



**MINISTRY OF BUSINESS,
INNOVATION & EMPLOYMENT**
HĪKINA WHAKATUTUKI



Australian and New Zealand Standard Research Classification Review 2019

First Consultation – New Zealand Submissions

Introduction and Background

Announced in June 2018, the Australian and New Zealand Standard Research Classification (ANZSRC) Review ('the Review') is being carried out jointly by the Australian Bureau of Statistics (ABS), Stats NZ, the Australian Research Council (ARC) and the New Zealand Ministry of Business, Innovation and Employment (MBIE).

One of the aims of the Review is to ensure that ANZSRC reflects current practice and is sufficiently robust to allow for long-term data analysis.

The Review is being guided by the ANZSRC Review Steering Committee, comprising representatives from the ABS, Stats NZ, ARC and MBIE. The role of the Steering Committee is to oversee the review, encourage implementation of the revised ANZSRC, and manage project governance. Any updates to ANZSRC will require endorsement by the ABS and Stats NZ.

To support the Review, MBIE and Stats NZ are conducting a series of consultations with New Zealand stakeholders. A parallel process is being undertaken in Australia by ARC and ABS. A [Discussion Paper](#) was developed to support the first consultation period, which ran from 25 February to 7 June 2019. Submissions in response to this discussion paper were invited via an online submission portal that allowed respondents to:

- upload a response in Microsoft Word or machine-readable PDF format
- respond to the questions in this Discussion Paper, or
- make a shorter submission (for example addressing issues with specific codes).

Respondents were also able to contact MBIE (ANZSRCReview@mbie.govt.nz) and ARC (ANZSRCReview@arc.gov.au) directly.

In addition to public consultation, targeted consultations were organised to actively seek advice and input from stakeholders including:

- universities and their research offices
- discipline peak bodies
- users of ANZSRC-coded data such as researchers and government agencies
- businesses that engage in data services or that use relevant classification systems.

This document provides a brief overview of the feedback and selected submissions from the first public and targeted New Zealand consultation period.

The initial New Zealand consultation was promoted on the MBIE and Stats NZ websites. MBIE had a dedicated consultation page and associated news article, and sent out Twitter announcements. In addition, more than 300 organisations and individuals were approached to participate in the consultation.

New Zealand received 23 submissions for the Review (see Table on page 5). Submissions came from a variety of stakeholders including academies and peak bodies, universities, research organisations, researchers, industry bodies, and government departments and agencies.

Next steps

The ANZSRC project team are in the process of analysing all submissions and compiling lists of suggested changes. The ANZSRC Review Steering Committee will then consider those changes and a draft revised ANZSRC will be developed. It is anticipated that this draft will be made available for public comment in the final quarter of 2019, before the updated ANZSRC is published in 2020.

Questions to Guide Feedback

ANZSRC Principles

1. Are the principles of the Review outlined in Section 2 of the Discussion Paper appropriate and sufficient? Do any further overarching principles need to be considered in developing the revised ANZSRC?

ANZSRC Classifications

Type of Activity

2. What suggestions do you have to improve the ToA component of the classification?
3. Are there any other categories that should be added to the ToA? If so, how would they be defined?
4. Is there ambiguity in the existing ToA categories? How could this be improved?
5. Should ANZSRC adopt the *Frascati Manual 2015* ToA definitions?

Fields of Research

6. Is the current overall structure appropriate?
 - a. Should there be more or fewer levels to the hierarchy?
 - b. Would it be useful to have broad themes or 'one digit' classifications such as Sciences, Medicine, Social Sciences and Humanities, similar to the 'Sector' level of SEO?
7. What criteria, in your view, should be applied to determine the classification of research?
 - a. What criteria should be applied to determine the boundaries between Division, Group and Field classifications?
 - b. Should research methodologies, publication practices, or any other factors be considered as key criteria for classifying research?
 - c. Apart from the Principles described in Section 2, are there any other specific criteria that should be applied?
8. Where should the classifications change (at the Division, Group or Field level)? Please identify specific codes, where appropriate. In particular:
 - a. What new or emerging areas of research should be allocated FoR codes (and at which level)?

- b. Should any of the existing FoR codes be split, deleted or merged?
 - c. Should any of the existing Group or Field codes be moved to other places in the classification?
 - d. Is there ambiguity or redundancy in the existing FoR codes? (e.g. areas where research could reasonably be classified in two or more different codes)
 - e. Where changes are proposed, please explain why the changes are necessary and what criteria you have used to determine the need for change.
9. How can the FoR codes better capture Aboriginal and Torres Strait Islander Studies, Māori Studies, and Pacific Peoples Studies research, and at what level (e.g. Field, Group, Division)?
 10. How can the FoR codes better capture interdisciplinary/multidisciplinary research, and at what level (e.g. Field, Group, Division)?

Socio-economic Objective

11. Is the current overall structure appropriate?
 - a. Should there be more or fewer levels to the hierarchy?
 - b. Would it be desirable to change the Sector codes to numerical, rather than alphabetic, identifiers?
12. Are the Sector level categories well defined enough to capture all types of socio-economic objectives?
 - a. Do you have specific feedback on the usability and interpretability of the current Sector categories?
13. Do the Division level categories appropriately capture all types of research objectives?
 - a. Do you have specific feedback on the usability and interpretability of the current Division categories?
 - b. Are there emerging areas of economic development that should be better defined?
14. Should any of the existing SEO codes be split, deleted or merged?
 - a. Where changes are proposed, please explain why the changes are necessary and what criteria you have used to determine the need for change.
15. Is it easy or difficult to categorise large or complex research projects or programs under SEO? How could categorisation be simplified?

Implementation

16. How do you (or your organisation) currently use ANZSRC?
17. How would you (or your organisation) be affected if ANZSRC changes?
18. What support do you need to implement ANZSRC (e.g. concordances for time-series mapping, coding tools etc.)?
19. How frequently should the ANZSRC be updated in the future? What advantages or disadvantages would there be if, in future, ANZSRC was updated dynamically and on an ongoing basis in response to stakeholder feedback?

