



Higher Education Development Centre Te Pokapū Whakapakari Kaimahi



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YEAR IN PERSPECTIVE

Welcome to the Higher Education Development Centre (HEDC) 2020 Annual Report. In HEDC, we aim to provide outstanding research-led academic development programmes for staff and students, and the Centre is integral to improving all the University's academic activities. Also, we aspire to maintain a strong nationally and internationally recognised research profile as a basis for our academic development work. Furthermore, we continue to attract a strong cohort of postgraduate students from within New Zealand and overseas.

Despite the challenges of Covid-19 and shortage of staff, HEDC continues to offer an exceptional calibre of academic development activities and programmes to staff and students at our University throughout all its campuses. The numbers of staff and students utilising our services show steady growth across all our core business areas in the institution. I want to thank all academic and professional staff who have tirelessly worked together as a team to ensure we continue to offer outstanding work throughout these challenging times.

In research, the Department continues to maintain its national and international profile. In 2020, HEDC staff reported collaboration on 32 international projects, involving 47 staff from various overseas institutions spread across 19 countries in five continents. This is significant as HEDC maintains a substantial global reach and impact on its research and academic development initiatives.

HEDC has a varied portfolio of roles and responsibilities, and this report only captures significant activities staff undertook last year. It does not include critical work done in collaboration with Human Resources on the teaching profile, confirmation and promotions; work with the Teaching Excellence Awards and consultations we offer to departments on curriculum, teaching, and learning. Lastly, we are pleased to present with this report HEDC's abridged Strategic directions 2020-2021. Thank you for supporting our work and our mission! Our success depends on your support.



Ben K. Daniel, Associate Professor and Head
6 July 2021

1. INTRODUCTION

The Higher Education Development Centre (HEDC) was established in 1978 as an academic department to serve the University by supporting the professional development of its academic staff and the academic skills development of its students. HEDC researches various areas of Higher Education. This knowledge and practical expertise of its staff provide a foundation for the academic development activities that support staff, students, and the institution's leadership. HEDC is strongly engaged with University staff and students through determining and responding to learning and professional development needs and through active leadership. The Department has a solid research profile committed to external engagement within the Higher Education community, both nationally and internationally. HEDC is dedicated to researching its practices and to evaluating the extent to which its aspirations become a reality.

2. STAFF IN 2020

2.1 Professional Staff

Trilby Ashworth
Candi Young
Lindsay Jenkins
Dr James Rogers

Client Services Administrator
Client Services Administrator & Kaiāwhina Māori
Client Services Administrator
Lead Administrator Client Services

2.2 Lecturers

Professor Tony Harland
Professor Kerry Shephard
Associate Professor Ben Daniel
Associate Professor Clinton Golding
Associate Professor Joyce Koh
Associate Professor Vijay Mallan
Dr Russell Butson
Dr Julie Timmermans
Dr Rob Wass

2.3 Research Fellows

Dr Nave Wald

2.4 Professional Practice Fellows

Carole Acheson

2.5 Teaching Fellows

Pauline Brook
Pam Melgren
Dr Tracy Rogers
Dr Ruth Toumu'a
Dr Jacqueline Nielsen

2.6 Affiliated Staff

Professor Rachel Spronken-Smith
Dr Sarah Stein

2.7 Honorary Lecturers

Dr Angela McLean

3. ACADEMIC DEVELOPMENT

3.1 Professional Development Workshops

In 2019 we offered 80 professional development workshops for staff and postgraduate students, resulting in 910 attendance. In 2020, we provided 116 professional development workshops and recorded 1816 attendance. Compared to 2019, we offered 36 more workshops in 2020 and recorded 906 more attendance.

Table 3.1: Professional development workshops and attendance

Workshop Series/Programme/Theme	Number of workshops	Number of attendees
Introduction to University Teaching	1	33
Tutor/Demonstrator Training Programme	15	228
Postgraduate Supervision Programme	19	330
Pooling Teaching Tips	5	50
Analytics and Research Methodology	23	531
Technology-enhanced Learning and Teaching	35	406
Teaching and Learning Foundations and Strategies	9	121
Copyright and Open Access	6	89
Graduating Year Review	1	11
Education for Sustainability	2	17
Total	116	1816

3.2 Postgraduate Certificate, Diploma and MEd Programme

Our postgraduate programme offered the following pathways:

- Postgraduate Certificate in Higher Education
- Postgraduate Diploma in Higher Education
- Master of Higher Education
- Master of Arts (Higher Education)
- PhD

Table 3.2: Student enrolments in taught papers

Paper	Total number enrolled	Completed and passed	Incomplete	Late completions
HEDU501	6	6	0	2
HEDU502	16	14	2	
HEDU503	3	3	0	
HEDU510	0	0	0	1
HEDU504	2	2	0	
HEDU590	2	2	0	1

3.3 Certificate and Diploma completions in 2020

Table 3.3: Students completed Postgraduate Certificate and Diploma in Higher Education

Name	Programme
David Coburn	PGCertHighE (CLED)
Nathalie De Vries	PGCertHighE (CLED)
Fiona Gale	PGCertHighE (CLED)
Timothy Kerrisk	PGCertHighE (CLED)
Lisa McKinnon	PGCertHighE (CLED)
Timothy McLennan	PGCertHighE
Lucy Nguma	PGCertHighE
Steve Paddock	PGCertHighE (CLED)
Joon Soo Park	PGCertHighE
Hana' Sha'sha'a	PGCertHighE
Natalie Smith	PGCertHighE
Charlene Wills	PGCertHighE (CLED)
Simon Hart	PGDipHighE

