

RGC Ref. No.:
UGC/IDS(R)23/20
(please insert ref. above)

**RESEARCH GRANTS COUNCIL
COMPETITIVE RESEARCH FUNDING SCHEMES FOR
THE LOCAL SELF-FINANCING DEGREE SECTOR**

**INSTITUTIONAL DEVELOPMENT SCHEME (IDS)
RESEARCH INFRASTRUCTURE GRANT**

Completion Report
(for completed projects only)

Submission Deadlines:

1. Auditor's report with unspent balance, if any: within **six** months of the approved project completion date.
2. Completion report: within **12** months of the approved project completion date.

Important Note:

In completing the report, please use the following format:

Page limit: Items 1 to 5 and Summary of Completion Report: no page limit
 Items 6 to 9: maximum **20 A4 pages** (excluding any appendices and attachments)

Font: Times New Roman
 Font Size: **Not smaller** than Point 12
 Margin: Two centimeters margin all around
 Spacing: Single-line spacing

1. Project Title

Research Centre for Environment and Human Health

2. Investigator(s) and Academic Department(s) / Unit(s) Involved[#]

Project Team	Name / Post	Department / Unit	Average Number of Hours Per Week Spent on this Project in the Current Reporting Period
Project holder* (i.e. Head of Institution)	Prof. Chung Chi-kit Ronald / Dean of School of Continuing Education (SCE)	School of Continuing Education	2
Team leader	Dr. Lau Shun-shun Sam / Principal Lecturer	School of Continuing Education	10
Team member(s)	Dr. Leung Shuk-kam Sharron / Head of Nursing Education and Programme Director of Bachelor of Nursing (Hons)	School of Continuing Education	2

Project Team	Name / Post	Department / Unit	Average Number of Hours Per Week Spent on this Project in the Current Reporting Period
	<p>Dr. Pang Cho-kwan, Rebecca / Lecturer (in Nursing), Division of Nursing Education</p> <p>(Joined as a Team member to replace the departed teaching staff, Dr. Lee Chu-kee, Angel, Associate Programme Director of Bachelor of Nursing (Hons) and Lecturer in Nursing. Date of RGC approval: 3 Dec 2021)</p>	School of Continuing Education	2
	<p>Dr. Tai Ling-yan Winnie / Lecturer (in Nursing), Division of Nursing Education</p> <p>(Dr. Tai's post changed from full-time to part-time lecturer from Sep 2022 to Jan 2023)</p>	School of Continuing Education	2
	Dr. Wong Kar-yan Alice / Lecturer (in Nursing), Division of Nursing Education	School of Continuing Education	2
	Dr. Yau Pui-lam Josephine / Course Coordinator and Lecturer (in Psychology), College of International Education	School of Continuing Education	2
	Dr. Stephen Robert Cartwright / Lecturer (in Environmental Conservation), College of International Education	School of Continuing Education	2
	Dr. Poon Yuen-fan Popsy / Course Coordinator and Lecturer (in Health Science), College of International Education	School of Continuing Education	2
	Dr. Choy Sarah Siu-wah Sarah / Course Coordinator and Lecturer (in Life Science)	School of Continuing Education	2
	Dr. Lee Nam-yuk Amelia / Associate Dean (Programme Development) and Head of Early Childhood and Elementary Education Division	School of Continuing Education	2
	<p>Mr. Kam Leslie / Lecturer of Continuing and Professional Education Division (in Sports and Healthy Living)</p> <p>(Joined as a Team member to replace departed teaching staff, Mr. Wai-hung Shiu, Lecturer (in Sports and Healthy Living). Date of RGC approval: 21 Oct 2020)</p>	School of Continuing Education	2

[#] Please state the **key** staff and department/unit involved in the project. Please add row(s) as necessary. Please also highlight the approved changes in project team composition and quote the date of the RGC approval for such changes.

^{*} Refer to "Applicant" for 2015/16 exercise and "Project holder" for 2017/18 exercise onwards.

