

Middlesex University Research Repository

An open access repository of

Middlesex University research

<http://eprints.mdx.ac.uk>

Thorne, Lucy Eva (1999) Perspectives on the purposes, processes and products of doctorates: towards a rich picture of doctorates. PhD thesis, Middlesex University. [Thesis]

This version is available at: <https://eprints.mdx.ac.uk/6416/>

Copyright:

Middlesex University Research Repository makes the University's research available electronically.

Copyright and moral rights to this work are retained by the author and/or other copyright owners unless otherwise stated. The work is supplied on the understanding that any use for commercial gain is strictly forbidden. A copy may be downloaded for personal, non-commercial, research or study without prior permission and without charge.

Works, including theses and research projects, may not be reproduced in any format or medium, or extensive quotations taken from them, or their content changed in any way, without first obtaining permission in writing from the copyright holder(s). They may not be sold or exploited commercially in any format or medium without the prior written permission of the copyright holder(s).

Full bibliographic details must be given when referring to, or quoting from full items including the author's name, the title of the work, publication details where relevant (place, publisher, date), pagination, and for theses or dissertations the awarding institution, the degree type awarded, and the date of the award.

If you believe that any material held in the repository infringes copyright law, please contact the Repository Team at Middlesex University via the following email address:

eprints@mdx.ac.uk

The item will be removed from the repository while any claim is being investigated.

See also repository copyright: re-use policy: <http://eprints.mdx.ac.uk/policies.html#copy>

Ranked mean responses for graduates by type of doctorate
01 Dec 98 SPSS for MS WINDOWS Release 6.1

Ranked mean responses for all doctoral graduates doing MPhil/PhDs

Purpose-Purpose
 Number of valid observations (listwise) = 22.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
FUNDING	3.73	1.98	1.00	6.00	22	availability of fundi
OUT_ACADE	3.77	1.69	1.00	6.00	22	enhance career outsid
IN_ACADE	4.14	1.70	1.00	6.00	22	enhance career prospe
ACAD_PRE	4.32	1.55	1.00	6.00	22	gaining academic pres
CONTRIBU	4.68	1.21	2.00	6.00	22	contribution of the f
SP_KNOWL	4.73	1.16	2.00	6.00	22	specialist knowledge
RE_SKILL	5.05	1.00	3.00	6.00	22	development of resear
PERS_DEV	5.18	.96	3.00	6.00	22	personal development

Purpose-Definition
 Number of valid observations (listwise) = 21.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
TEACH	2.86	1.49	1.00	5.00	22	ability to teach
LIFETIME	2.95	1.53	1.00	6.00	22	lifetimes work
INITIATE	4.05	1.53	1.00	6.00	22	initiation of a career
APPRENTI	4.23	1.51	1.00	6.00	22	academic apprenticesh
COLLAB	4.50	1.50	1.00	6.00	22	work collaboratively
DISTINCT	4.52	1.29	2.00	6.00	21	distinctive level
TRAINING	4.73	1.20	2.00	6.00	22	training in research
SIGNIFIC	4.91	1.11	3.00	6.00	22	significant contribut
AUTONOM	4.95	.84	3.00	6.00	22	work autonomously

Process-Resources and Experience
 Number of valid observations (listwise) = 19.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
BUSINESS	2.27	1.28	1.00	5.00	22	business training
TEACHING	2.95	1.21	1.00	6.00	22	teaching opportunitie
STUDY	3.00	1.45	1.00	6.00	21	additional study
CONFEREN	3.68	1.13	1.00	6.00	22	conference access
APPRAISE	3.90	1.04	2.00	6.00	21	appraisal
WORK	3.95	1.12	2.00	6.00	21	work experience
PEER	4.05	1.53	1.00	6.00	22	peer support
PERSONAL	4.14	1.13	2.00	6.00	22	personal skills devel
ENVIRON	4.23	1.11	2.00	6.00	22	academic environment
EXPENSES	4.27	1.70	1.00	6.00	22	research expenses
EQUIP	4.86	1.46	1.00	6.00	22	specialist equipment
COMPUTIN	4.95	1.16	3.00	6.00	21	computing facilities
SUPERVIS	5.27	.88	3.00	6.00	22	regular supervision
LIBRARY	5.73	.55	4.00	6.00	22	access to library

Process-Ways of working
 Number of valid observations (listwise) = 22.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
JOINT	4.18	1.62	1.00	6.00	22	joint working
COLLABO	4.23	1.57	1.00	6.00	22	collaborating with ot

INDEPEND 5.18 1.01 3.00 6.00 22 working independently

Ranked mean responses for all doctoral graduates doing EdDs

Purpose-Purpose

Number of valid observations (listwise) = 4.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
OUT_ACAD	2.50	1.29	1.00	4.00	4	enhance career outsid
IN_ACADE	3.00	1.41	2.00	5.00	4	enhance career prospe
FUNDING	3.20	2.28	1.00	6.00	5	availability of fundi
CONTRIBU	3.50	1.73	2.00	6.00	4	contribution of the f
RE_SKILL	4.25	.96	3.00	5.00	4	development of resear
ACAD_PRE	4.60	1.14	3.00	6.00	5	gaining academic pres
SP_KNOWL	4.75	1.50	3.00	6.00	4	specialist knowledge
PERS_DEV	6.00	.00	6.00	6.00	5	personal development

Purpose-Definition

Number of valid observations (listwise) = 4.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
LIFETIME	2.25	1.89	1.00	5.00	4	lifetimes work
TEACH	2.40	2.19	1.00	6.00	5	ability to teach
INITIATE	2.80	2.05	1.00	5.00	5	initiation of a career
COLLAB	3.20	1.79	1.00	5.00	5	work collaboratively
DISTINCT	4.60	2.07	1.00	6.00	5	distinctive level
SIGNIFIC	4.80	1.79	2.00	6.00	5	significant contribut
APPRENTI	4.80	.84	4.00	6.00	5	academic apprenticesh
TRAINING	4.80	.84	4.00	6.00	5	training in research
AUTONOM	5.00	1.22	3.00	6.00	5	work autonomously

Process-Resources and Experience

Number of valid observations (listwise) = 3.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
WORK	1.50	1.00	1.00	3.00	4	work experience
APPRAISE	1.75	1.50	1.00	4.00	4	appraisal
TEACHING	1.80	.84	1.00	3.00	5	teaching opportunitie
BUSINESS	2.25	2.50	1.00	6.00	4	business training
EQUIP	2.60	1.34	1.00	4.00	5	specialist equipment
EXPENSES	3.40	1.82	1.00	5.00	5	research expenses
STUDY	3.50	2.38	1.00	6.00	4	additional study
COMPUTIN	4.00	1.87	1.00	6.00	5	computing facilities
CONFEREN	4.00	1.00	3.00	5.00	5	conference access
PERSONAL	4.60	2.07	1.00	6.00	5	personal skills devel
SUPERVIS	5.20	.84	4.00	6.00	5	regular supervision
PEER	5.20	.84	4.00	6.00	5	peer support
ENVIRON	5.50	.58	5.00	6.00	4	academic environment
LIBRARY	5.80	.45	5.00	6.00	5	access to library

Process-Ways of working

Number of valid observations (listwise) = 4.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
JOINT	4.00	1.15	3.00	5.00	4	joint working
COLLABO	4.40	1.34	3.00	6.00	5	collaborating with ot
INDEPEND	5.40	.55	5.00	6.00	5	working independently

Ranked mean responses for all doctoral graduates by institution
01 Dec 98 SPSS for MS WINDOWS Release 6.1

