the expectation that those voices will entice change in the minds and hearts of readers, just maybe, their voices will be listened to, understood, and stir up actions. The purpose of this is to improve land and water research happening on-Country. We know not everyone can travel to the NT and experience what being on-Country is like. That is why this research will share the experiences of those that do (Table 3.1). Nearly 100 people participated in the Honours research between December 2019 and March 2020. (Appendix 2). Their collective research experiences amounts to just under 900 years (Figure 3.4). The average time spent with participants was 40 minutes for the interviews/yarning and 15 minutes for the online survey.

Table 3-1 Status of respondents

	Female	Male	Total
Aboriginal Research Teams On-Country	13	5	18
Aboriginal Academics	9	7	16
Non-Aboriginal Scholars	6	12	18
Online Survey	25	18	43
Total	53	42	95

A blanket invitation was sent to Aboriginal research networks in the NT for members to participate. All fields of study were included as I believe Aboriginal engagement principles can be learned and shared across disciplines. A few non-government organisations undertaking land management research projects were also approached. Ranger groups were not directly contacted to reduce humbug.¹⁸ Most researchers were from community development, environmental sciences, and Indigenous studies backgrounds. Of the survey respondents, 50 percent identified as belonging to the environmental sciences.

¹⁸ Humbug is commonly used in Aboriginal English when you bother someone by asking for an inappropriate amount of time or resources.

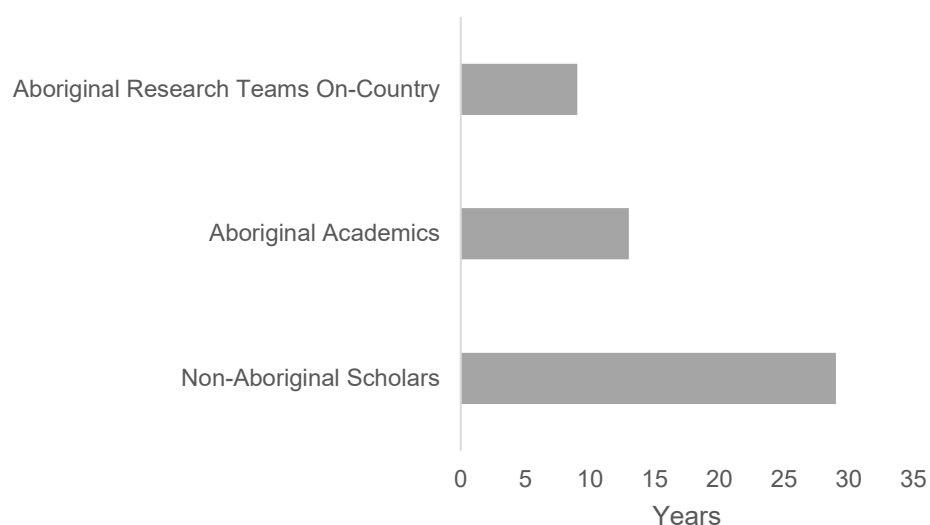
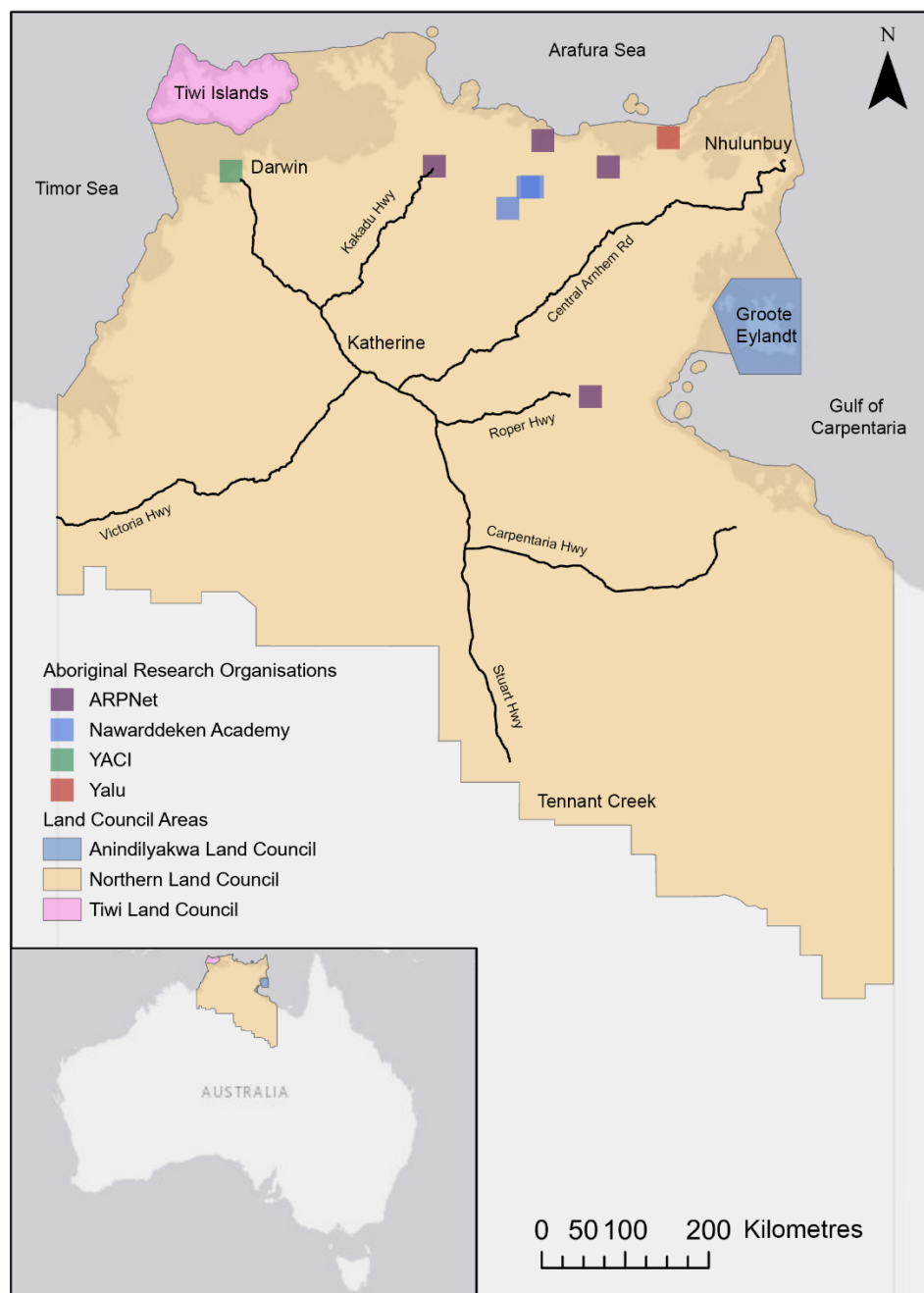


Figure 3-4 Average years working in research

Participants involved in the research were engaged through different mediums. The Aboriginal research teams preferred face-to-face contact. For this reason, a few weekly trips were arranged for me to stay in Ngukurr and Maningrida to speak with people. I was able to talk to a few people when they were in Darwin on other business. Map 3.1 shows the locations of the ARPNet, Nawarddeken, YACI and Yalu sites. After each activity, I provided copies of photos and transcripts to participants. Aboriginal academics and non-Aboriginal scholars had the means for me to contact them by email and phone or to complete a survey online. This was necessary in following government restrictions in place from March 2020 in response to COVID-19.¹⁹ The closure of the NT border and all non-essential travel to Aboriginal communities meant that I was unable to include additional participants from the Nawarddeken researchers based at the Kabulwarnamyo, Manmoyi and Kamarrkawarn outstations.

¹⁹ Coronavirus disease.



Map 3-1 Study site area. Provost (2020)

Questions asked in the interviews, online survey, and yarning sessions are listed in Appendix 3. Thematic analysis grouped comments into the three dimensions of power-sharing, participation and process as defined by Hill *et al.*, (2012). This was necessary to inform the coding in NVivo 12 Pro following the steps explained in Butten *et al.*, (2020). The order of importance for the three dimensions of power-sharing, participation and process was similar for Aboriginal research teams on-Country and Aboriginal academics but inverted for non-

Aboriginal scholars (Figure 3.5). NVivo word clouds for these groups showed shared commonalities, specifically community, people, and research (Appendix 4). The online survey data was analysed through SurveyMonkey using Microsoft Excel. Text responses were arranged into broad focus areas as identified by the five essential principles in Jamieson *et al.*, (2012). The results for these are provided in Appendix 5. Question 10 of the online survey—were projects initiated by Aboriginal peoples—showed 49 percent of respondents believed this was the case. For question 9—practical steps taken—approximately 23 percent of respondents prepared beforehand to ensure that their research was culturally appropriate. Further discussion of the analyses and key findings is provided in Chapters 4, 5, 6 and 7. An overarching evaluation is summarised in Chapter 8.

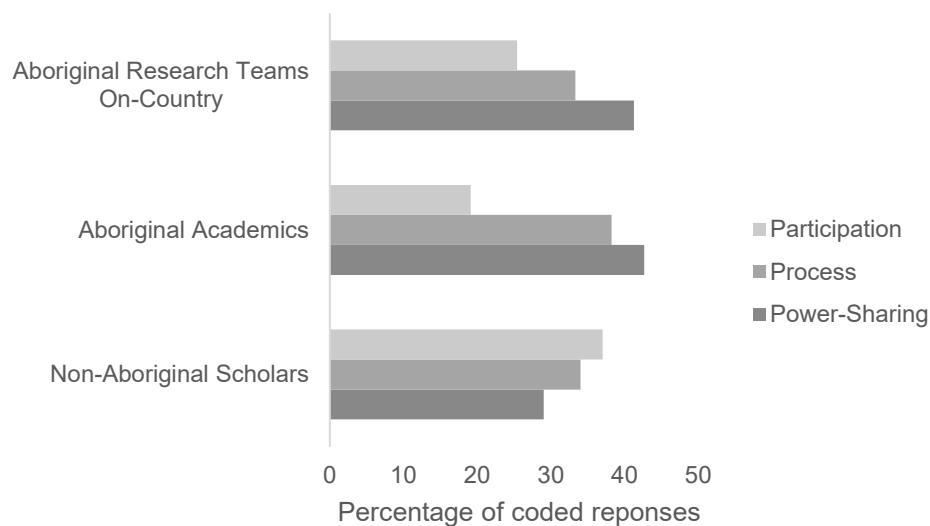


Figure 3-5 NVivo weighting of power-sharing, participation and process by respondent group

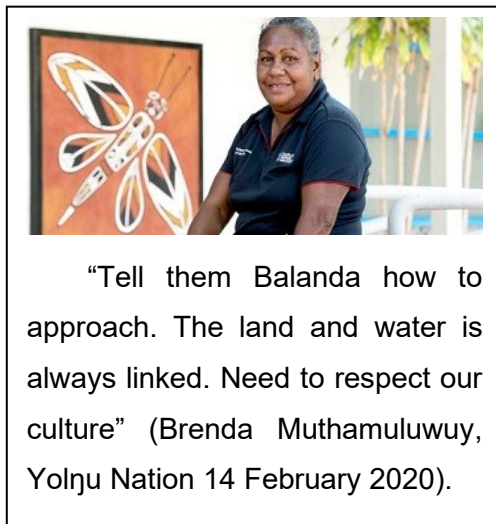
Drafts of this thesis were provided for participants to review. A shorter executive summary document was also prepared in addition to the thesis (Appendix 6). Of importance, coloured printed copies of the draft thesis were posted to remote locations where Aboriginal research team members reside. Discussions were followed-up by phone.



Chapter 4: Respect

This chapter explores the question, *what are the experiences of Aboriginal people's participation in research?* The first step in Mumma Doris' Indigenous knowledge framework—respect—values protocols of introduction, rule setting and boundaries (Yunkaporta 2019). This chapter explains that any research on-Country must first align with Aboriginal philosophies.

4.1 Acknowledgment of Country



The importance of Acknowledgment of Country (AoC) is displayed in both words and action. When visiting someone else's Country, it is the protocol to show respect to people and place through an AoC. This is one Aboriginal practice which has gained broad recognition across Australia (Goddard, 2020). Carrying out AoC respects Aboriginal worldviews by continuing past practices in the present and into the future and linking us to our histories. The sustainable management of this continent was made possible because of Indigenous peoples' systematic

investigations, testing and checking, teaching and learning from and with the landscapes we managed (Pascoe, 2014).

The invasion that began in 1788 did not stop Aboriginal peoples' maintenance of the Australian environment. Aboriginal people's phrase for this is 'Caring for Country'. Dagoman and Torres Strait Islander man, Joe Morrison (2017:19) explains it as, “the sustainable use, occupation and management of ... [the] lands and waters”. Aboriginal peoples alongside non-Aboriginal allies continue to assert that sovereignty was never ceded and demand that Indigenous peoples are included in discussions regarding a future Australia. Australia continues to have numerable First Nations in existence (Australian Institute of Aboriginal and Torres Strait Islander Studies, 2018). Therefore, it's paramount that discussions on future

environmental research needs be led and directed by Indigenous peoples and supporters at the local level, rather than a once-size-fits-all approach. Ensuring this happens appropriately requires the inclusion of local Indigenous knowledges (hereafter referred to as local knowledges). This thesis attempts this by ‘weaving’ local knowledges and western scientific knowledges together (Wilkinson *et al.*, 2020).

Many Indigenous people see land and water as not separate (Marshall, 2014). Aboriginal peoples from the NT have a unique lived experience, traversing Country (which is both land and water) and knowing it intimately. The information shared and gathered over time means that specific individuals will have a deep understanding of how to manage discrete places using local knowledge. Local knowledge is learning by doing. Today, a lot of this knowledge is unable to be taught in classrooms as National curricula prioritise math and English (Van Gelderen, 2019). This means that if an individual seeks to understand their landscapes, they should stay on-Country for as long as possible—as other pursuits off-Country may hinder the transfer of knowledge from one person to another. Aboriginal academic, with 32 years Indigenous research experience, Dave Johnston believes that this intensive training on-Country means a “bush education equals several PhDs” (2 March 2020).

Confidence in applying what you learn is shared by Burarra, Kune, Nakara and Rembarranga women in Maningrida when explaining their seven years of combined research work on-Country in West Arnhem Land, “them blackcurrant we go and collect. We like doing that because we already know what’s on the land. And we know what times when its ready” (3 February 2020). Local knowledges are shared through observations in various ways. Non-Aboriginal scholar, with 12 years Indigenous research experience, Yasunori Hayashi observes, “scientists ... they respect elder’s knowledge, but they can’t sense it—sing, paint, dance water. A lack of trust exists because it is not tangible” (6 March 2020).

Aboriginal people’s contributions to broader discussions on proposed developments are essential. Governments are regularly revisiting discussions on developing the north (Commonwealth of Australia, 2014; Northern Territory Government, 2014). For this reason, adverse impacts to lands, waterways and the people who rely on them are becoming a more significant concern for Aboriginal peoples of the NT. There is also a strong desire by governments and industry to investigate if treaties with Aboriginal peoples in NT will grow the economy (Northern Territory Treaty Commission, 2020). Aboriginal peoples in the NT are

willing to engage in these debates and share their local knowledges about Country, “by sharing knowledge as long as [balanda] respect Indigenous knowledge. To share ideas and find pathways of how to work together” (Brenda Muthamuluwuy 14 February 2020).

Lama Lama woman, with 27 years Indigenous research experience, Traceylee Forester understands that a balance may not always be achieved,

“There are two knowledge systems at work here—western science and traditional knowledge. These are two standalone systems, and sometimes they come together, and sometimes they don’t, and this is fine” (27 February 2020).

Some Aboriginal peoples have sensitivities around sharing information. This is expressed by Wiradjuri academic, with 20 years Indigenous research experience, Dr Lawrence Bamblett when he said, “there is talk about knowledge grab in the academic world, so there is distrust, before they took the land, now they are taking knowledge” (19 March 2020). For these reasons, there must be: 1) a clear dialogue on who wants to participate in research and 2) what the expectations are from each side.

Aboriginal Territorians continue to maintain a close connection to Country. Many live and work on-Country and know their rights as Traditional Owners (TOs) or djunkayi.²⁰ Any discussions related to Country, therefore, requires free prior informed consent (Food and Agriculture Organization of the United Nations, 2016).²¹ The former Australian Government Department of Industry, Innovation and Science argued for more substantial Aboriginal participation in land and water research occurring on-Country stating, “community-wide science engagement will also equip community members to better interact with and participate in those research activities” (Inspiring Australia, 2013:15).

²⁰ ‘Djunkayi’ is the title assigned to individuals for responsibilities to Country under the maternal line.

²¹ Free prior informed consent is the primary UN principle regarding Indigenous people’s rights to self-determination and development pursuits.

Most importantly, Aboriginal peoples are campaigning that environmental science research needs to be defined by them. A Kowanyama Land and Sea Manager mentions,

“A lot of research has been done, but it’s still a top-down situation, this has got to change ... We’d like to work from the bottom up and involve people here ... it’s a difficult nut to crack. It’s a chestnut that’s been in the bottom of the fire for a long time and no one’s done anything about it” (National Environmental Science Programme, 2016:2).

4.2 Research is a Dirty Word



“Sometimes our Biniŋj mob don’t want to give right story to Balanda researcher. Biniŋj mob better to talk to Biniŋj in language” (Dean Mununggullumurr Yibarbuk, Gurrŋoni Elder 3 January 2020)

Aboriginal peoples ask for research to operate differently. Research is done to investigate something systematically, and with the findings, you reach a new conclusion. Rak Mak Mak Marranunggu academic, with 30 years Indigenous research experience, Associate Professor Payi Linda Ford argues that

“Our mob [are the] best researchers in the world. We are the oldest living culture. We did it by trial and error, own way. Collected evidence—which foods to eat, how to not get eaten by a croc, if bitten by a snake what to do. That’s science” (24 March 2020).

Research in Australia to date has privileged western epistemologies. With or without intent, mainstream research practice has significantly impacted Aboriginal peoples, their cultures, and languages. Understandably, due to the negative experiences of the past, many Aboriginal peoples are cautious of research and researchers. A key step in addressing this situation is that research respects and lifts local knowledges—thereby encouraging Aboriginal peoples to participate in research that is culturally appropriate to them. To support this, research institutions should cooperate to enable research staff to work in a way that promotes strong Aboriginal participation. From my perspective, the four key steps in this process are:

1. Realising the potential of Aboriginal research practitioners whose local knowledge of a place will garner support from Aboriginal communities
2. Local Indigenous people and organisations working together to define research priorities that are of interest to Aboriginal peoples by locality
3. Organisations supporting Aboriginal peoples to undertake research
4. Researchers backing Indigenous research agenda reforms in the environmental sciences and championing the cause.