3. Project Duration

	Original	Revised	Date of RGC / Institution Approval (must be quoted)
Project Start Date	1 January 2021	Not applicable	
Project Completion Date	31 December 2023	Not applicable	
Duration (in month)	36 months	Not applicable	
Deadline for Submission of Completion Report	31 December 2024	Not applicable	

4. Project Objectives

Summary of objectives addressed / achieved:

Objectives*	Percentage Achieved	Remarks**
1. To develop institutional and faculty research capacity in environment and human health through enhancement of infrastructure and equipment purchases for preliminary/full studies to support grant applications for further rigorous academic scholarship.	100%	
2. To promote dialogue, exchanges and professional development by organizing international conferences, workshops, seminar and networking events.	100%	
3. To educate the public, academia and government by publishing widely on issues of mental and physical health, relating to the natural and urban environment.	100%	
4. To enhance institutional and faculty research expertise in environment and human health by establishing collaborations with overseas academic experts.	100%	

^{*} Please refer to the originally approved objectives. If there are changes in objectives, please highlight the changes and quote the date of RGC approval for such changes.

^{**} Please provide reasons for significant slower rate of progress when compared with the approved implementation timetable.

5.4 Please attach photo(s) of acknowledgement of RGC-funded activities / facilities / equipment.

Please see Appendix 1 for Section 6.1 (i) for details.

6. Research Outputs

6.1 What are the accomplishments of the project?

(i) *Please provide reports on conference, seminar, workshop, exchange programmes or other activities held (if applicable).*

(Please provide details of the activities organized, including the theme / objectives of the activities, targeted participants, attendance, analysis of participants, e.g. country of origin, research background, etc., evaluation forms of the activities and a summary of the participants' evaluation. Photos of the activities are preferred.)

	Milestones as described in the Implementation Timetable for the 3-year project	Achievements
1	Organisation of 16 research workshops/training/seminars	38 structured research workshops/training/seminars were developed and organized with a total turnout of 1,307, with an aim to enhance the research capability and capacity, research exchange and communication (see appendix 1).
2	Conducting of 2 institutional visits to overseas institutions	<p>3 overseas institutional exchange visits were arranged to exchange and explore collaborative opportunities with the academics and researchers of three countries, including the USA, Singapore and Vietnam. They were School of Public Health, University of Albany, USA; iHealthtech, National University of Singapore, Singapore; Alice Lee Centre for Nursing Studies, National University of Singapore, Singapore; Wee Kim Wee School of Communication and Information, Nanyang Technological University, Singapore; National Parks Board, Singapore; and School of Preventive Medicine and Public Health, Hanoi Medical University, Vietnam, aiming to foster international-level research collaboration and networking.</p> <p>In addition, 1 local institutional exchange visit was arranged to exchange and explore collaborative opportunities with the academics from Tung Wah College, Hong Kong to cultivate institutional-level research collaboration partnership.</p> <p>These visits fostered connections and collaborative opportunities to facilitate research development of the Research Centre for the Environment and Human Health and increased international-relevance, institutional-level research collaborations in the SCE's strategic research area of Environment and Human Health (see appendix 2).</p>
3	Organisation of the Professor-in-Residence Scheme with 3 renowned overseas professors invited	4 overseas renowned scholars in the environment and human health fields, including , University of Albany, USA, the Université du Québec à Montréal,