Table 1: New Zealand Submissions Received

#	Organisation	Submission Type	Included in this document
1	Withheld at respondents request	Organisation submission	No, withheld at respondents request
2	Victoria University of Wellington	Organisation submission	Yes
3	Whitecliffe College of Arts and Design	Organisation submission	Yes
4	University of Otago	Personal Submission	Yes
5	DevNet - International Development Studies Network of Aotearoa New Zealand	Organisation submission	Yes
6	Withheld at respondents request	Organisation submission	No, withheld at respondents request
7	Withheld at respondents request	Organisation submission	Yes
8	Withheld at respondents request	Organisation submission	Yes
9	Auckland Regional Public Health Service	Organisation submission	Yes
10	Withheld for confidentiality	Personal Submission	No, withheld as feedback was in an informal email
11	Withheld at respondents request	Personal Submission	Yes
12	University of Otago	Personal Submission	Yes
13	Invalid submission - Not ANZSRC		
14	University of Otago	Personal Submission	Yes
15	University of Auckland	Personal Submission	Yes
16	Withheld for confidentiality	Personal Submission	No, withheld as feedback was in an informal email
17	Not disclosed	Personal Submission	Yes
18	Withheld at respondents request	Organisation submission	No, withheld at respondents request
19	Withheld at respondents request	Organisation submission	No, withheld at respondents request
20	Withheld at respondents request	Organisation submission	No, withheld at respondents request
21	Withheld for confidentiality	Group submission	No, withheld as feedback was in an informal email
22	Withheld at respondents request	Personal Submission	No, withheld at respondents request
23	Te Kāhui Amokura	Organisation submission	Yes

June 7, 2019

ANZSRC Review New Zealand Working Group
c/o Science & Innovation Team, Evidence and Insights
Ministry of Business, Innovation & Employment
PO Box 1473, Wellington 6140

Tēnā koutou,

Victoria University of Wellington (VUW) welcomes the opportunity to provide feedback to the review of the Australian and New Zealand Standard Research Classification (ANZSRC). As an institution committed to translating research into real improvements for local, national and global communities, VUW recognises the importance of the ANZSRC as a framework for reporting, measuring and analysing research and experimental development across various sectors.

Our submission focuses primarily on issues related to the Field of Research (FoR) classification where we recommend the following:

- that any changes to FoR classifications are based on a demonstrated need to capture emerging areas of research more accurately once they have reached a certain threshold of output intensity;
- that any proposed changes to FoR classifications are **not** based on a perceived or real need to adapt the ANZSRC framework to better suit the uses to which the FoRs are being put;
- that we agree with the proposition that better mechanisms for more accurately classifying Māori, Pasifika and Aboriginal and Torres Strait Islander (ATSI) research are required but more targeted consultation is needed to determine how best to accomplish this;
- that multi-disciplinary research can be classified sufficiently by using multiple FoR codes and only requires a new classification when it has reached both the threshold required for a new and emerging field designation *and* is methodologically distinct from the component disciplines;
- and
- that a dynamic, ongoing FoR review process is developed rather than relying on point in time consideration of the whole of the ANZSRC.

Before proceeding to the FoR classification, however, we would like briefly to respond to the discussion paper's question regarding adopting the *Frascati Manual 2015* Type of Activity (ToA) classification. VUW sees no ambiguity in the continued use of ANZSRCs current ToAs including 'Strategic basic research' as this classification provides a way to distinguish R&D activity which does not fit into either 'Pure basic research' or 'Applied

research'. We also question the advisability of adopting the *Frascati* ToAs without also adopting its definition of R&D (section 2.5) and the activity criteria as well as the ToA definitions (sections 2.6-2.9).

Field of Research Classification-general comments

The New Zealand research sector does not currently utilise FoRs to any great extent. For universities this is due, in part, to the fact that FoRs are not used in the Performance Based Research Fund (PBRF) Quality Evaluation. While it may be desirable to incorporate FoRs into future iterations of the PBRF and to more broadly classify university research activity, funding and outputs within the ANZSRC framework, any new classification and reporting implementation must

- take into account the limited resourcing currently available within NZ institutions to effectively action expanded use of FoRs; and
- the need for any retrospective classification processes to be supported by additional funding as well as concordances for time-series mapping, coding tools etc.

VUW are aware that FoRs are utilised far more extensively in the Australian Higher Education sector and thus, the ANZSRC Review process will likely result in a far larger number of submissions from universities based there. Given their far more detailed data sets and greater institutional resourcing for mapping research activity and outputs against the FoRs, VUW prefers to refrain from any comment on specific changes to the current overall structure, the criteria for classifications or to the Division, Group or Field levels until we see what changes are proposed in the next phase of the Review. There may be some analysis we can provide to test suggested changes to FoRs intended to capture emerging areas of research from a NZ perspective. At this point, however, we recommend only that

- given the resource intensive nature of ensuring time-series comparability, any changes proposed to the FoR are based on capturing more accurately emerging areas of research that can be demonstrated to have reached a significant threshold of output intensity; and,
- any proposed changes are **not** based on a perceived or real need to adapt the ANZSRC to better meet the uses to which the classification framework is put in Australia where it is much more intensively utilised.

Māori, Pasifika and ATSI research

VUW agrees that a better framework is needed to capture Māori, Pasifika and ATSI research. How that is best accomplished, however, should be subject to additional consultation that will, in our view, likely require a separate project to model how best to weigh up a range of options and conduct modelling.

One option is to frame questions about FoR classifications more explicitly within the context of the existing ANZSRC definition of the 'Field of Research'

ANZSRC FoR is a classification for research activity according to the *methodology* used in the research, rather than the activity of the unit performing the research or the purpose of the research

This would enable, for example, testing the viability of creating a 2-digit *Māori Research* Division Code that could be used for classifying research utilising Māori research methodology/ways of knowing (mātauranga Māori).

The key principle in this approach is acknowledging the primacy of, again for example, mātauranga Māori as the primary methodology underpinning any research that would be classified under a new FoR classification. This approach could be used for the creation of new codes at any level.

We note, however, that the same approach may not be appropriate for all three referenced research traditions therefore more consultation is needed if this stage of the Review results in general agreement that the FoR structures for any or all of the Māori, Pasifika and ATSI research methodologies require revision.

Multi-disciplinary research

VUW believes that capturing multi-disciplinary research more effectively within the existing FoR classification system is unnecessary. This is because it is already possible to apply multiple FoR codes when *using* the ANZSRC for classifying or reporting research. Universities, funding agencies, government departments etc who wish to better capture multi-disciplinary research simply need to design classification and reporting structures that allow for more than one FoR to be applied.