3.4 Master of Higher Education completions in 2020

Table 3.4: Students graduated with a Master of Higher Education

Name	Programme
Kate O'Callahan	MHEd (Educational Technology)
Taylor Wilson	MHEd
Agnes Wong Soon	MHEd (Educational Technology)

4. STUDENT LEARNING DEVELOPMENT

In 2020, 1279 students attended HEDC's Student Learning Development workshops across all University's campuses. Further, 948 students accessed 1020 one-to-one consultations to support them in their studies. While there was an increase in workshops registration compared to last year, there was a decline in attendance this year by 558. However, there was a significant increase in one-to-one tutoring (consultation) by 366 students in 2020. HEDC also offers Peer Assisted Study Sessions (PASS), where a second or third-year student facilitates regular study groups for first-year students. Participation in PASS is correlated with higher mean grades, lower failure and withdrawal rates, and higher retention and graduation rates. In 2020 HEDC offered 793 PASS sessions in 37 subjects for 1040 students. Also, we successfully offered a Peer Assisted Numeracy (PAN) programme as a trial, which included 20 sessions for 127 students.

Table 4: SLD workshops and attendance across all campuses

Dunedin						
Student Consultations	Undergraduate	461	Postgraduate	82	Total	543
Student Workshops	Undergraduate	49	Postgraduate	12	Total	61
Numbers Attending	Undergraduate	350	Postgraduate	117	Total	527
Peer Assisted Study Sessions (PASS)	Sessions offered				793	
	Subjects offered				37	
	Total student attendance				8831	
	Unique student attendees				1040	
	Staff				6 mentors 38 facilitators	
Peer Assisted Numeracy (PAN)	Sessions offered				20	
	Unique student attendees				127	
	Staff				1 coordinator 9 Facilitators	
Christchurch						
Student Consultations	Undergraduate	58	Postgraduate	142	Total	200
Student Workshops	Undergraduate	6	Postgraduate	10	Total	16
Numbers Attending	Undergraduate	89	Postgraduate	197	Total	286
Wellington						
Student Consultations	Undergraduate	93	Postgraduate	86	Total	179
Student Workshops	Undergraduate	10	Postgraduate	7	Total	17
Numbers Attending	Undergraduate	207	Postgraduate	153	Total	358
Southland						
Student Consultations	Undergraduate	26				
Student Workshops	Undergraduate	17				
Numbers Attending	Undergraduate	108				

5. STRATEGIC DIRECTIONS 2020-2021

5.1 Vision

HEDC is a world-class research-led department of academic and student learning development with an international reputation for relevant and excellent postgraduate education.

5.2 Mission

The Higher Education Development Centre (HEDC) will advance, preserve and promote the knowledge and values of higher education by building on the foundations of the world-class research and teaching expertise of its staff.

5.3 Core Values

We aspire to promote the following core values:

- **Research-informed:** Guided by relevant, high-quality research in our day-to-day work
- **Pedagogically-sound:** Making use of appropriate pedagogical methods in our activities and projects
- **Culturally responsive:** Actively drawing upon and incorporating the rich and diverse cultural capital of staff and students and providing culturally responsive and engaging contexts for academic development, particularly for Māori and Pacific
- **Collegial:** In our interactions with each other and with the broader University
- **Role models for good practice:** In all aspects of our work
- **Evaluation-informed:** Guided by suitable evidence and benchmarking of activities aligned to institutional policies, strategies and planning documents
- **Innovative:** Being research-active through developing, experimenting and applying new and innovative ideas
- **Responsible:** Acting responsibly in terms of providing effective, responsive and credible research-informed service that is ethically, socially, and environmentally responsible
- **Equitable and inclusive:** Committed to fostering a culture of excellence in equity and diversity that supports all students and staff to achieve to their fullest potential.

5.4 Strategic Imperatives

HEDC aims to advance and promote the following imperatives:

- **Excellence in research**
 - Maintaining excellence in multidisciplinary research
 - Actively contributing to research in Higher Education, locally, nationally and internationally
 - Advancing research in academic staff development and student learning development.
- **Excellence in research-teaching nexus**
 - Aligning research with academic development
 - Undertaking research and teaching that supports the academic development of staff and students at Otago, in Aotearoa, the Pacific, and the world
 - Using research to inform policy development for Otago.

- **Excellence in teaching**
 - Advocating, supporting and leading the professional development of Higher Education teachers and students
 - Planning teaching programmes collaboratively with staff and students across the institution to understand contextual needs
 - Modelling excellent teaching to foster learning and demonstrate inclusive practice
 - Maintaining an international and local reputation for our research-led and learner-centred academic staff and student learning development
 - Supporting staff to be learner-focused and lifelong learners.

- **Outstanding staff and student experience**
 - Offering programmes that fulfil students' needs and provide outstanding, transformative learning experiences
 - Sustaining excellence in teaching and learning
 - Contributing to student wellbeing and sense of belonging
 - Continuing to forge and sustain relationships with other centres that look after students within the University
 - Taking an active role in implementing/modelling the University's enabling plans, e.g. Māori, Pacific, Sustainability and the Equity and Diversity Strategic Frameworks
 - Promoting positive relationships with staff and students.

- **Outstanding campus environment**
 - Maintaining a collegial and welcoming atmosphere within the HDEC spaces that staff and students choose to approach and return to for help and empowerment
 - Ensuring all aspects of HEDC (physical space, virtual, hybrid, blended, iconography, etc.) are welcoming and safe to all students and staff from all backgrounds.