		Canada, , National University of Singapore, Singapore, and ,University at Albany, USA were invited to provide research mentoring and advising to SCE colleagues, cultivate the development of research initiatives, proposals and grant applications and nurture sustainable links with overseas academics of international institutions (see appendix 3)
4	Organisation of an international conference	3 conference events in a series were organized to promote academic and research dialogues, exchange ideas, cultivate research opportunities, and keep abreast with the latest research development in the theme of environment and human health, including 2 pre-conference public seminars and a 2-day “International Conference on Environment and Human Health: Challenges and Opportunities in the 21st Century” in May to August 2022. To create greater synergies, we partnered with 21 co-organizers, including 16 overseas institutions, 2 local institutions, and 3 units within SCE. The conference series had gathered a total of 128 eminent scholars, academics and presenters to present their research findings in environment and human health areas and attracted 2,466 delegates, from 31 countries/ regions. (see appendix 4)
5	Organisation of 12 public seminars	A total of 23 public seminars/workshops were organized/partnered with 2,866 participants to have knowledge transfer of research findings (e.g. emerging challenges in the nexus of environment and human health, environment-health problems) and educate the community on pressing public health issues (e.g. ecological knowledge-health, nature connection-health, nature and stress reduction). 13 of the seminars/workshops were co-organized with 4 community partners (see appendix 10). 1 seminar was delivered by a SCE colleague at the invitation of a community partner.

(ii) *Please provide reports on asset purchase such as acquisition of research facilities, communal equipment, software licence, dataset and / or status of infrastructure / physical research structure building such as research centre, research supporting unit (if applicable). (Please provide supporting documents and / or photos, and provide the utilization rate.)*

A range of equipment was purchased in the first year of the project and continuously made available for colleagues and students to support their research activities. Details of the utilization rate of the equipment are shown in appendix 5.

(iii) *Please provide reports on research activities carried out (if applicable).*

Internationally renowned academics were invited to provide research mentoring and advising to SCE colleagues to enhance their research capabilities through activities such as conducting structured workshops and consultation meetings (see appendices 1, 3 and 4).

A total of 28 research projects and 25 grant applications have been cultivated with the resource and infrastructure of the Research Centre for Environment and Human Health, in collaboration of local, mainland and overseas academics (see appendices 6 and 7). SCE colleagues were also engaging in the participation of conference presentations and preparation of manuscripts related to environment and human health (see appendices 8 and 9)

6.2 Please describe where and how the IDS Research Infrastructure Grant project assisted in building up the research capacity of the institution in its strategic areas (e.g. has the IDS Research Infrastructure Grant project facilitated the academics in formulating their research proposals under the Faculty Development Scheme, etc.).

Aiming to develop research capacity of the School and research strength and networks of SCE colleagues, overseas renowned scholars have been invited to provide training, advice, guidance and mentorship through activities such as research seminars, training workshops and consultation sessions. Various interdisciplinary research teams and research projects have been developed under the umbrella of Environment and Human Health, with local and international experts engaged. The focus/scope is defined according to the aspect of natural, urban, social and built environment in terms of human health. The research initiatives have been structured according to the 4 categories from the framework of Environment and Human Health: (i) Nature connectedness, environmental conservation and human health; and (ii) Environmental change, climate change and human health, (iii) Human health in relation to the urban and social environment, and (iv) Human health in relation to the natural environment;

- 1. 28 research projects were cultivated and developed.** A total of 38 colleagues from different disciplines and divisions of HKBU SCE have been engaged in research work. In addition to the overall leadership role played by the Project Team Leader in driving, steering and catalyzing the Research Centre's initiatives, a total of 13 colleagues of the Research Centre for Environment and Human Health have also been playing leading roles in the capacity of PIs and Co-PIs and coordinating different research initiatives. While the research initiatives have been progressing at different paces, some colleagues have been working on their preliminary research findings and drafting the external grants proposals, manuscripts for submissions to international peer-reviewed journals and conference presentations (see appendix 6).
- 2. 28 grant proposals were developed.** 14 of these were submitted to different external funding bodies, while 2 additional proposals are being prepared for future submission. Among the proposals, 6 were cultivated for the RGC Faculty Development Scheme (FDS) and 1 for the RGC Inter-Institutional Development Scheme (IIDS). Additionally, a total of 12 pilot grant proposals were submitted by different research project teams to institutional internal funding schemes, with the intention of collecting preliminary data to support application for external grants (see appendix 7).
- 3. 11 articles in peer-reviewed journals** were published/under review, involving a total of 18 SCE colleagues from 4 academic divisions, 4 local collaborators from 3

universities, and 6 overseas collaborators from 4 countries (see appendix 8).