With so much of Australia under formal Aboriginal ownership, it is now even more critical that Aboriginal peoples actively engage in the discussions that affect them and their Country. Strengthening Aboriginal people’s participation in land and water research on-Country can ensure that Aboriginal voices are put at the forefront of discussions dealing with Aboriginal

peoples and places. More active involvement of Indigenous peoples in the research sector would provide a primary avenue for people to stay on Country.

It is well understood, but not well-documented, by Aboriginal peoples that failing to care for Country and carrying out associated ceremonies means repercussions to people and place. Since the arrival of the first fleet, Aboriginal peoples have been forcibly removed from the landscapes they once inhabited. Now, the area of lands which enable Caring for Country to continue has been reduced in size and connectivity.

More recently, the efforts made by Aboriginal Northern Territorians to reassert Caring for Country on a larger scale has been supported under formal arrangements through Aboriginal ranger programs. The Australian governments have been funding environmental programs which fall under the work program of Aboriginal ranger groups. However, as Wiradjuri academic, with 20 years research experience, Kate Harriden asks, “why [are we] encouraged to be rangers, [but] not ecologists?” (13 March 2020).

Future environmental science research must happen in a way that primarily benefits Aboriginal peoples. As Kelly *et al.*, (2012:3) alerts,

“Too much research in the past was done ‘on’ Aboriginal people that didn’t benefit people at all. Usually the only benefits went to the non-Aboriginal researchers and academics. Aboriginal people received very little in return for their time, knowledge and valuable contribution to the research”.

Those with an interest in Aboriginal peoples and place have been afforded an opportunity to do something about it. The path ahead will require drastic changes at all levels of the research process. Dr William (Bill) Fogarty, with 25 years Indigenous research experience, explains,

“One of the things is to redefine what research is. We need to challenge the notion that research can only be done by people with a PhD ... Re-set knowledge collaboration. Begin on the ground. Got to be bottom-up” (5 March 2020).

Recognising local knowledges—without the expectation of certificates—will validate Aboriginal people’s leadership roles in research. Many Aboriginal Territorians announce that there are local peoples who are committed to doing research that suits their needs. Dhuwala and Alawa elders Ian and Mercy Gumbala, with 10 years’ combined experience researching on-Country, confirms, “We find it helpful if we are given the opportunity to do research with our community people. We gain that respect because ... local people are seeing us asking in a different way to munanga [researchers]” (17 January 2020). Marra elder, with 25 years’ experience researching on-Country, Grace Miguyie Daniels sentiment is similar—to employ locals to do research, we “need more people to be working on Country” (17 Jan 2020).

4.3 Doing Things ‘Right Way’



“We Indigenous mob we saying give us more recognition, more jobs, we are researchers, we are talking to Country, to our peoples” (Otto Bulmaniya Campion, Rembarranga Elder 7 January 2020).

Aboriginal people will be more inclined to do research on-Country if it is done the ‘right way’. The phrase ‘right way’ is commonly used across the North. In the NT, it is used in a positive sense when following cultural requirements. Deceased Yolŋu educator, R. Marika-Mununggiritj (1991:21), states it must involve “co-operation and negotiation with other people”. Marika-Mununggiritj (1991) was confident that balanda could understand how to do things ‘right way’—if they learn from Aboriginal people what is required. This Honours project has unearthed a primary outcome that participants request of research—that research be culturally

informed. This priority for future research was also identified by the Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS) (2014:13) when asking, “How can Indigenous aspirations and knowledge be prioritised in the design and delivery of new research programs?” (see Appendix 7). Aboriginal people are concerned that western ways of doing research are not working for them. Jamieson *et al.*, (2012) lists as principle five, the importance of respecting communities’ past and present experiences of research. I believe this should be the first priority. Gurrgoni elder, with 25 years’ experience researching on-Country, Dean Mununggullumurr Yibarbuk responds to this issue, highlighting that, “researchers come in and out and don’t understand the protocols with Indigenous people” (3 January 2020). This is confirmed by Marra elder, with 10 years’ experience researching on-Country, Godfrey Blitner, when explaining what he sees,

“Munanga use that language (English) well but don’t look at that culture and kinship with respect. When they [are] bringing them all together, male and female, into a meeting, they don’t know there’s a barrier between these people. It’s an invisible barrier, they can’t see it [but] we see kinship and look at [it]” (17 Jan 2020).

Godfrey is alluding to the kinship structure and how it dictates how people can interact and behave. Aboriginal peoples have suggestions on how research can better incorporate this.

There is an increasing need for research to include Aboriginal peoples and local knowledges. Aboriginal people are available to supervise this development. Indigenous academics, Walter and Andersen (2013:135) state that formal qualifications are not a requirement to do this work,

“Via our comparative lack of formal research qualifications like PhDs, for many years we have been constrained to the role of ‘helpers’ of academically qualified white colonizer settler researchers. We need to be leaders, not helpers”.

Attention to this ensures dominant cultures do not remain in a privileged position. Professor Ram Vemuri, with 30 years research experience, cautions that otherwise the alternative is, “acknowledgement of mainstream for the mainstream” (6 March 2020). It is necessary then that broader Australia move away from the deficit mindset and instead see what Aboriginal peoples have to offer (Wallace, 2018). At the moment, this is generally not the case. Anna Morgan, with 30 years working in Aboriginal Affairs, divulges, “there appears to be little [political] interest in the environment, from a conservation perspective, or respect for Aboriginal peoples’ knowledge or heritage” (28 February 2020). However, some scientists are optimistic that change is possible. Non-Aboriginal scholar, with 12 years Indigenous research experience, Dr Emilie Ens suggests that, “everyone should engage above zero on the scale. At least acknowledge land and people where you work” (2 March 2020). Similarly, Dr Kathryn (Kate) Andrews, with 10 ten years research experience, details how Aboriginal peoples and scientists can work together researching in a meaningful way by, “acknowledging skills the community has and skills others can bring in” (4 March 2020).

Aboriginal peoples should be remunerated for their research contributions. Currently, it is usual practice that non-Aboriginal peoples are primarily the researchers and Aboriginal peoples are mainly the participants. Non-Aboriginal scholar, with 40 years research experience, Professor Jeremy Russell-Smith, confesses it is, “relatively inexpensive to send one whitefella or student. [But there is a] broader context to take into account.” (26 February 2020). However, Mamu Bagirgbara academic, with 13 years Indigenous research experience, Dr Robyn Ober, argues, “I think Aboriginal people have been doing research for 60,000 years, we just didn’t call it research” (30 March 2020). Her comment emphasises that Aboriginal people may already start with abilities to undertake formal research activities. Notably, a few researchers have moved away from mainstream models and facilitated alternate

arrangements. Paul Josif, with 48 years Indigenous research experience, has mentored local Aboriginal research teams to undertake consultancy work in a remote community. He has witnessed instances where Aboriginal people research in their community. He argues that it is possible to work in a cultural framework if you, “work clan by clan and with families. Train people in groups and pay them. Training is the project. It’s possible [when its] long term and consistent” (2 March 2020). Yuin academic, with three years Indigenous research experience, Sam Provost affirms, “it’s good to try keep things positive. There’s an amazing potential for the community to research and achieve their aspirations if we just support them and listen” (27 February 2020). Rembarranga law man, with 15 years’ experience researching on-Country, Gamarran requests that instead of talking about problems we need to be “putting money into training and employment for bininj mob to do fee for service work” (23 January 2020). On the online survey, most respondents indicated that Aboriginal staff were paid on their projects (Appendix 5). However, many of the online respondents did not stipulate if those Aboriginal staff were considered researchers.

Aboriginal peoples are adamant that respectful foundations need to be in place before research partnerships can be discussed. Early on, researchers need to recognise the importance and application of local knowledges in research projects. Researchers need to be wary and understand that Aboriginal peoples may at first be cautious in choosing to participate. Should Aboriginal peoples engage in research, their levels of participation will be dependent on the way research is undertaken. ‘Right way’ research will likely encourage higher levels of Aboriginal engagement in research. Although, there is an increasing push by some Aboriginal peoples on-Country in how they can be more involved in research. Such individuals want to increasingly carry out the research with the aid of others.



Chapter 5: Connect

This chapter responds to the question, *what are Aboriginal peoples advocating for regarding participation and ownership in research?* The second step in Mumma Doris' Indigenous knowledge framework connect—strives for equality in strong relationships (Yunkaporta 2019). This chapter argues that any research on-Country must align with Aboriginal cultures' philosophies, needs and aspirations. Aboriginal peoples generally think of the plural as relationships are integral to Aboriginal kinship and clans. This extends into professional settings.

5.1 Take Time



"Research on-Country with community doesn't have a time frame. It's a commitment into the future" (Sam Provost, Yuin Nation 27 February 2020).

Doing research, the 'right way' takes time. Aboriginal peoples are cautious in approaching research and researchers. This is due to previous exposure to malpractice. Walter (2005) writes forcefully about negative research that impacts Aboriginal peoples. That is why time is required to form research relationships built on trust. Sadly, institutions don't necessarily see this as a focus before undertaking research. Dr Emilie Ens explains,

"The challenge of time required to do a project in a good way is that the institutions, university, don't realise time is needed to do research in a good way

in a remote Aboriginal community" (2 March 2020).

The online survey participants provided similar responses. For instance, question 18—strong partnership requirements—revealed that the second-highest ranked comments related to the importance of time (Appendix 5). The first was being flexible, which, by extension, incorporates timing. Kingsley *et al.*, (2008:39) similarly states that their,

“Informants mentioned more ‘planning time’, ‘feedback’, ‘being open-minded to what community wants’ and being ‘aware [of] cultural protocols’ as necessary for the [research] process to work”.

Considering timing requirements in future research should encourage more substantial Aboriginal participation and ownership in environmental research occurring on-Country.

Aboriginal people in the NT are aware that time is required to make things work. Gamarran illustrates this interdependency explaining, “need to support researchers to keep talking, planning. If you look after the root, then the plant will grow up strong, and everyone can eat that fruit” (23 January 2020). The time requirement in establishing research relationships is a serious undertaking. Many of the respondents consider relationships as crucial in working well together. Relationships between researchers and community were the second most commented response on question 12—are ethics processes enough—on the online survey (Appendix 5). A few of the non-Aboriginal scholars confirmed that establishing a rapport with Aboriginal peoples and communities is why their research partnerships continue. Glenn Wightman, with 30 years Indigenous research experience, credits his ability to co-author bio-ethnobotanical books as “I have worked in Ngukurr for a long time” (4 March 2020). Emeritus Professor Jon Altman similarly notes that his work in remote Australia is only possible because he has “built relationships over time. I have been visiting Arnhem Land since 1971” (28 February 2020). An Aboriginal academic,²² with three years Indigenous research experience, suggests that, “more support and more funding to work with the community is needed to spend time, learn what they want and how to get there using research” (6 March 2020). Importantly, Carter (2008) highlights that, whether they are Indigenous or non-Indigenous, the role for researchers should be to advance community aspirations, allow flexibility and sufficient time for a collaborative style, establish personal relationships, and follow culturally appropriate procedures. For Aboriginal people to have stronger participation in research, quality time must be spent during the initial stages of research processes to promote collaborative partnerships.

Yunkaporta (2019:275) reminds us that, to “connect is about establishing strong relationships and routines of exchange that are equal for all involved”. To do this takes time. Ngiyampaa academic, with three years Indigenous research experience, Maeve Powell shares

²² Instead of name and tribal affiliation a general identifier was requested to be used.

how time restraints make her feel, “I only had a certain time to do the fieldwork. I felt like the time restraint made it difficult to research in a deep and effective way, in an engaged way” (4 March 2020). Beau Cubillo, with four years Indigenous research experience, clarifies that the issue of timing rests predominately with institutions. Beau talks about conducting Aboriginal research in western academic institutions and stresses that there are, “strict deadlines in academia but, in community, things take time” (13 March 2020). Currently, the position of power in research is assumed to be held by research institutions. Brands and Gooda (2006) highlights that this can be an issue for all research participants regardless of nationality. Interestingly, the situation could be different for First Nation peoples in the NT. Emeritus Professor Jon Altman warns that, “remote research won’t happen without collaborations because landowners can ask you to leave their Country” (28 February 2020). I have been privy to many discussions on-Country where bininj reference people perceived to be ‘gate-keepers’. Currently is it not well documented to what extent Aboriginal peoples reject research or researchers on-Country. To reduce this possibility, Dr Dermot Smyth, with 42 years Indigenous research experience, insists that all collaborators should do applied research and provide practical assistance to solve local problems. To guide this, Dermot said that “a lot comes down to the self-confidence of traditional owners to say what they want.” (2 April 2020).

5.2 Gain Trust



“Need to be humble and will get results. Quality of the researcher – work from grass roots up” (Lorraine Williams, Larrakia Nation 18 March 2020).

Jamieson *et al.*, (2012) list their first principle for research as, its need to address a priority issue determined by Aboriginal peoples and communities. To facilitate this, people need to feel safe in being honest about their needs, speaking freely requires a trusting relationship between partners. Mayo and Tsey (2009:136) present voices from both researchers and community in their work and state that, “both data sources demonstrate the process and importance of building trust, reflexivity and capacity”. Sithole *et al.*, (2019) suggests that distrust and a deficit mindset can make researchers think that Aboriginal peoples are helpless with no skills or resources to offer. This alone establishes a power

imbalance. For Aboriginal peoples who participated in this Honours research, comments related to ‘power-sharing’ outweighed ‘process’ and ‘participation’. In contrast, non-Aboriginal scholars’ comments coded against ‘participation’ topped the list, with ‘power-sharing’ coming last. This coding in NVivo 12 Pro reinforces Mumma Doris’ point, that the four steps be taken in the correct order of respect, connect, reflect, and direct. In wanting to achieve stronger Aboriginal participation in research, the dimension of power-sharing needs to be made clear. Aboriginal peoples restate that the direct step needs to be taken last, dealing with power-sharing first will enable stronger Aboriginal participation in research. Reflecting on this, Glenn James, with 32 years Indigenous research experience, declares, “when views don’t align well then collaborations are hard and stressful. I feel sorry for countrymen when the research process doesn’t work for them” (6 March 2020).

Aboriginal people are becoming increasingly frustrated with the seemingly cultural incompetency of researchers to date. Current research practice requires researchers to build trust before meaningful collaborations can occur. On reviewing the principles promoted by Jamieson *et al.*, (2012), Gwynn *et al.*, (2015:239) note that, “there are few papers which address the development and subsequent implementation of such principles into practice”. From this Honours research, both Aboriginal and non-Aboriginal people are advocating for

stronger Aboriginal participation and ownership in research. To what extent this is the case depends primarily on the cultural competency of peoples and institutions working with them. Larrakia woman, with 30 years' experience researching on-Country, Lorraine Williams, has witnessed research staff, "high up in uni who are not culturally aware!" (18 March 2020). Dave Johnston is also "aware of alarm bells" when working with researchers who are not culturally competent (2 March 2020). Paul Josif states that researchers, "need to do things in the proper cultural way and learn from Aboriginal people" (2 March 2020). Dr Dermot Smyth goes further by asserting that western education systems should take seriously the responsibility of teaching Indigenous Studies. Dermot has noticed that "our education systems don't prepare researchers well for this work" (2 April 2020). The academy has a long way to go in creating the changes necessary to attract more Aboriginal people into the research sector. For the few that do, they persist under unfavourable conditions as expressed by Yamatji academic, with four years Indigenous research experience, Bobby Maher, "you feel like a square peg in a round hole. Your world view is quite different to the western paradigm, and you are often challenging that norm" (28 February 2020).

Aboriginal researchers want to do research differently. They suggest that non-Aboriginal researchers follow their lead. Dr Robyn Ober, states that in her work she always,

"Demonstrates alternative ways of doing research with Indigenous people and communities, rather than strictly following the mainstream academic approach. I have tried to bring a stronger awareness and understanding to non-Indigenous researchers about our ways of doing research" (30 March 2020).

Non-Aboriginal institutions must respond better to requests for changes to how research is undertaken. From my experience, university graduates are trained to research the formal western way. Indigenous students know from personal experience that higher degrees by research are often not culturally responsive. Torres Strait Islander law academic, with 10 years research experience, Professor Asmi Wood speaks to this, reminding us that, "in gaining something, we must be careful we are not losing something precious to us" (19 March 2020). Related to this concern—since returning to ANU—my family and Aboriginal colleagues continually remind me to put my connection to people and place before higher education pursuits. Most research continues to disregard Aboriginal people's knowledges and capabilities (Duff *et al.*, 2020; Robinson and Raven, 2020). This perceived lack of trust creates

a further divide between Aboriginal people and those research institutions. Yet, the two systems can operate better together, if research processes are informed by Aboriginal peoples, if research is undertaken in culturally appropriate ways and, if research includes Aboriginal peoples at all stages. Unfortunately, non-Aboriginal scholars who promote precisely this are often criticised. Emeritus Professor Jon Altman explains his work in Aboriginal Affairs, spanning over 40 years, is deemed by some to have had, “too much advocacy and activism” (28 February 2020). Their contributions are questioned because it counters the mainstream operations of academia and governments. On the contrary, the same individuals are usually heralded as allies by their Aboriginal colleagues, family, and friends. Therefore, the academy needs to be honest if they want Indigenous research or Indigenist research.



Chapter 6: Reflect

This chapter responds to the question, *what are the challenges for increased Aboriginal owned and controlled environmental management research on-Country in the Top End, NT?* The third step in Mumma Doris' Indigenous knowledge framework—reflect—asks that we think collectively (Yunkaporta 2019). This chapter discusses how any research on-Country requires that all parties operate well together. Quality research cannot happen in isolation, Aboriginal and non-Aboriginal peoples need to decide openly what it is they aspire to regarding Indigenous engagement in research.

6.1 Indigenous Research or Indigenist Research



“There still can be some resistance to Indigenous researchers knowing what’s good for Indigenous people. First others might say no, this is what’s important” (Mark Mayo, Mudpurra Nation and Torres Strait Islands region 2 March 2020).