We content, furthermore, that the ANZSRC's principle of mutual exclusivity and the clearly stated definition of FoRs being based on *methodological approaches* means that multi-disciplinary research cannot be effectively categorised within the ANZSRC structure.

Where, however, a multi-disciplinary area of research has demonstrably reached both the threshold required for a new and emerging FoR designation *and* can be shown to be methodologically distinct from its component disciplines, a new classification is merited.

Thank you for the opportunity to provide feedback to the ANZSRC Review New Zealand Working Group. Please feel free to contact us should you have any questions or if Victoria University of Wellington can be of assistance in the next stages of the Review.

Nāku noa, nā



Professor Margaret Hyland, CEng, FICChemE, FRSNZ
Vice-Provost Research
Victoria University of Wellington | Te Whare Wānanga o Te Ūpoko o Te Ika a Māui

ANZSRC Review Submission NZ-003

Whitecliffe College of Arts and Design

What changes are required to the ANZSRC Fields of Research classifications, and why?

The emerging field of Creative Arts Therapies would greatly benefit if it gained its own dedicated six digit ANZSRC Focus of Research code in order to map the innovative research that is being conducted in this arena. At present the research outputs that has been generated is situated in many other related disciplines including the arts, psychology, social sciences and health. Music Therapy (109408) serves as a clear example of the positive effect of having a dedicated FoR. The success of this speciality has led to the establishment of the Creative Arts Therapies Research Unit (CATRU) at the University of Melbourne in 2016. This department has introduced this region's first creative arts therapies research unit and dedicated creative arts therapies PhD training program. While other institutions have produced significant numbers of PhDs, research and publications in the substantive area of Creative Arts Therapies, but they have been within other faculties, for example those here in New Zealand have been within the Applied Theatre Department in the Faculty of Education, University of Auckland. Creative Arts Therapies (visual art therapy and multimodal creative arts therapies) have been taught at Masters level in Australian universities since 1993 and accredited masters courses including varying levels of research training are currently offered at seven institutions of higher education in Australia and New Zealand, including five Australian Universities: WSU (1993 - present), Latrobe, University of Queensland, University of Melbourne (from 2020), Murdoch (from 2020), Melbourne Institute of Expressive Arts Therapies (which also offers a professional doctorate), and Whitecliffe College of Art and Design (NZ). Australia and New Zealand have a dedicated scholarly journal, The Australian and New Zealand Journal of Arts Therapy (ANZJAT, 2006 - present). All of the Creative Arts Therapies except Music Therapy (art, drama, dance, creative writing, multimodal) are now united under one professional accrediting body, the Australian, New Zealand and Asian Creative Arts Therapy Association (ANZACATA), with visual arts therapists constituting the majority of registered professional members. ANZACATA established a College of Research in 2018 - the founding committee includes academic leaders from CATRU (Melbourne), Whitecliffe College (NZ), WSU, the University of Hong Kong and La Salle College of the Arts (Singapore). Internationally, a recent systematic review identified 12,122 papers on the therapeutic applications of the arts published between 1998 and 2014 and recommended the need to map and consolidate this diverse and growing field of research. Creative Arts Therapy is a growing area of research in Australia and NZ that it is timely to include in the revised list of ANZSRC Focus of Research classifications.

Please identify specific codes, where appropriate:

Should any of the existing SEO codes be split, deleted or merged?

Please identify specific codes, where appropriate:



Submission

The purpose of this submission is to promote the development of a new 1503XX code to reflect 'operations management' research. The area of operations management is focused on the coordination and planning of resources (either in manufacturing or services) in a way that is delivery-focused. Operations management is often seen as the transformation of inputs into outputs in a way that meets organisational and client needs. The importance of operations management is recognised by many organisations, where a Chief Operations Officer (COO) will often report to the CEO.

We do not believe that the current FOR codes reflects the discipline of operations management. The closest categories are:

- 150309 – Logistics & supply chain management
- 150313 – Quality management

The area of logistics and supply chain management often relates to the physical movement of materials and fails to capture the significant volume of research that focuses on operations management in services.

Looking at journal ranking systems in other parts of the world, the categorisation systems broadly reflect an operations management theme and the importance of this area of research. For example:

- The British Association of Business Schools uses an 'Operations & Technology management' category.
- The Financial Times top 50 business journals list contains several operations management journals (a category of 'operations & information systems' is used at <https://libguides.mcmaster.ca/ft-top50>)
 - <https://www.ft.com/content/3405a512-5cbb-11e1-8f1f-00144feabdc0>

Given the current FOR codes, it can be challenging to allocate what we might consider as a 'traditional operations management' study, and we would probably allocate many such studies over different FOR codes. For example, it may be based on the sector (e.g., if it were more in 'manufacturing' it would go into 150309). An operations management research project that was focused on a service industry might be more difficult to classify using existing FOR codes. For example, looking at the management of business processes to deliver a service.

We feel it would be beneficial if there were a dedicated 1503XX code to reflect the scholarly area of 'operations management' as it would enable us to classify research of a similar nature correctly.

Best regards,

Lincoln Wood, and Jeff Foote, University of Otago.

Aotearoa New Zealand International Development Studies Network (DevNet)

Response to the review of the Australian & New Zealand Standard Research Classification (ANZSRC) codes

Key points

Aotearoa New Zealand International Development Studies Network (DevNet) requests a Development Studies 4-digit code under 16-Studies in Human Society. In doing so, we support the submission of the Development Studies Association of Australia (DSAA).

Like DSAA, we believe that lack of a Field of Research (FoR) code for Development Studies obscures New Zealand research excellence in this field, and reduces the visibility of Development Studies within the New Zealand context. This is likely to hamper research opportunities, funding and international recognition.

Development Studies research in New Zealand is presently split across a large number of FoR codes, and many outputs and grants are misclassified as a result. This means that research in Development Studies is widely reported within disciplines not intended by the researcher, and rarely assessed or reviewed by scholars from the same field of research.