- **Commitment as a local/national citizen**
 - Honouring and supporting the Treaty Partnership
 - Promoting HEDC as a place to go locally and internationally to develop critical thinking
 - Creating community across higher education teaching and research
 - Taking a layered approach to outreach to schools and community groups; developing countries; Matariki partners
 - Supporting Higher Education research and teaching and learning in contexts beyond Otago through supervision, collaborative research and consulting work.

- **Strong external engagement**
 - Maintaining outward, external engagement
 - Collaborating and engaging with partners in the community, Aotearoa, the Pacific, and the world
 - Understanding and promoting the scholarship of engagement and research-led engagement
 - Fulfilling a leadership role as critic and conscience within University and nationally in relation to Higher Education.

- **Sustaining capability**
 - Modelling flexible modes of teaching and learning
 - Taking a holistic approach to academic development – the whole of academic role, whole person, the whole institution
 - Investing in capacity building
 - Supporting the professional development of University teachers as teachers, researchers and humans, and contributing to the future of the University of Otago.

5.5 Roles: Academic staff and student learning development

Academic development professionals identify and respond to the learning needs of University teachers and students; collaborate with other student services; and model exemplary academic practice. HEDC is a research-led place to learn about learning for all—through:

- Teaching
- Research
- Service
- Leadership
- Collaboration

6. RESEARCH OUTPUTS

Over the last fourteen years, HEDC's research publication record has shown steady growth across all quality assured research outputs. In 2020, HEDC staff published a total of 34 peer-reviewed journal articles in print and online, three books (two single-authored and one edited), three book chapters, and eight conference proceedings. Out of the 34 journal articles, postgraduate students were co-authors in seven. As part of student development, HEDC encourages its staff to publish with their postgraduate students.

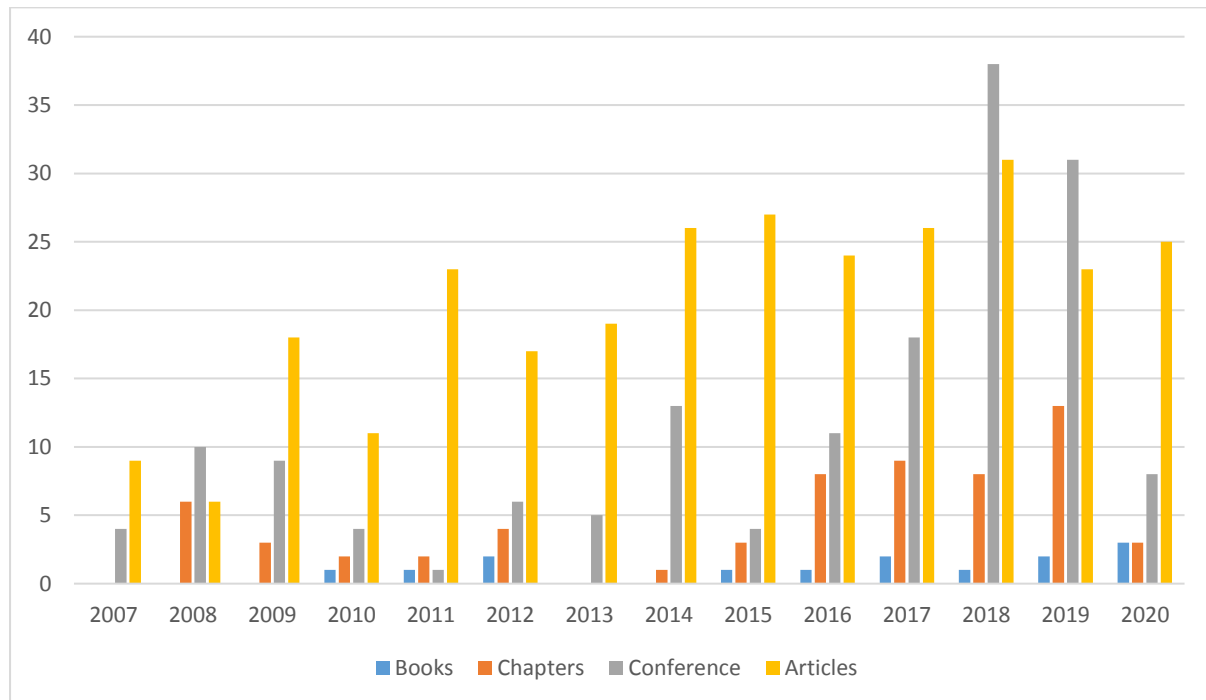


Figure 1. Comparing research output over the years

6.1 Journal Articles

1. Alm, A., & Nkomo, L. M. (2020). Chatbot experiences of informal language learners: A sentiment analysis. *International Journal of Computer-Assisted Language Learning and Teaching (IJCALLT)*, 10(4), 51-65. doi:10.4018/IJCALLT.2020100104
2. Anakin, M., Jouart, M., Timmermans, J., & Pinnock, R. (2020). Student experiences of learning clinical reasoning. *The Clinical Teacher*, 17(1), 52-57. doi:10.1111/tct.13014
3. Anderson, V., Rabello, R., Wass, R., Golding, C., Rangi, A., Eteuati, E., . . . Waller, A. (2020). Good teaching as care in higher education. *Higher Education*, 79(1), 1-19. doi:10.1007/s10734-019-00392-6
4. Cakmak, Y. O., Daniel, B. K., Hammer, N., Yilmaz, O., Irmak, E. C., & Khwaounjoo, P. (2020). The human muscular arm avatar as an interactive visualisation tool in learning anatomy: medical students' perspectives. *IEEE Transactions on Learning Technologies*, 13(3), 593-603. doi:10.1109/TLT.2020.2995163
5. Joseph Jeyaraj, J., & Wald, N. (2020). Students' reflections on barriers to promoting higher education's social purposes in the classroom. *Teaching in Higher Education*, 25(8), 976-991. doi:10.1080/13562517.2019.1625320

