**WHICH THESES SHOULD I READ**

**by Simon Moss**

During the first six months of your PhD or Masters, you should read between two and four theses. The aim of this document is to

• Help you decide which theses to read

• Introduce you to research paradogms, approaches, and methods that you could apply

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| **Theses in your field or discipline** |

First, you should probably read one to three theses in your field or discipline. In particular

* to locate North American or European theses, you could access ProQuest Dissertations & Theses from your library.
* to locate Australian theses, you could utilize a website called https://trove.nla.gov.au

Alternatively, you can locate the theses completed at Charles Darwin University. To achieve this goal

* proceed to <http://cdu.edu.au/library/>
* copy and paste the candidate name and thesis titles—specified in the following pages—into the search box
* these searches should generate entries that include links to pdfs.

The asterisks appear alongside theses by publications. If you plan to submit a thesis by publication, perhaps read at least one of these theses.

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| Field of discipline | Candidate name and thesis title |
| Agriculture, land, and farm management | \*Hogarth, Nicholas John (2014). The role of forest-related income in rural livelihoods |
| Animal development | \*Brien, Matthew Lindsay (2015). Growth and survival of hatchling saltwater crocodiles (Crocodylus porosus) in captivity |
| Business and Management | Houguet-Pincham, David Terrance (2017). Breaking down the barriers : the Northern Territory experience of diversity in the boardroom.  Preddy, Dean (2015). International student involvement in Australian universities. |
| Cardiovascular Medicine and Haematology | Saepudin, S. (2016). Risk prediction of hyponatremia in patients hospitalised from heart failure. |
| Clinical sciences | Grigg, Matthew (2016). Risk factors, clinical features and treatment of human infection with Plasmodium knowlesi and other Plasmodium species in Sabah, Malaysia  Imitola, Zuleima Pava (2017). Molecular epidemiology of malaria in Papua-Indonesia  Saepudin, S. (2016). Risk prediction of hyponatremia in patients hospitalised from heart failure. |
| Ecology | \*Babon, Andrea (2014). Our carbon, their forest: the political ecology of reducing emissions from deforestation and forest degradation (REDD+) in Papua New Guinea. |
| Economics | McLeod, Vikki (2017). Future energy options for the Northern Territory [Masters by Research] |
| Education | Adil, Deasyanti (2015). Listening to student voices : factors affecting well-being in school.  Anne-Marie, Jacqueline Marias (2016). Breaking the silence: teachers speak out about classroom behavioural problems  Du Plessis, Santie (2017). Adaptive Behaviour Assessment System : Indigenous Australian Adaptation Model  Fletcher, Anna Ingrid Katarina (2015). Student-directed assessment as a learning process for primary students: a mixed-methods study.  Hall, Lisa Marie (2016). Moving deeper into difference: Developing meaningful and effective pathways into teacher education for Indigenous adults from remote communities  Koesoemo, Ratih (2017). Preparing for quality: examining global, national and local institutional policies and the experience of EFL teaching practice in Central Java, Indonesia.  Saffu, Susana Akua (2014). Learning as transformation and empowerment: the case of African-Australian women in the Northern Territory of Australia.  Sivongxay, Amphone (2015). The impacts of hydropower development on livelihoods of downstream communities  Suryaratri, Ratna Dyah (2015). Why don't I ask for help: Examining factors influencing academic help seeking practices among primary students in Jakarta, Indonesia.  \*Wozniak, Helen (2016). Get ready, get learning: Investigating university students' transition to online distance learning in the health sciences |
| Engineering | \*Azam, Sami (2016). Detection of binaural processing in the human brain  Ompong, David (2017). Designing thin film solar cells for optimum photovoltaic performance |
| Environmental management | Crough, Julie A. (2015). People, place and practices: digital technologies in the changing world of fire management in northern Australia.  Fitriana, Ria (2014). Assessing the impact of a marine protected area on coastal livelihoods.  Gomez, Aurelia Luzviminda Villena (2015). Identification and valuation of ecosystem services in the Mount Apo Natural Park, the Philippines  \*Palmer, Carol (2014). Conservation biology of dolphins in coastal waters of the Northern Territory, Australia. |
| Environmental sciences | Abdullah, Abu Nasar Mohammad (2014). Livelihood strategies of people surrounding the Sundarbans mangrove forest.  Ainsworth, Gillian Barbara (2014). Valuing birds: understanding the relationship between social values and the conservation of Australian threatened avifauna.  Arisuryanti, Tuty (2016). Molecular genetic and taxonomic studies of the swamp eel.  Asmara, Indrawati Yudha (2014). Risk status of selected indigenous chicken breeds in Java, Indonesia  Gillett, Robert William (2014). Elucidation of the photochemical reactions involved in the production and destruction of formaldehyde, hydrogen peroxide and methyl hydroperoxide.  Fonseca, Abilio da (2015). Climate change vulnerability and adaptation options: case studies of four coastal communities in Timor-Leste.  Heenkenda, Muditha K. (2016). A transition from traditional mangrove remote sensing to recent advances  Kumaran, Sasikala (2014). Peat resource management in Peninsula Malaysia  \*Menge, Enock Ondeyo (2017). Assessing the invasiveness of Calotropis procera (Aiton) W.T. Aiton in northern Australia  Molyneux, Jenny (2017). Fauna assemblages of the spinifex sand plains in central Australia : response to climate, fire and predation.  Novak, Peter Anthony (2015). The life history and ecology of Macrobrachium spinipes (Schenkel, 1902) in northern Australia  Saragih, Evi Warintan (2017). Vegetation development in gold mine rehabilitation in relation to cattle grazing in the Northern Territory, Australia  Sinclair, Alison (2015). Stable lead isotopes, trace metals and radionuclides in sediments of the Alligator Rivers Region to assess impacts of uranium mining.  \*Van Oosterzee, Penny (2014). Integration of the ecosystem sector and climate change mitigation in carbon accounting schemes  Warnakulasooriya, Kanchana Niwanthi (2017). Seasonal variations in sources and cycling of nitrogen and carbon in a tropical mangrove-lined creek impacted by treated sewage effluent. |
| Geospatial information systems | Hobgen, Sarah Elizabeth (2015). Understanding sediment sources to inform catchment management in data-poor regions: An example from Sumba, eastern Indonesia |
| History | Emmanouil, Ourania (2016). Being with country: The performance of people-place relationships on the Lurujarri Dreaming Trail.  Harry, Kathleen (2015). The Brunei Rebellion of 1962.  De La Rue, Kathy (2014). Ruled by remote control: the Commonwealth's role in the history of Darwin, 1911-1978. |