Also in line with DSAA, we believe that Development Studies is a distinctive field, justifying a distinct FoR code. Development Studies draws upon a particular set of theories and concepts to elucidate and address processes of social, cultural, ecological, economic and political change. It also examines the people, organisations, practices and knowledges that engage in development-related processes. As a field of research, it pursues theory while often being very practitioner-focussed. It often seeks to improve the practice of planned interventions while simultaneously critiquing the very central tenants and assumptions underlying the notions of development and intervention themselves.

Support for this proposal comes from the undersigned (all DevNet steering committee members). It is further supported by comments from the following:

- Having a FoR code for Development Studies could help the 4 of the 8 New Zealand universities currently ranked by QS as 'top 100' for Development Studies to maintain, or improve, their position (Professor Glenn Banks, Massey University).
- A unique FoR code for Development Studies would be valuable to highlight the interdisciplinary field of Development Studies to both the Marsden Fund and PBRF process (Associate Professor Yvonne Underhill-Sem, Auckland University, and past reviewer for both of these panels).
- A specific code could raise the profile of Development Studies as a discipline. For example on the [Royal Society fields of research calculator](#) we currently have to choose whether to locate Development Studies research within sociology, anthropology, human geography or 'other studies in human society' which hides Development Studies research and also impacts on selection of reviewers (Emma Hughes, Massey University research office).

History and Significance of Development Studies in Aotearoa New Zealand

Timeline:

- Courses related to development studies have been taught at New Zealand universities since the 1970s, starting off mainly in departments of sociology, anthropology and geography.
- 1989: Massey University sets up an Institute of Development Studies and starts teaching postgraduate courses
- By 1995: Both Victoria University of Wellington and the University of Auckland have established Master's degrees in Development Studies
- 1996: DevNet was officially established to link Development Studies programmes, students of development, development practitioners, NGOs and donor agencies together as a way to share information and cooperate on activities of mutual interest.
- 1998: the start of DevNet biennial conferences, each attracting 200-250 delegates from academia, government, NGOs and development consultancies:
 - 1998: Linkages in Development: Issues of Governance (Auckland University)
 - 2000: Poverty, Prosperity and Progress (Victoria University)
 - 2002: Contesting Development (Massey University)
 - 2004: Development on the Edge (Auckland University)
 - 2006: Southern Perspectives on Development (Otago University)
 - 2008: Peripheral Vision (Victoria University)
 - 2010: Making Development Sustainable (Massey University)
 - 2012: Integrating Research, Policy and Practice (Auckland University)
 - 2014: From Vulnerability to Resilience (Otago University)
 - 2016: Pacific Currents, Global Tides (Victoria University)
 - 2018: Disruption and Renewal (Canterbury and Lincoln Universities)
- Mid-2000s: Tony Binns initiates a cross-disciplinary 'Poverty Research Cluster' at Otago University and initiates more teaching on development

The current situation:

- Development Studies courses are taught in 7 of the 8 New Zealand universities
- Development Studies academics at New Zealand universities have won a number of significant research grants and awards in recent years.
- There are also over 1,000 Master's and PhD theses in Development Studies in New Zealand university libraries: <https://devnet.org.nz/thesis-research/>
- DevNet has an active mailing list of several hundred people
- Hundreds of DevNet conference presentations and papers are available on the DevNet website: <https://devnet.org.nz/conferences/>

Development Studies is thus a large and vibrant field of research and scholarship, producing a significant body of research across the majority of New Zealand universities.

We strongly support the establishment of a Development Studies 4-digit code under 16-Studies in Human Society, with relevant 6-digit sub-codes.

Proposed FoR code for Development Studies

Based on discussions with the DevNet steering committee, we request a 4-digit FoR code for Development Studies, together with the following 6-digit subcodes (NB the suggested subcodes are closely aligned with – but not identical to - the subcodes which DSAA includes in their submission to this review).

2-digit - Studies in Human Society

4-digit - Development Studies

6-digit

1. Economics of development
2. Socio-cultural development
3. Development cooperation
4. Political economy and social change
5. Poverty, inclusivity and well-being
6. Gender and development
7. Humanitarian disasters, conflict and peacebuilding
8. Rural development
9. Urban development (excludes planning)
10. Labour and migration
11. Environment
12. Sustainable development
13. Indigenous development
14. Development studies not elsewhere classified

Signed by DevNet Chair, Professor Regina Scheyvens, Massey University



On behalf of the DevNet Steering Committee:

Professor Andreas Neef, Auckland University

Dr Gauri Nandedkar, Waikato University

Professor John Overton, Victoria University of Wellington

Associate Professor Michael Lyne, Lincoln University

Dr Pascale Hatcher, University of Canterbury

Associate Professor Doug Hill, Otago University

Kate Boocock and Pete Zwart, New Zealand Ministry of Foreign Affairs and Trade

10 June 2019

[Name removed] – Submission to the review of the Australian and New Zealand Standard Research Classification (ANZSRC)

Thank you for the opportunity to provide feedback to the review of the ANZSRC. As an academic institute the University appreciates the value of standard research classifications as a basis for research reporting and evaluation, to allow researchers and stakeholders to identify relevant content and, potentially, to raise the profile of emerging disciplines.

Scope of the Review

It is important that classification of research and development activity in New Zealand and Australia remains aligned. We also note that FoR codes are an important point of reference for New Zealand's Performance Based Research Fund (PBRF), and therefore any review of the codes needs to relate to PBRF classifications, which tend to be fairly high-level.

It is unclear that there would be any additional benefit from adopting the Frascati Manual 2015 definitions. Any value would depend on the extent to which a lack of alignment between ANZSRC and the OECD definitions has led to incorrect comparisons of research activity between Australasia and the rest of the world.

Fields of Research (FoR) classification

The University strongly supports the intention of the review to consider creating new group and division levels FoR codes that better reflect the broad scope of indigenous research disciplines. We would also support the creation of additional codes in disciplinary areas where there are limited high level options available, and where researchers find themselves having to choose the option 'other'. In particular it is important that any review is relevant to researchers working in the fields of creative and performing arts.

The University supports the request by Aotearoa New Zealand International Development Studies Network (DevNet) for a Development Studies 4-digit code under 16-Studies in Human Society. Like DevNet, we believe that the creation of a FoR code for Development Studies would increase the visibility of the field within Australasia, and enhance the international recognition and ranking of New Zealand universities in this area of research.