Ranked mean responses for all doctoral students at Middlesex University

Purpose-Purpose

Number of valid observations (listwise) = 10.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
FUNDING	2.80	2.10	1.00	6.00	10	availability of fundi
IN_ACADE	3.70	2.16	1.00	6.00	10	enhance career prospe
ACAD_PRE	4.00	1.76	1.00	6.00	10	gaining academic pres
OUT_ACAD	4.00	1.63	1.00	6.00	10	enhance career outsid
RE_SKILL	4.70	1.06	3.00	6.00	10	development of resear
SP_KNOWL	5.10	.88	4.00	6.00	10	specialist knowledge
CONTRIBU	5.30	.82	4.00	6.00	10	contribution of the f
PERS_DEV	5.40	.84	4.00	6.00	10	personal development

Purpose-Definition

Number of valid observations (listwise) = 9.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
TEACH	2.70	1.70	1.00	5.00	10	ability to teach
COLLAB	3.30	1.34	1.00	5.00	10	work collaboratively
INITIATE	3.50	1.65	1.00	5.00	10	initiation of a career
LIFETIME	3.60	1.90	1.00	6.00	10	lifetimes work
APPRENTI	3.70	1.42	2.00	6.00	10	academic apprenticesh
TRAINING	4.00	1.33	2.00	6.00	10	training in research
DISTINCT	4.78	1.20	3.00	6.00	9	distinctive level
AUTONOM	5.10	.88	3.00	6.00	10	work autonomously
SIGNIFIC	5.50	.85	4.00	6.00	10	significant contribut

Process-Resources and Experience

Number of valid observations (listwise) = 7.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
BUSINESS	1.60	.97	1.00	4.00	10	business training
STUDY	2.56	1.51	1.00	5.00	9	additional study
TEACHING	2.60	.97	1.00	4.00	10	teaching opportunitie
CONFEREN	3.20	1.14	1.00	5.00	10	conference access
WORK	3.22	1.20	2.00	5.00	9	work experience
EXPENSES	3.30	1.34	1.00	5.00	10	research expenses
APPRAISE	3.33	.87	2.00	4.00	9	appraisal
PEER	3.40	1.43	1.00	5.00	10	peer support
ENVIRON	3.70	1.06	2.00	5.00	10	academic environment
EQUIP	4.00	1.76	1.00	6.00	10	specialist equipment
PERSONAL	4.00	1.15	2.00	6.00	10	personal skills devel
COMPUTIN	4.67	1.22	3.00	6.00	9	computing facilities
SUPERVIS	5.30	.95	3.00	6.00	10	regular supervision
LIBRARY	5.70	.48	5.00	6.00	10	access to library

Process-Ways of working

Number of valid observations (listwise) = 10.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
JOINT	3.00	1.56	1.00	6.00	10	joint working
COLLABO	3.10	1.52	1.00	6.00	10	collaborating with ot

INDEPEND 5.10 1.10 3.00 6.00 10 working independently

Ranked mean responses for all doctoral graduates at Imperial College

Purpose-Purpose

Number of valid observations (listwise) = 5.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
IN_ACADE	4.40	.89	3.00	5.00	5	enhance career prosp
OUT_ACAD	4.60	1.52	2.00	6.00	5	enhance career outsid
PERS_DEV	4.80	1.30	3.00	6.00	5	personal development
SP_KNOWL	4.80	.84	4.00	6.00	5	specialist knowledge
CONTRIBU	4.80	1.10	4.00	6.00	5	contribution of the f
ACAD_PRE	5.40	.89	4.00	6.00	5	gaining academic pres
FUNDING	5.60	.55	5.00	6.00	5	availability of fundi
RE_SKILL	5.80	.45	5.00	6.00	5	development of resear

Purpose-Definition

Number of valid observations (listwise) = 5.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
LIFETIME	2.60	1.14	1.00	4.00	5	lifetimes work
TEACH	3.40	1.34	2.00	5.00	5	ability to teach
APPRENTI	3.80	1.92	1.00	6.00	5	academic apprenticesh
INITIATE	4.20	1.64	2.00	6.00	5	initiation of a career
AUTONOM	4.40	.89	3.00	5.00	5	work autonomously
SIGNIFIC	4.60	1.14	3.00	6.00	5	significant contribut
DISTINCT	5.00	.71	4.00	6.00	5	distinctive level
TRAINING	5.20	.84	4.00	6.00	5	training in research
COLLAB	5.40	.89	4.00	6.00	5	work collaboratively

Process-Resources and Experience

Number of valid observations (listwise) = 5.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
TEACHING	3.40	1.14	2.00	5.00	5	teaching opportunitie
STUDY	3.40	1.14	2.00	5.00	5	additional study
PEER	3.80	1.79	1.00	5.00	5	peer support
BUSINESS	3.80	.84	3.00	5.00	5	business training
ENVIRON	4.00	1.00	3.00	5.00	5	academic environment
APPRAISE	4.00	.71	3.00	5.00	5	appraisal
CONFEREN	4.40	1.14	3.00	6.00	5	conference access
PERSONAL	4.40	.89	3.00	5.00	5	personal skills devel
WORK	4.40	.55	4.00	5.00	5	work experience
SUPERVIS	5.20	1.10	4.00	6.00	5	regular supervision
COMPUTIN	5.20	.45	5.00	6.00	5	computing facilities
EQUIP	5.40	.55	5.00	6.00	5	specialist equipment
EXPENSES	5.60	.55	5.00	6.00	5	research expenses
LIBRARY	5.80	.45	5.00	6.00	5	access to library

Process-Ways of working

Number of valid observations (listwise) = 5.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
INDEPEND	4.80	1.30	3.00	6.00	5	working independently
COLLABO	4.80	.84	4.00	6.00	5	collaborating with ot
JOINT	5.00	.71	4.00	6.00	5	joint working

Ranked mean responses for all doctoral graduates at Bristol University

Purpose-Purpose

Number of valid observations (listwise) = 5.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
OUT_ACAD	2.20	1.30	1.00	4.00	5	enhance career outsid
FUNDING	2.83	2.23	1.00	6.00	6	availability of fundi
IN_ACADE	3.60	1.82	2.00	6.00	5	enhance career prospe
CONTRIBU	4.00	1.87	2.00	6.00	5	contribution of the f
RE_SKILL	4.60	1.14	3.00	6.00	5	development of resear
ACAD_PRE	4.83	1.17	3.00	6.00	6	gaining academic pres
SP_KNOWL	5.00	1.41	3.00	6.00	5	specialist knowledge
PERS_DEV	6.00	.00	6.00	6.00	6	personal development

Purpose-Definition

Number of valid observations (listwise) = 5.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
LIFETIME	2.00	1.73	1.00	5.00	5	lifetimes work
TEACH	2.17	2.04	1.00	6.00	6	ability to teach
INITIATE	3.33	2.25	1.00	6.00	6	initiation of a career
COLLAB	3.67	1.97	1.00	6.00	6	work collaboratively
DISTINCT	4.83	1.94	1.00	6.00	6	distinctive level
SIGNIFIC	5.00	1.67	2.00	6.00	6	significant contribut
APPRENTI	5.00	.89	4.00	6.00	6	academic apprenticesh
TRAINING	5.00	.89	4.00	6.00	6	training in research
AUTONOM	5.17	1.17	3.00	6.00	6	work autonomously