In this section, I highlight the differences between Indigenous research and Indigenist research. Indigenous research is research done with Aboriginal peoples, whereas Indigenist Research is research done by Aboriginal peoples (Boyd, 2014). Understanding this distinction helps to know which avenues are available to strengthen Aboriginal engagement in land and water research. Doing Indigenous research well responds to Jamieson *et al.*, (2012) second principle to, conduct research within a mutually respectful framework. Factors that determined whether or not people and communities would be involved in research was the focus of a study by Guillemin *et al.*, (2016). They reported that the sole determining factor for Indigenous

participants was the perceived benefits that research could bring to their community (Guillemin *et al.*, 2016). To ensure Indigenous research does this, Dr Kate Andrews suggests “tipping research on its head ... How do community and others determine what research should be done? I believe PAR is really good for that” (4 March 2020). Following on from that, Dr Bill

Fogarty encourages “innovative ways for universities to fund knowledge centres on-ground” (5 March 2020). Ian Gumbula expressed similar when explaining to me how funding a community research body would allow more locals to be employed to undertake various research projects on-Country (Figure 6.1).

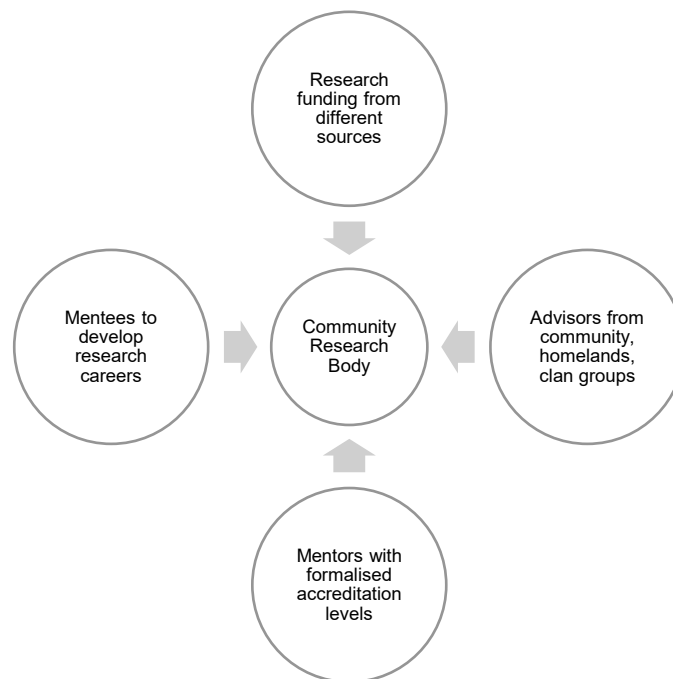


Figure 6-1 Revised community research body diagram (Gumbula 2020)

First, you need Indigenous research occurring before you can move onto Indigenist research. As mentioned, this takes time and resourcing. Jamieson *et al.*, (2012) third principle—that capacity building is vital to the research partnership—is highly relevant to this point. Therefore, there needs to be a commitment to employ more Aboriginal people in the research sector and provide opportunities for career advancement. Lorraine Williams makes it clear that for Indigenous research in the environmental science to, “be competent, you need to get local people to do work with the scientists” (18 March 2020). Some research organisations have noted things need to change. Inaugural Indigenous Partnerships Coordinator at the Australian Institute of Marine Science, Traceylee Forester says, that “we are looking to work differently from the past and build meaningful and mutually beneficial relationships” (27 February 2020). Aboriginal peoples working alongside scientists help ensure research outputs are interpreted appropriately (Ens *et al.*, 2016). Godfrey Blitner, illustrates this, noting,

“When making damper. We know the right ingredients for a good damper. Munanga they try, but they make no good damper. Government can’t eat, they just chuck ‘em away” (17 January 2020).

Employing more Aboriginal people in research is the first step.

To achieve this, serious considerations must be made to create employment that accommodates Aboriginal cultural requirements. Factors to consider include participation at ceremonies. A concern reflecting this is shared by seven women residing in Maningrida,

“Sometime for sorry business can’t work, need to stay away for respect. It’s really hard when funeral business. Sometimes when we go out for funeral, our pay gets cut off, and we don’t get paid. We try to fix our pay, and balanda always says you have to do activity before you get paid” (3 February 2020).

Observing ceremonies is a cultural responsibility under Aboriginal law. What balanda fail to understand is that cultural events strengthen social capital. Being present contributes to the operation of clans interacting within the community. This impacts relationships at a personal and professional level. That is why employment on-Country will garner greater interest if research jobs are flexible in responding to Aboriginal cultures. Doing so dramatically aids the research process. Non-Aboriginal scholar with 15 years research experience, Associate Professor Natasha Stacey confirms,

“Working with people already knowledgeable about their people, community, culture and Country helps us researchers. It makes us feel more confident that our research is properly done. Adds robustness to the work” (23 March 2020).

Professor Jeremy Russell-Smith explains that, “for effective engagement and partnerships, we must work out how best to get this done” (26 February 2020).

6.2 Levels of Engagement



“Needs to be embedded, have ethical approaches where people are involved in processes from beginning, design, survey questions, methodology, data collection, analysis and interpretation and how findings are fed back to community” (Bobby Maher, Yamatji Nation 28 February 2020).

Research focussing on land and water will always remain topical for the Top End, NT. It is highly likely that Aboriginal people’s involvement will be required regarding research occurring on-Country. Understandably, local Indigenous people may want to be involved in research in various degrees. But, Jamieson *et al.*, (2012:17) suggest in principle four that future research should at least “place greater emphasis on the involvement of community members and organizational leaders in development and implementation”. Mooney-Somers and Maher (2009:116) flag that,

“Until Indigenous communities have the resources or capacity to conduct their own research, partnerships with university-based researchers

who bring technical expertise are inevitable”

The researchers I interviewed had a range of views on this issue. Emeritus Professor Jon Altman felt that many Aboriginal peoples living in remote locations are not currently able to do “western-dominated forms of research themselves so research needs to be highly collaborative” (28 February 2020). In contrast Paul Josif states, “people can do research by themselves, just need basic techniques and training (2 March 2020). While ARPNet Research Leader of 16 years, Darritjan, comments that,

“Few community based Aboriginal people know how to follow through on the requirements of running a project. They are constrained by writing requirements and end up co-opting an outsider. But these skills can be learned. But there is little funding to develop local capacity although ARPNet has a process and tools to make this possible” (19 March 2020).

In returning to Mumma Doris’ Indigenous knowledge steps, Yunkaporta (2019:275) explains that, reflect “is about thinking as part of a group and collectively establishing a shared

body of knowledge to inform what you will do". It is clear to me that Indigenous research in the sciences can improve. Three key steps in this process are;

- Supporting Aboriginal research participation on-Country
- Assisting Aboriginal persons to pursue tertiary qualifications and remain at tertiary institutions as academics
- Non-Aboriginal scholars learning from Aboriginal ways of valuing, being, knowing and doing to train others so research is increasingly done in culturally appropriate ways.

These things will collectively contribute to ensuring stronger Aboriginal engagement in future land and water research occurring on-Country and in turn having impact. Preferably, all research should be developed in consultation with Aboriginal peoples and representative bodies. This conclusion was strongly supported in the online survey. In question 15—if Aboriginal people had a say in the way research projects were conducted—co-designed projects developed beforehand was ranked second highest in the 93 responses (Appendix 5). Euahlayi academic, with 8 years Indigenous research experience, Bhiamie Eckford-Williamson explains we should be “working with them (Aboriginal peoples) and for them” (11 March 2020). In doing so Larrakia academic, with 10 years Indigenous research experience, Dr Carmen Cubillo reaffirms research should be, “advancing our people” (18 February 2020). An Aboriginal academic, requests that “research ... make a difference for people” (6 March 2020). This can be best achieved if Aboriginal people are part of the research as described by Bobby Maher, “that’s why I like doing research with community. They are the experts. We are just facilitating, bringing it into formal space” (28 February 2020).

Deciding to join academia as an Aboriginal academic is not an easy decision to make. The environmental sciences as a field lacks a concerted effort in moving towards Indigenist research. The health sciences have been pressing forward in garnering interest in studying, graduating, and researching among Aboriginal peoples. I know that not every Aboriginal person wants to, or can pursue, higher education. Of those who do, it was documented in the first ‘Universities Australia Indigenous Strategy’ that 36 percent of Indigenous tertiary students were enrolled in health (22 percent) and education (14 percent). Whereas the second-lowest number of enrolments for Aboriginal tertiary students are in the natural and physical sciences with 6 percent, followed by engineering (Universities Australia, 2017). A lower number of admissions means fewer graduates. With fewer graduates in the physical sciences, the numbers of Aboriginal academics are constrained. Professor Asmi Woods speaks of two strategies for making research work for Indigenous peoples. He advises,

“First, learn how the western academy works and use that to research areas of importance for our peoples. This helps us to get into the academy. Secondly, once inside, try to get the western academy to change” (19 March 2020).

Andersen *et al.*, (2008:5) similarly, urges that, “the adage of growing your own is particularly relevant to building a core of Indigenous academics to be role models and to lead a resurgence of Indigenous research activity”. Aboriginal academics continue to be vocal supporters of researching in a culturally appropriate way. Kendall *et al.*, (2011) report that this is not happening enough amongst the broader non-Aboriginal researcher cohort and affiliated organisations.

Aboriginal academics are concerned that processes continue to favour non-Aboriginal scholars to undertake research using mostly western approaches. Researchers are trying to be socially responsive to this concern. Dr Emilie Ens understands that “maybe all researchers don’t have to do participatory cross-cultural research. But some level of Aboriginal engagement is better than none” (2 March 2020). In his book, ‘Serious Whitefella Stuff’, Moran (2016:184-185) emphasises the need for non-Aboriginal peoples to be better prepared. Moran writes,

“Given the significance of the role of practice in Indigenous affairs, it is surprising that so little attention has been given to it in either academic research or policy development. While more than half of Australian universities offer qualifications to prepare students for international development practice overseas, there are no explicit equivalents for Indigenous contexts here in Australia”.

Lorraine Williams explains that, “if you are going out on-Country, research needs reciprocity. Give back in appropriate ways” (18 March 2020). Gamarran warns that “if you can’t do feedback, they’ll do payback”²³ (23 January 2020). On the online survey, responses to question 16—how to acknowledge Aboriginal people’s contributions—most responses said that Aboriginal participation is noted in acknowledgments. Increased levels of recognition varied—the second highest mention was co-authorship. Third, were payments for Aboriginal people’s contributions. Interestingly, micro-credentials and honorary titles were the least mentioned. Noting the difficulties in awarding honorary titles to Indigenous knowledge holders, Steffensen (2020:75) commented in relation to a fire project that, “old people got their

²³ Payback is a term used in Aboriginal customary law and involves punishment or retribution for wrongs committed.

doctorates up-front”. In this Honours, struggles with academic governance structures were also mentioned by non-Aboriginal scholars as impacting collaborative partnerships. So, it is encouraging to hear that more researchers and research participants are, “on a journey together to do work better together” (Emilie Ens 2 March 2020).

Participants in this Honours research have flagged that there is room for improvement—when it comes to how Aboriginal engagement in research is addressed. Most Aboriginal people working in research already do Indigenous research well. These few Aboriginal academics are pushing on and preparing to now do Indigenist research well. Within research institutions they are the employees who know what needs to happen. They are the ones to always push for research to be done in culturally appropriate ways. This can similarly be said for a small group of non-Aboriginal scholars. However, these Aboriginal academics and non-Aboriginal scholars are caught in a waiting game. What they notice, is that on the most part, there are larger numbers of researchers who are not as adept at Indigenous research. This inability stifles the growth of future research professionals and institutions. A shift must occur, so that research institutions and staff become competent in carrying out Indigenous research. What is needed to make this happen is discussed in the following chapter.



Chapter 7: Direct

This chapter considers the question, *what are the opportunities for Aboriginal peoples to lead and manage land and water research on-Country in the Northern Territory, Australia?* The fourth step in Mumma Doris' Indigenous knowledge framework—direct—informs what you will do (Yunkaporta 2019). What Aboriginal and non-Aboriginal people want from Indigenous Engagement in research is not vastly different. However, the order of the necessary actions often is.

7.1 Aboriginal Engagement in Research: Power-Sharing



“Traditional Owners could be utilised to fill the knowledge gap that we have, as none or limited research work has been done. Areas at the top of Australia—such as Gulf of Carpentaria, Cape York, Arnhem Land, Wadeye areas—there is a lack of research done in these areas—so why not use our Traditional Owners to do this work. They won't be leaving their homelands anytime soon, they are always there—so we need to work better at this” (Traceylee Forester, Lama Lama Nation 27 February 2020).

Most non-Indigenous researchers still view the roles of Aboriginal peoples in research as a subordinate one. The approach of considering a few literature articles is woefully inadequate and titles assigned to Indigenous participants say a lot. Our contributions, if acknowledged, have usually been attributed to, a ‘community researcher’ or an ‘Indigenous research assistant’ (Hickey *et al.*, 2018; Lehmann *et al.*, 2008). My first job was precisely this—the national research institution designated it for all entry positions. However, my supervisor argued that the policy needed to change to better reflect Indigenous people's contributions and that a different title—such as research associate—should be used. Fifteen years later, I am still working in this research space and see that there is little consensus on what term should be used. Other words to try to reflect our work are being discussed and developed such as, ‘Aboriginal consultant’ (Charles Darwin University, 2020), ‘co-researcher’ (Haynes *et al.*,

2019; Kelly *et al.*, 2012), ‘peer researcher’ (Mooney-Somers and Maher, 2009), and ‘research practitioner’ (Sithole *et al.*, 2009). Ideally, Aboriginal peoples should set the tone on language use. Subtle references are a reflection on how others view our research capability. A mind shift must occur to “treat Indigenous peoples as experts, as able to participate.” (Dr Seán Kerins 17 March 2020).

Power imbalances permeate the way people think and operate. Aboriginal nations are not excluded. Even in Aboriginal governance structures, some people are afforded additional rights to knowledge or permissions through kin and law. This alone shows that Aboriginal peoples are not powerless. Some people are more acutely attuned to this than others. Kate Harriden voices her opinion that, “people on-Country should be directing everyone around. Power is on wrong side of the equation” (13 March 2020). Perhaps though—because Australia still operates as a colonial settler state—Aboriginal people’s power is being suppressed both knowingly and unknowingly. Hence the need for, “creating a conversation space for the voice of others to come through ... Completely levelling the power arrangement” (Dr Bentley James 26 February 2020). Some are concerned that governments of today keep avoiding the power dynamics discussion. Dave Johnston’s opinion is that the “the current red neck government—they do not pay blackfellas to come together in case we revolt” (2 March 2020). Nearly twenty years ago, Baker *et al.*, (2001:339) linked a lack of government support to a lack of understanding,

“The rights of Australia’s Indigenous peoples to access their country, stay in their country, and decide how their country should best be looked after are not fully accepted or widely understood within the non-Indigenous community”.

Honest discussions need to take place about how to share power better. This is especially so when researching with already marginalised peoples. Of importance is that Aboriginal peoples want these discussions about power to bear results. Two decades on, the reviewed literature on reforming the Indigenous research agenda confirms that progress on this front has been inadequate. A Lowitja report prepared by Ewen *et al.*, (2019b:13) explained that attention needs to focus on;

“Critical research on power relations—to centre the reality of unequal structural power relations in higher education, research and the larger societies, as well as agency in reworking power relations (e.g. equalisation)”.

However, just speaking is not enough. Understanding the words and associated concepts is necessary. Associate Professor Natasha Stacey explains that understanding research in Aboriginal contexts requires,

“Communication skills working in two systems. [I] don’t find that easy ... speaking people’s languages is linked to that. It is more rewarding if [you] can do that” (23 March 2020).

Many Aboriginal peoples feel they can easily interpret research in an Aboriginal context because, “we know the people, community and issues” (Ian & Mercy Gumbula 17 January 2020). Because of this seamless capacity, a Yolŋu woman is aware that outsiders usually struggle to do this. She has noticed that “communication [is] difficult mostly [for] balanda” (Brenda Muthamuluwuy 14 February 2020). In response, some researchers have taken on the task of learning Aboriginal languages. A non-Aboriginal scholar with 30 years Indigenous research experience urges others that,

“If you are not from the community, you should at least speak the language of the community where you work ... otherwise you are incapable of communication in a capable way” (Dr Bentley James 26 February 2020).

There are some scholars that caution against outsiders tampering with already established power dynamics of the groups they work with (Eckermann, 1988; De Costa, 2002; Bond *et al.*, 2019). However, the current situation is that Aboriginal peoples increasingly feel that a power imbalance continues to taint the research relationship. Clearly then, power-sharing in research needs to improve. Doing so will likely increase Aboriginal people’s interest to participate in future research.

7.2 Aboriginal Engagement in Research: Process



“More respect is needed to knowledge holders in community that don’t have a degree. Important to consult and acknowledge their ways of knowing. It would help with research process” (Beau Cubillo, Larrakia and Wadjigan Nations 13 March 2020).

Examining how research and researchers operate will help to create more culturally appropriate spaces. Procedures, or ways of working, are putting many researchers and organisations in a compromised position. If we don’t question what is currently in place, then things will continue as per usual. Street *et al.*, (2007:372) discussed comments from researchers about research funding processes and how well community-instigated research was supported and funded and concluded that, “it is unusual for community-instigated research or a community-based organisation to attract funding from national peer-review grant agencies”. This thought is reiterated by Professor Stephen Garnett, with 41 years of research experience, who says it is,

“Far better for partners to come in together at Country level, clan groups that have their questions they want answered ... [but] normally outsiders [are] coming in with own ideas” (6 March 2020).

Darritjan has witnessed the impacts when funding supposedly supports Aboriginal-designed projects. She explains,

“Currently, funding is available if there is a proxy researcher on the project who becomes the vehicle and leader on the project ... the project idea is captured, remodelled and becomes something else. This is the idea where communities start by controlling the shopping trolley and then sometime during the shopping someone takes over their shopping, and they lose control. Worth noting that communities do willingly give up control although they complain afterwards. This type of strategic behaviour I think is necessary because no funds are channelled to communities otherwise” (19 March 2020).