| Indigenous studies | Anderson, Stephen (2015). Building bridges + connecting culture : creative collaboration with artists from the Tiwi Islands  \*Davies, Jane (2015). Hepatitis B in Australia's Northern Territory: understanding the true story  Douglas, Josie (2015). Kin and knowledge: the meaning and acquisition of Indigenous ecological knowledge in the lives of young Aboriginal people in Central Australia  Du Plessis, Santie (2017). Adaptive Behaviour Assessment System : Indigenous Australian Adaptation Model  Emmanouil, Ourania (2016). Being with country: The performance of people-place relationships on the Lurujarri Dreaming Trail.  Hall, Lisa Marie (2016). Moving deeper into difference: Developing meaningful and effective pathways into teacher education for Indigenous adults from remote communities  Hohaia, Debbie Fiona (2016). The potential benefits to the Australian Defence Force educational curricula of the inclusion of Indigenous knowledge systems.  Ibañez, Jayson C. (2014). Knowledge integration and Indigenous planning in the Philippines.  \*Ireland, Sarah (2015). Paperbark and pinard: a cultural and historical exploration of female reproduction in one remote northern-Australian Aboriginal town.  Lawton, Paul D. (2015). The incidence and outcomes of chronic kidney disease amongst Indigenous Australians.  McCarthy, Leisa (2017). Household food security and child health outcomes in families with children aged 6 months to 4 years residing in Darwin and Palmerston, Northern Territory, Australia.  Rossingh, Bronwyn (2014). Culture legitimate accountability: Finding the balance for Indigenous communities. |
| Information and computer science | Pham, Huu Dung (2015). Motion-energy-based unequal error protection of H.264/AVC video bitstreams. |
| Legal studies | Kelly, Danial Terence (2014). Law from the earth, law from the demos and law from heaven : nature and intersections of authority of Madayin, Australian law and Christianity in Arnhem Land |
| Medical and health sciences | \*Bowen, Asha (2014). The skin sore trial: exploring a better treatment option for impetigo in Indigenous children living in remote Australia.  Colquhoun, Samantha M. (2015). Global epidemiology, prevention and control of rheumatic heart disease with a focus on the Pacific Islands region  Davies, Jane (2015). Hepatitis B in Australia's Northern Territory: understanding the true story  \*Greenstein, Caroline Faith (2016). Improving physiotherapy services for indigenous children with physical disability: A continuous quality improvement and qualitative approach.  \*Hare, Kim Maree (2014). The bacteriology of bronchiectasis and impact of azithromycin on upper and lower airway bacteria and resistance in Australian indigenous children.  He, Vincent Y. F. (2015). Long term health outcomes of Indigenous and non-Indigenous Australians in the Northern Territory after serious illness  Ireland, Sarah (2015). Paperbark and pinard: a cultural and historical exploration of female reproduction in one remote northern-Australian Aboriginal town.  Lawton, Paul D. (2015). The incidence and outcomes of chronic kidney disease amongst Indigenous Australians.  \*McCallum, Gabrielle Britt (2014). Improving the management of children (especially Indigenous children) hospitalised with bronchiolitis.  McRobb, Evan T. (2015). Burkholderia pseudomallei in northern Australia: sequencing approaches to better biogeographical and epidemiological understanding  \*Ng, Jacklyn Wei Sze (2014). Characterisation of a novel Staphylococcus aureus lineage  \*Pizzutto, Susan (2015). The immunopathology of chronic suppurative lung disease in Northern Territory children.  Podin, Yuwana (2014). The epidemiology and molecular characterization of Burkholderia pseudomallei in Malaysian Borneo.  \*Roberts, Kathryn Victoria (2015). Echocardiographic screening for rheumatic heart disease in Northern Australian children.  Szava, Anna (2015). Explaining child malnutrition in two villages in south west Ethiopia  \*Whop, Lisa Junelle Maree (2016). Indigenous women and cervical screening in Queensland.  Wirjanata, Grennady (2017). Phenotypic characterization of chloroquine resistance in Plasmodium spp. isolates. |
| Musicology | Reiss, Penelope Ruth (2016). A musical 'Notage à Trois' : the relationship revealed between three manuscript versions of J.S. Bach's unaccompanied violin sonatas and partitas? |
| Nursing | Topp, Marea Catherine (2016). New Zealand nurses' alcohol and other drug use. |
| Pharmacy | \*Bushell, Mary-Jessimine Ann (2015). Undergraduate vaccination training program for pharmacy students |
| Policy and administration | Rkein, Hassan Ibrahim (2014). The shortage of accountants: the case of Indigenous Australians. |
| Political science | Dahlsen, John (2017). Environmental art : activism, aesthetics and transformation.  Franklin, Nathan John (2014). Reproducing political Islam in Java : the role of Nahdlatul Ulama and Muhammadiyah Pesantren in the political socialisation of the Umat  Marum, Jennene (2014). Network governance in community development: structures and dynamics in the Northern Territory, Australia |
| Psychology | Alexi, Nektarios (2015). Mental illness: an integrated model of help seeking  Bouchoucha, Stéphane Laurent (2014). Infection prevention and control: a psychosocial model of influences on adherence to standard precautions  Hilder-Achurch, Michelle (2014). The psychological correlates of post traumatic stress disorder.  Lucas, James Joseph (2015). Decision-making stress and satisfaction: a cognitive-affective model |
| Public policy and administration | Hohaia, Debbie Fiona (2016). The potential benefits to the Australian Defence Force educational curricula of the inclusion of Indigenous knowledge systems.  Rossingh, Bronwyn (2014). Culture legitimate accountability: Finding the balance for Indigenous communities. |
| Public health and health services | Dempsey, Karen (2016). In harm's way: A study of Northern Territory linked crash records  \*Garvey, Gail (2015). Psychosocial aspects of cancer care for Indigenous Australians.  McCarthy, Leisa (2017). Household food security and child health outcomes in families with children aged 6 months to 4 years residing in Darwin and Palmerston, Northern Territory, Australia.  Morrissey, Hana (2014). New roles for health professionals in patient-centred health care services in rural and remote Australia  \*Oguoma, Victor Maduabuchi (2016). Prediabetes and metabolic syndrome in Nigerian adults: prevalence and risk screening.  Percival, Nicole Ann (2014). Improving health promotion in indigenous primary health care: is a continuing quality improvement approach feasible?  Su, Jiunn-Yih (2015). Collecting and analysing testing data to improve the surveillance of sexually transmitted infections in the Northern Territory |
| Visual arts and crafts | Moller, Sarah Jane (2015). Painting trajectories: transliterating traces of the travel experience through photo-based painting.  Taylor, Jennifer (2014). Portraits of country: a plein air painter in Arrernte country. |