Process-Resources and Experience

Number of valid observations (listwise) = 4.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
BUSINESS	2.00	2.24	1.00	6.00	5	business training
WORK	2.40	2.19	1.00	6.00	5	work experience
TEACHING	2.50	1.87	1.00	6.00	6	teaching opportunitie
APPRAISE	2.60	2.30	1.00	6.00	5	appraisal
EXPENSES	3.00	1.90	1.00	5.00	6	research expenses
EQUIP	3.17	1.83	1.00	6.00	6	specialist equipment
CONFEREN	4.00	.89	3.00	5.00	6	conference access
STUDY	4.00	2.35	1.00	6.00	5	additional study
COMPUTIN	4.33	1.86	1.00	6.00	6	computing facilities
PERSONAL	4.83	1.94	1.00	6.00	6	personal skills devel
SUPERVIS	5.33	.82	4.00	6.00	6	regular supervision
PEER	5.33	.82	4.00	6.00	6	peer support
ENVIRON	5.60	.55	5.00	6.00	5	academic environment
LIBRARY	5.83	.41	5.00	6.00	6	access to library

Process-Ways of working

Number of valid observations (listwise) = 5.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
JOINT	4.40	1.34	3.00	6.00	5	joint working
COLLABO	4.67	1.37	3.00	6.00	6	collaborating with ot
INDEPEND	5.50	.55	5.00	6.00	6	working independently

Ranked mean responses for all doctoral graduates from NIMR

Purpose-Purpose

Number of valid observations (listwise) = 6.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
OUT_ACAD	3.17	1.60	2.00	6.00	6	enhance career outsid
CONTRIBU	3.33	.82	2.00	4.00	6	contribution of the f
ACAD_PRE	3.67	1.21	2.00	5.00	6	gaining academic pres
SP_KNOWL	3.83	1.47	2.00	6.00	6	specialist knowledge
FUNDING	4.17	1.17	3.00	6.00	6	availibility of fundi
IN_ACADE	4.33	1.37	2.00	6.00	6	enhance career prospe
RE_SKILL	4.83	.98	3.00	6.00	6	development of resear
PERS_DEV	5.00	.89	4.00	6.00	6	personal development

Purpose-Definition

Number of valid observations (listwise) = 6.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
LIFETIME	2.50	.55	2.00	3.00	6	lifetimes work
TEACH	3.00	1.26	2.00	5.00	6	ability to teach
DISTINCT	3.50	1.38	2.00	5.00	6	distinctive level
SIGNIFIC	4.00	.89	3.00	5.00	6	significant contribut
INITIATE	4.50	1.05	3.00	6.00	6	initiation of a career
AUTONOM	5.00	.63	4.00	6.00	6	work autonomously
APPRENTI	5.17	.75	4.00	6.00	6	academic apprenticesh
TRAINING	5.33	.52	5.00	6.00	6	training in research
COLLAB	5.50	.55	5.00	6.00	6	work collaboratively

Process-Resources and Experience

Number of valid observations (listwise) = 6.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
BUSINESS	2.33	1.03	1.00	4.00	6	business training
TEACHING	2.67	1.03	1.00	4.00	6	teaching opportunitie
STUDY	2.83	1.17	1.00	4.00	6	additional study
CONFEREN	3.83	.98	2.00	5.00	6	conference access
PERSONAL	3.83	1.17	2.00	5.00	6	personal skills devel
APPRAISE	4.33	1.03	3.00	6.00	6	appraisal
WORK	4.33	.52	4.00	5.00	6	work experience
COMPUTIN	5.00	1.55	3.00	6.00	6	computing facilities
PEER	5.00	.89	4.00	6.00	6	peer support
ENVIRON	5.00	.63	4.00	6.00	6	academic environment
SUPERVIS	5.17	.75	4.00	6.00	6	regular supervision
EXPENSES	5.33	1.21	3.00	6.00	6	research expenses
LIBRARY	5.67	.82	4.00	6.00	6	access to library
EQUIP	5.67	.52	5.00	6.00	6	specialist equipment

Process-Ways of working

Number of valid observations (listwise) = 6.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
JOINT	5.17	.98	4.00	6.00	6	joint working
COLLABO	5.33	.82	4.00	6.00	6	collaborating with ot
INDEPEND	5.50	.55	5.00	6.00	6	working independently

Ranked mean responses for all doctoral students by subject area
01 Dec 98 SPSS for MS WINDOWS Release 6.1

Ranked mean responses for all doctoral students doing social science

Purpose-Purpose
 Number of valid observations (listwise) = 4.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
FUNDING	2.50	2.38	1.00	6.00	4	availability of fundi
IN_ACADE	3.00	2.16	1.00	6.00	4	enhance career prospe
OUT_ACAD	4.00	.82	3.00	5.00	4	enhance career outsid
RE_SKILL	4.50	1.29	3.00	6.00	4	development of resear
ACAD_PRE	5.00	1.41	3.00	6.00	4	gaining academic pres
CONTRIBU	5.25	.96	4.00	6.00	4	contribution of the f
SP_KNOWL	5.50	1.00	4.00	6.00	4	specialist knowledge
PERS_DEV	6.00	.00	6.00	6.00	4	personal development

Purpose-Definition
 Number of valid observations (listwise) = 3.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
TEACH	2.75	2.06	1.00	5.00	4	ability to teach
COLLAB	3.00	.82	2.00	4.00	4	work collaboratively
APPRENTI	3.50	1.91	2.00	6.00	4	academic apprenticesh
INITIATE	3.50	1.73	1.00	5.00	4	initation of a career
LIFETIME	4.00	2.45	1.00	6.00	4	lifetimes work
TRAINING	4.25	1.26	3.00	6.00	4	training in research
DISTINCT	5.00	1.73	3.00	6.00	3	distinctive level
AUTONOM	5.25	.50	5.00	6.00	4	work autonomously
SIGNIFIC	5.50	1.00	4.00	6.00	4	significant contribut

Process-Resources and Experience
 Number of valid observations (listwise) = 1.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
BUSINESS	1.00	.00	1.00	1.00	4	business training
STUDY	1.33	.58	1.00	2.00	3	additional study
TEACHING	2.00	.82	1.00	3.00	4	teaching opportunitie
CONFEREN	3.25	.96	2.00	4.00	4	conference access
APPRAISE	3.33	1.15	2.00	4.00	3	appraisal
EQUIP	3.50	2.08	1.00	6.00	4	specialist equipment
COMPUTIN	3.67	1.15	3.00	5.00	3	computing facilities
WORK	3.67	1.53	2.00	5.00	3	work experience
EXPENSES	3.75	1.26	2.00	5.00	4	research expenses
PEER	3.75	.50	3.00	4.00	4	peer support
ENVIRON	4.25	.50	4.00	5.00	4	academic environment
PERSONAL	4.25	1.26	3.00	6.00	4	personal skills devel
LIBRARY	5.50	.58	5.00	6.00	4	access to library
SUPERVIS	5.75	.50	5.00	6.00	4	regular supervision

Process-Ways of working
 Number of valid observations (listwise) = 4.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
JOINT	3.00	.82	2.00	4.00	4	joint working
COLLABO	3.25	.50	3.00	4.00	4	collaborating with ot

INDEPEND 5.75 .50 5.00 6.00 4 working independently

Ranked mean responses for all doctoral graduates doing education

Purpose-Purpose

Number of valid observations (listwise) = 6.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
FUNDING	2.57	2.15	1.00	6.00	7	availability of fundi
OUT_ACADE	2.83	1.94	1.00	6.00	6	enhance career outsid
IN_ACADE	4.00	1.90	2.00	6.00	6	enhance career prospe
CONTRIBU	4.33	1.86	2.00	6.00	6	contribution of the f
RE_SKILL	4.83	1.17	3.00	6.00	6	development of resear
ACAD_PRE	5.00	1.15	3.00	6.00	7	gaining academic pres
SP_KNOWL	5.17	1.33	3.00	6.00	6	specialist knowledge
PERS_DEV	6.00	.00	6.00	6.00	7	personal development