6. Koh, J. H. L. (2020). Three approaches for supporting faculty technological pedagogical content knowledge (TPACK) creation through instructional consultation. *British Journal of Educational Technology*, 51(6), 2529-2543. doi:10.1111/bjet.12930
7. Koh, J. H. L., & Kan, R. Y. P. (2020a). Perceptions of learning management system quality, satisfaction, and usage: Differences among students of the arts. *Australasian Journal of Educational Technology*, 36(3), 26-40. doi:https://doi.org/10.14742/ajet.5187
8. Kumar, V., & Sanderson, L. J. (2020). The effects of acknowledgements in doctoral theses on examiners. *Innovations in Education and Teaching International*, 57(3), 285-295. doi:10.1080/14703297.2019.1620625
9. Moore, A., Daniel, B., Leonard, G., Regenbrecht, H., Rodda, J., Baker, L., . . . Mills, S. (2020). Comparative usability of an augmented reality sandtable and 3D GIS for education. *International Journal of Geographical Information Science*, 34(2), 229-250. doi:10.1080/13658816.2019.1656810
10. Ndukwe, I. G., & Daniel, B. K. (2020). Teaching analytics, value and tools for teacher data literacy: A systematic and tripartite approach. *International Journal of Educational Technology in Higher Education*, 17(1), 1-31. doi:10.1186/s41239-020-00201-6
11. Nkomo, L. M., Ndukwe, I. G., & Daniel, B. K. (2020). Social network and sentiment analysis: Investigation of students' perspectives on lecture recording. *IEEE Access*, 8, 228693 - 228701. doi:10.1109/ACCESS.2020.3044064
12. Rogers, T. L., & Nairn, K. (2020). Cambodian schoolgirls' negotiation of discursive constraints within and beyond the school context. *Gender and Education*, 1-20. doi:10.1080/09540253.2020.1849571
13. Shephard, K., Rogers, T., & Brogt, E. (2020). Impacts of engaging in research into teaching and learning on academics' conceptions of their development as teachers and on the roles of academic developers. *International Journal for Academic Development*, 25(3), 205-217. doi:10.1080/1360144X.2020.1731814
14. Sim, K. N., Timmermans, J. A., & Zou, T. X. (2020). Diversity matters: Academic development in times of uncertainty and beyond. *International Journal for Academic Development*, 25(3), 201-204. doi:10.1080/1360144X.2020.1797950
15. Stein, S. & Sim, KN. (2020). Enhancing the roles of information and communication technologies in doctoral research processes. *International Journal of Educational Technology in Higher Education*, 17(34), 1-15. DOI: https://doi.org/10.1186/s41239-020-00212-3.
16. Stracke, E., & Kumar, V. (2020). Encouraging dialogue in doctoral supervision: The development of the feedback expectation tool. *International Journal of Doctoral Studies*, 15(1), 265-284. doi:10.28945/4568
17. Tan, R. S., Harland, T., & Daniel, B. K. (2020). The influence of digital globalisation on an East African university. *International Journal of Education and Development using Information and Communication Technology*, 16(2), 176-187.
18. Timmermans, J. A., & Sutherland, K. A. (2020). Wise academic development: Learning from the 'failure' experiences of retired academic developers. *International Journal for Academic Development*, 25(1), 43-57. doi:10.1080/1360144X.2019.1704291
19. Wald, N., & Daniel, B. K. (2020). Enhancing students' engagement with abstract ideas through conceptual and theoretical frameworks. *Innovations in Education and Teaching International*, 57(4), 496-505. doi:10.1080/14703297.2019.1692055
20. Wald, N., & Golding, C. (2020). Why be a head of Department? Exploring the positive aspects and benefits. *Studies in Higher Education*, 45(11), 2121-2131. doi:10.1080/03075079.2019.1578736
21. Wald, N., & Harland, T. (2020). Rethinking the teaching roles and assessment responsibilities of student teaching assistants. *Journal of Further and Higher Education*, 44(1), 43-53.
22. Wang, C., Daniel, B. K., Asil, M., Khwaounjoo, P., & Cakmak, Y. O. (2020). A randomised control trial and comparative analysis of multi-dimensional learning tools in Anatomy. *Scientific reports*, 10, 6120. doi:10.1038/s41598-020-62855-6

23. Wass, R., Anderson, V., Rabello, R., Golding, C., Rangji, A., & Eteuati, E. (2020). Photovoice as a research method for higher education research. *Higher Education Research & Development*, 39(4), 834-850. doi:10.1080/07294360.2019.1692791
24. Wass, R., Timmermans, J., Harland, T., & McLean, A. (2020). Annoyance and frustration: Emotional responses to being assessed in higher education. *Active Learning in Higher Education*, 21(3), 189-201. doi:10.1177/1469787418762462
25. Windle, J. M., Spronken-Smith, R. A., Smith, J. K., & Tucker, I. G. (2020). Relationships between academic performance of pharmacy students and their postgraduate competence during internship. *Pharmacy Education*, 20(1), 1-12.