In terms of the overall structure of the FoR, we support retaining the current hierarchy, which is widely understood and used. We do not see any benefit in creating a further level. It is also unclear that there would be any advantage in using research methodologies or publication practices as key criteria for classifying research.

Kind regards

[Name and identifying details removed at submitter's request]

Australian and New Zealand Standard Research Classification Review 2019 – submission

We [name removed] would like to submit a response to the Australian and New Zealand Standard Research Classification Review 2019, in regard to the specific issue raised in section three of the discussion paper. This issue is around the recognition of Māori, Pacific peoples, Aboriginal and Torres Strait Islander research studies within the Fields of Research (FoR) classification. As noted in the discussion paper research studies are captured in the current FoR classification system, but only at a field level, rather than within a specific group or division. This does lead to these research studies not being represented or recognised at the group or division level.

At present most reporting and evaluation of research undertaken by the Australian and New Zealand governments is done at the group or division level. This means that Māori, Pacific peoples, Aboriginal and Torres Strait Islander research studies will not be visible within this reporting, as it is subsumed in the current group and division levels of the FoR classification.

We would submit that these Māori, Pacific peoples, Aboriginal and Torres Strait Islander research studies do need to be more visible within the FoR classification and therefore able to be visible in reporting and evaluation of research undertaken by the Australian and New Zealand governments. Therefore We [name removed] would submit that Māori, Pacific peoples, Aboriginal and Torres Strait Islander research studies need their own FoR division classification to enable this research to be more visible and recognised.

For us, Te ōhanga Māori is a substantial part of our work. This work includes projects for iwi and Māori entities and businesses, and hapu and whanau trusts incorporating identifying investment priorities and objectives and the delivery of benefits to their members and other stakeholders.

If you wish to discuss our submission in further detail or you have further questions, please do not hesitate in getting in contact.

Kind Regards

[Name and identifying details removed at submitter's request]

ANZSRC Review Submission NZ-009

Auckland Regional Public Health Service

ANZSRC Principles

1. Are the principles of the Review outlined in Section 2 of the Discussion Paper appropriate and sufficient? Do any further overarching principles need to be considered in developing the revised ANZSRC?

ANZSRC Type of Activity

2. What suggestions do you have to improve the ToA component of the classification?
3. Are there any other categories that should be added to the ToA? If so, how would they be defined?
4. Is there ambiguity in the existing ToA categories? How could this be improved?
5. Should ANZSRC adopt the [Frascati Manual 2015](#) ToA definitions?

ANZSRC Fields of Research

6. Is the current overall structure appropriate?
7. What criteria, in your view, should be applied to determine the classification of research?
In relation to question 7, if there is a move to consider research methodologies as key criteria for classifying research, we would propose that applied types of research be considered. These are key to public health, for example, operational research, implementation research and all forms of evaluation, notably programme evaluation and impact assessments.
8. Where should the classifications change (at the Division, Group or Field level)?
Please identify specific codes, where appropriate:
9. How can the FoR codes better capture Aboriginal and Torres Strait Islander Studies, Māori Studies, and Pacific Peoples Studies research, and at what level (e.g. Field, Group, Division)?
10. How can the FoR codes better capture interdisciplinary/multidisciplinary research, and at what level (e.g. Field, Group, Division)?
In relation to question 10, we highlight the importance of the multidisciplinary/interdisciplinary nature of research and practice in public health. Many areas of public health involve collaboration between different professions and social entities, such as community organisations. Grant applications should facilitate and encourage the recognition of all parties involved in achieving research outcomes.

ANZSRC Socio-Economic Objective

11. Is the current overall structure appropriate?
12. Are the Sector level categories well defined enough to capture all types of socio-economic objectives?
13. Do the Division level categories appropriately capture all types of research objectives?
14. Should any of the existing SEO codes be split, deleted or merged?

Please identify specific codes, where appropriate:

15. Is it easy or difficult to categorise large or complex research projects or programs under SEO? How could categorisation be simplified?

Implementation

16. How do you (or your organisation) currently use ANZSRC?
17. How would you (or your organisation) be affected if ANZSRC changes?
18. What support do you need to implement ANZSRC (e.g. concordances for time-series mapping, coding tools etc.)?
19. How frequently should the ANZSRC be updated in the future? What advantages or disadvantages would there be if, in future, ANZSRC was updated dynamically and on an ongoing basis in response to stakeholder feedback?

Comments on Inter/multi/transdisciplinarity
Australian and New Zealand Standard Research Classification Review 2019

[Name and identifying details removed at submitter's request]

ANZSRC Principles

1. Are the principles of the Review outlined in Section 2 of the Discussion Paper appropriate and sufficient? Do any further overarching principles need to be considered in developing the revised ANZSRC?

The principle of "Exhaustiveness," which is essential for an appropriate and fair consideration of multi, inter- and trans- disciplinary research.

Proper consideration of multi-, inter- and trans-disciplinary research may require some rethinking of the principles of "mutual exclusivity" and "statistical feasibility." A high percentage of projects tackling complex societal and environmental problems involve a mix of discipline-based, multidisciplinary, interdisciplinary and transdisciplinary research and the mix of these elements may change over the course of the project. While this should fit within the current conceptions of "mutual exclusivity" and "statistical feasibility," further elaboration of multi-, inter- and trans-disciplinary research in light of these principles is warranted.

I recommend the addition of "Evidence-based" as a further principle. Given that multi-, inter- and trans-disciplinary research cover a wide range of research practices, the classificatory system must encompass that diversity effectively and to do so will first need to understand that diversity.

ANZSRC Classifications

Fields of Research

10. How can the FoR codes better capture interdisciplinary/multidisciplinary research, and at what level (e.g. Field, Group, Division)?

There are a number of issues that require consideration. It is useful to start with three kinds of research relevant to this topic:

- research that studies and seeks to improve the practice of multi-, inter- and trans-disciplinarity
- research that fits neatly into a category of multidisciplinary or interdisciplinary or transdisciplinary
- research on a complex global problem that encompasses two or more elements of discipline-based, multidisciplinary, interdisciplinary and transdisciplinary investigation.

It is also useful to point out that multidisciplinary, interdisciplinary and transdisciplinary are used in two ways.