4. **20 Presentations in international conferences** were conducted, involving a total of 32 SCE colleagues from 6 academic disciplines, 6 local collaborators from 4 universities, and 4 overseas collaborators from 3 countries (see appendix 9).
5. **96 collaborations** were facilitated and established with a total of 42 academics from local, mainland and international institutions/organizations (see appendix 11).
 1. 18 local academics from 5 universities (City University of Hong Kong, Hong Kong Baptist University, Lingnan University, The Hong Kong Polytechnic University and Tung Wah College)
 2. 34 Local community partners
 3. 6 Mainland, Taiwan and Macau academics/ institutions from 5 regions (Hebei, Guangzhou, Macau, Taiwan and Shanghai)
 4. 18 overseas academics from 10 countries (Australia, Canada, Germany, Korea, Lebanon, Singapore, United Kingdom, USA, Hungary, and Czech Republic)
 5. 14 overseas institutions/organizations from 7 countries (Australia, Japan, Germany, Philippine, Singapore, Vietnam, and USA)
 6. 1 international research network

6.3 If the project has not met its original objectives, why?

The project has met its original objectives.

6.4 (a) Please provide details e.g., title, authorship, publication dates, etc. and attach an abstract of each publication reported. Please place asterisks on publications involving inter-institutional collaborations.

11 articles in peer-reviewed journals were published/under review and 20 Presentations in international conferences were conducted (see appendices 8 & 9).

(b) RGC funding should have been acknowledged in all activity(ies) / publication(s) / conference(s) papers listed in (a) above. If no acknowledgement has been made in any of the event / publication / paper, please indicate and provide explanations.

RGC funding have been acknowledged in all activity(ies) / publication(s) / conference(s) papers listed in (a) above.

6.5 Research staff trained

(Please provide names and capacities of research staff trained and elaborate on what training has been provided.)

Structured training was provided to SCE colleagues through organization of research workshops/training/seminars. Academics from local, mainland and overseas institutions have been invited for professional training, advice, guidance and mentorship. Equipment training on the use of project equipment for research activities and the conducting of research projects (see appendices 1, 3, 11 and 12).

6.6 Specific products

(e.g. patents, software or netware, instruments or equipment, infrastructure developed)

The IDS project focused on building up institutional and faculty research capacity in environment and human health of the institution. Through enhancement of infrastructure

and equipment, the SCE Research Centre for Environment and Human Health was established to create synergy across disciplines through interdisciplinary research projects and initiate collaboration.

6.7 Other education activities and / or training and development

A total of 23 public seminars/workshops were organized/partnered with 2,866 participants to have knowledge transfer of research findings (e.g. emerging challenges in the nexus of environment and human health, environment-health problems) and educate the community on pressing public health issues (e.g. ecological knowledge-health, nature connection-health, nature and stress reduction). 13 of the seminars/workshops were co-organized with 4 community partners (see appendix 10). 1 seminar was delivered by a SCE colleague at the invitation of a community partner.

The training and development conducted via seminars, workshops and conference were summarized in the above sections (see sections 6.1(i) and 6.5).

6.8 Please highlight any deliverables indicated in the project implementation timetable endorsed by RGC, which have not been covered or achieved as per sections 6.1 to 6.7 above, and explain / elaborate.

N/A

6.9 Please elaborate the role of the managing team in coordinating and managing the project.

The SCE Research Management Committee was charged to monitor the IDS project progress. Bimonthly progress reports prepared by the Project Team were submitted to the SCE Research Management Committee regularly for review and approval. In addition, the matters in relation to the IDS project were discussed and approved at the meetings/ via paper circulations of the SCE Research Management Committee. The Project Team Leader, who was responsible for the overall leadership and management of the project has also been closely monitoring the project progress with respect to the project milestones.