Journal Articles published 'online first'

1. Harland, T., & Wald, N. (2020). The assessment arms race and the evolution of a university's assessment practices. *Assessment & Evaluation in Higher Education*, 1-13. doi:10.1080/02602938.2020.1745753
2. Koh, J. H. L., & Kan, R. Y. P. (2020). Students' use of learning management systems and desired e-learning experiences: are they ready for next-generation digital learning environments? *Higher Education Research & Development*, 1-16. doi:10.1080/07294360.2020.1799949
3. Koh, J. H. L., Scott, N., Lucas, A., Kataoka, M., & MacDonell, S. (2020). Developing dietetic students' confidence in multicultural communication through flipped learning. *Teaching and Learning in Medicine*, 1-11. doi:10.1080/10401334.2020.1794880
4. Kumar, V., Sanderson, L. J., & Kaur, A. (2020). Investigating the role of convenors in the PhD viva. *Assessment & Evaluation in Higher Education*, 1-12. doi:10.1080/02602938.2020.1841092
5. Reddy, K., Harland, T., Wass, R., & Wald, N. (2020). Student peer review as a process of knowledge creation through dialogue. *Higher Education Research & Development*, 1-13. doi:10.1080/07294360.2020.1781797
6. Rogers, T. L., & Nairn, K. (2020). Cambodian schoolgirls' negotiation of discursive constraints within and beyond the school context. *Gender and Education*, 1-20. doi:10.1080/09540253.2020.1849571
7. Steel, M., Seaton, P., Christie, D., Dallas, J., & Absalom, I. (2020). Nurse perspectives of nurse-sensitive indicators for positive patient outcomes: A Delphi study. *Collegian*, 1-12. doi:https://doi.org/10.1016/j.colegn.2020.02.009
8. Stein, S. J., Goodchild, A., Moskal, A. C. M., Terry, S., & McDonald, J. (2020). Student perceptions of student evaluations: Enabling student voice and meaningful engagement. *Assessment & Evaluation in Higher Education*, 1-15. doi: 10.1080/02602938.2020.1824266.
9. Tan, R. S.-E., Harland, T., & Daniel, B. (2020). The benefits and challenges of globalisation for the development of higher education teaching and research: A case study of an emerging university in East Africa. *Journal of Asian and African Studies*, 1-14. doi:0.1177/0021909620950359

6.2 Books

1. Harland, T. (2020). *University Challenge: Critical Issues for Teaching and Learning*. Abingdon, UK: Routledge.
2. Shephard, K. (2020). *Higher Education for Sustainability: Seeking Intellectual Independence in Aotearoa New Zealand*. Singapore: Springer.

6.3 Edited Books

1. Johansson-Fua, S. u., 'Otunuku, M. a., & Toumu'a, R. (Eds.). (2020). *It Takes an Island and an Ocean: Selected Papers from the Third Vaka Pasifiki Education Conference*. Tonga: The University of the South Pacific.

6.4 Book Chapters

1. Brogt, E., Shephard, K., Knewstubb, B., & Rogers, T. L. (2020). Using SoTL to foster a research approach to teaching and learning in higher education. In R. C. Plews & M. L. Amos (Eds.), *Evidence-Based Faculty Development Through the Scholarship of Teaching and Learning (SoTL)* (pp. 143-160). Hershey, PA: IGI Global.
2. Psyché, V., Daniel, B. K., & Bourdeau, J. (2020). Learning spaces in context-aware educational networking technologies in the digital age. In A. Peña-Ayala (Ed.), *Educational Networking* (pp. 299-323). Cham, Switzerland: Springer.
3. Spronken-Smith, R. (2020). The status of undergraduate research in New Zealand: Promoted and pervasive? In N. H. Hensel & P. Blessinger (Eds.), *International Perspectives on Undergraduate Research: Policy and Practice* (pp. 251-264). Cham: Springer.

Book Chapters in Press

1. Pawson, E., & Spronken-Smith, R. (in press). Undergraduate research in New Zealand: towards student-driven practices. In H. Mieg, E. Ambos, A. Brew, J. Lehmann, & D. Galli (Eds.), *The Cambridge Handbook of Undergraduate Research*. Cambridge: Cambridge University Press.
2. Shephard, K. (in press). Higher education for sustainable development: learning gains or learning losses? In C. Hughes & M. Tight (Eds.), *Learning Gain in Higher Education* (pp. 117-130). Bingley, UK: Emerald Publishing.
3. Spronken-Smith, R. (in press). Supporting students to complete their doctorate. In A. Lee & R. Bongaardt (Eds.), *The Future of Doctoral Research: Challenges and Opportunities*. London: Routledge.