Purpose-Definition

Number of valid observations (listwise) = 6.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
TEACH	2.00	1.91	1.00	6.00	7	ability to teach
LIFETIME	2.50	1.97	1.00	5.00	6	lifetimes work
INITIATE	3.14	2.12	1.00	6.00	7	initiation of a career
COLLAB	3.71	1.80	1.00	6.00	7	work collaboratively
TRAINING	4.71	1.11	3.00	6.00	7	training in research
DISTINCT	4.86	1.77	1.00	6.00	7	distinctive level
AUTONOM	4.86	1.35	3.00	6.00	7	work autonomously
APPRENTI	5.00	.82	4.00	6.00	7	academic apprenticesh
SIGNIFIC	5.14	1.57	2.00	6.00	7	significant contribut

Process-Resources and Experience

Number of valid observations (listwise) = 5.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
BUSINESS	1.83	2.04	1.00	6.00	6	business training
TEACHING	2.57	1.72	1.00	6.00	7	teaching opportunitie
APPRAISE	2.67	2.07	1.00	6.00	6	appraisal
WORK	2.67	2.07	1.00	6.00	6	work experience
EXPENSES	3.14	1.77	1.00	5.00	7	research expenses
EQUIP	3.57	1.99	1.00	6.00	7	specialist equipment
STUDY	3.67	2.25	1.00	6.00	6	additional study
CONFEREN	4.00	.82	3.00	5.00	7	conference access
PERSONAL	4.43	2.07	1.00	6.00	7	personal skills devel
COMPUTIN	4.57	1.81	1.00	6.00	7	computing facilities
PEER	5.14	.90	4.00	6.00	7	peer support
ENVIRON	5.33	.82	4.00	6.00	6	academic environment
SUPERVIS	5.43	.79	4.00	6.00	7	regular supervision
LIBRARY	5.86	.38	5.00	6.00	7	access to library

Process-Ways of working

Number of valid observations (listwise) = 6.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
JOINT	4.00	1.55	2.00	6.00	6	joint working
COLLABO	4.29	1.60	2.00	6.00	7	collaborating with ot
INDEPEND	5.14	1.07	3.00	6.00	7	working independently

Ranked mean responses for all doctoral graduates doing science

Purpose-Purpose

Number of valid observations (listwise) = 13.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
OUT_ACAD	4.08	1.66	2.00	6.00	13	enhance career outsid
ACAD_PRE	4.15	1.46	2.00	6.00	13	gaining academic pres
CONTRIBU	4.15	1.21	2.00	6.00	13	contribution of the f
SP_KNOWL	4.31	1.18	2.00	6.00	13	specialist knowledge
IN_ACADE	4.31	1.32	2.00	6.00	13	enhance career prospe
PERS_DEV	4.85	.99	3.00	6.00	13	personal development
FUNDING	4.92	1.12	3.00	6.00	13	availability of fundi
RE_SKILL	5.31	.85	3.00	6.00	13	development of resear

Purpose-Definition

Number of valid observations (listwise) = 13.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
LIFETIME	2.46	.88	1.00	4.00	13	lifetimes work
TEACH	3.23	1.30	2.00	5.00	13	ability to teach
INITIATE	4.15	1.52	1.00	6.00	13	initiation of a career
APPRENTI	4.31	1.55	1.00	6.00	13	academic apprenticesh
DISTINCT	4.38	1.33	2.00	6.00	13	distinctive level
SIGNIFIC	4.54	1.13	3.00	6.00	13	significant contribut
AUTONOM	4.85	.80	3.00	6.00	13	work autonomously
COLLAB	5.31	.75	4.00	6.00	13	work collaboratively
TRAINING	5.31	.63	4.00	6.00	13	training in research

Process-Resources and Experience

Number of valid observations (listwise) = 13.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
BUSINESS	2.77	1.24	1.00	5.00	13	business training
TEACHING	3.00	1.08	1.00	5.00	13	teaching opportunitie
STUDY	3.23	1.17	1.00	5.00	13	additional study
CONFEREN	4.08	1.04	2.00	6.00	13	conference access
APPRAISE	4.08	.86	3.00	6.00	13	appraisal
PERSONAL	4.15	.99	2.00	5.00	13	personal skills devel
WORK	4.15	.80	2.00	5.00	13	work experience
PEER	4.54	1.33	1.00	6.00	13	peer support
ENVIRON	4.54	.88	3.00	6.00	13	academic environment
COMPUTIN	5.15	1.07	3.00	6.00	13	computing facilities
SUPERVIS	5.15	.80	4.00	6.00	13	regular supervision
EXPENSES	5.23	1.09	3.00	6.00	13	research expenses
EQUIP	5.38	.65	4.00	6.00	13	specialist equipment
LIBRARY	5.69	.63	4.00	6.00	13	access to library

Process-Ways of working

Number of valid observations (listwise) = 13.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
JOINT	4.92	.86	4.00	6.00	13	joint working
COLLABO	4.92	.86	4.00	6.00	13	collaborating with ot
INDEPEND	5.15	.99	3.00	6.00	13	working independently

Ranked mean responses for all doctoral students by mode
01 Dec 98 SPSS for MS WINDOWS Release 6.1

Ranked mean responses for all full-time doctoral graduates

Purpose

Number of valid observations (listwise) = 15.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
OUT_ACAD	3.93	1.62	2.00	6.00	15	enhance career outsid
CONTRIBU	4.07	1.28	2.00	6.00	15	contribution of the f
ACAD_PRE	4.20	1.47	2.00	6.00	15	gaining academic pres
IN_ACADE	4.27	1.44	2.00	6.00	15	enhance career prospe
SP_KNOWL	4.40	1.18	2.00	6.00	15	specialist knowledge
FUNDING	4.87	1.19	3.00	6.00	15	availibility of fundi
PERS_DEV	5.00	1.00	3.00	6.00	15	personal development
RE_SKILL	5.27	.88	3.00	6.00	15	development of resear

Purpose-Definition

Number of valid observations (listwise) = 15.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
LIFETIME	2.33	.90	1.00	4.00	15	lifetimes work
TEACH	3.13	1.36	1.00	5.00	15	ability to teach
INITIATE	3.93	1.62	1.00	6.00	15	initiation of a career
SIGNIFIC	4.47	1.30	2.00	6.00	15	significant contribut
APPRENTI	4.47	1.51	1.00	6.00	15	academic apprenticesh
DISTINCT	4.53	1.30	2.00	6.00	15	distinctive level
AUTONOM	4.80	.94	3.00	6.00	15	work autonomously
COLLAB	5.07	.96	3.00	6.00	15	work collaboratively
TRAINING	5.27	.70	4.00	6.00	15	training in research

Process-Resources and Experience

Number of valid observations (listwise) = 14.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
BUSINESS	2.53	1.30	1.00	5.00	15	business training
TEACHING	2.80	1.15	1.00	5.00	15	teaching opportunitie
STUDY	2.93	1.33	1.00	5.00	15	additional study
WORK	3.80	1.21	1.00	5.00	15	work experience
APPRAISE	3.87	1.13	1.00	6.00	15	appraisal
CONFEREN	4.00	1.00	2.00	6.00	15	conference access
PERSONAL	4.20	.94	2.00	5.00	15	personal skills devel
PEER	4.53	1.25	1.00	6.00	15	peer support
ENVIRON	4.53	.83	3.00	6.00	15	academic environment
COMPUTIN	5.07	1.07	3.00	6.00	14	computing facilities
SUPERVIS	5.13	.74	4.00	6.00	15	regular supervision
EXPENSES	5.13	1.06	3.00	6.00	15	research expenses
EQUIP	5.20	1.08	2.00	6.00	15	specialist equipment
LIBRARY	5.60	.63	4.00	6.00	15	access to library

