

Bovill, C., Sheward, L., and Smyth, K. (2012) Higher Education Research in Scotland: Report of a Survey Undertaken by Universities Scotland Educational Development Sub-Committee. Project Report. Universities Scotland Educational Development Sub-committee, Edinburgh, UK.

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Deposited on: 22 January 2013

Higher Education Research in Scotland

Report of a Survey undertaken by Universities Scotland Educational Development Sub-Committee

Catherine Bovill¹, Louisa Sheward² and Keith Smyth³

July 2012

¹ Academic Development Unit, Learning and Teaching Centre, University of Glasgow

² Centre for Academic and Professional Development, University of the West of Scotland

³ Academic Practice, Office of the Vice Principal (Academic), Edinburgh Napier University



Table of Contents

Summary	3
Pedagogical Research Survey Results	4
Question 1: What proportion of your time do you spend on research?	4
Question 2: What proportion of your research time is focused on research into higher education?	5
Question 3: If less than half of your research is focused on research into higher education what would you describe as the main focus of your research?	
Question 4: Please give details of up to three key areas in which you are undertaking research into higher education	7
Question 5: If you have published work relating to any of these areas, and are happy to share your work, please list the main relevant publications here (up to 3 for each heading	g): .8
Question 6: What methodologies do you most commonly draw upon and use for your hig educational research?	•
Question 7: Please let us know about any other ways in which you disseminate your educational research, please tick the relevant boxes if you have disseminated higher educational research at any of the following in the last 3 years:	9
Question 8: In what ways do you try to increase the impact of your higher educational research? e.g. dissemination and implementation institutionally, nationally and with stude	
Question 9: In the past 3-5 years have you had funding for your research into higher education?	10
Question 10: If yes, where have you received funding from?	11
Question 11: Aside from funding, has your research into higher education been supporte any other way? If so please provide details	
Question 12: Do you intend to submit your research into higher education within the forthcoming Research Excellence Framework (REF)?	12
Question 13: Will your institution support you to submit your research into higher education within a specific education section within the REF?	
Question 14: If you think you will submit your research into higher education in a non-education section of REF, please state under what area you think it will be submitted (e.gbiological sciences, history etc).	-
Question 15: What is your sex?	16
Question 16: What is your job title?	16
Question 17: What Subject/Department/School/Division do you work in?	18

Question 18: What University/organisation/institute do you work in?	20
Question 19. Which of the following best describes your research experience in research into higher education?	
Question 20. If your main research is not research into higher education, then which of the following best describes your research experience in your main discipline?	
Question 21. Would you be interested in receiving information on events relating to resear	
Question 22. Would you be interested in being able to communicate with other people wh are interested in similar areas of research into higher education?	
Question 23. Would you be happy to be contacted by other people who share an interest the same areas of research into higher education as you are?	
Question 24. Would you be happy to be contacted at a later date to be invited to join a possible new research into higher education network / online community?	23
Question 25. If you answered yes to any of these questions, what area of your current or future research into higher education (content or methodology) would you be most interes in discussing with others?	
Question 26. Name and email address (this is optional but we need this if you wish to be involved in any follow up from this questionnaire).	25
Discussion	26
Implications for the Scottish Higher Education sector	29
Recommendations	30
Acknowledgments	30
References	31
Appendix 1 Publications submitted in response to guestion 5 of the survey (categorised)	32

Summary

This study was carried out on behalf of the Universities Scotland Educational Development Sub-Committee (USEDSC) which is a sub-committee of the Universities Scotland Learning and Teaching Committee. The aim of this study was to gain an insight into a range of higher educational research taking place across Scotland with a particular focus on the nature, expertise, support and dissemination of this research. The project proposal was reviewed by the University of Glasgow, Faculty of Education Ethics Committee and granted approval in May 2010.

For the purposes of this study, we used the term 'research into higher education' to refer to a range of higher educational research activity that included: research into higher education policies and practice, pedagogical research, research into learning and teaching taking place in higher education and research about transition from further education or school into higher education.

The questionnaire was distributed electronically using 'Ultimate Survey' in June 2010 to the USEDSC mailing list as well as to a wider list of higher educational developers across Scotland. Individuals were asked to forward the questionnaire to colleagues within their institution who might be undertaking research into higher education, such as academic staff, PhD students, EdD Students, research assistants and other members of staff across different disciplines. Online distribution of the questionnaire enabled respondents who wished to remain anonymous to be able to do so.

All recipients of the questionnaire could choose not to participate in the survey. However, those who did participate were asked during the questionnaire if they would like to provide their name and contact details in order to be able to be contacted by others who were carrying out similar research, and to be invited to join a new online network of educational researchers. The questionnaire closed in Jan 2011, and once data was collected it was exported from Ultimate Survey to Excel for initial 'cleaning' and then exported to SPSS for analysis.

The findings point to the underground nature of pedagogic research taking place in Scotland. Many researchers are based within disciplines and their pedagogic research is disseminated in a variety of settings that do not always make it easily accessible within generic higher education research discourse. Pedagogic research is also apparently undervalued, with many academic staff experiencing pressure to prioritise publishing within their main discipline over and above pedagogic research. In addition there appears to be a lack of capacity within Scottish institutions to maximise the profile of higher educational research in the forthcoming UK Research Excellence Framework (REF) exercise.

Descriptive analysis of the data is presented in the next section. This is followed by a short discussion of the findings and some recommendations on the basis of the survey findings.

Pedagogical Research Survey Results

After online distribution of the questionnaire, 120 people responded to the survey. This is a small proportion of the higher educational researchers that we suspect are working in Scotland, although we have no way of measuring the total population. We do not claim that the sample is representative of all higher educational research taking place in Scotland, but rather provides a useful overview of themes and trends within higher educational research in Scotland. Indeed it was notable that a number of well known researchers were not represented in those who responded, and yet there are many disciplinary practitioners who have responded of whom we were unaware. The results are presented below question by question.