7. Awards And Recognition

7.1 Have any research grants been awarded that are **directly** attributable to the results obtained on this IDS Research Infrastructure Grant project? (Please provide details)

This IDS Research Infrastructure Grant project facilitated the development of 25 Environment and Human Health related proposals for internal and external grant applications. Examples of some applications in different sub-fields of Environment and Human Health research are shown as follows:

1. Nature connectedness, environmental conservation and human health: 5 proposals were developed. \$5.9 million was awarded.
2. Environmental change, climate change and human health: 4 proposals were developed. \$325 thousand was awarded.
3. Human health in relation to the urban and social environment: 10 proposals were developed, of which 3 were submitted to RGC FDS. \$595 thousand was awarded.
4. Human health in relation to the natural environment: 6 proposals were developed, of which 2 were submitted to RGC FDS. \$359 thousand was awarded.

Please see appendix 7 for details.

7.2 Other awards and recognitions as a result of this IDS Research Infrastructure Grant project (Please specify)

1. *Conference events in May to Aug 2022*: 3 conference events in a series had gathered a total of 128 eminent scholars, academics and presenters to present their research findings in environment and human health areas and attracted 2,466 delegates, from 31 countries/regions. 21 co-organizers, including 16 overseas institutions, 2 local institutions, and 3 units within SCE have been partnered to create greater synergies. These reveal the recognition of events by academics, researchers, students and the general public across different countries. (see appendix 4)
2. *Positive activity feedback*: The evaluation of the structured research workshops/training/seminars reflected that participants were generally positive about the events. (see appendix 1)

8. Other Impacts

8.1 What are the current and expected impacts of the project in terms of its contribution to the local and regional economic and societal well-being? (e.g., *technology transfer, collaboration with external organizations, etc.*)

1. Press Release

- a) A press release on the research findings addressing burnout of COVID-19 and related public seminar series was published and shared by 4 media outlets.
- b) A press release on the international conference and institutional visit organized in August 2022 was also published and shared by 3 media outlets and SCE Friends e-newsletter.
- c) A press release on the research findings addressing climate change and anxiety was published and shared by 3 media outlets. Key findings were also shared with environmental-related NGOs and NGOs serving teenagers, to facilitate them for providing evidence-based mental healthcare services and outdoor nature activities.

2. Collaboration with external organizations

- a) The 2-day conference “International Conference on Environment and Human Health: Challenges and Opportunities in the 21st Century” were organized on 18-19 August 2022 with 2 local and 16 overseas co-organizers beyond SCE
- b) A series of 8 public seminars addressing the effect of urban environment of the city people on health and wellbeing was co-organized with 2 community partners St. James' Settlement and Sham Shui Po District Health Centre.
- c) 1 public workshop focusing on the interaction of nature and human wellbeing was co-organized with Wong Tai Sin District Health & Safe City.
- d) 3 public workshops focusing on ecological knowledge-health, nature connection-health, and nature and stress reduction were co-organized with Wong Tai Sin District Health Centre.
- e) An Inter-institution Collaborative Research Team in Environmental Health is formed with Prof. Shao Lin, Professor the School of Public Health and Associate Director of Global Health Research of University of Albany, and 8 SCE team members from different disciplines (e.g. Nursing, Sports, Applied Science). Exchanges and discussions were conducted via email communications and meetings.
- f) The AI and health research team was invited by the Hong Kong Practical Philosophy Society to deliver two public seminars (The use of Siri, Technology and Wellbeing, by) on 22 and 29 Aug 2022
- g) In partnership with the Institute of Bioresource and Agriculture of HKBU, a Research Internship Scheme was developed and launched to provide students with opportunities to gain hands-on experience in environment and human health research. 2 new pilot research projects have been developed and launched, namely climate change and anxiety, and animal phobia and nature conservation.
- h) A collaborative community research study was developed in partnership with Hong Kong Discovery and Hong Kong Federation of Youth Groups to examine the impacts of environmental education programmes on the nature connection and conservation among primary school students.