Process-Ways of working

Number of valid observations (listwise) = 15.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
JOINT	4.73	.96	3.00	6.00	15	joint working
COLLABO	4.73	.96	3.00	6.00	15	collaborating with ot

INDEPEND 5.20 .94 3.00 6.00 15 working independently

Ranked mean responses for all part-time doctoral graduates

Purpose-Purpose

Number of valid observations (listwise) = 11.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
FUNDING	2.08	1.73	1.00	6.00	12	availability of fundi
OUT_ACAD	3.09	1.70	1.00	6.00	11	enhance career outsid
IN_ACADE	3.55	1.97	1.00	6.00	11	enhance career prospe
RE_SKILL	4.45	1.04	3.00	6.00	11	development of resear
ACAD_PRE	4.58	1.51	1.00	6.00	12	gaining academic pres
CONTRIBU	5.09	1.22	3.00	6.00	11	contribution of the f
SP_KNOWL	5.18	1.08	3.00	6.00	11	specialist knowledge
PERS_DEV	5.75	.62	4.00	6.00	12	personal development

Purpose-Definition

Number of valid observations (listwise) = 10.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
TEACH	2.33	1.83	1.00	6.00	12	ability to teach
COLLAB	3.25	1.71	1.00	6.00	12	work collaboratively
LIFETIME	3.55	2.02	1.00	6.00	11	lifetimes work
INITIATE	3.67	1.78	1.00	6.00	12	initiation of a career
TRAINING	4.08	1.24	2.00	6.00	12	training in research
APPRENTI	4.17	1.34	2.00	6.00	12	academic apprenticesh
DISTINCT	4.55	1.63	1.00	6.00	11	distinctive level
AUTONOM	5.17	.83	3.00	6.00	12	work autonomously
SIGNIFIC	5.42	.90	4.00	6.00	12	significant contribut

Process-Resources and Experience

Number of valid observations (listwise) = 8.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
BUSINESS	1.91	1.64	1.00	6.00	11	business training
TEACHING	2.67	1.37	1.00	6.00	12	teaching opportunitie
EXPENSES	2.83	1.53	1.00	5.00	12	research expenses
APPRAISE	3.10	1.60	1.00	6.00	10	appraisal
WORK	3.20	1.69	1.00	6.00	10	work experience
STUDY	3.30	1.95	1.00	6.00	10	additional study
CONFEREN	3.42	1.16	1.00	5.00	12	conference access
EQUIP	3.50	1.83	1.00	6.00	12	specialist equipment
PEER	3.92	1.73	1.00	6.00	12	peer support
PERSONAL	4.25	1.71	1.00	6.00	12	personal skills devel
ENVIRON	4.27	1.49	2.00	6.00	11	academic environment
COMPUTIN	4.42	1.56	1.00	6.00	12	computing facilities
SUPERVIS	5.42	1.00	3.00	6.00	12	regular supervision
LIBRARY	5.92	.29	5.00	6.00	12	access to library

Process-Ways of working

Number of valid observations (listwise) = 11.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
JOINT	3.36	1.86	1.00	6.00	11	joint working
COLLABO	3.67	1.87	1.00	6.00	12	collaborating with ot
INDEPEND	5.25	.97	3.00	6.00	12	working independently

Ranked mean responses for all full-time distance learning doctoral graduates

Statistics can not be computed for any of the requested variables.

All variables were either missing or alphanumeric.

Ranked mean responses for all part-time distance learning doctoral graduates

Statistics can not be computed for any of the requested variables.

All variables were either missing or alphanumeric.

Ranked mean responses for all doctoral graduates by source of finance
01 Dec 98 SPSS for MS WINDOWS Release 6.1

Ranked mean responses for all self funded doctoral graduates

Purpose-Purpose
 Number of valid observations (listwise) = 8.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
FUNDING	1.75	1.39	1.00	5.00	8	availability of fundi
OUT_ACADE	2.75	1.91	1.00	6.00	8	enhance career outsid
IN_ACADE	4.00	2.00	1.00	6.00	8	enhance career prospe
ACAD_PRE	4.25	1.67	1.00	6.00	8	gaining academic pres
RE_SKILL	4.38	1.19	3.00	6.00	8	development of resear
CONTRIBU	4.88	1.36	3.00	6.00	8	contribution of the f
SP_KNOWL	5.13	1.13	3.00	6.00	8	specialist knowledge
PERS_DEV	5.88	.35	5.00	6.00	8	personal development

Purpose-Definition
 Number of valid observations (listwise) = 7.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
TEACH	1.75	1.49	1.00	5.00	8	ability to teach
LIFETIME	3.00	2.07	1.00	6.00	8	lifetimes work
COLLAB	3.13	1.73	1.00	6.00	8	work collaboratively
TRAINING	3.88	1.36	2.00	6.00	8	training in research
APPRENTI	4.38	1.19	2.00	6.00	8	academic apprenticesh
INITIATE	4.63	1.19	2.00	6.00	8	initiation of a career
DISTINCT	4.71	1.25	3.00	6.00	7	distinctive level
AUTONOM	5.13	.99	3.00	6.00	8	work autonomously
SIGNIFIC	5.25	1.04	4.00	6.00	8	significant contribut

Process-Resources and Experience
 Number of valid observations (listwise) = 5.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
BUSINESS	1.29	.49	1.00	2.00	7	business training
TEACHING	2.62	1.60	1.00	6.00	8	teaching opportunitie
EXPENSES	2.63	1.60	1.00	5.00	8	research expenses
APPRAISE	3.00	1.79	1.00	6.00	6	appraisal
EQUIP	3.00	2.00	1.00	6.00	8	specialist equipment
CONFEREN	3.25	1.28	1.00	5.00	8	conference access
WORK	3.43	1.81	1.00	6.00	7	work experience
STUDY	3.50	2.17	1.00	6.00	6	additional study
PEER	3.63	1.92	1.00	6.00	8	peer support
ENVIRON	3.86	1.46	2.00	6.00	7	academic environment
PERSONAL	4.00	2.00	1.00	6.00	8	personal skills devel
COMPUTIN	4.75	1.16	3.00	6.00	8	computing facilities
SUPERVIS	5.25	1.16	3.00	6.00	8	regular supervision
LIBRARY	6.00	.00	6.00	6.00	8	access to library

Process-Ways of working
 Number of valid observations (listwise) = 7.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
JOINT	2.57	1.72	1.00	6.00	7	joint working
COLLABO	3.13	1.96	1.00	6.00	8	collaborating with ot

INDEPEND 5.13 1.13 3.00 6.00 8 working independently

Ranked mean responses for all research council funded doctoral graduates

Purpose-Purpose

Number of valid observations (listwise) = 11.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
ACAD_PRE	4.18	1.33	2.00	6.00	11	gaining academic pres
CONTRIBU	4.18	.98	3.00	6.00	11	contribution of the f
SP_KNOWL	4.45	1.21	2.00	6.00	11	specialist knowledge
IN_ACADE	4.45	1.21	2.00	6.00	11	enhance career prospe
OUT_ACADE	4.45	1.51	2.00	6.00	11	enhance career outsid
FUNDING	4.82	1.17	3.00	6.00	11	availability of fundi
PERS_DEV	5.09	.83	4.00	6.00	11	personal development
RE_SKILL	5.27	.90	3.00	6.00	11	development of resear