Question 1: What proportion of your time do you spend on research?

Category	Frequency	Percent
0-20%	69	57.5%
21-40%	26	21.7%
41-60%	13	10.8%
61-80%	7	5.8%
81-100%	5	4.2%
Total	120	100%

Table 1. What proportion of your time do you spend on research?

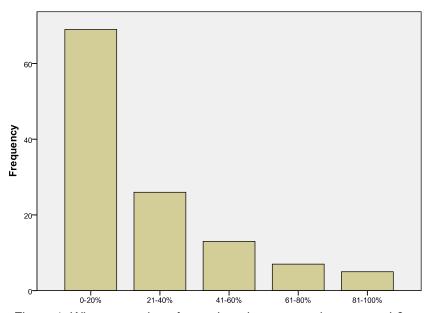


Figure 1. What proportion of your time do you spend on research?

Question 2: What proportion of your research time is focused on research into higher education?

Category	Frequency	Percent
0-20%	49	40.8%
21-40%	12	10.0%
41-60%	10	8.3%
61-80%	17	14.2%
81-100%	32	26.7%
Total	120	100%

Table 2. What proportion of your research time is focused on research into higher education?

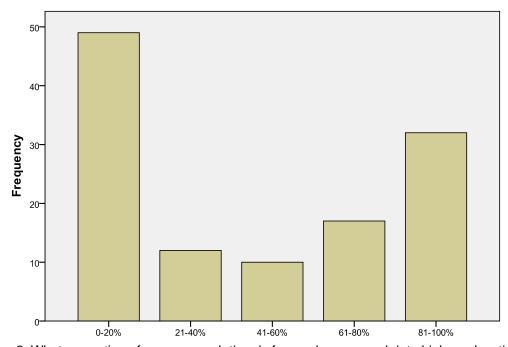


Figure 2. What proportion of your research time is focused on research into higher education?

Question 3: If less than half of your research is focused on research into higher education what would you describe as the main focus of your research?

Health, clinical, medical science 9 Older people's health Clinically-related Nutrition Histopathology Clinical research Nutrition Histopathology Clinical research Nutrition Histopathology Clinical research Parmary Care Mental Health Health services research Pharmacy practice Health and social care research Biological sciences, environment and sustainability 5 Computational biology Neurosciences Neur	Category	Frequency
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Nutrition Histopathology Clinical research Nutrient-Gene interaction in Cardiovascular disease and cancer Primary Care Mental Health Health services research Pharmacy practice Health and social care research Biological sciences, environment and sustainability Computational biology Neurosciences Neurosciences Sustainable development studies and biodiversity governance Conservation and Ecology of threatened plants Management, business finance and HR Fersonnel Financial reporting About 50% higher education and 50% accounting history Determinants of productivity (particularly in firms) Organisational research Community development & lifelong learning Social Work Child protection Partnership working / inter-agency working Geographical sciences and buildings Urban design and town planning Project management in construction Social and cultural geography Law Legal research Law Education Identity of women entrepreneurs in the creative industries-with implications for the secondary and tertiary education and preparation (including constructions) of students with regard to work, career, gender, family. Vocational educational and training in schools and colleges Politics and sociology Thought control in liberal democracies	Older people's health	
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Neurosciences Neurosciences Sustainable development studies and biodiversity governance Conservation and Ecology of threatened plants Management, business finance and HR Personnel Financial reporting About 50% higher education and 50% accounting history Determinants of productivity (particularly in firms) Organisational research Community and social development Community development & lifelong learning Social Work Child protection Partnership working / inter-agency working Geographical sciences and buildings Urban design and town planning Project management in construction Social and cultural geography Law Legal research Law Education Education Geographical sciences and preparation (including constructions) of students with regard to work, career, gender, family. Vocational educational and training in schools and colleges Politics and sociology Thought control in liberal democracies		
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Sustainable development studies and biodiversity governance Conservation and Ecology of threatened plants Management, business finance and HR Personnel Financial reporting About 50% higher education and 50% accounting history Determinants of productivity (particularly in firms) Organisational research Community and social development Community development & lifelong learning Social Work Child protection Partnership working / inter-agency working Geographical sciences and buildings 3 Urban design and town planning Project management in construction Social and cultural geography Law Legal research Law Education Identity of women entrepreneurs in the creative industries-with implications for the secondary and tertiary education and preparation (including constructions) of students with regard to work, career, gender, family. Vocational educational and training in schools and colleges Politics and sociology Thought control in liberal democracies		
Management, business finance and HR Personnel Financial reporting About 50% higher education and 50% accounting history Determinants of productivity (particularly in firms) Organisational research Community and social development Community development & lifelong learning Social Work Child protection Partnership working / inter-agency working Geographical sciences and buildings Urban design and town planning Project management in construction Social and cultural geography Law Legal research Law Education Identity of women entrepreneurs in the creative industries-with implications for the secondary and tertiary education and preparation (including constructions) of students with regard to work, career, gender, family. Vocational educational and training in schools and colleges Politics and sociology Thought control in liberal democracies		
Management, business finance and HR Personnel Financial reporting About 50% higher education and 50% accounting history Determinants of productivity (particularly in firms) Organisational research Community and social development Community development & lifelong learning Social Work Child protection Partnership working / inter-agency working Geographical sciences and buildings Urban design and town planning Project management in construction Social and cultural geography Law Legal research Law Education Identity of women entrepreneurs in the creative industries-with implications for the secondary and tertiary education and preparation (including constructions) of students with regard to work, career, gender, family. Vocational educational and training in schools and colleges Politics and sociology Thought control in liberal democracies	·	
Personnel Financial reporting About 50% higher education and 50% accounting history Determinants of productivity (particularly in firms) Organisational research Community and social development Community development & lifelong learning Social Work Child protection Partnership working / inter-agency working Geographical sciences and buildings Urban design and town planning Project management in construction Social and cultural geography Law Legal research Law Education Identity of women entrepreneurs in the creative industries-with implications for the secondary and tertiary education and preparation (including constructions) of students with regard to work, career, gender, family. Vocational educational and training in schools and colleges Politics and sociology Thought control in liberal democracies		5
Financial reporting About 50% higher education and 50% accounting history Determinants of productivity (particularly in firms) Organisational research Community and social development Community development & lifelong learning Social Work Child protection Partnership working / inter-agency working Geographical sciences and buildings Urban design and town planning Project management in construction Social and cultural geography Law Legal research Law Education Identity of women entrepreneurs in the creative industries-with implications for the secondary and tertiary education and preparation (including constructions) of students with regard to work, career, gender, family. Vocational educational and training in schools and colleges Politics and sociology Thought control in liberal democracies	· · · · · · · · · · · · · · · · · · ·	
About 50% higher education and 50% accounting history Determinants of productivity (particularly in firms) Organisational research Community and social development Community development & lifelong learning Social Work Child protection Partnership working / inter-agency working Geographical sciences and buildings Urban design and town planning Project management in construction Social and cultural geography Law Law Education Identity of women entrepreneurs in the creative industries-with implications for the secondary and tertiary education and preparation (including constructions) of students with regard to work, career, gender, family. Vocational educational and training in schools and colleges Politics and sociology Thought control in liberal democracies		
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Project management in construction Social and cultural geography Law Legal research Law Education Identity of women entrepreneurs in the creative industries-with implications for the secondary and tertiary education and preparation (including constructions) of students with regard to work, career, gender, family. Vocational educational and training in schools and colleges Politics and sociology Thought control in liberal democracies		
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Politics and sociology Thought control in liberal democracies		
Thought control in liberal democracies		2
		_
Politics	Politics	
Physical sciences 1		1
Theoretical condensed matter physics		
Art/design 1		1
Artistic practice theory of photography		
Library and information science 1		1
Professional skills in library and information science		