Research funding models, overall, are creating and perpetuating unethical arrangements for researchers and participants alike. Resourcing is usually overseen by government or non-government directives. An area of focus is made prominent where applicants must adhere to, in the hope of securing funds. In my experience working for ARPNet, an application submitted normally locks in a timeframe with an estimated budget. I believe some researchers are unlikely to quote the real costs in fear of competition. In many cases, this way of working reinforces a top-down approach which makes it, “hard ... getting, directing, funds to do research that Aboriginal peoples want” (Mark Mayo 2 March 2020). Dr Kate Andrews explains,

“We need to change the way we fund research and provide some resources to Indigenous-led research that just doesn’t rely on an Indigenous researcher—changing the process for Indigenous community—trying to change system radically. Great to have that scope. Would be amazing to have an Indigenous research fund open to Indigenous community and groups who had a pressing issue. Could initiate a collaboration. Bring in people, a call out ‘we want to do this, who wants to do this with us’. A genuine partnership, not just hand over to the researcher” (4 March 2020).

Because such systems are lacking in the mainstream, excellent researchers are burdened with the task of trying to keep funding bodies accountable. This is evidenced in the following comment from a professor with over 35 years working in Indigenous research who stressed the need for, “co-design models that work for Indigenous partners. [We need to be] a bit firm with funding bodies” (Professor Helen Ross 19 March 2020).

The health sciences seem to be better at funding Indigenous research. An Indigenous health funding body is touted as being exemplary in funding research in a way that meets Indigenous research needs, “we [are] funded [by] Lowitja. Makes it easier to make community trips, ok with time and money to build reciprocal relationships. Non-Indigenous funding bodies don’t understand.” (Makayla-May Brinckley 11 March 2020).

The operation of non-Indigenous human ethics committees has been highlighted as another major issue in restricting Indigenous research. All groups who participated in this Honours project—including myself—experienced levels of angst regarding human ethics committees and processes. Yolŋu woman, with three years’ experience researching on-Country, Mutha, alludes to the role of oversight by human ethics in research when saying

“ethics, we check with them if doing right thing” (Brenda Muthamuluwuy 14 February 2020). Researchers understand that it is necessary to do “ethical research to do what community want” (Dave Johnston 2 March 2020). However, Aboriginal researchers feel that the procedures work against them,

“Biggest [problem] at the moment is ethics. Makes it difficult for us as Indigenous researchers to work with Indigenous peoples ... End of the day all of those things governed by non-Indigenous peoples. It is really hard for Aboriginal academics. I still get wild with ethics” (Associate Professor Payi Linda Ford 24 March 2020).

For emerging Aboriginal researchers, the plight is the same,

“I don’t enjoy the process involved and constantly having to justify to people—ethics are a case in point. They can be a real downside. In contrast the AIATSIS ethics is not a be and end-all, but wholly and solely Indigenous committee. Responding to them ... has been a much better experience” (Bhiamie Eckford-Williamson 11 March 2020).

Non-Aboriginal champion Darritjan is concerned that,

“The ethics process captures the research project away from the people and gives ownership to the research collaborator who was invited to the project” (19 March 2020).

7.3 Aboriginal Engagement in Research: Participation



“All the Balanda do research here” (Maningrida Nursery ladies, Burarra, Kune, Nakara and Rembarranga Nations 3 February 2020).

Full participation of local Indigenous people in a research project is never guaranteed or indeed likely. Researchers well know this fact. That is why they deeply consider the number of people ideal for their sample sizes and determine rates of participation to reduce the likelihood of errors when presenting and explaining data (Foley, 2003; Ryder *et al.*, 2020). Sadly, the assumption in doing so is, that research is without bias. Aboriginal peoples on

the ground question this approach. Godfrey Blitner notes, “They (munanga) can’t talk to community ... They only choose who they want to talk to ... some people are left out and isolated” (17 January 2020). Understandably, such behaviours make it difficult for people to want to engage with outsiders in the research process. A non-Indigenous scholar confides that if people feel there has been a lack of engagement, it will ultimately stir up tensions, “politics between Aboriginal people and non-Aboriginal people and between Aboriginal people involved in community make it challenging at times” (Emilie Ens 2 March 2020). As difficult as it is—to consult widely and broadly—an Aboriginal academic, reaffirms that, “if you want to see meaningful outcomes, [you] need to have community involved from the start and throughout” (6 March 2020). It is encouraging that some Aboriginal people have been able to experience this. Dr Carmen Cubillo stresses that for her,

“I have always been involved and not taken advantage of. I think it was good luck. Good people were looking after me. They were all mainly non-Indigenous peoples” (18 February 2020).

One would hope that Aboriginal peoples having a positive experience in research is not reliant on sheer luck alone. Where non-Aboriginal researchers may view Aboriginal peoples only as participants, Walter and Andersen (2013:136) differentiate the way indigenous researchers view their communities that is, “to engage our communities as partners and colleagues, not subjects”. Associate Professor Payi Linda Ford emphasises “research [should] have real benefit for our mob. Put Aboriginal people at the front foot not the back foot” (24 March 2020). Bhiemie Eckford-Williamson believes if, “community ... have their own mob to do their own research ... [then] we will be well placed to pursue what’s important to them” (11

March 2020). These views have been echoed by Aboriginal peoples who have undertaken research in their communities. For example, consider a statement from a Kune TO, with 10 years' on-Country research experience, "make you think how to help people ... Achieving [for] yourself, your people, your Country" (Mike Redford 1 February 2020). Rembarranga TO, with 10 years' research experience on-Country, Alycia Campion, also finds enjoyment in her ability to employ technology in carrying out research on-Country, " iPad ... I use online. I been happy doing that [research] project last couple years back ... I was so happy" (1 February 2020). Sadly, because of ongoing difficulties experienced between Aboriginal peoples and research, Professor Walter (2005:27) cautions that Aboriginal people are even wary of their own peoples working in the research space, "the longstanding, widespread and, in many cases, justifiable suspicion of research among Indigenous communities extends to Indigenous researchers."

Researchers need to work harder at reassuring Aboriginal peoples and communities that past wrongs will be made right. Aboriginal and non-Aboriginal researchers must operate jointly with one goal—to reinstate research's legitimacy. Glenn Wightman explains that for him "the best thing [is] to work together. Get the expertise wherever you can get it ... Respect and work well" (4 March 2020). Mudpurra and Torres Strait Islander academic, with 28 years Indigenous research experience, Mark Mayo, encourages researchers to, "be inclusive, not exclusive" (2 March 2020). In coming together, Aboriginal people's contributions must be esteemed and valued. This is especially so if individuals hold little or no formal qualifications (Walter and Andersen 2013). Otherwise, having lowered expectations of people's capabilities can become evident when reporting back. We must be careful in trying to convince others of the significance of Aboriginal peoples and their knowledges. Our chosen phrases, while offering commendation, could be interpreted otherwise. Sloane *et al.*, (2019:136) argues that,

"The **remarkable** complementarity ... added insight from combining local Indigenous knowledge and Western science ... outweigh[ing] the use of only one approach" (**emphasis added**).

However, I feel that self-reflection is best left to individuals and in considering the lens they look through, Glenn James encourages self-reflection and suggests, "be critical of our own approach—why we do things? Why do I think I know this better?" (6 March 2020).

The evidence I have collected from Aboriginal research teams on-Country, Aboriginal academics and non-Aboriginal scholars who participated in this Honours research highlight how adequate Indigenous representation in environmental science research is still sorely lacking. They all stressed the need for Indigenous people's involvement in research to increase. Their suggestions include, honouring local knowledges; acknowledging research capabilities without formal qualifications; funding Indigenous instigated research and overhauling human ethics requirements. To reach greater participation by Indigenous peoples in research, contestations of power must be addressed first. Doing so will transform research processes. Which in turn will redress Indigenous participation and ownership of research in the sciences. Key steps in achieving this required change are outlined in Chapter 8.



Chapter 8: Conclusion

8.1 Planning and Visioning for the Future



“I see the whole picture, what’s happening for both people. Like the government and community. We can see where the problem is and can know how to fix it. By telling the story to government what needs to be done” (Godfrey Blitner, Marra Elder 17 January 2020).

Aboriginal people on-Country know what they want future research to address. Local Aboriginal peoples researching with their communities are best placed to understand local needs and aspirations. Aboriginal people’s primary concern rests with their families, clans, and communities. Research that reinforces clan structures, strengthens resilience, and promotes local livelihoods is desirable. Aboriginal peoples are fully cognisant of the overarching role of governments and the impacts policy impose on their lives. Justifiably, Aboriginal people want to be engaged meaningfully in discussions with local, regional, and national councils and to inform progressive policies and programs. There is a pivotal role for Aboriginal academics and non-Aboriginal scholars to facilitate this process, especially through linking to politics. Aboriginal research teams on-

Country are well-positioned to gain support and advice on how to best approach this. This is because they have close ties to their communities and can acquire information or views that are not necessarily readily available in the public domain. However, Aboriginal peoples may experience discomfort when placed in institutions that do not understand what Indigenous research requires—this is true for me at least. So, it is paramount that researchers and institutions have the resources and infrastructure to adequately support Indigenous research off and on-Country.

As I demonstrated in Chapter 4, Aboriginal peoples, residing in their communities, want themselves and the researchers they work with to research in a culturally competent manner. To be adequately prepared, there are a few things that need to happen.

Firstly, non-Aboriginal peoples must realise that it can be offensive to separate land and water and people from place. Aboriginal worldviews are holistic. Broadening research to include multiple areas of interest will better align with Aboriginal ways of valuing, being, knowing and doing. Research that focuses on integrating cultural and natural research management would be ideal.

Second, scale is important when deciding who are the right people to approach and engage in the research process. Wherever possible, there should be mechanisms in place for Aboriginal peoples and communities to identify their research needs and invite outsiders to work with them. PAR projects on-Country at the clan level should garner keen interest and involvement. Research capacity on-Country needs to be esteemed in absence of qualifications.

Third, strengthening capabilities for those involved in research activities requires ongoing training, mentoring, and resourcing. This applies to both Aboriginal and non-Aboriginal peoples, noting their distinct needs. Aboriginal peoples residing on-Country request that their local knowledges be respected and utilised with discretion. Similarly, Aboriginal academics are keen to be employed in the research sector if the way of working does not conflict with cultural protocols. Additionally, non-Aboriginal scholars note that western mainstream education does not prepare them to be confident in working cross-culturally with Australia's First Peoples, highlighting Indigenous studies can do better with teaching and training emerging researchers. Non-Aboriginal peoples request that future researchers undertake an honest self-evaluation if and how can they best operate when doing Indigenous research.

Researchers in academia worry that emerging graduates are poorly trained in doing Indigenous research. The non-Aboriginal scholars I interviewed want future work with Aboriginal peoples and communities to reflect Aboriginal research needs more effectively. I consider them to be champions. All have taken personal responsibility to build and maintain relationships and connections with the Aboriginal peoples and communities they work with. Most of their research partnerships are possible because of the decades spent together building trust. Some have learned Aboriginal languages. As a bare minimum, all have taken seriously learning how to operate in the local Aboriginal cultural structures. Such steps have aided non-Aboriginal researchers to carry out research on-Country. Their work has not gone unnoticed—but their motives are questioned by both Aboriginal academics and non-Aboriginal scholars. Such occurrences mean these researchers must forever be watchful, reassuring others of their intent. Regardless, they persevere and continue with their research

collaborations. They usually defer to Aboriginal peoples regarding what future research should focus on, and if it matches their field of study or expertise, they consider it a bonus. They are not easily frazzled and are almost always seen as troublemakers by the settler-colonial institutions for their pro-Aboriginal views. They simply ask that non-Aboriginal researchers do their homework beforehand and continually aspire to do research that is guided by the local Aboriginal peoples they work with.

Research processes and procedures are hindering, not supporting, Indigenous research. From this Honours project, what one does and how one does research is not working for Aboriginal and non-Aboriginal peoples. Western research approaches—the *modus operandi*—is in fact perpetuating prejudice. Current intolerance stunts the development of culturally responsive organisations and employees. For this reason, Aboriginal academics and non-Aboriginal scholars demand a shift in current research practice. It is common for these individuals to work in departments with colleagues who fail to understand the intricacies of Indigenous research. Some carry out the sensitive task of acting as brokers, facilitating culturally competent research. Responsibilities to both sides require a deep understanding of the complex positions such Aboriginal academics and non-Aboriginal scholars find themselves in.

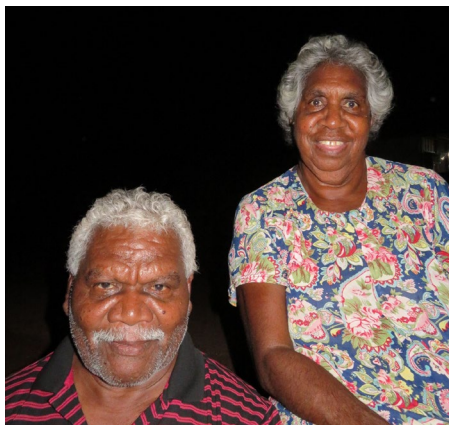
Most others have little or no understanding of the dual roles of Aboriginal researchers. In choosing to attain formal qualifications, some Aboriginal academics worry about being ostracised. A very immediate threat is that the pursuit of higher education comes at a cost to their cultures and communities. The issue of privileging one culture above another is a real concern. Aboriginal academics may struggle to find a balance. An overwhelming majority of the Aboriginal academics in this project undertook Honours, Masters and PhD research with an Aboriginal focus, and their ongoing research tends to have a similar emphasis on Indigenous or Indigenist research.

Aboriginal academics could be well placed to innately understand the delicate nature of researching with their own mobs. Current research processes still fail to meet the needs of Aboriginal peoples which in turn compromises Indigenous research practice. Changes to research processes like funding arrangements, human ethics requirements and feedback are required to avoid Aboriginal academics and non-Aboriginal scholars finding themselves compromised. Concentrating on the three aforementioned items will improve current

Indigenous research practice. Top down approaches by funders mean that, for now, funding seldom matches the ideas on the ground. This constrains the scope and opportunity for Aboriginal peoples to undertake the research they and their communities see as important. Also, funding application processes and reporting expectations can hinder Aboriginal people's participation. Dr Emilie Ens confirms issues with funding when saying a, "specific bucket of funding would be good idea for Indigenous-led research. With criteria for the grants not being so hard. This way community themselves can complete and apply" (2 March 2020). At this point in time, it seems funding arrangements where Aboriginal peoples could garner financial support to focus on their research interests would be novel. Subsequently, research projects designed by Aboriginal peoples which are funded on their terms may reduce the concern of possible harm done. Appropriately timing and resourcing research projects would increase the credibility of research in communities. This would hopefully reduce the concerns by human ethics committees on how Indigenous research is carried out.

Furthermore, once funding is secured to undertake Indigenous research according to Indigenous protocols, research outputs should be flexible. Other mediums such as "film, art, music is research too ... and just as valuable as journal articles." (Dr Bill Fogarty 5 March 2020). This is especially true considering Aboriginal cultures have preferred to transfer knowledge in ways other than writing. Currently, Indigenous research is not happening enough in the environmental sciences. This needs to be fixed before the 'hard' and 'soft' sciences initiate Indigenist research. A huge shift needs to take place. This can happen if universities and funding bodies provide outputs that are of primary use to Aboriginal peoples. Doing so will allow Aboriginal academics and non-Aboriginal scholars to facilitate Indigenous research that is defined by Aboriginal research teams on-Country. After which, the environmental sciences (and other research areas) can then move into an Indigenist research space.

8.2 Calls for Action



“We should be supporting it not blocking it” (Ian & Mercy Gumbula, Dhuwala and Alawa Elders 17 January 2020).

The ‘hard’ and ‘soft’ sciences are fraught with challenges in responding to Indigenous research. Improvements are required to develop culturally responsive research institutions and culturally competent researchers. The provisions to make this happen must be locked in place for decades. Ensuring this will provide the footing for real traction. It is imperative that government, non-government agencies, tertiary institutions, researchers, and consultants be guided by the needs and aspirations of Aboriginal peoples on-Country. If the environmental sciences should aspire to surpass the health sciences in undertaking culturally competent research, then it must address current

shortcomings. The conditions are favourable to make this a reality. Why? Because research about land and water, and the connections of people to place, are most likely always to reflect Aboriginal people’s interests.

The environmental sciences have an opportunity to contribute to further reforming Australia’s Indigenous research agenda. The health sciences have laid essential foundations in highlighting the failings of past research practice. Scholars in those fields of study have been integral to bringing Indigenous research to the forefront. Having this as the first step, their research has further expanded and since transformed into Indigenist research. The environmental sciences have been noticeably quieter in contributing to the discussions on Indigenous research. This is surprising, at least for the NT, where much of the lands and waters are recognised under Australian law as belonging to Aboriginal peoples. Because of this, environmental research that occurs in the north holds great significance to Aboriginal peoples and their livelihoods. Therefore, it is necessary to focus on how environmental science, as a field, is tracking regarding Indigenous research, hence the focus of this Honours thesis. Many participants commended me for focussing attention on this. For me, it is a welcome relief that the Aboriginal and non-Aboriginal peoples undertaking research on-Country who participated in this Honours research are deeply committed to creating and maintaining strong and meaningful partnerships. The participation of nearly 100 people in this research shows the

broad commitment of researchers to drive change in this area. They all commented that for now most research continues in a very western defined framework. A summary of their suggestions to strengthen Aboriginal engagement in future land and water research occurring across northern Australia is provided in Table 8.1.

Table 8-1 Group expectations to support more Aboriginal-led research

	Aboriginal research teams on-Country	Aboriginal academics	Non-Aboriginal scholars
Aboriginal research teams on-Country	• Incorporate local knowledges • Fit Indigenous governance structures • Training and mentoring to apply local and western research tools • Research practice to abide by Aboriginal protocols	• Make time for training on-Country as well as tertiary studies • Return and work with mobs on-Country • Be in the middle to broker on both sides	• Operate in culturally appropriate ways • Start research partnerships and persist • Do local research for local benefits • Proper remuneration for locals employed
Aboriginal academics	• Know your rights: Say what research you want, how to do research 'right way' and invite helpers • You have the power to say no!	• Grow our own: Science graduates – HDR students – Researchers • Push Indigenist research • Decolonise institutions and processes	• Support Aboriginal-led research • Be champions not gatekeepers
Non-Aboriginal scholars	• Help non-Aboriginal people how to behave and work better together	• Develop and grow Indigenous academics across all disciplines	• Become culturally competent researchers • Facilitate participatory or cross-cultural research • Research with broader impacts e.g. political focus

I conclude this thesis with some recommendations based on weaving together this rich set of suggestions (please refer to Boxes 8.1, 8.2 and 8.3).