First, they are used generically to indicate research that brings together and acts on different strands of disciplinary and other knowledge (other knowledge includes perspectives of stakeholders and decision-makers, and indigenous knowledge) to address a complex global problem.

Second, interdisciplinary and transdisciplinary are used specifically to refer to their respective established canons of scholarly work. For example, there is a specific way of approaching interdisciplinarity which is described in the *Oxford Handbook of Interdisciplinarity* and promulgated by the *Association for Interdisciplinary Studies* which publishes the journal *Issues in Interdisciplinary Studies* and runs an annual conference. The specific ways of approaching inter- and trans-

disciplinarity do not just deal with complex global issues but can also be used to deal with straight-forward problems such as the cultural heritage of country music or building a mobile phone application to monitor a health condition.

Opening up consideration of multi-, inter- and trans-disciplinarity raises the question of whether other specific approaches with canons of scholarly work should also be included in reviewing FOR codes. These include systems thinking, action research, sustainability science, design science, implementation science and the science of team science.

There are divisions within the scholarly community about definitions and practices. For example, US researchers tend to see transdisciplinarity as developing an overarching synthesis framework, whereas European and Oceania-based researchers tend to see it as trans-sector participation of stakeholders in both research on complex problems, and implementation of solutions.

NITRO-Oceania suggest that there are three topics that could be addressed and resolved by the current review, namely developing and assigning FOR codes for:

- a) research that studies and seeks to improve the practice of multi-, inter- and trans-disciplinarity
- b) interdisciplinary research that addresses a straight-forward problem by 'borrowing' and integrating tools and concepts from multiple, often disparate, fields of research into one research activity
- c) research that works closely with stakeholders (those affected by the problem under investigation) and decision makers (those in a position to do something about the problem under investigation), which should be referred to as 'transdisciplinary.'

ANZSRC Review Submission NZ-012

Ben Wooliscroft

What changes are required to the ANZSRC Fields of Research classifications, and why?

The code 1505 should include a specified six digit code for Macromarketing. Macromarketing is a particular strength of the Australasian research community and Australia and New Zealand have frequently hosted the international conference over the last two decades.

Please identify specific codes, where appropriate:

1505

Should any of the existing SEO codes be split, deleted or merged?

It may be appropriate to have a set of codes that align with the sustainable development goals.

Please identify specific codes, where appropriate:



ANZSRC Review Submission NZ-014

Fernanda da Silva Tatley

ANZSRC Principles

1. Are the principles of the Review outlined in Section 2 of the Discussion Paper appropriate and sufficient? Do any further overarching principles need to be considered in developing the revised ANZSRC?

These are well set out, but I can understand that Funders and Researchers would like to achieve slightly different purposes. As a person that supports researchers, I see a need for adding new classifications that better represent research activities in the 21st century, but the Principles of the Review are consistent with these.

ANZSRC Type of Activity

2. What suggestions do you have to improve the ToA component of the classification?

This may be going against the ethos of simplifying the ToA, but would it be possible to have combinations of these activities? For example, some researchers feel that although their research is predominantly Applied Research, they still do Pure Basic Research. If this is at a ration of 60% applied and 40% basic, is there a possibility of having a combined category?

3. Are there any other categories that should be added to the ToA? If so, how would they be defined?

Please see above.

4. Is there ambiguity in the existing ToA categories? How could this be improved?

Potentially this is true for Pure Basic Research and Strategic Basic Research. e.g. the "Strategic" could refer to potential lead to applied research, thus fitting into a mission led pipeline. But, some researchers might use the word strategic to designate the fact that they are positioning the research for much larger funding channels. So, why is Pure Basic Research not capable of the same type of positioning?

5. Should ANZSRC adopt the *Frascati Manual 2015* ToA definitions?

This could help as the ToA appear to be differentiated into big areas of research, e.g. nanotechnology, education, and so on. However, there have been many changes in the way research tools and discoveries have been developed since 2015, and the Frascati Manual will have its limitations.

ANZSRC Fields of Research

6. Is the current overall structure appropriate?

I don't think there should be more levels, but rather a more diverse selection of "one digit classifications".

7. What criteria, in your view, should be applied to determine the classification of research?
There ought to be criteria that could facilitate the use of interdisciplinary research. For example, genetics research is a field that interdigitates biology and informatics. This is no longer a research bench discipline, as it is so algorithm driven. Then layer the differences of genetic biodiversity vs medical genetics and further with personalised medicine. None of these developments can be adequately described by the existing codes. The criteria in Section 2 are useful, but we need to be able to capture the fact that the acquisition of the information is using methodologies or practices that are outside of the current Divisions, Groups and FORs. We need to describe the cross-fertilisation benefit of different areas of research contributing to the overall goal.

8. Where should the classifications change (at the Division, Group or Field level)?

A few ought to be added to FORs, but, here are examples. Interdisciplinary research, microbiome, development of genetic tools. Some of the Group and Fields may need moving, or just integrated into interdisciplinary fields. Changes are necessary to the fast evolving ICT, AI, Medicine, Physics, Energy, Nanotechnology, Breeding and Food fields, regardless of the focus on human, animal, plant or Protista kingdoms. All these areas are often overlapping in research approaches and methodologies. Thus, often difficult to see in a discrete manner. Perhaps an additional criteria is the "end goal" for each of the research fields.

Please identify specific codes, where appropriate:

9. How can the FoR codes better capture Aboriginal and Torres Strait Islander Studies, Māori Studies, and Pacific Peoples Studies research, and at what level (e.g. Field, Group, Division)?

10. How can the FoR codes better capture interdisciplinary/multidisciplinary research, and at what level (e.g. Field, Group, Division)?

A greater diversity of FORs is needed. There ought to be an option to combine specific FORs to create the relevant interdisciplinary research.

ANZSRC Socio-Economic Objective

11. Is the current overall structure appropriate?

The hierarchy per se is fine, but the choice/diversity needs to be wider.

12. Are the Sector level categories well defined enough to capture all types of socio-economic objectives?

The SOEs are limited in their breadth because the type of research done today is broader and in many more areas that were potentially considered "inappropriate" a few years ago. This is particularly evident with sexual and family violence, poverty, homelessness and the monitoring of this type of research. Once again, a wider diversity/choice of SOEs is needed.