6.5 Conference Contribution

1. Cakmak, Y. O., Daniel, B. K., Hammer, N., Yilmaz, O., & Irmak, E. C. (2020). The human muscular hand avatar: Interactive virtual embodiment for anatomy education. *Clinical Anatomy*, 33(2), (pp. E18). [doi: 10.1002/ca.23370](https://doi.org/10.1002/ca.23370)
2. Sim, KN., Stein, S., Rose, M., & Brown, K. (2020). 23 Things for Research: A Pilot International Collaboration. Pecha Kucha presentation (Session 3 Stream D) at the ASCILITE conference, Online, November, University of New England, Australia. <https://2020conference.ascilite.org/program/>.
3. Rose, M., Sim, KN., Stein, S., & Brown, K. (2020). 23 Things International: Enhancing student experience through online learning and collaboration. Presentation at the EUA-CDE (European University Association-Council for Doctoral Education) Annual Meeting, online, June, University of Manchester, UK. <https://eua.eu/events.html?task=euaevents.downloadDoc&id=2825>.
4. Smith-Han, K., Gallagher, S., Brown, K., Wass, R., Rogers, T., & Tagg, J. (2020). Professional development of educators in metacognition: A real 'eye-opener'. Proceedings of the Australian & New Zealand Association for Health Professional Educators (ANZAHPE) Conference. (pp., 240). Retrieved from <https://anzahpe.org>

Conference Proceedings (peer-reviewed full-book)

1. Kong, SL, & Koh, J.H.L. (2020). The use of designed music in learning: Influence on students' affect for learning. In Wong, L.H. et al. (Eds.), *Proceedings of the Global Chinese Conference on Computers in Education* (pp. 716-719). Lanzhou, China: GCSCE
2. Ndukwe, I. G., Amadi, C. E., Nkomo, L. M., & Daniel, B. K. (2020). Automatic grading system using Sentence-BERT network. In I. I. Bittencourt, M. Cukurova, K. Muldner, R. Luckin & E. Millán (Eds.), *Artificial Intelligence in Education (AIED): Lecture notes in artificial intelligence (Vol. 12164)* (pp. 224-227). Cham, Switzerland: Springer. DOI: 10.1007/978-3-030-52240-7_41
3. Pek, SE, & Koh, J.H.L. (2020). Developing awareness of talent through character-based gamification: Perceptions of Design and Media students. In Wong, L.H. et al. (Eds.), *Proceedings of the Global Chinese Conference on Computers in Education* (pp. 706-710). Lanzhou, China: GCSCE
4. Wilkinson, T., Anakin, M., Timmermans, J., & Ali, A. (2020). A framework for analysing the antecedents of demanding teaching experiences on health professional educators in higher education [Short communications]. *Proceedings of the Association for Medical Education in Europe (AMEE): The Virtual Conference SC5.9* (6213).

6.6 International Research Partners

HEDC staff continue to work with colleagues at Otago, nationally and internationally.

In 2020, HEDC staff reported 32 international collaborative projects, with 47 staff from different overseas institutions spread across 19 countries. The countries include Australia, Austria, Canada, China, Croatia, Finland, Germany, India, Malaysia, Norway, Pakistan, Rwanda, Samoa, Singapore, South Africa, Uganda, UK, USA, Zanzibar—Tanzania.

Nationally, staff reported six research projects, collaborating with eight staff in New Zealand.

At Otago, HEDC staff engaged with 31 research projects in collaboration with 48 staff across the five Academic Divisions.

7. RESEARCH INVITATIONS

7.1 Invited Conference Keynotes and Presentations

1. Daniel, B.K. (2020). Data-Driven Approaches in Educational Inquiry to Enhance the Quality of Teaching and Learning, Nanyang Academy of Fine Arts, Singapore.
2. Daniel, B.K. (2020). Artificial Reality (AR) and Artificial Intelligence (AI)—the Practice of Analytics and Big data in Educational Research, University Technology Malaysia, Malaysia.
3. Daniel, B.K. (2020). Shifting teaching and learning online during Covid-19: Lessons learned through research and practice, Papua New Guinea University of Technology, Papua New Guinea.
4. Kumar, V. (2020). Freedom in Doctoral Education, International Conference on Educational Research and Innovation, Ministry of Research and Technology and Higher Education, 4-5 November, Yogyakarta, Indonesia.

7.2 Invited Research Seminars

1. Daniel, B.K. (2020). Analytics and Research Methods (ARM) for Higher Degrees Research Supervisors, Taylor's University Malaysia, 10-11 Feb.
2. Daniel, B.K. (2020). Introduction to Qualitative Research Methods, Science and Communication, 18 September.
3. Daniel, B.K. (2020). Introduction to Quantitative Research Methods, Science and Communication, 18 September.
4. Daniel, B.K. (2020). Managing Learning Online During Covid-19 and Beyond, Abbey College, 29 April.
5. Daniel, B.K. (2020). Understanding Conceptual and Theoretical Frameworks, University Technology Malaysia, Malaysia.
6. Koh, J.H.L. (2020). Action Research for Learning Improvement Using Design Thinking Workshop Series, Nanyang Academy of Fine Arts, Singapore – May 2020 – November 2021, 36 hours.
7. Koh, J.H.L. (2020). Action Research Workshop Series, Nanyang Academy of Fine Arts, Singapore – August 2019 – February 2020, 36 hours.
8. Koh, J.H.L. (2020). Publishing Your Action Research Workshops – Nanyang Academy of Fine Arts, Singapore – August 2020 – December 2020, 15 hours.
9. Kumar, V. (2020). Doctoral Supervision – Best Practices. Taylor's University, Kuala Lumpur, Malaysia, 21-23 January.
10. Kumar, V. (2020). Doctoral Supervision Practices. Indian Institute of Science, Bangalore, India, 28 January.
11. Kumar, V. (2020). Examining the Doctoral Thesis. Taylor's University, Kuala Lumpur, Malaysia.
12. Kumar, V. (2020). Managing an Academic Career. University Teknologi Malaysia, Johor Baru, Malaysia, 31 January.
13. Kumar, V. (2020). Managing the Research Journey. Indian Institute of Science, Bangalore, India, 27 January.
14. Kumar, V. (2020). Managing the Research Journey. Universiti Putra Malaysia, Bintulu, Malaysia, 11 August (via zoom).
15. Kumar, V. (2020). Managing the Research Journey. Universiti Teknologi Malaysia, Johor Baru, Malaysia, 3 February.
16. Kumar, V. (2020). Managing the Research Journey. University of Jogjakarta, Indonesia, 15-16 January.
17. Kumar, V. (2020). Managing the Research Journey. University of Maiduguri, Nigeria, 8-9 January.