Box 8.1**Focus on the needs of Aboriginal research teams on-Country.**

Future foci for environmental science research must endeavour to find out precisely what Aboriginal people's research needs are. Aboriginal research teams on-Country are integral contributors to this. In doing so, the environmental sciences will foster relationships across landscapes. In due time these interactions could cement into strong collaborative partnerships. Indigenous research needs to remember that Aboriginal peoples and cultures are not homogeneous. This research cannot provide the answer to how Indigenous research can meet the needs of 'all' Aboriginal peoples, nor did it attempt to. This Honours project only sought to illuminate Indigenous research in the environmental sciences. For this reason, facilitating research workshops to highlight local research needs for each Aboriginal clan and community is paramount. Therefore, more clan-based research will be pivotal. Those best placed researches to do this work are the traditional owners and djunkayi themselves. Concentrating on learning from both local and western education systems will enable a plethora of skills to be utilised. In this way, the strongest or most applicable talents will exist to ensure the environmental sciences fortifies Indigenous research.

Box 8.2**Focus on the needs of Aboriginal academics.**

A genuine evaluation of the needs of current Aboriginal academics must be prioritised. Monitoring the aspirations of Aboriginal tertiary students studying science, their impetus for pursuing higher degree by research and subsequent employment as research-active academics should inform strategies. In response, the approaches must factor in cultural sensitivities. Clearly, Aboriginal researchers face unique challenges than non-Aboriginal researchers. If institutions cater to the needs of Aboriginal researchers, then Indigenous research will be improved for all parties involved. As Godfrey (refer chapter 6.1) alluded in his illustration of damper making—allowing local knowledges to be the main ingredient in the recipe for Indigenous research ensures, the final product will be palatable to all. For this to happen, there must be assurances that local knowledges are equal to formal education received. Local knowledges can only be taught by Aboriginal peoples being situated on-Country which reasserts the prerequisite that forever, people need place. Indigenous research in the environmental sciences could resonate this idea.

Box 8.3**Focus on the needs of non-Aboriginal scholars.**

Indigenous research in the environmental sciences needs sustained support from non-Aboriginal scholars. Non-Aboriginal allies can do much to inform their peers, especially those who have decades of experience working with Aboriginal peoples. Many non-Aboriginal scholars are concerned that the younger generation of researchers are underprepared in their training to comprehend the complexities of researching effectively with Aboriginal peoples. Early-career researchers must view these individuals as mentors and guides. This requires new graduates to be willing and teachable. Patience is vital as participants have indicated the time needed to learn the basics of Aboriginal worldviews and languages—which takes years. Pursuing a research career focusing on Australian lands and or waters will likely mean interacting with Aboriginal peoples and communities.

Research institutions and government must decide what levels of Indigenous engagement they will aim for. Non-Aboriginal staff must be open-minded in considering local knowledges for place and the dual application of local knowledge with western knowledge systems. Approaching work this way, will ensure influential outputs for Indigenous research in the environmental sciences. Recruits in the sciences adhering to the principles of respect, connect, reflect, and direct will then be ideally equipped to undertake land and water research with Aboriginal peoples on-Country. Indigenous research can only occur if research is done with Aboriginal peoples. Without us, research returns to its most basic function—a pursuit for knowledge instead of an instrument for change.

Synthesizing feedback from Aboriginal research teams on-Country, Aboriginal academics and non-Aboriginal scholars provides insight on implications for future examination. The environmental sciences have the chance to contribute significantly to reforming Australia's Indigenous research agenda. Of primary importance is that the environmental sciences can do better at valuing the contributions of Aboriginal peoples undertaking research on-Country. A tertiary qualification should not be a prerequisite to undertake research. Local knowledges of Aboriginal peoples are paramount in increasing Aboriginal participation rates in research. Following this, for those who do pursue higher education, institutions must be aware of the competing expectations which Aboriginal peoples face. Aboriginal academics have expressed that some of them receive backlash from their mobs as well as the academy. To improve the uptake of Aboriginal students into research-active positions institutions must be innovative. There are Aboriginal academics and non-Aboriginal scholars who can assist and provide

Indigenous research mentoring and supervision support. However, presently, the number of research staff who are culturally competent is woefully inadequate. Universities must transform current arrangements around research and, redesign funding and ethics models. In doing so, Indigenous research in the environmental sciences will favour the work Aboriginal peoples want scientists to do.

This Honours project has provided evidence that Indigenous research in the environmental sciences can improve exponentially if the issues of power-sharing, process and participation are addressed. Currently, the research process does not adequately respond to the needs of Aboriginal peoples undertaking research on-Country, Aboriginal researchers in academia or non-Aboriginal scholars. More attention must be given to education, training and research that aligns with Mamma Doris' Indigenous framework to follow the steps of respect, connect, reflect, and direct. Local knowledge regarding people and place must have a firm foundation. Second to this is the application of westernised forms of education. These two requirements will improve Indigenous research in the environmental sciences. But this requires hard work and continued dedication from Aboriginal and non-Aboriginal persons in all fields of science. Everyone, in a sense, can become a human GPS, but positively, to guide others to the same destination.

References

- Andersen, C., Bunda, T. and Walter, M., 2008. Indigenous higher education: The role of universities in releasing the potential, *The Australian Journal of Indigenous Education*, 37(1): 1-8.
- Australian Bureau of Statistics, 2016. *Aboriginal and Torres Strait Islander Population, 2016*, Australian Bureau of Statistics. Available at: <http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/2071.0~2016~Main%20Features~Aboriginal%20and%20Torres%20Strait%20Islander%20Population%20Article~12> (accessed 18 September 2019).
- Australian Institute of Aboriginal and Torres Strait Islander Studies, 2014. *Emerging issues in land and sea management*, Canberra Australian Institute of Aboriginal and Torres Strait Islander Studies. Available at: <https://aiatsis.gov.au/publications/products/emerging-issues-land-and-sea-management> (accessed 30 May 2020).
- Australian Institute of Aboriginal and Torres Strait Islander Studies, 2018. *Indigenous Australian Languages*, AIATSIS. Available at: <https://aiatsis.gov.au/explore/articles/indigenous-australian-languages> (accessed 11 August 2018).
- Baker, R., Davies, J. and Young, E. A., 2001. Working on country: listening, sharing, and providing practical support, In *Working on Country: Contemporary Indigenous Management of Australia's Lands and Coastal Regions* Oxford University Press.
- Bond, C., Macoun, A., Staines, Z., Brady, K., Mukandi, B., Strakosch, E., Hassall, K. and Singh, D., 2019. Submission to Productivity Commission Inquiry into an Indigenous Evaluation Strategy.
- Boyd, B., 2014. The SAGE Encyclopedia of Action Research, In *The SAGE Encyclopedia of Action Research* (Eds, Coghlan, D. and Brydon-Miller, M.) London, pp. 430-431.
- Brands, J. and Gooda, M., 2006. Putting the users of research in the driver's seat: the Cooperative research centre for Aboriginal Health's new approach to research development, *Australian Aboriginal Studies*, (2): 27.
- Burgess, C. P., Johnston, F. H., Berry, H. L., McDonnell, J., Yibarbuk, D., Gunabarra, C., Mileran, A. and Bailie, R. S., 2009. Healthy country, healthy people: the relationship between Indigenous health status and "caring for country", *Medical Journal of Australia*, 190(10): 567-572.
- Butten, K., Johnson, N. W., Hall, K. K., Toombs, M., King, N. and O'Grady, K.-A. F., 2020. Yarning about oral health: perceptions of urban Australian Aboriginal and Torres Strait Islander women, *BMC Oral Health*, 20(1): 35.
- Carter, J. L., 2008. Thinking outside the framework: equitable research partnerships for environmental research in Australia, *Geographical Journal*, 174(1): 63-75.
- Chambers, I., Russell-Smith, J., Costanza, R., Cribb, J., Kerins, S., George, M., James, G., Pedersen, H., Lane, P. and Christopherson, P., 2018. Australia's north, Australia's future: A vision and strategies for sustainable economic, ecological and social prosperity in northern Australia, *Asia & the Pacific Policy Studies*, 5(3): 615-640.
- Charles Darwin University, 2020. *Yolŋu Aboriginal Consultants Initiative*, Available at: <https://www.cdu.edu.au/centres/yaci/> (accessed 29 May 2020).
- Clapham, K., 2011. Indigenous-led Intervention Research, *International Journal of Critical Indigenous Studies*, 4(2): 40-48.
- Cochrane, M., 2006. *The Djelk Ranger Program: an outsider's perspective*, Canberra, The Centre for Aboriginal Economic Policy Research (CAEPR). Available at: <https://openresearch-repository.anu.edu.au/bitstream/1885/43112/2/CAEPRWP27.pdf> (accessed 1 June 2020).
- Commonwealth of Australia, 2014. *Green Paper on Developing Northern Australia*, Australian Government. Available at: <http://haveyoursay.nt.gov.au/developing-the-north/documents> (accessed 26 March 2016).
- De Costa, R., 2002. Reconciliation as abdication, *Australian Journal of Social Issues*, The, 37(4): 397.
- Duff, A., Hanchant-Nichols, D., Bown, B., Gamage, S. H., Nixon, B., Nisi, P., Boase, J. and Smith, E., 2020. A Right Way, Wrong Way and Better Way for Energy Engineers to Work with Aboriginal Communities, In *Energy Justice Across Borders* Springer, pp. 45-68.
- Dunbar, T., Arnott, A., Scrimgeour, M., Henry, J. and Murakami-Gold, L., 2004. *Working towards change in Indigenous health research*. CRCAH Research report. 2004, Darwin: Cooperative Research Centre for Aboriginal and Tropical Health, 68.
- Eckermann, A.-K., 1988. Culture vacuum or cultural vitality?, *Australian Aboriginal Studies*, (1): 31.

- Ens, E., Scott, M. L., Rangers, Y. M., Moritz, C. and Pirzl, R., 2016. Putting indigenous conservation policy into practice delivers biodiversity and cultural benefits, *Biodiversity and Conservation*, 25(14): 2889-2906.
- Ewen, S. C., Ryan, T. and Platania-Phung, C., 2019a. Capacity building of the Australian Aboriginal and Torres Strait Islander health researcher workforce: a narrative review, *Human resources for health*, 17(1): 10.
- Ewen, S. C., Ryan, T. and Platania-Phung, C., 2019b. *Further Strengthening Research Capabilities, A review and analysis of the Aboriginal and Torres Strait Islander health researcher workforce*, Carlton, Lowitja Institute. Available at: https://www.lowitja.org.au/content/Image/FurtherStrengthening_Research_Workforce_reportFINAL.pdf (accessed 4 October 2019).
- Foley, D., 2003. Indigenous epistemology and Indigenous standpoint theory, *Social alternatives*, 22(1): 44.
- Food and Agriculture Organization of the United Nations, 2016. *Free Prior and Informed Consent*, New York, United Nations. Available at: <http://www.fao.org/3/a-i6190e.pdf> (accessed 1 June 2020).
- Frazer, B. and Yunkaporta, T., 2019. Wik pedagogies: adapting oral culture processes for print-based learning contexts, *The Australian Journal of Indigenous Education*: 1-7.
- Goddard, C., 2020. 'Country', 'land', 'nation': Key Anglo English words for talking and thinking about people in places, *Journal of Postcolonial Linguistics*, 2: 8-27.
- Gorman, J. and Vemuri, S., 2012. Social implications of bridging the gap through 'caring for country' in remote Indigenous communities of the Northern Territory, Australia, *The Rangeland Journal*, 34(1): 63-73.
- Guillemin, M., Gillam, L., Barnard, E., Stewart, P., Walker, H. and Rosenthal, D., 2016. "We're checking them out": Indigenous and non-Indigenous research participants' accounts of deciding to be involved in research, *International journal for equity in health*, 15(1): 8.
- Gumbula, I., 2020. *Community Research Body Diagram*. Yolŋu Aboriginal Consultants Initiative, Ngukurr.
- Gwynn, J., Lock, M., Turner, N., Dennison, R., Coleman, C., Kelly, B. and Wiggers, J., 2015. A boriginal and T orres S trait I slander community governance of health research: Turning principles into practice, *Australian Journal of Rural Health*, 23(4): 235-242.
- Haynes, E., Marawili, M., Marika, B. M., Mitchell, A. G., Phillips, J., Bessarab, D., Walker, R., Cook, J. and Ralph, A. P., 2019. Community-based participatory action research on rheumatic heart disease in an Australian Aboriginal homeland: Evaluation of the 'On track watch' project, *Evaluation and program planning*, 74: 38-53.
- Henry, J., Dunbar, T., Arnott, A., Scrimgeour, M., Matthews, S., Murakami-Gold, L. and Chamberlain, A., 2002. *Indigenous research reform agenda: Rethinking research methodologies*, Cooperative Research Centre for Aboriginal and Tropical Health (CRC).
- Hickey, S. D., Maidment, S.-J., Heinemann, K. M., Roe, Y. L. and Kildea, S. V., 2018. Participatory action research opens doors: Mentoring Indigenous researchers to improve midwifery in urban Australia, *Women and Birth*, 31(4): 263-268.
- Hill, R., Grant, C., George, M., Robinson, C., Jackson, S. and Abel, N., 2012. A typology of indigenous engagement in Australian environmental management: implications for knowledge integration and social-ecological system sustainability, *Ecology and Society*, 17(1).
- Hoffmann, B. D., Roeger, S., Wise, P., Dermer, J., Yunupingu, B., Lacey, D., Yunupingu, D., Marika, B., Marika, M. and Panton, B., 2012. Achieving highly successful multiple agency collaborations in a cross-cultural environment: experiences and lessons from Dhimurru Aboriginal Corporation and partners, *Ecological Management & Restoration*, 13(1): 42-50.
- Horstman, M. and Wightman, G., 2001. Karparti ecology: Recognition of Aboriginal ecological knowledge and its application to management in north-western Australia, *Ecological Management & Restoration*, 2(2): 99-109.
- Houston, S., 1987. Report of the National Workshop on Ethics of Research in Aboriginal Health, *Sydney: National Aboriginal and Islander Health Organisation*.
- Humphery, K., 2001. Dirty questions: Indigenous health and 'Western research', *Aust N Z J Public Health*, 25(3): 197-202.
- Inspiring Australia, 2013. *Indigenous Engagement with Science: Towards Deeper Understandings*, Canberra, Department of Innovation, Industry, Climate Change, Science, Research and Tertiary Education. Available at: <https://www.industry.gov.au/sites/default/files/2018->

-
- 10/inspiring_australia-indigenous_engagement_with_science-towards_deeper_understandings_2013.pdf (accessed 31 May 2020).
- James, G. and James, B., 2019. Saltwater Burning, *Fire, Water and Land in Indigenous Australia*: 5.
- Jamieson, L. M., Paradies, Y. C., Eades, S., Chong, A., Maple-Brown, L. J., Morris, P. S., Baillie, R. S., Cass, A., Roberts-Thomson, K. and Brown, A., 2012. Ten principles relevant to health research among Indigenous Australian populations, *Medical journal of Australia*, 197(1): 16-18.
- Kelly, J., Sagggers, S., Taylor, K., Pearce, G., Massey, P., Bull, J., Odo, T., Thomas, J., Billycan, R. and Judd, J., 2012. "Makes you proud to be black eh?": Reflections on meaningful Indigenous research participation, *International journal for equity in health*, 11(1): 40.
- Kendall, E., Sunderland, N., Barnett, L., Nalder, G. and Matthews, C., 2011. Beyond the Rhetoric of Participatory Research in Indigenous Communities: Advances in Australia Over the Last Decade, *Qualitative Health Research*, 21(12): 1719-1728.
- Kingsley, J., Aldous, D., Townsend, M. and Phillips, R., 2008. Building collaborative partnerships: A key to increasing Indigenous Victorian peoples' access to country, *Just policy: a journal of Australian social policy*, (48): 32.
- Langton, M., 2018. *Changing the paradigm: Mining Companies, Native Title and Aboriginal Australians*, ABC. Available at: <https://www.abc.net.au/radionational/programs/boyerlectures/boyers-ep1/4305610> (accessed 22 April 2020).
- Lehmann, D., Arumugaswamy, A., Elsbury, D., Finucane, J., Stokes, A., Monck, R., Jeffries-Stokes, C., McAullay, D., Coates, H. and Stanley, F. J., 2008. The Kalgoorlie Otitis Media Research Project: rationale, methods, population characteristics and ethical considerations, *Paediatric and perinatal epidemiology*, 22(1): 60-71.
- Lovett, R., Lee, V., Kukutai, T., Cormack, D., Rainie, S. and Walker, J., 2019. Good data practices for Indigenous data sovereignty and governance. In A. Daly, S. K. Devitt, & M. Mann (Eds.), *Good Data* (pp. 26–36). Amsterdam: Institute of Network Cultures.
- Lowitja Institute, 2013. *Researching Right Way*, Lowitja Institute. Available at: <https://www.nhmrc.gov.au/file/3561/download?token=6Ae0cLjk> (accessed 22 December 2019).
- Marika, D., 2019. *Dhambaliya* [Linocut]. Buku Larnggay Mulka Centre, Yirrkala.
- Marika-Mununggiritj, R., 1991. How can Balanda (white Australians) learn about the aboriginal world?, *Ngoonjook*, (5): 17.
- Marshall, V., 2014. 'A Web of Aboriginal Water Rights: Examining the competing Aboriginal claim for water property rights and interests in Australia', PhD Thesis, Law Department, Macquarie University, Australia.
- Martin, K. and Mirraboopa, B., 2003. Ways of knowing, being and doing: A theoretical framework and methods for indigenous and indigenist re-search, *Journal of Australian Studies*, 27(76): 203-214.
- Mayo, K. and Tsey, K., 2009. The research dance: university and community research collaborations at Yarrabah, North Queensland, Australia, *Health & Social Care in the Community*, 17(2): 133-140.
- McFarlane, K., Devine, S., Judd, J., Canuto, K. and Watt, K., 2016. Research with an aboriginal health service: building an effective partnership, step by step, *Australian Indigenous Health Bulletin*, 16: 1-4.
- Menzies School of Health Research, 2020. *Biyamarr Ma*, Menzies School of Health Research. Available at: https://www.menzies.edu.au/page/Our_People/Biyamarr_ma/ (accessed 29 May 2020).
- Mooney-Somers, J. and Maher, L., 2009. The Indigenous Resiliency Project: a worked example of community-based participatory research, *New South Wales Public Health Bulletin*, 20(8): 112-118.
- Moran, M., 2016. *Serious Whitefella Stuff: When solutions became the problem in Indigenous affairs*, Melbourne Univ. Publishing.
- Morrison, J., 2017. A smear on the nation, *Arena Magazine (Fitzroy, Vic)*, (148): 18.
- National Environmental Science Programme, 2016. *Research Priorities for Indigenous Protected Areas across northern Australia*, Darwin, CSIRO. Available at: <https://www.nespnorthern.edu.au/wp-content/uploads/2016/08/Research-priorities-for-IPAs->