Other Subject based research Mainstream academic discipline Consultancy exercises Security and testing Knowledge mobilization between community safety practitioners and partnerships.

Table 3. If less than half of your research is focused on research into higher education what would you describe as the main focus of your research?

Question 4: Please give details of up to three key areas in which you are undertaking research into higher education

Category	Frequency	Subcategory 1	Subcategory 2	Subcategory 3
Curriculum design	56	Pedagogy 27	Assessment 20	Evaluation 3
Discipline	38	Interdisciplinary 5	Clinical 28	
e-learning/technology	36			
Professional and academic development	24	New academic staff 2	General Teaching Assistant/PhD/ Researcher development 6	
Psychology/ philosophy of learning	23			
Personal Development Planning/employment/ careers/workbased learning	22			
Policy/strategy/ institutional	18			
International/EU	15			
Student voice/view/attitudes	14			
Transitions	13	International 4		
Student skills development	13			
First year	4			
Retention	4			
Student support	3			
Research-teaching linkages	3			
Education for sustainable development	2			

Table 4. Up to three key areas in which you are undertaking research into higher education

Question 5: If you have published work relating to any of these areas, and are happy to share your work, please list the main relevant publications here (up to 3 for each heading):

Please see Appendix 1 for a categorised list of publications submitted for this question.

Question 6: What methodologies do you most commonly draw upon and use for your higher educational research?

Category	Frequency
Case study methodology	61
Evaluation research	52
Action research	51
Survey	48
Grounded theory	20
Ethnography	17
Phenomenology	17
Phenomenography	8
Narrative/textural analysis	3
Mixed methods	2
Activity theory	1
Econometric analysis	1
Sociocultural theory	1
Visual analysis	1
Practice as research	1
Non-specific	1
Other	2

Table 5. Methodologies you most commonly draw upon and use for your higher educational research

How many methodologies were most people drawing upon?

1 methodology 30 2 methodologies 37 3 methodologies 26 4 methodologies 14 5 methodologies 6 6 methodologies 3

Most common combinations:

1 methodology 2 methodologies	(action research 8 / case study 6 / evaluation research 5) (evaluation research & survey 7 / evaluation research & case
3	study 5 / case study & survey 4 / action research & survey 4)
3 methodologies	(action research & case study & survey 6 / action research &
	evaluation research and case study 4)
4 methodologies	(action research & evaluation & case study & survey 5 /
	evaluation & case study & grounded theory & survey 2)
5 methodologies	(action research & evaluation & phenomenography & case study
_	& survey 2)

Question 7: Please let us know about any other ways in which you disseminate your educational research, please tick the relevant boxes if you have disseminated higher educational research at any of the following in the last 3 years:

Category	Frequency
National Conferences	73
Institutional Conferences	59
International Conferences	58
Subject/disciplinary specific events	52
Online network	10
Blog	10
Other	10

Table 6. Other ways in which you disseminate your educational research

Details of 'other' dissemination:

- Open University Knowledge Network
- Project website and subject centre websites
- European Network of Excellence
- In connection with my teaching
- Through teaching on Post Graduate Certificate in Academic Practice
- Invited lecture, workshop etc, commissioned piece/article by Higher Education Academy and via journal publications/book chapters
- New researcher, first international conference presentation will be in 2010
- To teaching committee

Question 8: In what ways do you try to increase the impact of your higher educational research? e.g. dissemination and implementation institutionally, nationally and with students

Category	Frequency
Conference presentation/attendance	20
Incorporated into teaching	17
Use research to inform academic and staff development	12
Involve students in research/discuss findings with students	12
Journal / paper publication	10
Share findings / collaborate with colleagues	10
Used to inform future programme / course design	10
Local networks (teaching, research)	9
National networks and national partners	8
Research used to inform policy and practice institutionally	7
International networks and partners	4
Through sharing with PhD students	3
Undertaking study e.g. PhD, PG Cert	3
Book chapter or book	3
Dissemination within professional body / sector	2
Blog / online activity	2
Not yet at stage of disseminating	2
Doesn't count for REF - so don't disseminate / annoyed at institution	2
Website	1
research reports to funders	1
used in working with student unions	1
internal annual report	1
ensure publications held in institutional research repository	1
used to promote interdisciplinary discussion / programmes	1
working on research that is seen as priority area in policy	1
updates of research findings to research participants	

Table 7. In what ways do you try to increase the impact of your higher educational research?