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| **The paradigm or theoretical perspective** |

Researchers can adopt a variety of paradigms, sometimes called theoretical perspectives. Examples include interpretivism, pragmatism, critical theory, and postmodernism. Each paradigm clarifies assumptions such as whether objects or concepts exist outside of our mind, how can we decide whether some belief is true or not, and which wobjectives are the most valuable—such as whether research sholud describe or challenge the status quo.

Researchers have differentiated and utilized hundreds of paradigms. Many of these paradigms can be divided into five classes:

* **Positivism and post positivism**: Positivism assumes that systematic, standardized procedures should be applied to observe and measure phenomenon to uncover the true reality. Post-positivists, however, are more sensitive to how the values and knowledge of researchers—as well as other limitations—can bias or cloud these observations
* **Interpretivism:** Interpretivism assumes that people construct their own understanding of the world. Proponents want to understand the meanings that guide the choices of people. They do not believe that researchers can remain impartial and independent of their inquiry.
* **Pragmatism**: Blends positivism and interpretivism: Researchers shift from positivism to interpretivism to achieve their goals and to effect change
* **Advocacy**—such as critical theory: Assumes that political agendas have shaped and biased knowledge. To overcome this effect, researchers often consider marginalized or disadvantaged segments of society to address inequalities and to offer a voice for these segments.
* **Postmodernism**: Postmodernists believe that no one ideology or narrative can be considered appropriate—but conducts researcher to characterize the fragmentation, ambiguity, and ambivalence in the world.