18. Kumar, V. (2020). Providing Quality Doctoral Supervision. Universiti Petronas Malaysia, Tapah, Malaysia, 5 February.
19. Kumar, V. (2020). Providing Quality Doctoral Supervision. University of Maribor, Slovenia, 23-24 June (via zoom).
20. Kumar, V. (2020). Providing Quality Feedback in Doctoral Supervision. Charles Stuart University, Australia, 27 November (via zoom).
21. Kumar, V. (2020). Providing Quality Postgraduate Supervision. University of Maiduguri, Nigeria, 6-7 January.
22. Kumar, V. (2020). Providing Quality Postgraduate Supervision. University of Jogjakarta, Indonesia, 13-14 January.
23. Rogers, T. (2020) Exploring Cambodian Schoolgirls' Educational Persistence: Victims or Heroines? College of Education, University of Otago, 18 August.
24. Rogers, T. (2020) Girls' Education and the Economy in Cambodia, Saitama University, Japan, 11 December.
25. Sanderson, L.J. (2020). Libraries in Times of Economic Crisis, LIANZA.
26. Sanderson, L.J. (2020). Victoria University of Wellington, online panel about the Master of Information Studies programme.
27. Steel, M., Kennedy, E., & Wilson, D. (2020). INTERact: Embedding IPE in Student Clinical Placements. Webinar, University of Otago, New Zealand, 15 September.

7.3 Research Invitations

1. Koh, J.H.L. (2020). Research advisor for funded project on 'Language and literacy learning and teaching with Augmented Reality', Western Sydney University. Project grant is funded by Primary English Teaching Association Australia, AUD74, 910 (August 2019 – March 2021).
2. Sanderson, L.J (2020/2021) Invitation by Jennifer Campbell-Meier (PI), Anne Goulding, & Ana Pickering, a pilot study of dementia book clubs.
3. Sanderson, L.J (2020/2021) Invitation by Jennifer Campbell-Meier (PI) & Laurence Zwimpfer, Digital Inclusion Alliance Aotearoa (DIAA) narrative study about the implementation of digital inclusion.
4. Sanderson, L.J. (2020) Invitation by Anne Goulding, University of Victoria Wellington, libraries and homeschooling project.
5. Sanderson, L.J. (2020/2021). Invitation by Diane Velasquez (PI) and Jennifer Campbell-Meier University of South Australia & University of Victoria Wellington, Los Angeles Public Library during the 2008 economic crisis.

8. NEW RESEARCH GRANTS

1. Brogt, E & Timmermans, J.: Core Competencies, Threshold Concepts, Big Questions, and Academic Developers' Lived Experiences: The Emergence of an Academic Development Curriculum? (\$4,930).
2. Daniel, B.K. Co-Investigator with Firth, F., Lee, S., Farella, M. & Mei, P.L.: Patients' Experiences with Orthodontic Treatment through Traditional Fixed Appliances, Clear Aligners and Direct-to-Consumer Clear Aligners: A Qualitative Study (\$10,000).
3. Daniel, B.K. Co-PI: Triumphs and Trepidations in Online Learning and Teaching – Understanding What Constitutes Online Dexterity for Students and Teaching Staff Beyond COVID-19. University of Otago Research Grant (UORG) (\$12,155).
4. Daniel, B.K. Co-PI with Koh, J.: Creating and sustaining pedagogical innovation through the internationalisation of Technology-Enhanced Learning and Teaching (TELT) academic development programme, Otago University Internationalisation of the Curriculum Initiative Grant (\$8,900).
5. Daniel, B.K. Co-PI with Mallan, V.: Benchmarking Doctoral Supervision Professional Development in Otago University with Matariki Partner Universities, University of Otago Quality Improvement Grant (\$9502).
6. Kumar, V. (PI) with Wald, N.: Enhancing Co-Supervision Practices, University of Otago Teaching Development Grant (\$5000).
7. Timmermans, J., Ali, A, Anakin, M. & Wilkinson, T.: Analysing the Antecedents and Impacts of Demanding Teaching Experiences on Health Professional Educators in Higher Education (\$9077).
8. Van Eck, D. & Timmermans, J.: Failure as a Lever for Development: Examining the Relationship between Failure Experience and Sense-Making in Leaders (US\$3,000).