Purpose-Definition

Number of valid observations (listwise) = 11.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
LIFETIME	2.64	.81	1.00	4.00	11	lifetimes work
TEACH	3.36	1.36	2.00	5.00	11	ability to teach
INITIATE	4.36	1.57	1.00	6.00	11	initiation of a career
SIGNIFIC	4.55	1.21	3.00	6.00	11	significant contribut
APPRENTI	4.55	1.29	2.00	6.00	11	academic apprenticesh
DISTINCT	4.55	1.21	2.00	6.00	11	distinctive level
AUTONOM	4.82	.87	3.00	6.00	11	work autonomously
COLLAB	5.36	.81	4.00	6.00	11	work collaboratively
TRAINING	5.45	.52	5.00	6.00	11	training in research

Process-Resources and Experience

Number of valid observations (listwise) = 11.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
BUSINESS	2.82	1.33	1.00	5.00	11	business training
TEACHING	3.18	1.08	1.00	5.00	11	teaching opportunitie
STUDY	3.27	1.19	1.00	5.00	11	additional study
CONFEREN	4.18	1.08	2.00	6.00	11	conference access
PERSONAL	4.18	.98	2.00	5.00	11	personal skills devel
WORK	4.18	.87	2.00	5.00	11	work experience
APPRAISE	4.27	.79	3.00	6.00	11	appraisal
ENVIRON	4.55	.93	3.00	6.00	11	academic environment
PEER	4.73	.79	3.00	6.00	11	peer support
COMPUTIN	5.09	1.14	3.00	6.00	11	computing facilities
SUPERVIS	5.18	.75	4.00	6.00	11	regular supervision
EXPENSES	5.18	1.17	3.00	6.00	11	research expenses
EQUIP	5.27	.65	4.00	6.00	11	specialist equipment
LIBRARY	5.64	.67	4.00	6.00	11	access to library

Process-Ways of working

Number of valid observations (listwise) = 11.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
COLLABO	4.91	.83	4.00	6.00	11	collaborating with ot
JOINT	5.00	.89	4.00	6.00	11	joint working
INDEPEND	5.27	.79	4.00	6.00	11	working independently

Ranked mean responses for all institutional bursary funded doctoral graduates

Purpose-Purpose

Number of valid observations (listwise) = 4.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
OUT_ACAD	3.00	1.15	2.00	4.00	4	enhance career outsid
PERS_DEV	4.25	1.26	3.00	6.00	4	personal development
SP_KNOWL	4.25	1.26	3.00	6.00	4	specialist knowledge
IN_ACADE	4.25	1.71	2.00	6.00	4	enhance career prospe
ACAD_PRE	4.50	1.91	2.00	6.00	4	gaining academic pres
CONTRIBU	4.50	1.73	2.00	6.00	4	contribution of the f
FUNDING	5.00	1.41	3.00	6.00	4	availability of fundi
RE_SKILL	5.25	.96	4.00	6.00	4	development of resear

Purpose-Definition

Number of valid observations (listwise) = 4.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
LIFETIME	2.00	1.41	1.00	4.00	4	lifetimes work
INITIATE	3.25	.50	3.00	4.00	4	initiation of a career
TEACH	3.25	.96	2.00	4.00	4	ability to teach
APPRENTI	3.75	2.22	1.00	6.00	4	academic apprenticesh
DISTINCT	4.25	1.71	2.00	6.00	4	distinctive level
TRAINING	4.75	.96	4.00	6.00	4	training in research
COLLAB	4.75	.50	4.00	5.00	4	work collaboratively
SIGNIFIC	5.00	.82	4.00	6.00	4	significant contribut
AUTONOM	5.25	.50	5.00	6.00	4	work autonomously

Process-Resources and Experience

Number of valid observations (listwise) = 3.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
TEACHING	2.50	1.00	2.00	4.00	4	teaching opportunitie
BUSINESS	2.50	1.29	1.00	4.00	4	business training
STUDY	2.75	1.50	1.00	4.00	4	additional study
CONFEREN	3.50	.58	3.00	4.00	4	conference access
PEER	3.50	2.08	1.00	6.00	4	peer support
APPRAISE	3.50	.58	3.00	4.00	4	appraisal
WORK	3.50	1.00	2.00	4.00	4	work experience
ENVIRON	4.00	.82	3.00	5.00	4	academic environment
PERSONAL	4.00	.82	3.00	5.00	4	personal skills devel
EXPENSES	4.50	1.73	2.00	6.00	4	research expenses
SUPERVIS	5.25	.96	4.00	6.00	4	regular supervision
COMPUTIN	5.67	.58	5.00	6.00	3	computing facilities
LIBRARY	5.75	.50	5.00	6.00	4	access to library
EQUIP	6.00	.00	6.00	6.00	4	specialist equipment

Process-Ways of working

Number of valid observations (listwise) = 4.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
JOINT	4.75	.96	4.00	6.00	4	joint working
COLLABO	5.00	1.15	4.00	6.00	4	collaborating with ot
INDEPEND	5.25	1.50	3.00	6.00	4	working independently

Ranked mean responses for all employer funded doctoral graduates

Purpose-Purpose

Number of valid observations (listwise) = 3.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
IN_ACADE	1.67	.58	1.00	2.00	3	enhance career prosp
FUNDING	2.75	2.36	1.00	6.00	4	availability of fundi
OUT_ACAD	3.33	1.15	2.00	4.00	3	enhance career outsid
RE_SKILL	4.67	.58	4.00	5.00	3	development of resear
CONTRIBU	4.67	2.31	2.00	6.00	3	contribution of the f
ACAD_PRE	5.00	1.41	3.00	6.00	4	gaining academic pres
SP_KNOWL	5.33	1.15	4.00	6.00	3	specialist knowledge
PERS_DEV	6.00	.00	6.00	6.00	4	personal development

Purpose-Definition

Number of valid observations (listwise) = 3.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
INITIATE	1.25	.50	1.00	2.00	4	initiation of a career
TEACH	2.75	2.36	1.00	6.00	4	ability to teach
COLLAB	3.00	1.63	1.00	5.00	4	work collaboratively
APPRENTI	4.25	1.71	2.00	6.00	4	academic apprenticesh
LIFETIME	4.33	2.08	2.00	6.00	3	lifetimes work
TRAINING	4.50	1.00	4.00	6.00	4	training in research
DISTINCT	4.50	2.38	1.00	6.00	4	distinctive level
AUTONOM	4.75	1.26	3.00	6.00	4	work autonomously
SIGNIFIC	5.00	2.00	2.00	6.00	4	significant contribut

Process-Resources and Experience

Number of valid observations (listwise) = 3.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
WORK	1.67	1.15	1.00	3.00	3	work experience
TEACHING	2.00	.82	1.00	3.00	4	teaching opportunitie
STUDY	2.25	1.89	1.00	5.00	4	additional study
BUSINESS	2.25	2.50	1.00	6.00	4	business training
APPRAISE	2.50	1.73	1.00	4.00	4	appraisal
COMPUTIN	3.25	1.71	1.00	5.00	4	computing facilities
EQUIP	3.50	1.00	2.00	4.00	4	specialist equippmen
EXPENSES	3.75	1.26	2.00	5.00	4	research expenses
CONFEREN	3.75	.96	3.00	5.00	4	conference access
PEER	5.00	.82	4.00	6.00	4	peer support
PERSONAL	5.00	.82	4.00	6.00	4	personal skills devel
LIBRARY	5.50	.58	5.00	6.00	4	access to library
SUPERVIS	5.50	.58	5.00	6.00	4	regular supervision
ENVIRON	5.50	.58	5.00	6.00	4	academic environment