Which of these five classes you choose partly depends on whether your research is more quantitative or qualitative. That is

* If you are conducting quantitative research, you are likely to adopt positivism or post positivism. You might want to skim to the section called “Methods to collect, link, or extract quantiative data”.
* If you are conducting qualitative research, you are likely to adopt interpretivism, critical theory, or postmodernism.
* If you are combining qualitative and quantitative research, you are likely to adopt pragmatism.

Within each of these five broad philosophies are more specific theoretical perspectives. Consider which of these perspectives might be relevant to your thesis. If a thesis has utilized this perspective, perhaps locate this thesis from the library catalogue.

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| Theoretical perspective | **Description** | Student name and thesis title |
| **Interpretivism** |  | Ibañez, Jayson C. (2014). Knowledge integration and Indigenous planning in the Philippines. |
| Phenomenology | A focus on how people experience, conceptualize, and perceive a particular circumstance or problem |  |
| Symbolic interactionism | A focus on the meaning individuals attach to particular objects, events, or interactions, how this meaning guides their choices, and the circumstances that affect this meaning. The research will often explore how different groups, such as doctors and nurses, interact with each other--and their interpretations of these interactions |  |
| Subtle realism | Like all realist philosophies, assumes the aim of research is to characterize some reality that is independent of conscious awareness—but that such reality is hard to characterize accurately. In particular, according to this philosophy, humans can know reality only from their own perspective. That is, because humans are shaped by cultural assumptions, their account of reality is selective | Anne-Marie, Jacqueline Marias (2016). Breaking the silence: teachers speak out about classroom behavioural problems |
| Hermeneutics | An analysis of important writings, such as the writings of significant people or significant works—to uncover insights into our history, culture, and language |  |
| **Pragmatism** |  | Fletcher, Anna Ingrid Katarina (2015). Student-directed assessment as a learning process for primary students: a mixed-methods study.  Houguet-Pincham, David Terrance (2017). Breaking down the barriers : the Northern Territory experience of diversity in the boardroom.  Wozniak, Helen (2016). Get ready, get learning: Investigating university students' transition to online distance learning in the health sciences |
| **Advocacy: Critical theory and feminism** |  |  |
| Critical theory and inquiry | Assumes that knowledge political and historical forces shape knowledge. In particular, powerful entities, because of their position, can dominate subordinate groups and promulgate information that suits their needs. Hence, the information people assume is true may actually serve the interests of powerful entities. Hence, the researcher must understand these social forces—rather than accept established knowledge— to generate social change and insight. | Hohaia, Debbie Fiona (2016). The potential benefits to the Australian Defence Force educational curricula of the inclusion of Indigenous knowledge systems.  Koesoemo, Ratih (2017). Preparing for quality: examining global, national and local institutional policies and the experience of EFL teaching practice in Central Java, Indonesia. |
| Critical indigenous pedagogy | Applies critical theory—an exploration of how powerful entities can dominate subordinate groups and promulgate information that suits their needs—to benefit indigenous individuals and communities | Ibañez, Jayson C. (2014). Knowledge integration and Indigenous planning in the Philippines. |
| Critical race theory | Utilizes storytelling and narratives to examine race and racism in social and political institutions—to counter the myths and assumptions of the dominant group | Hall, Lisa Marie (2016). Moving deeper into difference: Developing meaningful and effective pathways into teacher education for Indigenous adults from remote communities |
| Decolonizing theory | Assumes that European colonization and imperialism shaped research. Hence, the ethics and conduct of research that examines indigenous people and their communities may be unsuitable. Research should instead strengthen indigenous capacity, privilege indigenous knowledge, and utilize culturally safe and appropriate research methods | Ireland, Sarah (2015). Paperbark and pinard: a cultural and historical exploration of female reproduction in one remote northern-Australian Aboriginal town. |
| Feminist standpoint theory | Assumes that women assume different roles and experience different lives to men. Hence, women acquire distinct knowledge and adopt a different perspective, often as a subordinated group. Research should thus explore this perspective, partly to challenge the existing knowledge has often been dominated by males. | Saffu, Susana Akua (2014). Learning as transformation and empowerment: the case of African-Australian women in the Northern Territory of Australia. |
| Feminism: Indigenous | A branch of feminism that focusses on empowering indigenous women—from the perspective of indigenous cultural values and priorities rather than mainstream, white, patriarchal perspectives. | Ireland, Sarah (2015). Paperbark and pinard: a cultural and historical exploration of female reproduction in one remote northern-Australian Aboriginal town. |
| Queer theory | Applies critical theory to explore mismatches between sex, gender, and desire and to challenge existing conceptualizations of sexes, genders, and sexuality. |  |
| **Postmodernism** |  |  |

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| **Theories that are relevant to specific fields** |

In addition to the theoretical perspective that underpins methodology, your research is also likely to be underpinned by theoretical frameworks that are more specific to particular fields or disciplines. Here are some examples. If any of these examples are relevant to your project, perhaps locate the corresponding thesis from the library catalogue.