8.2 Others (*Please specify*)

N/A

9. Statistics on Research Outputs

	Peer-reviewed Journal Publications	Conference Papers	Scholarly Books, Monographs and Chapters	Patents Awarded	Other Research Outputs (please specify)

No. of outputs arising directly from this project	11 (9 published; 2 under review)	20	N/A	N/A	Type N/A	No. N/A

10. Sustainability of The IDS Research Infrastructure Grant

10.1 Whether there are new ideas evolved directly from the project?

Structured research seminars and conference events facilitated SCE colleagues developing new research ideas in different sub-fields of Environment and Human Health, followed by the formation of research teams, preparation of grant proposals, conference presentations and journal publications. (see appendices 6, 7, 8 and 9)

10.2 Whether there are new projects evolved directly from the project?

A total of 28 grant proposals were developed/submitted to various internal and external funding bodies. The proposals covered areas such as human health in relation to the natural environment, human health in relation to the urban and social environment, nature connectedness, environmental conservation, environmental change, climate change and human health. (see section 7.1)

10.3 Whether there are new collaborations developed directly from the project?

Diverse and wide research network has been established from this project to strengthen the SCE research collaboration with local, mainland, Macau, Taiwan and overseas academics/institutions/organizations. Collaborations were developed for (i) research project initiatives and development, (ii) organization of research workshops/ public seminars/ international conference and project collaboration, (iii) research guidance, advising and mentoring, and (iv) partnership with an international research network (see appendix 11).

10.4 Please give details on how much money and from which sources has been obtained for the specific purpose of continuing the work started under this IDS Research Infrastructure Grant project.

Research capacity of the School and research strength and networks of SCE colleagues have been strengthened as a result of the IDS project. Colleagues are more engaging in conducting research in the environment and human health and submitting proposals to secure fundings.

There were 14 grant proposals submitted to different external funding bodies, while 2 additional proposals are being prepared for future submission. Among the proposals, 6 were cultivated for the RGC Faculty Development Scheme (FDS) and 1 for the RGC Inter-Institutional Development Scheme (IIDS). A total of 12 pilot grant proposals were submitted by different research project teams to institutional internal funding schemes, with the intention of collecting preliminary data to support application for external grants. The total research funding granted was around \$7.2 million. The team will continue its efforts

11. Public Access Of Completion Report

(Please specify the information, if any, that cannot be provided for public access and give the reasons.)

Information that Cannot Be Provided for Public Access	Reasons
Appendices	Appendices contain sensitive information (such as activity photos which should be kept confidential according to the Personal Data (Privacy Ordinance)) and internal documents (such as meeting minutes) should not be disclosed to the public.

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**INSTITUTIONAL DEVELOPMENT SCHEME (IDS)
RESEARCH INFRASTRUCTURE GRANT**

Summary of Completion Report

(Please list all the stages since project inception)

Project Title: Research Centre for Environment and Human Health

Stage Completed	Period (Month / Year) to (Month / Year)						Milestones	
							Deliverables to be Achieved² (Please summarize in <u>three</u> bullet points where details should be left to the report proper)	
31 December 2023	Jan 2021 to Dec 2023						1. Organization of 16 structured research workshops/training/seminars, and 12 public seminars 2. Organization of 2 institutional visits to overseas institutions and the Professor-in-Residence Scheme with 3 renowned overseas professors invited 3. Organization of an international conference	
							1. 100%	
							2. 10	
							3. 10	
Total to-date:								

Note: ¹ Justifications for significant under-spending or over-spending (³ ±10%) should be given in **section 5.1** of the completion report.

² The key milestones to be achieved by the project within the respective stage as indicated in the approved implementation timetable.

³ Justifications for significant slower rate of progress compared with the approved implementation timetable should be provided in detail in **section 4** of the completion report.