- across-northern-Australia-4-page-project-summary-14Oct2016-WEB-1.pdf (accessed 14 May 2020).
- National Indigenous Australians Agency, 2020. *Indigenous Rangers - Working on Country*, Australian Government. Available at: <https://www.niaa.gov.au/indigenous-affairs/environment/indigenous-rangers-working-country> (accessed 1 June 2020).
- National Native Title Tribunal, 2017. *25 Years of Native Title Recognition*, Canberra, Available at: <http://www.nntt.gov.au/Documents/Road%20to%20native%20title.pdf> (accessed 29 May 2020).
- Nawarddeen Academy, 2020. *About us*, Available at: <https://www.nawarddeenacademy.com/> (accessed 29 May 2020).
- Neale, T., Carter, R., Nelson, T. and Bourke, M., 2019. Walking together: a decolonising experiment in bushfire management on Dja Dja Wurrung country, *cultural geographies*: 1474474018821419.
- Ninti One Limited, 2020. *Our Aboriginal Community Researchers*, Ninti One. Available at: <https://www.nintione.com.au/about-us/aboriginal-community-researchers/> (accessed 29 May 2020).
- Northern Land Council, 2018. *NLC CEO appointed to Indigenous Reference Group to develop the north*, Northern Land Council. Available at: <https://www.nlc.org.au/media-publications/nlc-ceo-appointed-to-indigenous-reference-group-to-develop-the-north> (accessed 23 March 2018).
- Northern Land Council, 2020. *Section 19 Land use Agreements*, Available at: <https://www.nlc.org.au/our-land-sea/aboriginal-land-legislation> (accessed 29 May 2020).
- Northern Territory Government, 2014. *Northern Territory Government Response to the Green Paper on Developing Northern Australia*, Northern Australia Development Office. Available at: <http://haveyoursay.nt.gov.au/developing-the-north/documents> (accessed 26 March 2016).
- Northern Territory Treaty Commission, 2020. *Fact Sheet No 2*, Darwin, Northern Territory Treaty Commission. Available at: https://treatynt.com.au/__data/assets/pdf_file/0003/692031/fact-sheet-02.pdf (accessed 1 June 2020).
- O'Donahoo, F. J. and Ross, K. E., 2015. Principles relevant to health research among Indigenous communities, *International Journal of Environmental Research and Public Health*, 12(5): 5304-5309.
- Pascoe, B., 2014. *Dark emu black seeds: Agriculture or accident?*, Magabala Books.
- Poelina, A., Taylor, K. S. and Perdrisat, I., 2019. Martuwarra Fitzroy River Council: an Indigenous cultural approach to collaborative water governance, *Australasian Journal of Environmental Management*, 26(3): 236-254.
- Potter, S., Doran, B. and Mathews, D., 2016. Modelling collective Yawuru values along the foreshore of Roebuck Bay, Western Australia using fuzzy logic, *Applied Geography*, 77: 8-19.
- Provost, S., 2020. *Study Site Area*. Australian National University, Canberra.
- Provost, S., 2020. *Top End, Northern Territory*. Australian National University, Canberra.
- Rigney, L.-I., 2017. Indigenist research and aboriginal Australia, In *Indigenous Peoples' Wisdom and Power* Routledge, pp. 61-77.
- Robinson, D. F. and Raven, M., 2020. Recognising Indigenous customary law of totemic plant species: Challenges and pathways, *The Geographical Journal*, 186(1): 31-44.
- Ryder, C., Mackean, T., Coombs, J., Williams, H., Hunter, K., Holland, A. J. and Ivers, R. Q., 2020. Indigenous research methodology—weaving a research interface, *International Journal of Social Research Methodology*, 23(3): 255-267.
- Sharifian, F., 2005. Cultural conceptualisations in English words: A study of Aboriginal children in Perth, *language and Education*, 19(1): 74-88.
- Sithole, B., Campion, O. B. and Hunter-Xenie, H., 2019. Hazard-smart remote communities in northern Australia: Community-led preparedness, *Australian Journal of Emergency Management*, The, 34(1): 28.
- Sithole, B., 2012. The ARPNet Dilly bag. A practical field guide to participatory and other research tools for use by Aboriginal research practitioners in Australia.
- Sithole, B., Hunter-Xenie, H. and Dunnett, D., 2009. Research as opportunities for Aboriginal engagement: A case study of the Aboriginal Research Practitioners' Network, *Learning Communities*, (1).
- Sloane, D. R., Ens, E., Wunungmurra, J., Falk, A., Marika, G., Maymuru, M., Towler, G. and Preece, D., 2019. Western and Indigenous knowledge converge to explain Melaleuca forest dieback on Aboriginal land in northern Australia, *Marine and Freshwater Research*, 70(1): 125-139.
- Steffensen, V., 2020. *Fire Country*, Explore Australia, Australia.

-
- Street, J., Baum, F. and Anderson, I., 2007. Developing a collaborative research system for Aboriginal health, *Aust N Z J Public Health*, 31(4): 372-378.
- Tangentyere Council, 2020. *Tangentyere Research Hub*, Tangentyere Council. Available at: https://www.tangentyere.org.au/services/social_services/research/ (accessed 29 May 2020).
- Taylor, A. and Dyrting, S., 2019. *Northern Territory Contemporary Indigenous Migration Trends*, Darwin, Charles Darwin University. Available at: https://www.researchgate.net/profile/Andrew_Taylor11/publication/337782787_Northern_Territory_Contemporary_Indigenous_Migration_Trends/links/5de9e31ea6fdcc2837094e42/Northern-Territory-Contemporary-Indigenous-Migration-Trends.pdf (accessed 1 June 2020).
- The Aboriginal Research Practitioners' Network, 2014. *The ARPNet Dillybag in Ngukurr*, Carbon Media. Available at: <https://vimeo.com/73684355> (accessed 28 April 2019).
- Tuhiwai Smith, L., 2013. *Decolonizing methodologies: Research and indigenous peoples*, Zed Books Ltd.
- United Nations, 2008. *United Nations Declaration on the Rights of Indigenous Peoples*, United Nations, New York. Available at: https://www.un.org/development/desa/indigenouspeoples/wp-content/uploads/sites/19/2018/11/UNDRIP_E_web.pdf (accessed 3 June 2020)
- Universities Australia, 2017. *Universities Australia Indigenous Strategy First Annual Report*, Canberra, Available at: <http://www.fao.org/3/a-i6190e.pdf> (accessed 1 June 2020).
- Van Gelderen, B., 2019. Too many 'two-ways'? 'Gāwa is a two-way school': clarifying approaches to remote Northern Territory Indigenous education, *Learning Communities*.
- Wallace, R., 2018. 'Indigenous Advantage: can Northern Australia lead through innovation?', *CDU Events*, Darwin.
- Walter, M., 2005. Using the 'power of the data' within Indigenous research practice, *Australian Aboriginal Studies*, (2): 27.
- Walter, M. and Andersen, C., 2013. *Indigenous statistics : a quantitative research methodology / Maggie Walter and Chris Andersen*, Left Coast Press, Walnut Creek, CA.
- West, E. G., 1990. 'Towards a bran nue day: a discussion about the present and the past for the future', University of Tasmania,
- West, E. G., 2000. An alternative to existing Australian research and teaching models: The Japanangka teaching and research paradigm, an Australian Aboriginal model.
- Wilkinson, C., Hikuroa, D. C., Macfarlane, A. H. and Hughes, M. W., 2020. Mātauranga Māori in geomorphology: existing frameworks, case studies and recommendations for Earth scientists, *Earth Surface Dynamics Discussion*, (5).
- Woodward, E. and Marrfurra McTaggart, P., 2019. Co-developing Indigenous seasonal calendars to support 'healthy Country, healthy people' outcomes, *Global Health Promotion*, 26(3_suppl): 26-34.
- Wyatt, K., 2020. *Funding Certainty for Indigenous Rangers* [Media Release]. Australian Government, Canberra.
- YALU Aboriginal Corporation, 2020. *About YALU*, Available at: <https://www.yalu.org.au/about-1> (accessed 29 May 2020).
- Yunkaporta, T., 2019. *Sand Talk: How Indigenous Thinking Can Save the World*, Text Publishing.
- Yunupingu, D. and Muller, S., 2009. Cross-cultural challenges for Indigenous sea country management in Australia, *Australasian Journal of Environmental Management*, 16(3): 158-167.
- Zander, K. K., Dunnett, D. R., Brown, C., Campion, O., Daniels, C., Daniels, G., Nelson, E., Daniels, G., Blitner, G. and Carson, D., 2014. Indigenous cultural and natural resources management and mobility in Arnhem Land, Northern Australia, *Human ecology*, 42(3): 443-453.

Appendix 1: Dhuwarrwarr Marika Artist Profile



Dhuwarrwarr Marika

Date of Birth: 31/12/1945
Clan: Rirratjinu, Miliwurrwurr group
Homeland: Yirrkala / Yalanbara / Gulurunga
Moiety: Dhuwa

Biography

Dhuwarrwarr is sister of Wandjuk, Baygul and Banduk Marika, and daughter of Mawalan, the Rirratjinu clan leader who originally welcomed the missionaries to set up on his land, creating the beginnings of modern day Yirrkala. Dhuwarrwarr is believed by many (including Professor Howard Morphy and herself) to be the first Yolngu woman authorised to paint sacred designs on her own. This is supported by some recently rediscovered contemporaneous evidence. The 1974 catalogue for 'Art of Aboriginal Australians presented by Rothmans Pall Mall Canada' says the following about a work by Dhuwarrwarr, "This is a most unusual painting in that it was painted by a woman of the Rirratjinu tribe of Yirrkala. It is unprecedented for a woman to be allowed to paint on bark any aspect of sacred mythology. Dhuwarrwarr's father, Mawalan, was the ceremonial leader of the Rirratjinu tribe and was steeped in the mythology of his people. He painted up to the time of his death, and with failing eyesight and poor health, allowed Dhuwarrwarr to help him, after consultation with his sons and brothers and elders of the group. She has not painted since his death until recently, when she again requested permission from her brothers to do so."

Dhuwarrwarr continues;

"From that time when my father was painting my elder sister helped him but she is a little blind now. From when I was twelve to this time I started to paint. Sometimes I used to help my father. That one (her nephew Mawalan #2) he learned from grandfather and his father. He watched his grandfather - that my father. Currently I'm doing my own art using the same design and lino printing - my fathers design but my own imagination.

When my father was alive they only painted on bark. He used to cut bark and lay it flat and store it for the dry season. His (Mawalan #2) sister Rarriwuy is learning - I have been teaching her. I'm teaching my brother's children for all the painting as well as my children. I used to ask them to come and watch me. I use my own colours from the shore - the yellow and the red, just a rock, and the black, bāygu (not) charcoal. Like my brother (Wandjuk), I sometimes mix yellow and black to make green. I used to go and get it in a bucket and mash it up and leave it in the sun to dry.

I am trying hard to get this man (Mawalan#2) to come back to do the painting. Not all the painting I can remember (being done) but this one; Djan'kawu and this one from my brother, and this one; Djarrak (seagull). Early stage when Dorothy Bennett used to come here to collect barks my father and brother used to paint."

Dhuwarrwarr is a statesperson for her people, representing them on various committees and institutions such as Land Councils and Women's groups. In 1993 she travelled to Europe as an invited speaking guest for the opening of the international traveling exhibition of 'Aratjara - Art of the First Australians'. She also attends to the day-to-day needs of a wide group of young and old clans-people with a particular emphasis on guiding and guarding the young minds of her family. She lives on Rirratjinu land either at her house overlooking the beach and creek at Yirrkala or at Gutjangan on Bremer Island. Her first genuine solo exhibition held relatively late in her career, 'Milngurr' at Vivien Anderson Gallery in Melbourne in 2008 was a literal sell out within 5 minutes of opening. Institutional collections purchased the bulk of the works.

She has continued to exhibit commercially and to be shown in Institutional shows to this day. She creates every day as a personal need.

Provided by Buku-Larrnggay Mulka Centre

Appendix 2: Participant List

Group 1. Aboriginal peoples who undertake research on-Country. Research is done mostly with their clans and communities. They live where they work. They have had many jobs in their community or neighbouring areas. They are multi-lingual. English is not their first language. They understand a minimum of two to three languages. Some up to 15 (e.g. Dean Mununggullumurr Yibarbuk). Most are experts in cultural law and governance structures. They are very aware of cultural obligations. Some have esteemed positions as knowledge holders with ceremonial responsibilities across landscapes. A few are on boards and committees — Aboriginal corporations, Northern Land Council, Shire. Qualifications are a degree or several VET certificates. Majority are middle aged to senior. Average research experience of 9 years though lives have been greatly influenced by policy implications before birth.

Group 1. Aboriginal research teams on-Country

1. Alycia Campion
2. Andrina Campion
3. Brenda (Mutha) Muthamuluwuy
4. Dean Mununggullumurr Yibarbuk
5. Godfrey Blitner
6. Grace Miguyie Daniels
7. Ian Gumbula
8. Jessica Campion
9. Jodie Kelly
10. Jolette Williams
11. Kathleen Fry
12. Leah-Anne Campion
13. Lorraine Williams
14. Maisie Cameron
15. Mercy Gumbula
16. Mike Redford
17. Otto Bulmaniya Campion (skin name Gamarran)
18. Rita Lawrence

Group 2. Aboriginal people who undertake research with Aboriginal peoples and communities, speak or understand the local language/s and most cases live mostly in towns and travel out to where they work — have had decades of experiential knowledge, have formal tertiary qualifications (degree level and up). Honours, Masters or PhD topics have been heavily influenced by their Aboriginal heritage. Ages are early twenties up. Average research experience of 14 years. Similar policy implications from historic research impacting Aboriginal peoples adversely.

Group 2. Aboriginal academics

1. Associate Professor Payi Linda Ford
2. Beau Cubillo
3. Bhiamie Eckford-Williamson
4. Bobby Maher
5. Dave Johnston
6. Dr Carmen Cubillo
7. Dr Lawrence Bamblett
8. Dr Robyn Ober
9. Kate Harriden
10. Maeve Powell
11. Makayla-May Brinckley
12. Mark Mayo
13. Professor Asmi Wood
14. Sam Provost
15. Tamara Riley
16. Traceylee Forester

Group 3. Non-Aboriginal scholars. Undertake research with Aboriginal peoples. Have long history working with Aboriginal peoples or projects looking at Aboriginal issues. Most have PhDs which worked with Aboriginal peoples on-Country. Mostly live in cities but maintain links with certain Aboriginal peoples and/or communities. Majority have been adopted in and know how the kinship system works. Majority in this group are senior with average of 29 years research experience working with Aboriginal peoples.

Group 3. Non-Aboriginal scholars

1. Anna Morgan
2. Associate Professor Natasha Stacey
3. Dr Bentley James
4. Dr Bevyline Sithole (skin name Darritjan)
5. Dr William (Bill) Fogarty
6. Dr Dermot Smyth
7. Dr Emilie Ens
8. Dr Kathryn (Kate) Andrews
9. Dr Seán Kerins
10. Emeritus Professor Jon Altman
11. Glenn James
12. Glenn Wightman
13. Paul Josif
14. Professor Helen Ross
15. Professor Jeremy Russell-Smith
16. Professor Ram Vemuri
17. Professor Stephen Garnett
18. Yasunori Hayashi

Group 4. Online survey respondents

The online survey did not record participants names for the 43 entries submitted. 2 persons identified as being Indigenous. 25 were female and 18 males. 72% of responses fell in the age range of 35-59 years. Those with a PhD totalled 43%, followed by Masters at 25%. 43% were currently working at a tertiary institution. 97% had physically worked in the NT on research or evaluations with an Indigenous focus. With 93% of those projects occurring in remote Aboriginal communities. The top three research areas related to environment, Indigenous livelihoods, and community development. 65% felt the project timelines were somewhat flexible. And 83% of respondents were active in keeping up to date on community activities when timing project visits.

Appendix 3: Questions—Interviews, Online Survey, Yarning

To gauge levels of power-sharing, participation, and process, as per Hill *et al.*, (2012), the following broad questions were asked formally in key-interviews and informally in yarning sessions/focus group discussions. The average discussion time was 40 minutes.

1. Have you done any research work?
2. What kind of research/projects did you do?
3. What did you like about that?
4. What didn't you like?
5. If Aboriginal peoples and communities want to do research by themselves, how is this possible?
6. What should future research/projects focus on - related to Aboriginal peoples and Country?

The online survey asked 20 questions. The open-ended questions were meant to allow reflections on essential principles 1-5 as listed by Jamieson *et al.*, (2012). The graphed responses for comments are provided in appendix 4. The average completion time was 15 minutes.



Honours Project: Aboriginal engagement in research - Northern Territory focus

Hi, my name is Hmalan Hunter-Xénié. I am a woman of Tiwi/Iwaidja, Kaytej/Warlpiri (Northern Territory, Australia) and Drehu (Lifou, New Caledonia) heritage. I am an Aboriginal student completing a Bachelor of Science (Honours) at the Fenner School of Environment and Society, Australian National University (ANU). I am based at ANU's North Australia Campus in Darwin. I also do paid work part-time coordinating the Aboriginal Research Practitioners Network (ARPNet).

For this Honours project I would like to know what your levels of engagement with Aboriginal peoples in research has been. As mentioned on the project flyer, this online survey is one way for people to share your thoughts. Data from the survey will be used in my ANU Honours thesis.

The survey may take ~20 minutes to complete. If you would like updates about the Honours project please email me - u4031771@anu.edu.au.

Thank you so much for your interest and time in completing this survey.