Process-Ways of working

Number of valid observations (listwise) = 4.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
JOINT	4.00	1.15	3.00	5.00	4	joint working
COLLABO	4.00	1.15	3.00	5.00	4	collaborating with ot
INDEPEND	5.25	.50	5.00	6.00	4	working independently

Ranked mean responses for all doctoral graduates by age
01 Dec 98 SPSS for MS WINDOWS Release 6.1

Ranked mean responses for all under 25 doctoral graduates

Purpose-Purpose
 Number of valid observations (listwise) = 2.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
SP_KNOWL	4.00	1.41	3.00	5.00	2	specialist knowledge
CONTRIBU	4.50	2.12	3.00	6.00	2	contribution of the f
IN_ACADE	4.50	.71	4.00	5.00	2	enhance career prospe
FUNDING	5.00	1.41	4.00	6.00	2	availability of fundi
OUT_ACAD	5.00	1.41	4.00	6.00	2	enhance career outsid
PERS_DEV	5.50	.71	5.00	6.00	2	personal development
ACAD_PRE	5.50	.71	5.00	6.00	2	gaining academic pres
RE_SKILL	5.50	.71	5.00	6.00	2	development of resear

Purpose-Definition
 Number of valid observations (listwise) = 2.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
LIFETIME	2.50	.71	2.00	3.00	2	lifetimes work
TEACH	3.50	2.12	2.00	5.00	2	ability to teach
DISTINCT	4.00	2.83	2.00	6.00	2	distinctive level
AUTONOM	4.00	.00	4.00	4.00	2	work autonomously
SIGNIFIC	4.50	2.12	3.00	6.00	2	significant contribut
APPRENTI	5.00	.00	5.00	5.00	2	academic apprenticesh
TRAINING	5.50	.71	5.00	6.00	2	training in research
INITIATE	5.50	.71	5.00	6.00	2	initiation of a career
COLLAB	5.50	.71	5.00	6.00	2	work collaboratively

Process-Resources and Experience
 Number of valid observations (listwise) = 2.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
BUSINESS	2.50	.71	2.00	3.00	2	business training
TEACHING	3.00	.00	3.00	3.00	2	teaching opportunitie
ENVIRON	3.50	.71	3.00	4.00	2	academic environment
STUDY	3.50	.71	3.00	4.00	2	additional study
SUPERVIS	4.50	.71	4.00	5.00	2	regular supervision
PEER	4.50	.71	4.00	5.00	2	peer support
PERSONAL	5.00	.00	5.00	5.00	2	personal skills devel
APPRAISE	5.00	.00	5.00	5.00	2	appraisal
WORK	5.00	.00	5.00	5.00	2	work experience
COMPUTIN	5.50	.71	5.00	6.00	2	computing facilities
EQUIP	5.50	.71	5.00	6.00	2	specialist equipment
CONFEREN	5.50	.71	5.00	6.00	2	conference access
LIBRARY	6.00	.00	6.00	6.00	2	access to library
EXPENSES	6.00	.00	6.00	6.00	2	research expenses

Process-Ways of working
 Number of valid observations (listwise) = 2.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
INDEPEND	5.50	.71	5.00	6.00	2	working independently
JOINT	6.00	.00	6.00	6.00	2	joint working
COLLABO	6.00	.00	6.00	6.00	2	collaborating with others

Ranked mean responses and graduates 25-30

Purpose

Number of valid observations (listwise) = 8.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
ACAD_PRE	3.63	1.06	2.00	5.00	8	gaining academic pres
CONTRIBU	4.13	.83	3.00	6.00	8	contribution of the f
OUT_ACAD	4.25	1.67	2.00	6.00	8	enhance career outsid
IN_ACADE	4.38	1.41	2.00	6.00	8	enhance career prospe
SP_KNOWL	4.50	1.31	2.00	6.00	8	specialist knowledge
FUNDING	4.63	1.19	3.00	6.00	8	availability of fundi
PERS_DEV	4.88	.83	4.00	6.00	8	personal development
RE_SKILL	5.25	1.04	3.00	6.00	8	development of resear

Definition

Number of valid observations (listwise) = 8.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
LIFETIME	2.50	.76	1.00	3.00	8	lifetimes work
TEACH	3.25	1.39	2.00	5.00	8	ability to teach
INITIATE	4.00	1.69	1.00	6.00	8	initiation of a career
APPRENTI	4.50	1.51	2.00	6.00	8	academic apprenticesh
SIGNIFIC	4.63	1.19	3.00	6.00	8	significant contribut
DISTINCT	4.63	.92	3.00	6.00	8	distinctive level
AUTONOM	5.00	.93	3.00	6.00	8	work autonomously
TRAINING	5.50	.53	5.00	6.00	8	training in research
COLLAB	5.50	.76	4.00	6.00	8	work collaboratively

Resources and Experiences

Number of valid observations (listwise) = 8.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
BUSINESS	2.75	1.49	1.00	5.00	8	business training
STUDY	3.13	1.36	1.00	5.00	8	additional study
TEACHING	3.13	1.25	1.00	5.00	8	teaching opportunitie
CONFEREN	3.75	.89	2.00	5.00	8	conference access
PERSONAL	3.87	.99	2.00	5.00	8	personal skills devel
WORK	3.88	.83	2.00	5.00	8	work experience
APPRAISE	4.13	.83	3.00	6.00	8	appraisal
PEER	4.75	.89	3.00	6.00	8	peer support
ENVIRON	4.75	.89	3.00	6.00	8	academic environment
EXPENSES	4.88	1.25	3.00	6.00	8	research expenses
COMPUTIN	5.00	1.31	3.00	6.00	8	computing facilities
SUPERVIS	5.25	.71	4.00	6.00	8	regular supervision
EQUIP	5.25	.71	4.00	6.00	8	specialist equipment
LIBRARY	5.63	.74	4.00	6.00	8	access to library

Ways of working

Number of valid observations (listwise) = 8.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
COLLABO	4.63	.74	4.00	6.00	8	collaborating with ot
JOINT	4.75	.89	4.00	6.00	8	joint working
INDEPEND	5.25	.89	4.00	6.00	8	working independently

Ranked mean responses and graduates 31-40

Purpose

Number of valid observations (listwise) = 8.00

Variable	Mean	Std Dev	Valid			N	Label
			Minimum	Maximum			
OUT_ACAD	2.75	1.49	1.00	5.00	8	enhance career outsid	
IN_ACADE	4.13	1.89	1.00	6.00	8	enhance career prospe	
FUNDING	4.22	2.22	1.00	6.00	9	availability of fundi	
CONTRIBU	4.75	1.58	2.00	6.00	8	contribution of the f	
SP_KNOWL	4.88	1.36	3.00	6.00	8	specialist knowledge	
RE_SKILL	5.00	1.07	3.00	6.00	8	development of resear	
ACAD_PRE	5.33	1.32	2.00	6.00	9	gaining academic pres	
PERS_DEV	5.44	1.13	3.00	6.00	9	personal development	

Definition

Number of valid observations (listwise) = 7.00

Variable	Mean	Std Dev	Valid			N	Label
			Minimum	Maximum			
TEACH	2.56	1.81	1.00	6.00	9	ability to teach	
LIFETIME	2.75	2.25	1.00	6.00	8	lifetimes work	
INITIATE	3.67	1.80	1.00	6.00	9	initiation of a career	
COLLAB	3.89	1.62	1.00	6.00	9	work collaboratively	
APPRENTI	4.22	1.79	1.00	6.00	9	academic apprenticesh	
DISTINCT	4.50	1.93	1.00	6.00	8	distinctive level	
TRAINING	5.00	.87	4.00	6.00	9	training in research	
SIGNIFIC	5.22	.97	4.00	6.00	9	significant contribut	
AUTONOM	5.33	.50	5.00	6.00	9	work autonomously	