13. Do the Division level categories appropriately capture all types of research objectives?

This is not my area of expertise, but a conversation with local city councils and regional councils will help to identify the issues and the gaps.

14. Should any of the existing SEO codes be split, deleted or merged?

We need a wider, more diverse group to reflect today's societal needs.

Please identify specific codes, where appropriate:

The Levels 2 and 3 SOEs need to much wider/better choice/more diversity, e.g. 94 needs to accommodate environmental jurisprudence. This is a cross over of law and environment.

15. Is it easy or difficult to categorise large or complex research projects or programs under SEO? How could categorisation be simplified?

We need more choice of SEOs. the current list does not reflect the options for impact.

Implementation

16. How do you (or your organisation) currently use ANZSRC?

We use these codes to categorise every single application and contract. This process was implemented as part of our specific internal process used for costing the projects. We also use the codes as per funders requirements on a variety of mechanisms including those managed by MBIE, HRC, RSNZ and other smaller organisations.

17. How would you (or your organisation) be affected if ANZSRC changes?

There will be a period of learning, but since currently there are many frustrations in this process, providing alternatives that best describe the research will be advantageous in the long run.

18. What support do you need to implement ANZSRC (e.g. concordances for time-series mapping, coding tools etc.)?

Probably all of the above, but a discussion with the relevant support services will be needed to answer this accurately.

19. How frequently should the ANZSRC be updated in the future? What advantages or disadvantages would there be if, in future, ANZSRC was updated dynamically and on an ongoing basis in response to stakeholder feedback?

Ideally, regularly, say every 3-5 years as research fields are changing at a hugely fast rate. However, this will be costly, so a balance needs to be struck.

ANZSRC Review Submission NZ-015

Tava Olsen

What changes are required to the ANZSRC Fields of Research classifications, and why?

Operations and Supply Chain Management is currently missing from the FoR codes. This is a major disciplinary area with many international conferences - POMS, MSOM, EUROMA, ANZAM OM symposium, etc. and journals. It is a clear functional area within business and a standard required topic in many business degrees (most MBA degrees I am familiar with for example). I believe it should be its own group within Division 15: Commerce, management, tourism and services. It can probably replace "Transportation and Freight Services", which could be a field with Ops and SC. Other fields that should be included in this group would be 150313 Quality Management and 150309 Logistics and Supply Chain Management (maybe just called logistics). There could also be fields for Revenue Management, Service Operations, Manufacturing Operations, Healthcare Operations, Behavioural Operations, Supply Chain Contracting, Operations and Supply Chain Strategy, and Supply Chain Sustainability. These fields are just my opinion so I am not sure of the best methodology for deciding these fields but looking at the departmental areas of major journals such as POMS (<http://www.poms.org/journal/departments/>) or JOM (<https://onlinelibrary.wiley.com/page/journal/18731317/homepage/overview>) would be one way.

Please identify specific codes, where appropriate:

15 Commerce, management, tourism and services.

Should any of the existing SEO codes be split, deleted or merged?

Please identify specific codes, where appropriate:

ANZSRC Review Submission 017

Kim Dunphy

What changes are required to the ANZSRC Fields of Research classifications, and why?

ANZSRC Focus of Research codes do not currently include a specific code for Creative Arts Therapies (CATs), which includes the burgeoning international fields of dance movement, drama and arts therapies as well as mixed-modalities of creative and expressive arts therapies. This results in dissipation of research outputs across the diverse fields including performing and visual arts, psychology, social sciences and health. This is a significant impediment to the consolidation and recognition of these professional disciplines and related research. In contrast, a recent inclusion of a specific code of 109408 for Music Therapy evidences the positive effect of having such a dedicated FoR. Higher education institutions in Australia and New Zealand have dedicated CATs programs that also produce research, such as the University of Melbourne's Creative Arts and Music Therapies Research Unit (CATRU) and dedicated 'CAT' PhD training program established in 2016, and other institutions including Western Sydney University have produced significant numbers of PhDs, research and publications that focus on, but are not easily attributed to CAT. Accredited CAT Masters courses including varying levels of research training are currently offered these institutions also. Recent systematic reviews of the international literature identify growing numbers of papers on the therapeutic applications of the arts. Creative arts therapy is a growing area of research that it is timely to include in the revised list of ANZSRC Focus of Research classifications.

Please identify specific codes, where appropriate:

Should any of the existing SEO codes be split, deleted or merged?

Please identify specific codes, where appropriate:



Review of Australia and New Zealand Standard Research Classification

August 2019

Te Kāhui Amokura

The role of Te Kāhui Amokura (the Committee on Māori) is to advance and promote the collective interests of New Zealand's universities to improve outcomes for tauira Māori at university, Māori university staff and Māori scholarship. Te Kāhui Amokura was officially formed in 2004 and comprises the Deputy Vice-Chancellor Māori, Assistant Vice-Chancellor Māori or Pro-Vice Chancellor Māori from each university.

Review of ANZSRC

The Australian and New Zealand Standard Research Classification (ANZSRC) was developed to enable the measurement and analysis of research and development (R&D) in Australia and Aotearoa NZ. It is a set of three related classifications covering: 1) Type of activity (ToA); 2) Fields of Research (FoR); and, 3) Socio-Economic Objective (SoE).

The ANZSRC is used in the public and private sectors, allowing for the comparison of R&D data between sectors of the economy. A key intent of the ANZSRC is to generate R&D statistics that are useful to a wide cross-sector of stakeholders including governments, educational institutions, scientific, professional or business organisations, business enterprises and community groups.¹

However, for Māori and Indigenous communities and organisations, the current ANZSRC is not fit for purpose. This brief makes recommendations for change so that the ANZSRC can be of maximum use and benefit for Māori and Indigenous communities, organisations and researchers, as well as our respective nation states.

The classifications

The ToA classification covers four kinds of research: pure basic research, strategic basic research, applied research, and experimental development. These broadly encompass the types of research that are carried out under the auspices of Māori Research.