-

Section A. Please tell me a little bit about you

-

1. Do you identify as being

- ☐ Aboriginal
- ☐ Torres Strait Islander
- ☐ Aboriginal and Torres Strait Islander
- ☐ Other (please specify)

2. Are you?

- ☐ Female
- ☐ Male
- ☐ Non-binary
- ☐ Prefer not to say

3. What is your age?

- ☐ 15-19 years
- ☐ 20-24 years
- ☐ 25-29 years
- ☐ 30-34 years
- ☐ 35-39 years
- ☐ 40-44 years
- ☐ 45-49 years
- ☐ 50-54 years
- ☐ 55-59 years
- ☐ 60-64 years
- ☐ 65-69 years
- ☐ 70-74 years
- ☐ 75-79 years
- ☐ 80-84 years
- ☐ 85 years and over

4. What is your highest qualification?

- | | |
|--|--|
| ☐ Year 10 | ☐ Bachelor Degree |
| ☐ Year 12 | ☐ Honours Degree, Graduate Diploma |
| ☐ Certificate levels I-IV | ☐ Masters |
| ☐ Diploma | ☐ PhD |
| ☐ Advanced Diploma, Associate Degree | ☐ Other |

-
Section B. Please share your experiences participating in research and/or evaluation
-

5. Do you or have you worked in the Northern Territory?

☐ Yes

☐ No

6. Are you currently any of these? (it's ok to select more than one answer)

☐ Aboriginal researcher working in a remote location

☐ Researcher but NOT working at a university (e.g. CSIRO, private consultant)

☐ PhD candidate

☐ Other (e.g. student, retired)

☐ Researcher working at a university (e.g. ANU, BIITE, CDU)

7. Have you done any research or evaluation projects in remote Aboriginal communities in the Northern Territory?

☐ Yes

☐ No

8. What did your research or evaluation projects focus on? (it's ok to select more than one answer)

☐ Anthropology

☐ Business and Economics

☐ Community Development

☐ Creative Arts

☐ Education

☐ Environment

☐ Health

☐ Indigenous Livelihoods

☐ Law

☐ Sport

☐ Other (please specify)

9. What practical steps did you take before undertaking research or evaluation projects with Aboriginal peoples and communities in remote locations of the Northern Territory?

10. Was the research or evaluation project initiated by Aboriginal peoples and community?

11. Did the research or evaluation project have any of the following in place?

	Support letters from Aboriginal collaborators	Ethics approval	MoU	Research agreement	Land Council permit	Aboriginal reference group
No	☐	☐	☐	☐	☐	☐
Yes	☐	☐	☐	☐	☐	☐
N/A	☐	☐	☐	☐	☐	☐

12. Were ethics clearances enough in addressing Aboriginal peoples and communities prior research experiences to reduce risks and promote benefits?

13. What work did Aboriginal research staff undertake in the research or evaluation project? (please note if paid or voluntary)

14. How flexible was the timeline for your research or evaluation project?

- ☐ Flexible
- ☐ Somewhat flexible
- ☐ Not flexible

15. Did Aboriginal peoples or communities have a say in how the research or evaluation project was conducted?

16. How did you acknowledge the contributions from Aboriginal peoples and communities in your research or evaluation project?

17. Did you attempt to find out what other projects or activities were happening in remote Aboriginal communities before you visited?

☐ Yes

☐ No

18. Do you have any suggestions on how to make good partnerships with Aboriginal peoples or an Aboriginal community?

-
Final section
-

19. If you have any additional comments you would like to share please write them here...

20. Do you think this survey is a useful way to collect information about Aboriginal engagement in research?

No

Unsure

Yes!



This is the end of the survey. Submitting the survey indicates you are over the age of 18 and that you agree for your information to be referenced in the Honours project. If any information provided mentions names or organisations - these might be replaced with a different identifier to remain anonymous – for example, "a university promotes staff development by assigning early career researchers a mentor".

The ethical aspects of this research have been approved by the ANU Human Research Ethics Committee (Protocol 2019/312). If you have any concerns or complaints about how this research has been conducted, please contact:

Ethics Manager
The ANU Human Research Ethics Committee
48A Linnaeus Way
Canberra ACT 2600
The Australian National University
Telephone: +61 2 6125 3427
Email: Human.Ethics.Officer@anu.edu.au

Appendix 4: NVivo Word Clouds

Text analysis using NVivo 12 Pro established the top 1000 frequently used words. These are presented as word clouds. Word clouds were cleaned to exclude participant names, affiliation, and month/year. Separate word clouds for three groups are provided. The fourth word cloud is a combination of all the three groups together.

Word cloud 1: Aboriginal research teams on-Country



Word cloud 2: Aboriginal academics



Word cloud 3: Non-Aboriginal scholars

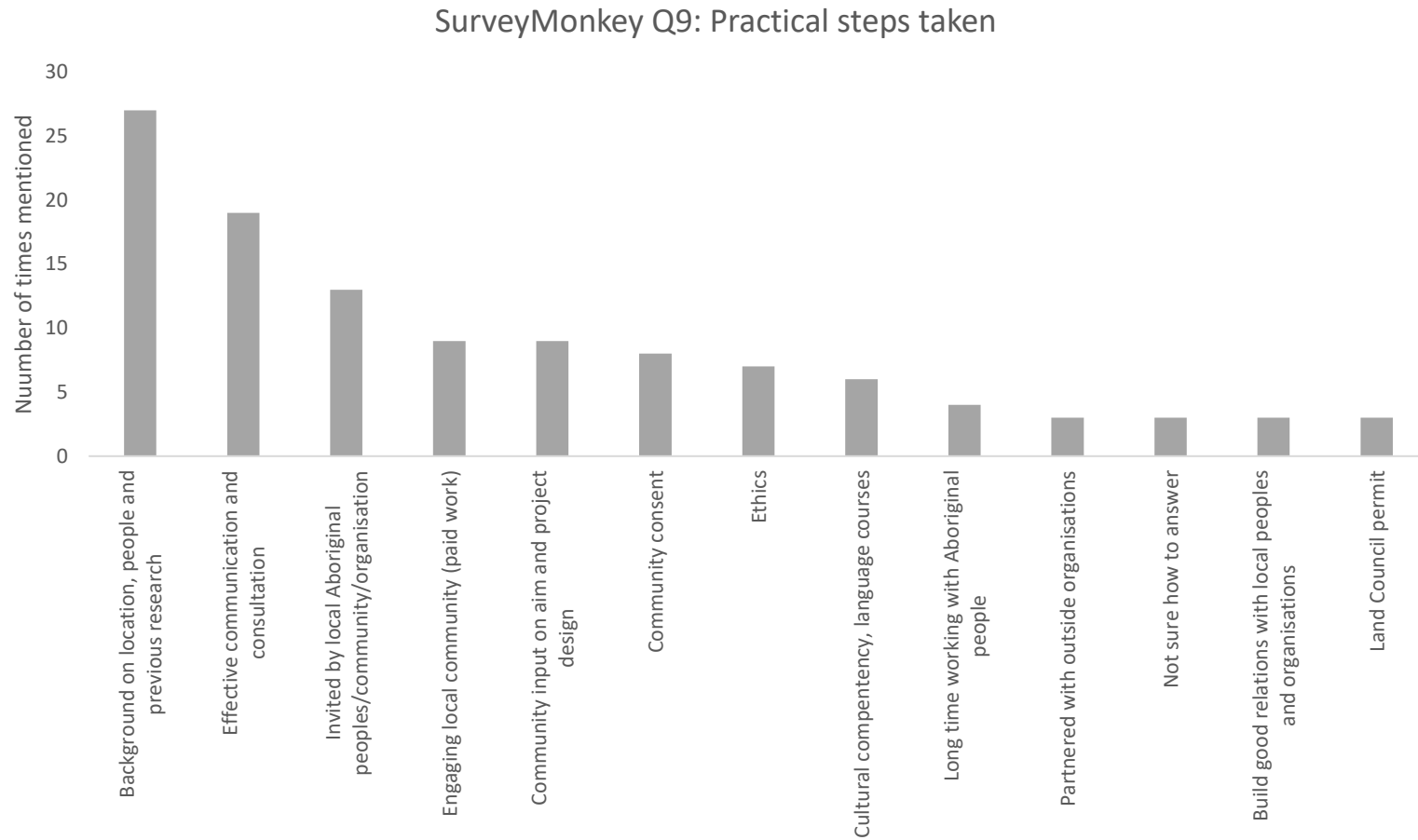


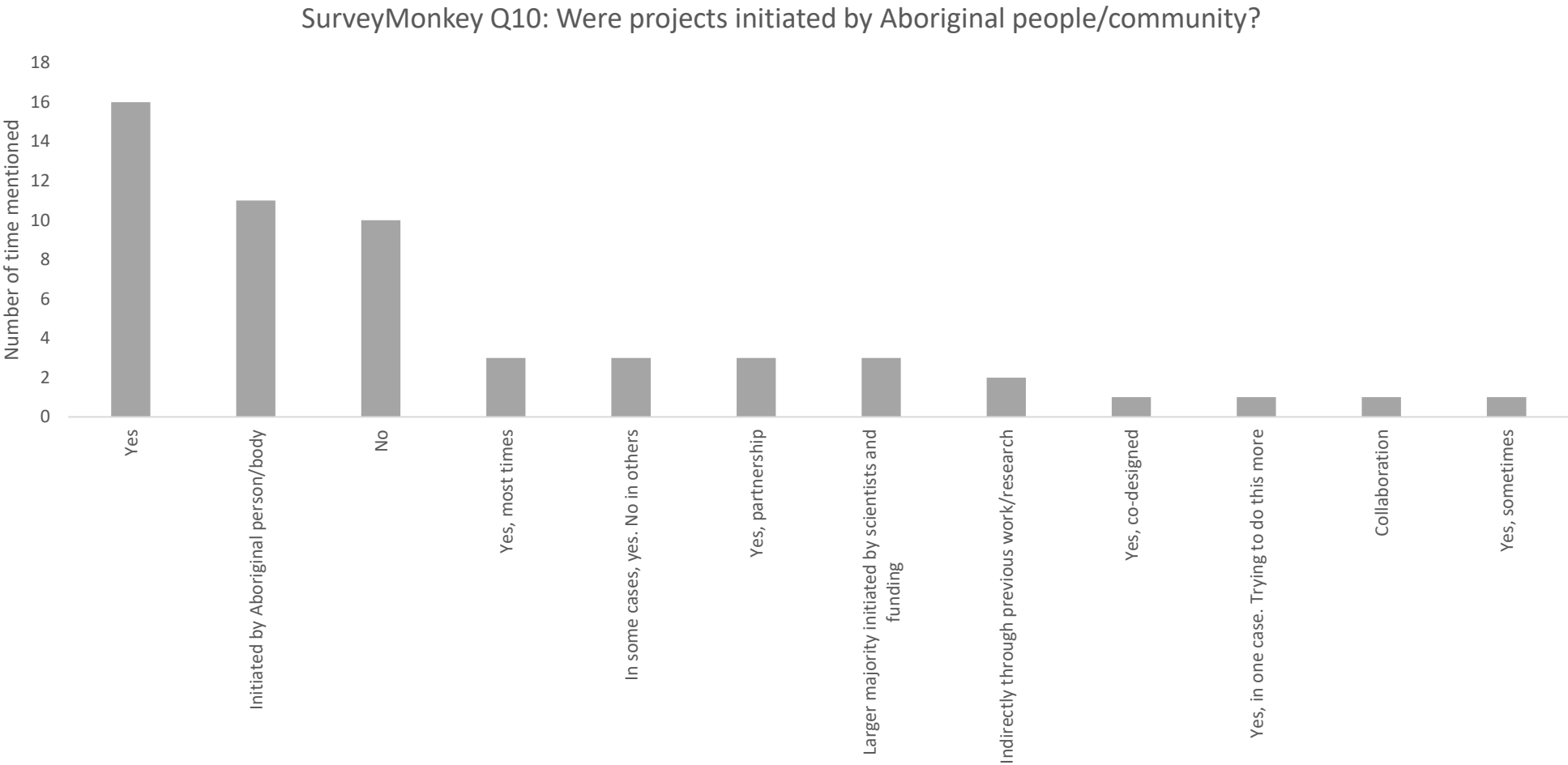
Word cloud 4: All three groups combined



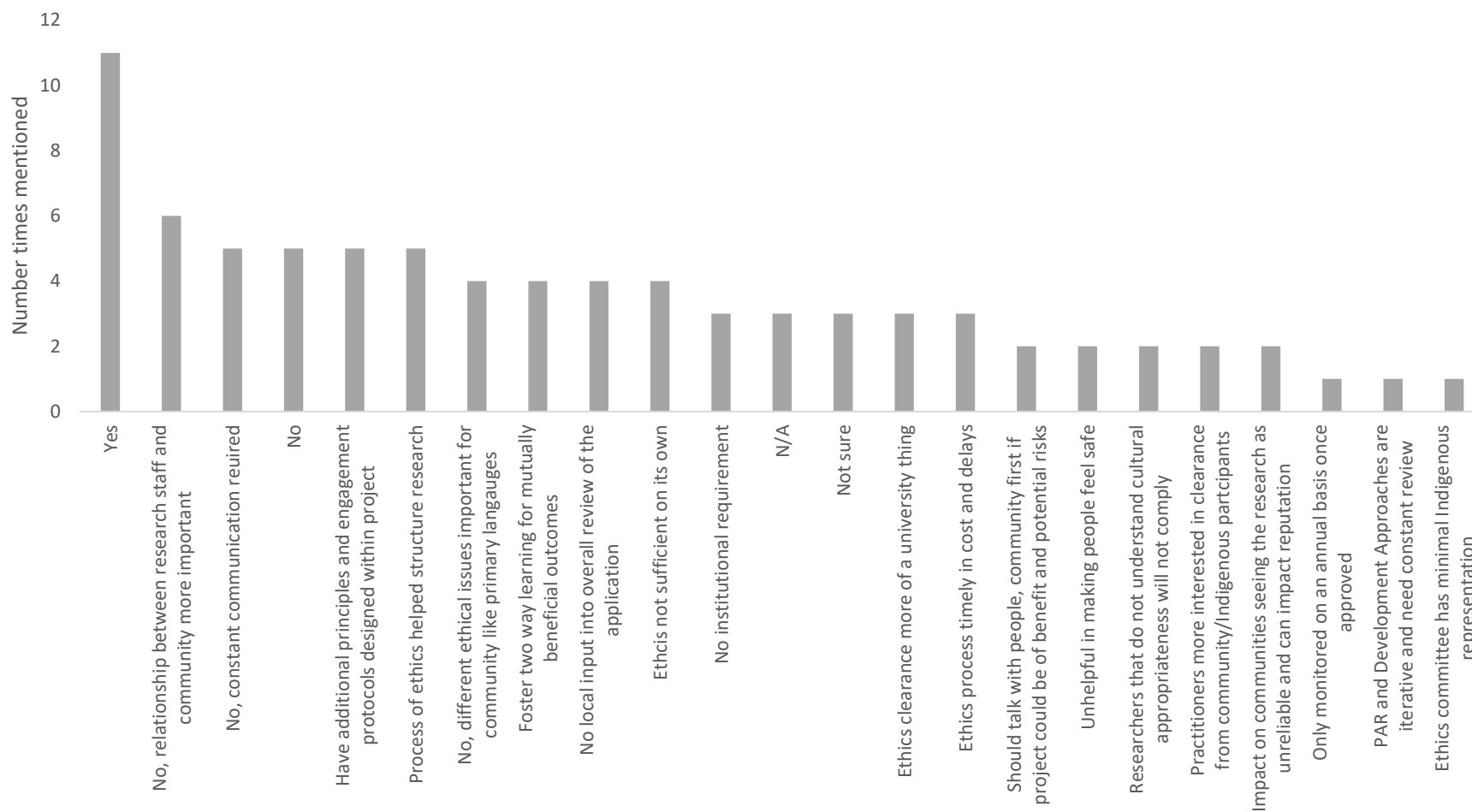
Appendix 5: SurveyMonkey results

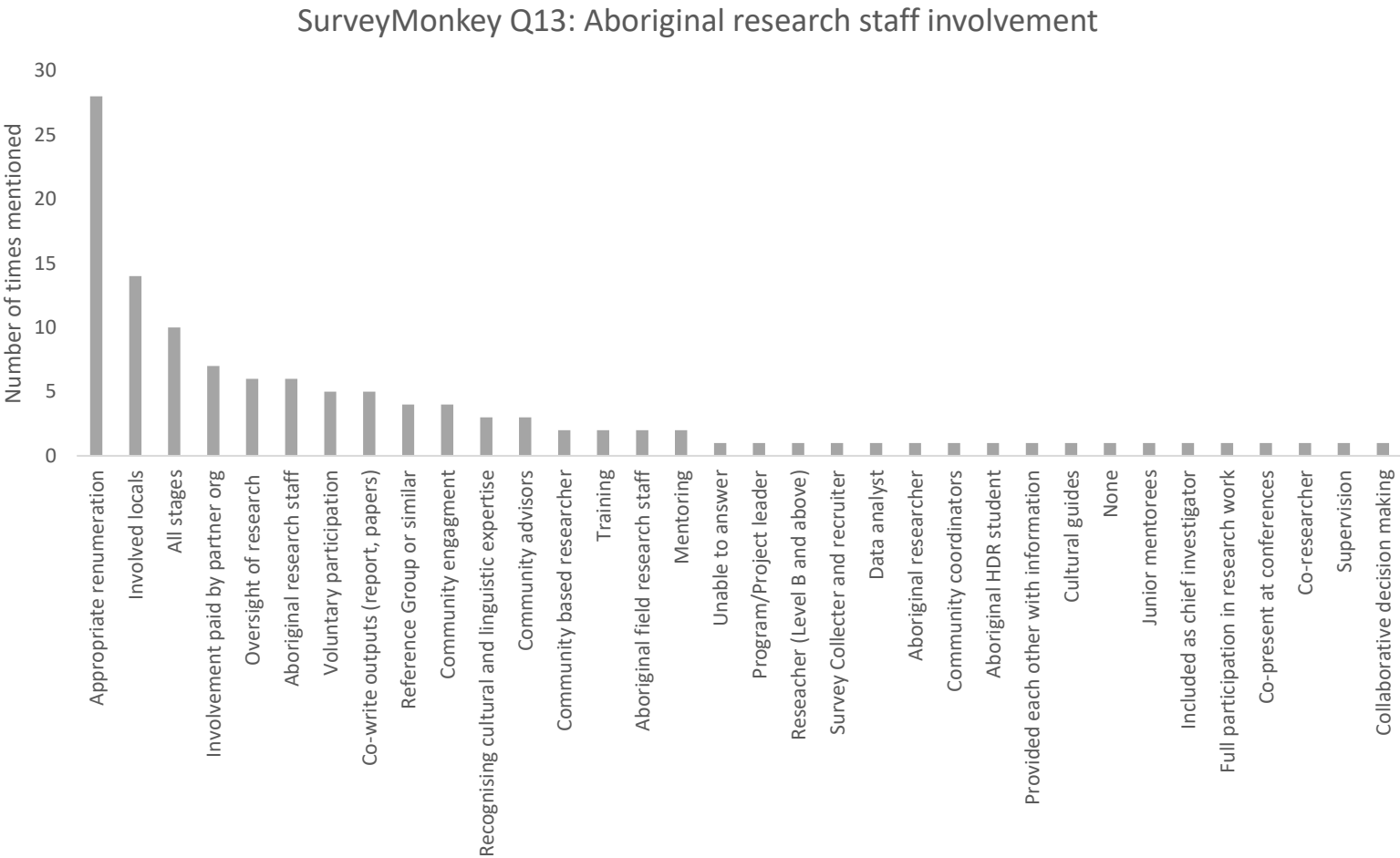
Text replies were grouped for similar responses on an excel graph. The open-ended questions allowed for several responses from one individual. That is why the number of combined responses is above 43 and exceeds the number of respondents.