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| Theory | Description | Student name and thesis title |
| Bronfenbrenner’s ecological theory | This theory is designed to explain how the environment interacts with the inherent qualities of a child to shape his or her development. In particular, the development of children is simultaneously shaped by five environments: the immediate micro-environment or daily home, school, day care, or peers; the meso-system or interaction between these micro-environments such as friends from school visiting the house; the exo-system to represent how settings that do not include the child can affect the child, such as the workplace of a parent; the macro-system—such cultural patterns, such as the effects of war; and the chronosystem—the effect of time and stability on the child | Lor, Tithchanbunnamy (2017). Factors impacting on school retention rates of lower secondary school female students in rural Cambodia and ways forward: a case study [Masters by Research] |
| Institutional analysis and development framework | This model helps researchers analyze complex collective actions—involving structures, positions, and rules—by dividing these actions into more specific functions. In particular, the model assumes that policy reforms shape the biophysical environment, socio-economic conditions, and institutional arrangements. This context then shapes the behaviors of individuals and situations—which in turn affect the flow information and learning in interactions and ultimately outcomes. These outcomes then affect the context too. | Kumaran, Sasikala (2014). Peat resource management in Peninsula Malaysia |
| Institutional resource regime framework | This model considers how public policy, property rights, and social norms affect the actual uses of goods and services provided by an environmental resource. | Kumaran, Sasikala (2014). Peat resource management in Peninsula Malaysia |
| Self-determination theory | This theory assumes that people thrive when they engage in activities that align to their intrinsic needs, such as their need to develop competence, to experience autonomy, and to enhance relationships—rather than activities that are intended to please someone else | Adil, Deasyanti (2015). Listening to student voices: factors affecting well-being in school. |
| Social cognitive career theory | The theory explains how interests, abilities, values, and environmental factors shape how academic and career interests develop, how choices around education and careers are reached, and how success is achieved | Rkein, Hassan Ibrahim (2014). The shortage of accountants: the case of Indigenous Australians. |
| Sustainable livelihood analysis | In this approach, researchers strive to identify the key assets in livelihood—human assets, nature, finances, social capital, and physical capital—clarify the trends in these assets over time and space, and characterizes the economic and social stressors on these assets. Interventions are designed to address vulnerabilities of livelihood, often by diversifying income streams, after considering the political, legal, and economic institutions and infrastructure. | Abdullah, Abu Nasar Mohammad (2014). Livelihood strategies of people surrounding the Sundarbans mangrove forest.  Fitriana, Ria (2014). Assessing the impact of a marine protected area on coastal livelihoods. |

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| **Qualitative and mixed-method methodologies** |

Once you choose a theoretical perspective or paradigm, your research question, purpose, and aim is likely to be clearer. But, the theoretical perspective does not offer any insight on how to collect data, analyze data, and coordinate these phases. To generate this insight, you need to ascertain your methodology. A methodology is a perspective or framework that helps you decide how to collect data, analyze data, and interpret data. Typical examples include grounded theory, ethnography, phenomenology, and thematic analysis.

* Some of these methodologies, such as grounded theory, offer guidelines on how to collect data, analyze data, and coordinate these phases.
* Other methodologies, such as thematic analysis, primarily offer insights on how to analyze data—and may be called methods rather than methodologies.

To some extent, the paradigm you chose could shape the methodology you should adopt. For example, individuals who adopt symbolic interactionism often utilize grounded theory. Nevertheless, most methodologies can be utilized to explore most paradigms.

You might want to read about several methodologies. But typically, your research would revolve around one—or perhaps two or three—methodologies only. If any of these examples are relevant to your project, perhaps locate the corresponding thesis from the library catalogue.