Question 9: In the past 3-5 years have you had funding for your research into higher education?

Category	Frequency	Percent
No	62	51.7%
Yes	57	47.5%
Missing	1	0.8%
Total	120	100%

Table 8. In the past 3-5 years have you had funding for your research into higher education?

Question 10: If yes, where have you received funding from?

Main Categories	Frequency
Internal (Institution)	27
Higher Education Academy	18
	(of whom 9 mentioned Subject Centres)
Economic and Social Research Council	5
Scottish Funding Council	5
European Funding	4
Joint Information Systems Committee	4
Quality Assurance Agency	4
Scottish Government Funding	4
Carnegie Trust	3
International Funding (various)	3
Industry Academic Partnership	2
NHS Education for Scotland	2
Scottish Qualifications Authority	2

Others mentioned once: Arthritis Research UK, Canadian Medical Council, Council for Industry and Higher Education, Convention of Scottish Local Authorities, Department of Business, General Medical Council, Higher Education Funding Council for England, Innovation and Skills, Moray Endowment Fund, Private Donor, RCUK Fellowship, Rheumatology Society, Royal Pharmaceutical Society of Great Britain, Roberts Funding, Sector Skills Development Agency, Scottish Institute for Excellence in Social Work Education, Universities UK.

Total respondents (57)

Table 9. Where have you received funding from?

Question 11: Aside from funding, has your research into higher education been supported in any other way? If so please provide details.

Main Categories	Frequency
Time	16
Colleagues/Department/Management	14
Funding for study/travel/conferences/administration/research posts	14
Central unit support	7
No other support	7
Other	3
Total respondents (54)	

Table 10. Asides from funding, has your research into higher education been supported in any other way?

Question 12: Do you intend to submit your research into higher education within the forthcoming Research Excellence Framework (REF)?

Category	Frequency	Percent
Don't know	41	34.2%
Yes	40	33.3%
No	36	30.0%
Missing	3	2.5%
Total	120	100%

Table 11. Do you intend to submit your research into higher education within the forthcoming Research Excellence Framework (REF)?

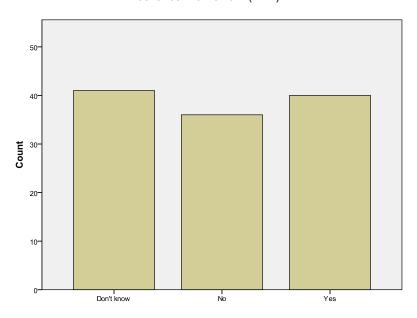


Figure 4. Do you intend to submit your research into higher education within the forthcoming Research Excellence Framework (REF)?

Question 13: Will your institution support you to submit your research into higher education within a specific education section within the REF?

Category	Frequency	Percent
Don't know	63	52.5%
No	24	20.0%
Yes	22	18.3%
Missing	11	9.2%
Total	120	100%

Table 12. Will your institution support you to submit your research into higher education within a specific education section within the REF?

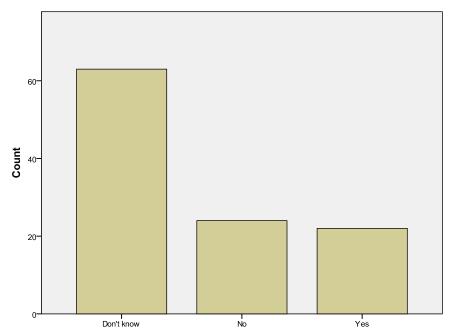


Figure 5. Will your institution support you to submit your research into higher education within a specific education section within the REF?

Question 14: If you think you will submit your research into higher education in a non-education section of REF, please state under what area you think it will be submitted (e.g. biological sciences, history etc).

Category	Frequency	Percent
Education	6	5.0%
Business and Management	3	2.5%
Built Environment	2	1.7%
Computing	2	1.7%
Business/Accounting	1	0.8%
Clinical/Orthopaedics	1	0.8%
Creative Industries	1	0.8%
Economics and Econometrics	1	0.8%
English	1	0.8%
Fine Art	1	0.8%
Geography	1	0.8%
Health	1	0.8%
Mental Health/Pharmacy or Biosciences	1	0.8%
Performance/Media	1	0.8%
Social Sciences	1	0.8%
Sustainable Development in Geography	1	0.8%
Missing	95	79.2%
Total	120	100%

Table 13. If you think you will submit your research into higher education in a non-education section of REF, please state under what area you think it will be submitted (e.g. biological sciences, history etc)

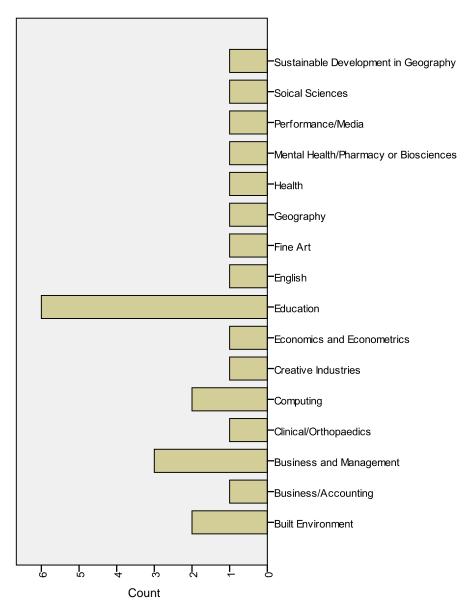


Figure 6. If you think you will submit your research into higher education in a non-education section of REF, please state under what area you think it will be submitted (e.g. biological sciences, history etc)

Question 15: What is your sex?