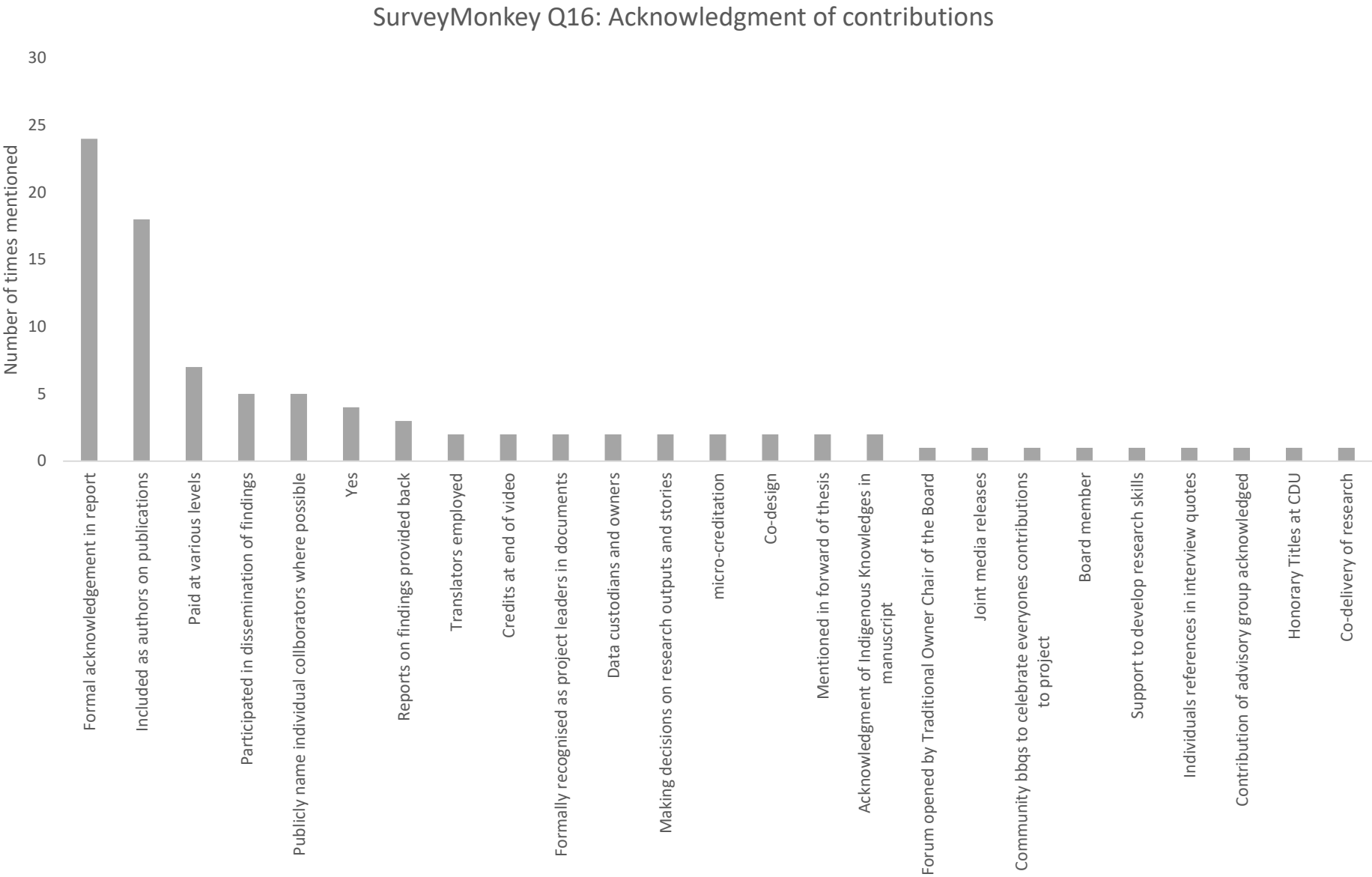
SurveyMonkey Q12: Are ethics processes enough?



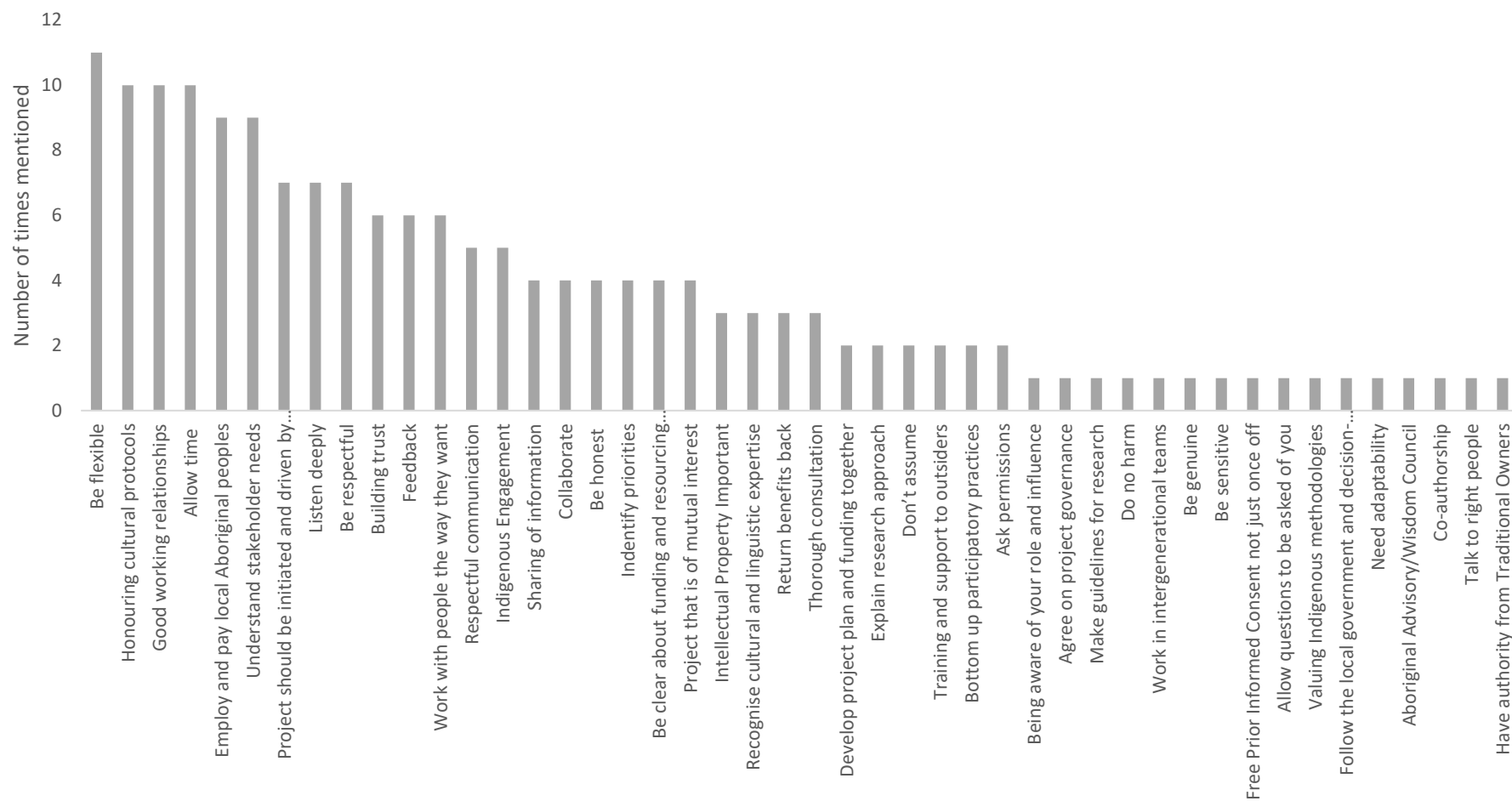


SurveyMonkey Q15: Aboriginal say in the way project conducted?





SurveyMonkey Q18: Strong partnership requirements



Appendix 6: Summary Document



More Than a Human GPS? Opportunities for Aboriginal Peoples to Lead and Manage Land and Water Research On-Country in the Northern Territory, Australia.

About us

My name is Hmalan Hunter-Xenie. I am an Aboriginal woman who was born on Larrakia Country in Darwin. My mum's family are Tiwi/Iwaidja and Kaytej/Warlpiri from the Northern Territory (NT). My dad's family is Drehu from Lifou, New Caledonia. Starting in June 2019 and ending in June 2020 I was studying a Bachelor of Science (Honours) at the Australian National University (ANU) in Canberra. The Honours studies looked at Aboriginal participation in research in the Top End, NT. I did not do this work alone. There were nine of us in the Honours team. Six from the Aboriginal Research Practitioners' Network (ARPNNet) and three from ANU. The main people involved were Bevyline Sithole, C.Wulumirr Daniels (deceased), Dean Munuggullumurr Yibarbuk, Grace Miguyie Daniels, Otto Bulmaniya Campion, Richard Baker, Sam Provost and Virginia Marshall. Our photos are below but I didn't include a photo of that olgamen who passed away in Ngukurr.

Honours team



What happened in the Honours project?

Nearly 100 people helped us from late 2019 until early 2020 (please see Table 1). Everyone answered questions about Aboriginal participation in research—what is working and what is not working. We sent survey invitations to staff at the four Aboriginal Land Councils and NT government departments. 43 people completed an online survey.



50 people spoke to me by yarning or by an interview;

- 18 were from Aboriginal research teams who live in the NT. Some places they work in include Darwin, Galiwinku, Gunbalanya, Maningrida, Ngukurr, Ramingining and on the Warddeken Indigenous Protected Area
- 16 were Aboriginal academics who have jobs in research institutions. They work at universities (ANU, Batchelor Institute of Indigenous Tertiary Education, Charles Darwin University) and at research bodies (the Aboriginal Medical Services Alliance Northern Territory, the Australian Institute of Marine Science and Menzies School of Health Research)
- 18 of the non-Aboriginal scholars do research in the NT with Aboriginal peoples. Most of them work at universities. A few are private consultants. Most live down south and revisit the NT for work.

Table 1. People who Participated

	Female	Male	Total
Aboriginal Research Teams On-Country	13	5	18
Aboriginal Academics	9	7	16
Non-Aboriginal Scholars	6	12	18
Online Survey	25	18	43
Total	53	42	95

What did people say?

For the online survey, half (50%) said they work in the environmental sciences. Most of the responses said they try to do research on-Country that Aboriginal peoples want. Many already make sure that Aboriginal people's contributions are recognised. They said they do this by paying people properly or acknowledging people's names in reports and presentations. A few people said they try to do more, by having Aboriginal



peoples on-Country co-deliver the research. This means having Aboriginal and non-Aboriginal people doing the research together as equals. A couple of people said Aboriginal peoples doing research on-Country should get micro-accreditation or Honorary titles for the work they do. To have stronger research partnerships, most of the online replies said that researchers need to be flexible, honour cultural protocols and form good relationships over time.

For the yarning and interviews, we used a computer based text analyser called NVivo Pro. The software made text clouds to show which words were mentioned the most.

For the Aboriginal research teams on-Country: the focus is on research jobs for locals (please see Figure 1). However, Aboriginal people on-Country want research work to include local Indigenous knowledges. To make sure researchers know and follow those kinship rules. For example, to make sure people are not near their poison cousin. Aboriginal people also want to be recognised for what they know without having a university certificate.



Figure 1. Word Cloud for Aboriginal Research Teams On-Country



For the Aboriginal academics: the focus is on Aboriginal people who choose to go to university then work as researchers (please see Figure 2). However, Aboriginal academics want to do research differently to non-Aboriginal researchers. Aboriginal academics want universities to know local Indigenous knowledges and make sure research follows Aboriginal protocols. Aboriginal academics want more Aboriginal researchers to do work with Aboriginal mobs. Aboriginal academics are happy for non-Aboriginal people to work with them too but only if they are helping as allies. Aboriginal academics do not want non-Aboriginal people thinking they are the bosses.



Figure 2. Word Cloud for Aboriginal Academics

For the non-Aboriginal scholars: the focus is on non-Aboriginal people who want to work well, researching with Aboriginal peoples (please see Figure 3). However, non-Aboriginal scholars are worried that not all researchers know how do to research with Aboriginal peoples. They want to make sure researchers are culturally competent, that students are taught how to behave before working with Aboriginal peoples and communities. They want universities to focus more on Indigenous Studies. But, at the



moment, non-Aboriginal scholars are worried that universities are not teaching students enough about Aboriginal cultures and Aboriginal peoples. The non-Aboriginal scholars also want universities to know what is needed to do research the way Aboriginal people want. Non-Aboriginal scholars want emerging researchers to work with Aboriginal people to do research that Aboriginal people want. They want research organisations and researchers to show more respect for Aboriginal people's ways of valuing, knowing, being and doing. They know that to do this, it takes time.



Figure 3. Word Cloud for Non-Aboriginal Scholars

What happens to this information now?

My Honours thesis is a larger document and details what Aboriginal research teams, Aboriginal academics and non-Aboriginal scholars said. All their suggestions for doing research better is in this 15,000 word thesis. This document is still a draft for now. The 50 people who participated in yarning and interviews are checking the draft. They need to check what they have said, to make sure we wrote their story right. When they have all given their consent then the thesis will be available for everyone to see and read. We hope the information will help government, non-government agencies, tertiary



institutions, researchers, and consultants improve the way land and water research is done on-Country with Aboriginal peoples.

The final thesis will be available to download from the ANU library website sometime next year. You can check here, <https://anulib.anu.edu.au/collections/theses>

Contact details for more information

If you have any questions, please contact:

Miss Hmalan Hunter-Xénié

M| 0456 212 586

E| Hmalan.Hunter-Xenie@alumni.anu.edu.au

Dr Virginia Marshall

T| 02 6125 6771

E| Virginia.Marshall@anu.edu.au

Emeritus Professor Richard Baker

T| 02 6125 5111

E| Richard.Baker@anu.edu.au

ANU Human Research Ethics Committee (Protocol 2019/312)

Credits: Artwork purchased and used with permission by Dhuwarrwarr Marika (2019) *Dhambaliya*

Graphic design by Rekai Ewan Campbell

Appendix 7: Workshop Report—Emerging Research Issues (AIATSIS 2014:12-13)

Emerging research questions

Based on the outcomes of the workshop discussions and the matters discussed in the Scoping Paper, the following questions have emerged as the possible focus of research to support Indigenous land and sea management across Australia:

- What are the benefits and constraints of the current governance arrangements for undertaking Indigenous land and sea management work – e.g. comparisons between stand-alone land and sea agencies and ranger groups administered by RNTBCs or regional organisations such as NTRBs/NTSPs. What models have been most effective and why? Are there different governance requirements over time or pre and post determination?
- What impact do different land tenures have on land and sea management? How are these impacts being mitigated now and what policy innovations and/or legal changes would contribute to further mitigation?
- How can research funding and focus ensure that Indigenous interests are prioritised ?
- What are the most effective communication options to inform Traditional Owners about land and sea governance models throughout Australia (e.g. a national clearing house of research, interactive map of land and sea managers)? What avenues currently exist to share land and sea management research and knowledge? Is there scope to consider more innovative ways to communicate research and policy changes to practitioners? What are the immediate opportunities for further discussion (e.g. World Parks Conference, national Indigenous land and sea management conferences, a recurrent land and sea segment at the annual National Native Title Conference)?
- What are the options/possible models for a national coordination body for Indigenous land and sea management? What role would such a body have? How would it be funded?
- Where does land and sea management sit in the government's Indigenous agenda? How can the achievements of land and sea initiatives be better communicated to decision-makers at all levels of government? What is the future of the sector?



- What are the existing gaps in available funding and how can they be addressed? How do different funding regimes and models interact and how can they be more effective in achieving land and sea management outcomes?
- What are the learnings from collaborations between conservation NGOs and Indigenous organisations in land and sea management? How can the tools of the philanthropic sector be adopted/adapted by Indigenous groups? How might long term interests of philanthropics align with Indigenous aspirations?
- What existing policy initiatives and legal reforms are facilitating Indigenous engagement in the conservation economy?
- What are the legal and policy interactions between different jurisdictional approaches and how can Indigenous rights and interests be recognised and protected?
- What factors (cultural, legal, political, policy entrepreneurial etc.) have been the catalysts for developing government appetite in successfully partnering with Indigenous communities to develop meaningful programs that empower Traditional Owners to sustainably manage country - e.g. Indigenous leadership, cultural authority, IPAs, WoC and TUMRAs within the Great Barrier Reef Marine Park Authority?
- What are the inconsistencies in fisheries management and the connection between Indigenous cultural fishing and Indigenous cultural heritage? What are Indigenous priorities in fisheries management? How can capacity be increased to better engage Traditional Owners in fisheries management? How can research be used to inform, lobby and reform government practice? What are the opportunities for Indigenous leadership of the reform process?
- Where is water policy currently at? Where should future research and policy investment lie in order to develop Indigenous water rights? How can the concept of cultural flows be better communicated and embedded in water policy and practice?
- How can Indigenous enforcement and compliance powers and opportunities be developed? What are the implications of delegating compliance and enforcement powers to Indigenous rangers? How can current momentum in this field (e.g. initiatives in the NT and Queensland) be supported?
- What are the knowledge management practices currently in place and how do they relate to best practice data management and application?
- What strategies might enable Indigenous land and sea managers to harness research effort to address management priorities as well as build livelihoods?
- How can Indigenous aspirations and knowledge be prioritised in the design and delivery of new research programs?
- What are the elements of successful research partnerships in land and sea management?