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| Methodology | Description | Student name and thesis title |
| **Case studies** | A detailed exploration and appreciation of an event, issue, group, person or phenomenon of interest, in its natural context. The precise methods depend on whether the researcher adopts an interpretivist, positivist, or critical approach. | Crough, Julie A. (2015). People, place and practices: digital technologies in the changing world of fire management in northern Australia.  Kumaran, Sasikala (2014). Peat resource management in Peninsula Malaysia  Lor, Tithchanbunnamy (2017). Factors impacting on school retention rates of lower secondary school female students in rural Cambodia and ways forward: a case study. [Masters by Research]  Saffu, Susana Akua (2014). Learning as transformation and empowerment: the case of African-Australian women in the Northern Territory of Australia.  Sivongxay, Amphone (2015). The impacts of hydropower development on livelihoods of downstream communities |
| **Ethnographic approaches and action research** | A methodology in which the researcher embeds themselves in a specific setting to understand the culture of some community or setting from the perspective of members. | Douglas, Josie (2015). Kin and knowledge: the meaning and acquisition of Indigenous ecological knowledge in the lives of young Aboriginal people in Central Australia  Ireland, Sarah (2015). Paperbark and pinard: a cultural and historical exploration of female reproduction in one remote northern-Australian Aboriginal town.  Szava, Anna (2015). Explaining child malnutrition in two villages in south west Ethiopia : local views and local opportunities |
| Critical ethnography | In contrast to traditional ethnography, critical ethnography is designed to consider how changes to the inequalities and power could change the site | Koesoemo, Ratih (2017). Preparing for quality: examining global, national and local institutional policies and the experience of EFL teaching practice in Central Java, Indonesia. |
| Institutional ethnography | Explores how people interact with each other in a social institution—like marriage or school—to understand how these relations structure the lives of individuals | Hohaia, Debbie Fiona (2016). The potential benefits to the Australian Defence Force educational curricula of the inclusion of Indigenous knowledge systems. |
| Auto-ethnography | The author contemplates their own life and writes about their personal experiences—and connects this narrative to broader cultural, political, and social perspectives. |  |
| Action research | Research that is intended to introduce and examine the effect of some change or solution—or iterative series of changes and solutions—to solve some problem. This methodology is often underpinned by pragmatism | Gomez, Aurelia Luzviminda Villena (2015). Identification and valuation of ecosystem services in the Mount Apo Natural Park, the Philippines |
| Participatory action research | A research approach in which the researchers collaborate with members of a community or setting to establish the research questions, design, methods, and evaluation. Furthermore, the approach is designed to uncover and implement actions to solve a problem that is vital to members. Participatory methodologies are often underpinned by critical theories | Davies, Jane (2015). Hepatitis B in Australia's Northern Territory: understanding the true story  Percival, Nicole Ann (2014). Improving health promotion in indigenous primary health care: is a continuing quality improvement approach feasible? |
| Participatory rural appraisal tools | An approach that incorporates the knowledge and opinions of rural individuals while planning and managing the development of projects | Fitriana, Ria (2014). Assessing the impact of a marine protected area on coastal livelihoods. |
| Working together multiple knowledge systems [Verran, 1998] | Non-indigenous researchers and indigenous participants negotiate the concepts and metaphors people use to describe behaviors and explanations of these behaviors—and both parties integrate something of the other | Emmanouil, Ourania (2016). Being with country: The performance of people-place relationships on the Lurujarri Dreaming Trail. |
| Educational design research | Researchers collaborate with practitioners to develop a solution—and set of design principles—iteratively | Wozniak, Helen (2016). Get ready, get learning: Investigating university students' transition to online distance learning in the health sciences |
| **Content analysis** |  |  |
| Thematic analysis | A qualitative approach in which researchers attempt to extract broad categories and specific themes from qualitative data such as responses during interviews | McCarthy, Leisa (2017). Household food security and child health outcomes in families with children aged 6 months to 4 years residing in Darwin and Palmerston, Northern Territory, Australia. |
| **Grounded theory** | An approach in which researchers collect data and then gradually establish theories and hypotheses—after converting the data to codes, concepts, and categories. Next, they tend to collect more data to test and refine these hypotheses iteratively. | Marum, Jennene (2014). Network governance in community development: structures and dynamics in the Northern Territory, Australia |
| Grounded theory: Constructivist | Similar to other variants of grounded theory in practice, this approach assumes that theories do not necessarily represent some reality but are constructed, rather than discovered, by the researchers as a consequence of their interactions with the participants and field. This approach assumes the data are co-constructed by researcher and participants, and the values, perspectives, and privileges of the researcher clouds the data and interpretations. | Anne-Marie, Jacqueline Marias (2016). Breaking the silence: teachers speak out about classroom behavioural problems  Rossingh, Bronwyn (2014). Culture legitimate accountability: Finding the balance for Indigenous communities |
| **Phenomenology** |  |  |
| Interpretive phenomenological analysis | Explores how individuals derive meaning from significant events in their life |  |
| Action network theory | This methodology is applied to explore how networks—of humans, objects, ideas, processes, and so forth—evolve and persist to achieve some objective. This approach explores the associations between people, material objects, and concepts. The theory is consistent with constructivist approaches. | Emmanouil, Ourania (2016). Being with country: The performance of people-place relationships on the Lurujarri Dreaming Trail. |
| **Discourse analysis** |  |  |
| Media discourse analysis | An approach in which researchers critically appraise the messages that mass media promulgate | Babon, Andrea (2014). Our carbon, their forest: the political ecology of reducing emissions from deforestation and forest degradation (REDD+) in Papua New Guinea. |
| Conversation analysis | An analysis of the subtle patterns of behavior during conversations, such as how people decide who should speak next, how people end a topic, what is the cause of silences, and so forth. |  |
| **Narrative analysis** | An approach in which researchers analyze narratives—that is, the stories that individuals convey about some experience or event. Researchers may examine letters, interviews, biographies, field notes, or other sources of stories. Narrative analysis is often explored from the perspective of social constructivism to explore how people understand and attach meaning to their experiences. The key to narrative is to understand some event or experience across time—that is, to understand the process or sequence of events. | Hall, Lisa Marie (2016). Moving deeper into difference: Developing meaningful and effective pathways into teacher education for Indigenous adults from remote communities |
| Value chain analysis | A value chain is the sequence of processes that transform the inputs or resources a firm receives to some output, product, or service. Value chain analysis is the examination and characterization of this value chain. The analysis is designed to examine how firms can create value to their customers—either by diminishing the cost of their activities or focusing on activities that align with their competitive advantage. | Fitriana, Ria (2014). Assessing the impact of a marine protected area on coastal livelihoods. |
| Policy network analysis | An approach in which researchers explore the interdependence between government's sectors and other agents in society to improve policy making and outcomes of public policy. | Babon, Andrea (2014). Our carbon, their forest: the political ecology of reducing emissions from deforestation and forest degradation (REDD+) in Papua New Guinea. |
| **Mixed methods designs** | Mixed method designs comprise both qualitative and quantitative approaches | Du Plessis, Santie (2017). Adaptive Behaviour Assessment System : Indigenous Australian Adaptation Model |
| Concurrent, parallel | Both qualitative and quantitative approaches are applied during each phase of the project | Asmara, Indrawati Yudha (2014). Risk status of selected indigenous chicken breeds in Java, Indonesia  Fletcher, Anna Ingrid Katarina (2015). Student-directed assessment as a learning process for primary students: a mixed-methods study. |
| Sequential explanatory | Qualitative research is conducted to explain the findings derived from previous quantitative research | Adil, Deasyanti (2015). Listening to student voices : factors affecting well-being in school. |
| Sequential exploratory | Qualitative research is undertaken to accrue enough information about a topic or issue to then conduct quantitative research | Houguet-Pincham, David Terrance (2017). Breaking down the barriers: the Northern Territory experience of diversity in the boardroom. |