Category	Frequency	Percent
Female	84	70.0%
Male	36	30.0%
Total	120	100%

Table 14. What is your sex?

Question 16: What is your job title?

Category	Frequency	Percent
Lecturer	49	40.8%
Senior Lecturer	14	11.7%
Director/Head of Unit	7	5.8%
Professor	7	5.8%
Researcher	5	4.2%
Senior/University Teacher	5	4.2%
Programme Coordinator/Leader	4	3.3%
Clinical Fellow/Lecturer	3	2.5%
Study Adviser/Academic Developer	3	2.5%
Academic Fellow	2	1.7%
PhD student	2	1.7%
Reader	2	1.7%
Senior/Teaching Fellow	2	1.7%
_ Tutor	2	1.7%
Academic Enhancement Coordinator	1	0.8%
Academic Skills Tutor	1	0.8%
Educational and Employability Development	1	0.8%
Adviser		
Librarian	1	0.8%
Non academic	1	0.8%
Senior Educational Development Officer	1	0.8%
Student Retention Project Officer	1	0.8%
Teaching Manager	1	0.8%
Missing	5	4.2%
Total	120	100%

Table 15. What is your job title?

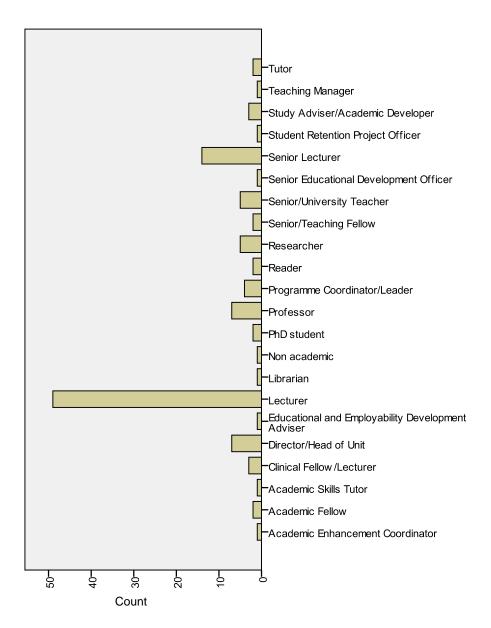


Figure 8. What is your job title?

Question 17: What Subject/Department/School/Division do you work in?

Category	Frequency	Percent
Academic/Professional/Educational	26	21.7%
Development		
Education	14	11.7%
Health, Nursing or Midwifery	8	6.7%
Accounting/Finance/Business/Economics	7	5.8%
Biology/Biological/Biomedical/Life Sciences	6	5.0%
Medicine	6	5.0%
Social Sciences/Work	6	5.0%
Pharmacy	5	4.2%
Performance/Media/Digital Design	4	3.3%
Education, Social Work and Community	3	2.5%
Education		
Engineering/Built Environment	3	2.5%
Law	3	2.5%
Physics and Astronomy	3	2.5%
Computer Science	2	1.7%
Dentistry	2	1.7%
Maths/Computing/Technology	2	1.7%
Centre for Research in Lifelong Learning	1	0.8%
Community development	1	0.8%
Construction Management and Surveying	1	0.8%
Fine Art Photography	1	0.8%
Geography and Geosciences	1	0.8%
Information services	1	0.8%
Medical and Education	1	0.8%
Medicine and Dentistry	1	0.8%
None	1	0.8%
Registry	1	0.8%
Rural Business Management/Social Sciences	1	0.8%
Skills Development	1	0.8%
Urban Studies	1	0.8%
Registry	1	0.8%
Rural Business Management/Social Sciences	1	0.8%
Skills Development	1	0.8%
Urban Studies	1	0.8%
Missing	7	5.8%
Total	120	100%

Table 16 WhatSubject/Department/School/Division do you work in?

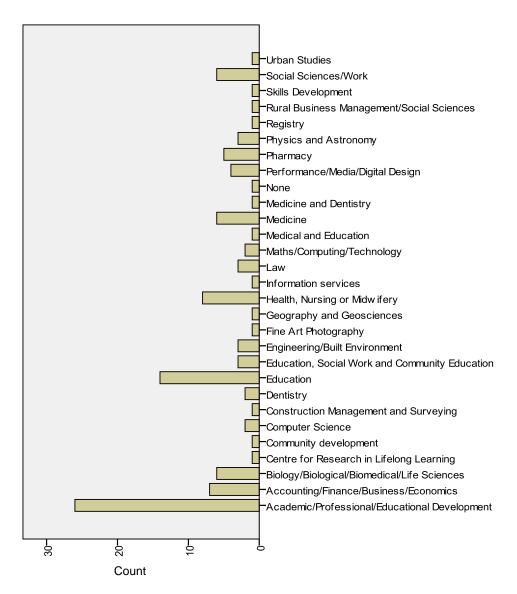


Figure 9. What Subject/Department/School/Division do you work in?

Question 18: What University/organisation/institute do you work in?

Category	Frequency	Percent
University of Glasgow	26	21.7%
University of Dundee	15	12.5%
University of the West of Scotland	12	10.0%
Edinburgh Napier University	9	7.5%
University of Aberdeen	9	7.5%
Robert Gordon University	7	5.8%
Glasgow Caledonian University	6	5.0%
University of St Andrews	5	4.2%
Heriot Watt University	4	3.3%
Queen Margaret University	4	3.3%
Scottish Agricultural College	4	3.3%
University of Edinburgh	4	3.3%
Glasgow School of Art	3	2.5%
Open University	3	2.5%
University of Stirling	2	1.7%
University of Strathclyde	2	1.7%
NHS Tayside	1	0.8%
Not specified	4	3.3%
Total	120	100%

Table 17. What University/Organisation/Institute do you work in?