The second, FOR, is a classification for research activity that equates with "broad discipline" and comprises three levels: Divisions, Groups and Fields. There are 22 2 digit Divisions, 157 4 digit Groups (Groups within Divisions), and 1,238 6 digit Fields. The 2 digit Division codes are shown below. **There is no 2 digit Indigenous Research Division.**

A quick review of existing Indigenous FoR codes finds that the 21 Māori codes are spread across 10 Divisions. **All except one of the Māori (and Indigenous) codes are at the lowest 6 digit Field level; the exception is a 4 digit Māori Law code.**

These codes largely represent traditional areas of Indigenous research such as health, education, arts, history, cultural studies, societies, policy, language, literature, archaeology and law, but miss

¹ Commonwealth of Australia and New Zealand. (2019). *Discussion paper. Australian and New Zealand Standard Research Classification Review 2019*. Retrieved from <https://www.mbie.govt.nz/have-your-say/review-of-the-australian-and-new-zealand-standard-research-classification/>



Māori-related research that span the natural sciences, technology engineering and information and computing science.

FOR DIVISION CODES AND TITLES	
01 Mathematical Sciences	12 Built Environment and Design
02 Physical Sciences	13 Education
03 Chemical Sciences	14 Economics
04 Earth Sciences	15 Commerce, Management, Tourism and Services
05 Environmental Sciences	16 Studies in Human Society
06 Biological Sciences	17 Psychology and Cognitive Sciences
07 Agricultural and Veterinary Sciences	18 Law and Legal Studies
08 Information and Computing Sciences	19 Studies in Creative Arts and Writing
09 Engineering	20 Language, Communication and Culture
10 Technology	21 History and Archaeology
11 Medical and Health Sciences	22 Philosophy and Religious Studies

The third classification, SoE², enables R&D activity to be categorised according to the intended purpose or outcome of the research (rather than the methodology or broad field). It comprises four levels. The highest level, Sector, is denoted by letters A-E which cover five sectors: Defence, Economic Development, Society, Environment and Expanding Knowledge. The other levels are: Divisions (2 digit); Groups (4 digits); Objectives (6 digits). **The existing set of 10 Māori 6 digit Objectives are all classified under Sector C: Society³.** There is no scope for classifying research related, for example, to Indigenous economic development or environmental/taiao research. This is at odds with the Aotearoa NZ R&D ecosystem that recognises that the scope of Māori Research extends far beyond the social domain to include economic innovation, taiao/environment and mātauranga/knowledge⁴.

Māori Research

There is no single definition of what constitutes Māori Research.⁵ However, Indigenous research is generally defined as research that relates to Indigenous peoples, nations, communities, language, place, culture or knowledges and/or is undertaken with Indigenous peoples, nations, or communities. In Australia, the Australian Research Council has defined Aboriginal and Torres Strait Islander research as research within the standard definition that significantly:

- relates to Aboriginal and Torres Strait Islander peoples, nations, communities, language, place, culture or knowledges and/or;
- is undertaken with Aboriginal and Torres Strait Islander peoples, nations, or communities.

Indigenous research is a meta-category, spanning across and beyond existing ANZSRC Divisions and Groups. Indigenous Research is its own broad discipline.

² The full classification for FoR and SoE can be downloaded here:

<http://archive.stats.govt.nz/methods/classifications-and-standards/classification-related-stats-standards/research.aspx>

³ This is also the case for the six Aboriginal and Torres Strait Islander and six Pacific Objective codes.

⁴ See, for example, Vision Mātauranga: Unlocking the innovation potential of Māori knowledge, resources and people (Ministry of Research, Science and Technology, 2007) which identifies four core research themes: Indigenous innovation; taiao; hauora/oranga and mātauranga

⁵ VM does not define Māori research per se but references Māori knowledge (traditional applications and epistemology), resources and people.



The problem for Māori Research

Restricting Indigenous research classifications to Field level means that the ANZSRC system cannot currently fulfill the basic task of measuring and analyzing, let alone supporting, Māori and Indigenous R&D. Nor does it permit an interrogation of the value of the R&D spend to Indigenous peoples and Māori research stakeholders. This raises four key issues:

- 1) It is extremely difficult (if not impossible) to measure past or current investment in Māori research, or the return on investment in that research. This basic information is essential to develop strategies that activate and sustain Māori research and innovation. From a productivity perspective, it is important for both nations to understand the level of monies spent annually and over time; in which areas they are expended; who is undertaking the research and in what settings. Without such data there is no way to ascertain the value of this public investment;
- 2) the ANZSRC is an asset for government, funding agencies, research agencies and universities, among other sectors. It should also be an asset for Māori (and Aboriginal and Torres Strait Islander First Nations), but it is not. The inability to confidently measure and analyse the contribution of Indigenous research, to the nation and to our respective peoples, negatively impacts our capacity to achieve our wellbeing and development aspirations;
- 3) the ANZRC is of very limited use for identifying the actual scope of Māori research let alone research strengths and gaps, and who is doing the research. This has flow-on effects for policy as Māori research is critical for supporting an evidence-informed approach to public policy in Aotearoa;
- 4) the invisibility of Indigenous (Māori) Research from the ANZSRC sends a very clear message to Māori researchers, industry and communities that Māori research is neither recognised nor prioritised. This runs counter to the Crown's obligations under Te Tiriti o Waitangi.

The Solution: An Indigenous FoR and SEO Research Division

The creation of FoR and SEO Indigenous Research Divisions will remedy the outlined problems and provide a key part of the data infrastructure required to support Indigenous R&D in Aotearoa NZ and Australia. The creation of new Indigenous Research 2 Digit FoR and SEO codes will both enable the primary task of analyzing and measuring the scope of Indigenous research, and make visible the contribution and characteristics of the Indigenous research workforce. It will also maximise the alignment of the revised ANZSRC to the OECD's Field of Science 2007 Classification while still addressing Australian and Aotearoa NZ's specific research needs.

To be clear, 'tweaking' the current Classification through ad-hoc measures such as the creation of more Indigenous related four Digit FoR or SEO codes will not solve this problem.

Determining the system of 4 and 6 digit codes is beyond the scope of this submission. However, any future work on these codes should be under the leadership of Māori and Aboriginal and Torres Strait Islander researchers and stakeholders. The Review Team should also support Indigenous governance of this process which will need to extend beyond standard academic and mainstream settings.

Recommendation: We propose that the revised ANZSRC include a new 2 Digit FoR Indigenous Division (23) (Indigenous Research) and a new 2 Digit SEO Indigenous Division (F:98) (Indigenous Research) supported by sets of new (and existing) four and six digit codes.