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| **Methods to collect and analyze qualitative data** |

After you clarify the methodologies you would like to apply, you need to clarify specific methods and tools you will utilize to collect and analyze qualitative data. To collect data, you might utilize interviews, focus groups, observations, analysis of documents, surveys, and many other methods. To analyze data, you are likely to utilize techniques that are commonly applied in the corresponding methodology—but this techniques will often entail converting text to specific codes and then broader themes. Below are some interesting and uncommon examples. If any of these examples could be relevant to your project, perhaps locate the corresponding thesis from the library catalogue.

|  |  |
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| Method | Student name and thesis title |
| Archival records: Data derived from archived documents and records | De La Rue, Kathy (2014). Ruled by remote control: the Commonwealth's role in the history of Darwin, 1911-1978.  ……………………………………………………………………………….………….. |
| Content analysis of media | Ainsworth, Gillian Barbara (2014). Valuing birds: understanding the relationship between social values and the conservation of Australian threatened avifauna. |
| Drawing methods | Ireland, Sarah (2015). Paperbark and pinard: a cultural and historical exploration of female reproduction in one remote northern-Australian Aboriginal town. |
| Community-based vulnerability assessment | Fonseca, Abilio da (2015). Climate change vulnerability and adaptation options: case studies of four coastal communities in Timor-Leste. |
| Forensic handwriting examination methodology | Reiss, Penelope Ruth (2016). A musical 'Notage à Trois' : the relationship revealed between three manuscript versions of J.S. Bach's unaccompanied violin sonatas and partitas? |
| Narrative interviews | Crough, Julie A. (2015). People, place and practices: digital technologies in the changing world of fire management in northern Australia. |
| Policy analysis | Abdullah, Abu Nasar Mohammad (2014). Livelihood strategies of people surrounding the Sundarbans mangrove forest. |
| Scenario modelling | McLeod, Vikki (2017). Future energy options for the Northern Territory [Masters by Research] |

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| **Methods to collect and analyze qualitative data** |

A vast array of techniques can be utilized to collect quantitative data—from surveys to geotyping—to derive quantitative data from other sources, or to integrate diverse sets of data. Below is a sample of techniques used at CDU. If any of these examples could be relevant to your project, perhaps locate the corresponding thesis from the library catalogue.

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| Methodology | Description | Student name and thesis title |
| High resolution melt analysis | A technique in microbiology to detect mutations, polymorphisms, and epigenetic variations in DNA samples—and is simpler than some other genotyping techniques | Ng, Jacklyn Wei Sze (2014). Characterisation of a novel Staphylococcus aureus lineage |
| Isotope monitoring |  | Sinclair, Alison (2015). Stable lead isotopes, trace metals and radionuclides in sediments of the Alligator Rivers Region to assess impacts of uranium mining. |
| Object based image analysis |  | Heenkenda, Muditha K. (2016). A transition from traditional mangrove remote sensing to recent advances |
| **Linking distinct data sets** |  |  |
| LinkageWiz | Software that can utilizes probabilistic matching to link distinct datasets—if fewer than 10 000 records. May consider name, date of birth, and other linkage variables | Dempsey, Karen (2016). In harm's way: A study of Northern Territory linked crash records |
| Probabilistic record-linkage methods | In contrast to deterministic record linkage in which a unique code—such as an ID number— is used to connect distinct data sets, probabilistic record linkage is necessary when not every unit is granted a unique code. Instead, several pieces of information can be used to identify likely connections | Whop, Lisa Junelle Maree (2016). Indigenous women and cervical screening in Queensland |

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| **Statistical techniques and software** |

After you have collected quantitative data, you need to choose suitable statistical techniques. Commom techniques include ANOVA, multiple regression, factor analysis, and structural equation modeling. However, the table below specifies some techniques that are not as common—but often prevalent within specific disciplines. This table also presents some statistical software that some students use instead of more common alternatives, such as SPSS and R.