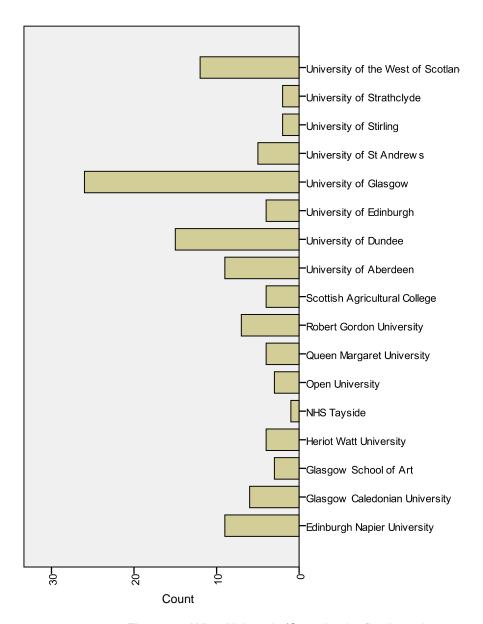


Figure 10. What University/Organisation/Institute do you work in?

Question 19. Which of the following best describes your research experience in research into higher education?

Category	Frequency	Percent
New researcher (less than 3 years experience)	54	45.0%
Some experience as a researcher (4-6 years experience)	40	33.5%
Experienced researcher (more than 7 years experience)	26	21.7%
Total	120	100%

Table 18. Which of the following best describes your research experience in research into higher education?

Question 20. If your main research is not research into higher education, then which of the following best describes your research experience in your main discipline?

Category	Frequency	Percent
Experienced researcher (more than 7 years experience)	30	47.6%
Some experience as a researcher (4-6 years experience)	17	27.0%
New researcher (less than 3 years experience)	16	25.4%
Total	63	100%

Table 19. If your main research is not research into higher education, then which of the following best describes your research experience in your main discipline?

Question 21. Would you be interested in receiving information on events relating to research into higher education?

Category	Frequency	Percent
Yes	97	80.8%
No	23	19.2%
Total	120	100%

Table 20. Would you be interested in receiving information on events relating to research into higher education?

Question 22. Would you be interested in being able to communicate with other people who are interested in similar areas of research into higher education?

Category	Frequency	Percent
Yes	97	80.8%
No	23	19.2%
Total	120	100%

Table 21. Would you be interested in being able to communicate with other people who are interested in similar areas of research into higher education?

Question 23. Would you be happy to be contacted by other people who share an interest in the same areas of research into higher education as you are?

Category	Frequency	Percent
Yes	99	82.5%
No	21	17.5%
Total	120	100%

Table 22. Would you be happy to be contacted by other people who share an interest in the same areas of research into higher education as you are?

Question 24. Would you be happy to be contacted at a later date to be invited to join a possible new research into higher education network / online community?

Category	Frequency	Percent
Yes	93	77.5%
No	27	22.5%
Total	120	100%

Table 23. Would you be happy to be contacted at a later date to be invited to join a possible new research into higher education network / online community?

Question 25. If you answered yes to any of these questions, what area of your current or future research into higher education (content or methodology) would you be most interested in discussing with others?

Category	Frequency	Percent
Discipline specific educational research	8	5.2%
Technology-enhanced learning (general	8	5.2%
e.g. e-learning')		
Assessment and feedback	7	4.6%
Creative disciplines education (this emerged as a	7	4.6%
key area of interest so not included in 'Discipline		
specific' category)		
Graduate attributes including employability	6	3.9%
Student attitudes and experiences	6	3.9%
Academic development (including professional	5	3.3%
development of lecturers)		
International students (teaching and supporting)	5	3.3%
Institutional culture	5	3.3%
Institutional strategy and management	4	2.6%
Transitions	4	2.6%
Action research	3	2.0%
Creativity in education	3	2.0%
Distance learning	3	2.0%
Internationalisation (including of curriculum)	3	2.0%
PDP	3	2.0%
Qualitative research methods	3	2.0%
Study skills development	3	2.0%

Accreditation	2	1.3%
Co-creation of the curriculum	2	1.3%
Cross-cohort learning	2	1.3%
Curriculum design	2	1.3%
Evaluation of teaching	2	1.3%
Group working	2	1.3%
Learner independence	2	1.3%
Participatory methodologies	2	1.3%
Pastoral care	2	1.3%
Peer assisted learning	2	1.3%
Philosophy of education	2	1.3%
Problem-based learning	2	1.3%
Quality assurance and enhancement	2	1.3%
Scholarship of learning and teaching	2	1.3%
Student retention	2	1.3%
Teacher education	2	1.3%
Threshold concepts	2	1.3%
Work-based learning	2	1.3%
Work placements	2	1.3%
Admissions interviews	1	0.7%
Adult learning	1	0.7%
Careers and careers education	1	0.7%
Collaborative technologies for student learning	1	0.7%
Collaborative technologies for professional	1	0.7%
development		
Community-based learning	1	0.7%
Competency frameworks	1	0.7%
Doctoral education	1	0.7%
e-Portfolios	1	0.7%
Equality and diversity	1	0.7%
FE-HE articulation	1	0.7%
First year experience	1	0.7%
Foundation and sub-degree qualifications in HE	1	0.7%
GTA development	1	0.7%
Individual differences (learners)	1	0.7%
Informal learning	1	0.7%
Institutional engagement in communities	1	0.7%
Interdisciplinary education	1	0.7%
Laboratory and field work	1	0.7%
Lecturer development	1	0.7%
Lifelong learning	1	0.7%
Read/write web tools	1	0.7%
Researcher development	1	0.7%
Research-teaching linkages	1	0.7%
Simulation	1	0.7%
Student mentoring	1	0.7%
Sustainable development	1	0.7%

Turnitin	1	0.7%
Tutor experiences of online learning and teaching	1	0.7%
VLEs	1	0.7%
Writing skills	1	0.7%
Total	153	100%

Table 24. What area of your current or future research into higher education (content or methodology) would you be most interested in discussing with others?