9. OTHER RESEARCH OUTPUTS (MAGAZINE ARTICLES, BLOG POSTS, MEDIA, ETC.)

1. Koh, J.H.L., & Sim, KN (2020, 14 December). Blogpost: Mapping the digital literacies for succeeding in higher education []. Retrieved from <https://blog.ascilite.org/mapping-the-digital-literacies-for-succeeding-in-higher-education/>
2. Mori, Y. (2020). Time-management strategy as a parent and a PhD student, *The American Association for Applied Linguistics Graduate Student Council Newsletter*, Fall Issue. <https://www.aaal-gsc.org/time-management-mori>
3. Sanderson, L.J (2020). Blogpost: Libraries in times of economic crisis, 2020, University of Victoria Wellington SIM Blog.
4. Sanderson, L.J. (2020). Libraries During Economic Downturns: A Literature Review, LIANZA, published online for members only.
5. Sanderson, L.J. (2020). Overdue: The Stories of Rural Otago & Southland Librarians and Volunteers, Masters research paper.
6. Timmermans, J. (2020). Essential reading IJAD. HERDSA Connect, 42(3), 16. Retrieved from <https://www.herdsa.org.au/publications/herdsa-news/herdsa-connect-vol-42-no-3>

10. PHD STUDENTS

Table 10: PhD students and their supervisors

Students	Supervisors	Departmental allocations
Nicholas Baker	Vijay Mullan Julie Timmermans	HEDC - 100%
Miriam Gibson	Rachel Spronken-Smith Russell Butson	HEDC - 100%
Stuart Hayes	Clinton Golding Hazel Tucker	HEDC - 40% Tourism - 60%
Senorita John	Rachel Spronken-Smith Russell Butson	HEDC - 100%
Paul Kane	Sarah Stein Julie Timmermans	HEDC - 100%
Anushika Kariyawasam	Vijay Mallan Joyce Koh Ben Daniel	HEDC - 100%
Salmah Kassim	Vivienne Anderson Julie Timmermans	HEDC - 100%
Charmaine Kwan	Vivienne Anderson Rob Wass	HEDC - 100%
Ifeanyi Glory Ndukwe	Ben Daniel Russell Butson	HEDC - 100%
Larian Nkomo	Ben Daniel Russell Butson	HEDC - 100%
Emma Osborne	Vivienne Anderson Bridget Robson	HEDC - 70% Public Health UOW - 30%
Krishneel Reddy	Tony Harland Rob Wass	HEDC - 100%
Shivasadat Shafaei	Julie Timmermans Neil Pickering	HEDC - 55% Bioethics - 45%
Farah Shawkat	Ben Daniel Russell Butson	HEDC - 100%
Jasbir Singh	Ben Daniel Joyce Koh	HEDC - 100%
Nantida Sripaoraya	Rachel Spronken-Smith Nancy Longnecker	HEDC - 20% Science Communication - 80%
Maree Steel	Tony Harland Ben Daniel	HEDC - 100%
Matthew Strother	Ben Daniel Matt Schofield Katrina Sharples	HEDC - 60% Mathematics & Statistics - 30% Mathematics & Statistics - 10%
Michael Tweed	Sarah Stein Jeffrey Smith Tim Wilkinson	HEDC - 30% Education - 40% Dean's Dept UOC - 30%
Soovendran Varadarajan	Joyce Koh Ben Daniel	HEDC - 100%
James Windle	Rachel Spronken-Smith Ian Tucker Jeffrey Smith	HEDC - 30% Pharmacy - 50% Education - 20%

11. MHED

Table 11: Master of Higher Education students

Students

Agnes Wong Soon

Darryl Tong

Kate O'Callahan

Lev Lafayette

Lynette Murdoch

Maria Bernardo

Paul Trani

Taylor Wilson

12. PHD, MASTERS AND BSCHON GRADUATION

Table 12: Graduating students

Students (degree)	Supervisors	Departmental allocations
Finn Gilroy (DClinDent)	Ben Daniel Lara Friedlander Nicholas Chandler	HEDC - 10% Dentistry - 90%
Payman Hamadani (DClinDent)	Ben Daniel Lara Friedlander Nicholas Chandler	HEDC - 10% Dentistry - 90%
Stuart Hayes (PhD)	Clinton Golding Hazel Tucker	HEDC - 40% Tourism - 60%
Senorita John (PhD)	Rachel Spronken-Smith Russell Butson	HEDC - 100%
Salmah Kassim (PhD)	Vivienne Anderson Julie Timmermans	HEDC - 100%
Kate O'Callahan (MHEd)	Russell Butson	HEDC - 100%
Krishneel Reddy (PhD)	Tony Harland Rob Wass	HEDC - 100%
Taylor Wilson (MHEd)	Russell Butson	HEDC - 100%
Agnes Wong Soon (MHEd)	Joyce Koh	HEDC - 100%

13. HEDC RESEARCH SEMINARS

In 2020 we continued with the Research Tuesday sessions, designed to strengthen the research culture and community in HEDC. Starting in April, during the pandemic lockdown, on Tuesday from 1-2 was an HEDC research event for all HEDC researchers, academic and postgraduate. Each session was led by one or more academics or postgraduates, who chose what sort of research event it will be:

- Work in progress: briefly share your planned research, or what you have done so far, and get some feedback
- Seminar: present the results of some research and invite discussion
- Journal club: Before the session, ask participants to read a topical journal article and discuss it in the session
- Feedback on writing: Share some writing for publication with participants before the session and ask for feedback during the session
- Discussion on an important issue in HE: for example, the purpose of a University, retention, academic wellbeing...
- Discussion on an important aspect of the research process in HE: for example, writing, interviewing, applying for grants

This is a valued venue for sharing work in progress, getting useful feedback on our research, and engaging in critical discussions. 2020 was a challenging year, so fewer sessions were held; still, we had as many sessions as possible.

Seminars

- The assessment arms race and the evolution of a university's assessment practices, by Professor Tony Harland
- Measuring changes in higher-order thinking skills through assessing complex knowledge over time, by Dr Navé Wald
- Developing and implementing four flipped models to develop professional thinking during Early Learning in Dietetics lectures, by Nikki Scott and Associate Professor Joyce Koh