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| Method | Description | Student name and thesis title |
| Bray-Curtis Ordination |  | Saragih, Evi Warintan (2017). Vegetation development in gold mine rehabilitation in relation to cattle grazing in the Northern Territory, Australia. |
| Canonical Analysis of Principal Coordinates |  | Saragih, Evi Warintan (2017). Vegetation development in gold mine rehabilitation in relation to cattle grazing in the Northern Territory, Australia. |
| Distance Linear Modelling | Examines the relationship between one or more predictors and a multivariate data cloud—something similar to a scatterplot | Saragih, Evi Warintan (2017). Vegetation development in gold mine rehabilitation in relation to cattle grazing in the Northern Territory, Australia. |
| Epi-Info geographical mapping software |  | Oguoma, Victor Maduabuchi (2016). Prediabetes and metabolic syndrome in Nigerian adults: prevalence and risk screening. |
| Generalised additive mixed models |  | Molyneux, Jenny (2017). Fauna assemblages of the spinifex sand plains in central Australia : response to climate, fire and predation. |
| Hierarchical optimal classification tree analysis [Yarnold & Soltysik, 2005. Optimal data analysis] |  | Oguoma, Victor Maduabuchi (2016). Prediabetes and metabolic syndrome in Nigerian adults: prevalence and risk screening. |
| Logistic regression | Explores whether a variety of measures differ between two groups simultaneously—such as people who passed and people who failed some test | Dempsey, Karen (2016). In harm's way: A study of Northern Territory linked crash records  Saepudin, S. (2016). Risk prediction of hyponatremia in patients hospitalised from heart failure. |
| Multiple fractional polynomial models |  | \*Imitola, Zuleima Pava (2017). Molecular epidemiology of malaria in Papua-Indonesia |
| Optimal data analysis [Yarnold & Soltysik, 2005. Optimal data analysis] | Adjusts the scale of some measure to optimize the association between measures | Oguoma, Victor Maduabuchi (2016). Prediabetes and metabolic syndrome in Nigerian adults: prevalence and risk screening. |
| Permutational analysis of variance | Variant of ANOVA that does not assume normality and also examines dispersion rather than only central tendency. Primer-e can be utilized to conduct this analysis—software that can be purchased by students for a few hundred dollars | Warnakulasooriya, Kanchana Niwanthi (2017). Seasonal variations in sources and cycling of nitrogen and carbon in a tropical mangrove-lined creek impacted by treated sewage effluent. |
| Rasch analysis |  | Du Plessis, Santie (2017). Adaptive Behaviour Assessment System : Indigenous Australian Adaptation Model |
| Receiver operating characteristic curve analysis |  | Oguoma, Victor Maduabuchi (2016). Prediabetes and metabolic syndrome in Nigerian adults: prevalence and risk screening.  Saepudin, S. (2016). Risk prediction of hyponatremia in patients hospitalised from heart failure. |
| Shrinkage of regression coefficients | Techniques in which regression equations are improved by including other information | Saepudin, S. (2016). Risk prediction of hyponatremia in patients hospitalised from heart failure. |
| Spatial autocorrelation | Assesses whether the units, such a people or objects, that are close rather than distance in space tend to generate more similar values | Menge, Enock Ondeyo (2017). Assessing the invasiveness of Calotropis procera (Aiton) W.T. Aiton in northern Australia |
| Survival or time-to-event analyses, such as Cox’s proportional hazards regression model | Utilized to predict when a specific event will transpire—such as death—but when the sample includes people who have not experienced this event. | He, Vincent Y. F. (2015). Long term health outcomes of Indigenous and non-Indigenous Australians in the Northern Territory after serious illness  Lawton, Paul D. (2015). The incidence and outcomes of chronic kidney disease amongst Indigenous Australians. |
| Tobit model or censored regression model | A regression model that is often used when the dependent variable cannot be lower than 0. | Asmara, Indrawati Yudha (2014). Risk status of selected indigenous chicken breeds in Java, Indonesia |
| XLSTAT **statistical package** | A statistical package that integrates seamlessly with Excel—and an be used to conduct most of the common statistical techniques, such as structural equation modeling, mixed models, cluster analyses, conjoint analyses, and so forth. Prices for students are often modest. | Oguoma, Victor Maduabuchi (2016). Prediabetes and metabolic syndrome in Nigerian adults: prevalence and risk screening. |