Question 26. Name and email address (this is optional but we need this if you wish to be involved in any follow up from this questionnaire).

List has been generated and is currently held by members of the management group of USEDSC (96 responses)

Discussion

The majority of respondents in this survey spend 0-20% of their time on research activity. In looking more explicitly at higher educational research activity, just over 40% of people spend 0-20% of their research time on higher educational research and it is likely many of these respondents are disciplinary based researchers. Just over 26% of respondents spend 80-100% of their research time on higher educational research activity, and it is likely these are mainly staff in education disciplines and academic developers. However, if there are small numbers of respondents spending 80-100% of their research time researching higher education, the higher educational research discipline will build slowly and it will be challenging to create a vibrant and active research community focused on higher education research. This is particularly the case where Ashwin (2006) argued that higher educational research is a young disciplinary area. In addition, academic and educational developers are potential contributors to this higher educational research community and yet many of them have no research remit within their job description or find their time for research increasingly constrained by growing demands for the 'service to the university' component of their roles.

It is apparent from the survey findings that a large proportion of educational research is taking place 'underground' in that much higher educational research is being disseminated within disciplines or at an institutional level and therefore is outside mainstream educational research discourse. Several authors acknowledge that academic staff are encouraged to undertake research in their own discipline over and above doing pedagogic research (D'Andrea & Gosling, 2000; Kelly, 2000; Yorke, 2000). This is even more noticeable around the time of national research exercises such as the UK Research Excellence Framework, where disciplinary research is frequently perceived to be of greater value than research into higher education.

Some of the respondents were known to individuals from within the Scottish Higher Educational Development Community who organised this survey, either because they work within the same institution or within the same discipline. However, many higher educational researchers are not aware of other higher educational researchers outside their own institution. Regularly we disseminate and communicate research through disciplinary or institutional channels (Becher & Trowler, 2001), and this contributes to a fragmented higher educational research community. The current context of decreasing resources for international conference attendance exacerbates this situation. However, if higher educational researchers continue to present and attend different events and publish in a wide range of publications, the opportunities for building a more coherent disciplinary discourse is reduced.

Not only have we found that higher education research in Scotland is often taking place 'underground', but the findings seem to support Yorke's (2000) research from over a decade ago, that educational research is frequently deemed to be less valuable than other disciplinary research. Many academic staff will face pressures to publish disciplinary specialist research over and above educational research because: it is more valuable in research audits such as the REF; many other disciplines have journals with much higher impact factors than education; educational research is sometimes interpreted as somehow inferior to other forms of disciplinary research. Indeed the ongoing debates about how to distinguish between the scholarship of teaching and learning (SoTL) and pedagogic

research, which often focus on hierarchical conceptions between the two, do not always help to enhance the value of both forms of enquiry.

Many respondents in this survey also reported carrying out research into higher education without funding. There are several possible interpretations of these findings. It is possible that there are less research funds available for higher educational research and it may be that educational researchers are not as good at bringing in research money. However, this is simply conjecture. Those who did receive funding, attracted money from a range of different funding sources. It is also in some ways encouraging that so many academic staff are able to pursue their research into higher education without needing funding, and yet this may exacerbate the low value apparently placed on research into higher education by many individuals and institutions. In looking at the nature of the non-funded research taking place, it should also be recognised that at least some of this activity is focused on small-scale action research and scholarly evaluations of respondents' own academic practice.

Research that is valued in the UK is usually included in the REF exercise that takes place every five to seven years. Many respondents were not sure of whether their research would be returned within the forthcoming REF in the UK. This may be partly due to the timing of our survey and it is possible were we to repeat the questionnaire, individuals might be clearer about this as the census date for the REF comes closer. However, some of this uncertainty among individuals may well reflect uncertainty within institutions about how best to approach the REF, or where institutions are perhaps clear in their institutional strategy, they haven't yet communicated this strategy to researchers entirely effectively. The findings relating to the REF along with discussions we have had with colleagues across Scotland, indicate only a handful of higher education institutions will return higher educational research within a specific education return in the next REF. This suggests there is a need to build existing capacity for higher educational research nationally.

Alongside concerns for institutional capacity for higher educational research, there is also a need to build individual competency and confidence among existing and potential new higher educational researchers. Most respondents viewed themselves as early higher education researchers with less than three years experience. This suggests there is a need for developmental support and mentoring, and we did identify 26 individuals in this study who had over seven years of experience as higher educational researchers who might be individuals who would be able to contribute to the development of others.

In our survey, respondents were tending to use mainly qualitative methodologies, although it could be argued that evaluation methodology and surveys can use either qualitative, quantitative or mixed methods approaches. Case study methodology was commonly cited, but it is impossible to know whether all respondents were using this terminology to refer to specific case study methodology used in higher education research (as outlined for example by Cousin, 2009) or whether some individuals were referring to a looser use of the term to refer to studies of individuals within for example health care settings – particularly bearing in mind the number of respondents who came from health disciplines. Many researchers based in other disciplines may find some educational research methodologies very different from the research approaches most frequently used within their home discipline. While Steirer and Antoniou (2004) argue that educational research methodologies are not unique to education, they do concede that they are often combined in diverse ways. Learning to use, and become proficient at using, different educational research methodologies can take time

and is an obvious area where the Scottish higher education sector could offer mentorship and development of staff. It is encouraging to note that the overwhelming majority of respondents were interested in potential events about higher educational research that might be offered in the future and in communicating with others doing similar research.

Implications for the Scottish Higher Education sector

This survey has highlighted a range of interesting and potentially valuable higher education research taking place in Scotland. The authors do recognise that Scotland is part of the United Kingdom and that there will be 'national' UK research as well as European higher educational research that will undoubtedly include activity in Scotland. However, this work was outside the remit of this small scale study commissioned by the Universities Scotland Higher Educational Development Sub-Committee.

We have the advantage as a small nation of being able to gain a broad overview of activity across Scotland nationally and of having a close academic development community as well as other disciplinary academic groupings. This is a good starting position to try to enhance networks and developmental support where currently we do not have good mechanisms for supporting research into higher education and communicating and disseminating this research effectively across disciplinary and institutional boundaries. We need to enhance communication networks in order to build activity and debate that can result in raising the value of higher educational research within nationally recognised frameworks such as the REF. Otherwise we risk Scotland's higher education research becoming a poor relation in international higher education discourse.

In a study of educational research more than a decade ago, Hargreaves (1998) found weak co-ordination among researchers and the lack of larger centres of educational research to be two of the key problems facing educational research. Yet there is growing interest from a range of bodies in supporting higher education research, these include, for example, USEDSC (in commissioning this report and holding pedagogic research events for academics) and the Higher Education Academy (HEA) (in supporting pedagogic research events in Scotland and funding a range of pedagogic research). Individual institutions have also set up useful higher education networks such as the HEREN network at Edinburgh Napier University, who have run events jointly with the HEA. There are of course many other bodies and institutions contributing in different ways to supporting higher education research in Scotland, but there is no overarching co-ordination of this support. The Scottish Educational Research Association (SERA) is a Scotland wide body supporting educational research, but it covers all levels of education and currently there is no body nationally with responsibility for Scottish higher education research.

Humes (2007) suggests setting up a National Graduate School of Educational Research as a way of building capacity to the point of achieving a critical mass and as a way of strengthening funding bids in Scotland. He also argues that building a National Graduate School would help to develop improved links with other disciplines outside education.

Many respondents in this survey were undertaking practitioner research, which Stierer and Antoniou (2004) argue is often undertaken by individuals to enhance understanding of their teaching practice with an aim of enhancing student learning. Often this research is not widely disseminated but may be of value to others outside the researcher's institution. Indeed, Stierer and Antoniou (2004) suggest that due to this focus on enhancing teaching and learning, higher educational research often serves a quality enhancement function as well as raising the status of teaching. These potential benefits of higher educational research are perhaps not frequently enough championed.

Recommendations

On the basis of the findings of this survey, the authors recommend the following actions:

- 1. The Universities Scotland Educational Development Committee share the findings of this research with a wide range of groups who have an interest and potential stake in supporting and building a stronger higher education research sector in Scotland. This should include but not be restricted to: Universities Scotland Learning and Teaching Committee; Universities Scotland Executive Committee; Scotlish Educational Research Association; Staff and Educational Developers Association; Higher Education Academy; Society for Research into Higher Education.
- 2. Higher educational researchers individually and as members of policy making groups institutionally and nationally across Scotland need to contribute to raising the status of higher educational research. This may require advocacy and action to highlight the evidence demonstrating the benefits of higher educational research such as those highlighted by Stierer and Antoniou (2004) in terms of higher education research contributions to quality enhancement and raising the status of teaching.
- 3. Institutions and policymaking groups need to extend provision of training, mentorship and support for higher education researchers. Some support exists, but the findings from this survey suggest there is a desire for more support from researchers.
- 4. In order to improve dissemination of existing higher education research and communication among higher education researchers, the Universities Scotland Educational Development Committee should investigate the possibility of establishing a new network for higher education researchers. The findings of this survey should be used to ascertain the kinds of networks researchers would find most useful.
- 5. There is a need for further research about higher education research in Scotland. This relatively small scale study has highlighted some valuable information about for example the kinds of higher educational research taking place, the level of experience of researchers, and whether researchers were interested in possible events and networks. However, research into possible larger scale national developments and more comprehensive studies into the kinds of research taking place are needed.

Acknowledgments

We would like to thank the Universities Scotland Educational Development Sub-committee for supporting this work, and colleagues across the Scotlish HE sector who kindly responded to the survey. We would also like to thank Universities Scotland for providing financial support for the production of the print edition of this report, Edinburgh Napier University, University of Glasgow and University of West of Scotland for supporting the authors to undertake this work, and Sarah Murray and Kirsteen Wright at Edinburgh Napier University for co-ordinating the printing and publication of this report.

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Appendix 1 Publications submitted in response to question 5 of the survey (categorised)

1. Curriculum design

Curriculum design – assessment

Curriculum design – evaluation

Curriculum design – learning and teaching

2. Disciplinary research – built environment

Disciplinary research - clinical

Disciplinary research – computing

Disciplinary research – drama and creative arts

Disciplinary research - engineering

Disciplinary research – history

Disciplinary research – life sciences

Disciplinary research - maths

Disciplinary research – media and cultural studies

Disciplinary research – physics

- 3. E-learning/technology
- 4. First year experience
- 5. PDP/employment/careers/workbased learning
- 6. Policy/strategy institutional level
- 7. Policy/strategy international/EU level
- 8. Professional and academic development
- 9. Psychology/philosophy of learning
- 10. Research-teaching linkages
- 11. Retention
- 12. Students' skills development
- 13. Student support
- 14. Student voice/view/attitudes
- 15. Transitions

Please note publications may appear in more than one category to aid searching of literature. Publications are dated as they were submitted at the time of the survey 2010, therefore some publications labelled as forthcoming, may now be in press.

1. Curriculum design

Bamber, V., Trowler, P., Saunders, M. and Knight, P. (eds.) (2009) *Enhancing Learning, Teaching, Assessment and Curriculum in Higher Education: Theory, Cases, Practices.* Berkshire: Society for Research into Higher Education and Open University Press.

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