Resources and Experiences

Number of valid observations (listwise) = 5.00

Variable	Mean	Std Dev	Valid			N	Label
			Minimum	Maximum			
BUSINESS	1.67	1.12	1.00	4.00	9	business training	
TEACHING	2.56	1.51	1.00	6.00	9	teaching opportunitie	
STUDY	2.86	1.86	1.00	6.00	7	additional study	
APPRAISE	3.25	1.67	1.00	6.00	8	appraisal	
WORK	3.38	1.85	1.00	6.00	8	work experience	
PERSONAL	4.00	1.50	1.00	6.00	9	personal skills devel	
CONFEREN	4.11	.78	3.00	5.00	9	conference access	
COMPUTIN	4.13	1.73	1.00	6.00	8	computing facilities	
EQUIP	4.44	1.88	1.00	6.00	9	specialist equipment	
PEER	4.44	1.59	1.00	6.00	9	peer support	
EXPENSES	4.56	1.51	1.00	6.00	9	research expenses	
ENVIRON	4.88	.83	4.00	6.00	8	academic environment	
SUPERVIS	5.44	.88	4.00	6.00	9	regular supervision	
LIBRARY	5.67	.50	5.00	6.00	9	access to library	

Ways of working

Number of valid observations (listwise) = 8.00

Variable	Mean	Std Dev	Valid			N	Label
			Minimum	Maximum			
JOINT	4.38	1.06	3.00	6.00	8	joint working	
COLLABO	4.67	1.22	3.00	6.00	9	collaborating with ot	
INDEPEND	5.44	1.01	3.00	6.00	9	working independently	

Ranked mean responses and graduates 41-60

Purpose

Number of valid observations (listwise) = 6.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
FUNDING	1.50	.84	1.00	3.00	6	availability of fundi
IN_ACADE	3.50	1.97	2.00	6.00	6	enhance career prospe
OUT_ACAD	3.67	1.63	2.00	6.00	6	enhance career outsid
ACAD_PRE	4.17	1.17	3.00	6.00	6	gaining academic pres
CONTRIBU	4.33	1.63	2.00	6.00	6	contribution of the f
RE_SKILL	4.50	1.05	3.00	6.00	6	development of resear
SP_KNOWL	5.17	.98	4.00	6.00	6	specialist knowledge
PERS_DEV	5.83	.41	5.00	6.00	6	personal development

Definition

Number of valid observations (listwise) = 6.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
TEACH	2.33	1.63	1.00	5.00	6	ability to teach
LIFETIME	3.00	1.67	1.00	5.00	6	lifetimes work
INITIATE	3.17	1.72	1.00	5.00	6	initiation of a career
COLLAB	3.17	1.17	2.00	5.00	6	work collaboratively
TRAINING	3.67	.82	3.00	5.00	6	training in research
APPRENTI	4.33	1.21	2.00	5.00	6	academic apprenticesh
SIGNIFIC	4.67	1.63	2.00	6.00	6	significant contribut
AUTONOM	4.67	1.37	3.00	6.00	6	work autonomously
DISTINCT	5.00	1.10	3.00	6.00	6	distinctive level

Resources and Experiences

Number of valid observations (listwise) = 5.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
BUSINESS	2.20	2.17	1.00	6.00	5	business training
TEACHING	2.33	1.03	1.00	3.00	6	teaching opportunitie
APPRAISE	2.40	1.14	1.00	4.00	5	appraisal
EXPENSES	2.67	1.21	1.00	4.00	6	research expenses
STUDY	2.83	2.14	1.00	6.00	6	additional study
EQUIP	3.00	1.79	1.00	6.00	6	specialist equipment
WORK	3.00	1.58	1.00	5.00	5	work experience
CONFEREN	3.17	.75	2.00	4.00	6	conference access
PEER	4.00	1.79	1.00	6.00	6	peer support
ENVIRON	4.33	1.37	2.00	6.00	6	academic environment
PERSONAL	4.67	1.75	2.00	6.00	6	personal skills devel
COMPUTIN	5.00	.89	4.00	6.00	6	computing facilities
SUPERVIS	5.17	1.17	3.00	6.00	6	regular supervision
LIBRARY	5.83	.41	5.00	6.00	6	access to library

Ways of working

Number of valid observations (listwise) = 6.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
JOINT	2.67	1.37	1.00	5.00	6	joint working
COLLABO	2.83	1.33	1.00	5.00	6	collaborating with ot
INDEPEND	4.83	.98	3.00	6.00	6	working independently

Ranked mean responses and graduates 61+

Purpose

Number of valid observations (listwise) = 2.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
FUNDING	2.00	1.41	1.00	3.00	2	availability of fundi
ACAD_PRE	2.50	2.12	1.00	4.00	2	gaining academic pres
IN_ACADE	2.50	2.12	1.00	4.00	2	enhance career prospe
OUT_ACAD	2.50	2.12	1.00	4.00	2	enhance career outsid
RE_SKILL	4.00	.00	4.00	4.00	2	development of resear
SP_KNOWL	4.50	.71	4.00	5.00	2	specialist knowledge
PERS_DEV	5.00	1.41	4.00	6.00	2	personal development
CONTRIBU	5.50	.71	5.00	6.00	2	contribution of the f

Definition

Number of valid observations (listwise) = 2.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
TEACH	2.50	2.12	1.00	4.00	2	ability to teach
TRAINING	3.00	1.41	2.00	4.00	2	training in research
COLLAB	3.00	2.83	1.00	5.00	2	work collaboratively
APPRENTI	3.50	.71	3.00	4.00	2	academic apprenticesh
DISTINCT	3.50	.71	3.00	4.00	2	distinctive level
INITIATE	4.00	1.41	3.00	5.00	2	initiation of a career
LIFETIME	4.50	.71	4.00	5.00	2	lifetimes work
AUTONOM	5.00	.00	5.00	5.00	2	work autonomously
SIGNIFIC	5.50	.71	5.00	6.00	2	significant contribut

Resources and Experiences

Number of valid observations (listwise) = 2.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
EXPENSES	1.50	.71	1.00	2.00	2	research expenses
CONFEREN	2.00	1.41	1.00	3.00	2	conference access
PEER	2.00	1.41	1.00	3.00	2	peer support
ENVIRON	2.50	.71	2.00	3.00	2	academic environment
TEACHING	3.00	1.41	2.00	4.00	2	teaching opportunitie
WORK	3.00	1.41	2.00	4.00	2	work experience
BUSINESS	3.00	1.41	2.00	4.00	2	business training
STUDY	4.00	.00	4.00	4.00	2	additional study
APPRAISE	4.00	.00	4.00	4.00	2	appraisal
EQUIP	4.50	2.12	3.00	6.00	2	specialist equipment
PERSONAL	4.50	.71	4.00	5.00	2	personal skills devel
COMPUTIN	5.00	1.41	4.00	6.00	2	computing facilities
SUPERVIS	5.50	.71	5.00	6.00	2	regular supervision
LIBRARY	6.00	.00	6.00	6.00	2	access to library

Ways of working

Number of valid observations (listwise) = 2.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
JOINT	3.50	3.54	1.00	6.00	2	joint working
COLLABO	3.50	3.54	1.00	6.00	2	collaborating with ot
INDEPEND	5.00	1.41	4.00	6.00	2	working independently

Ranked mean responses for all doctoral graduates by age

01 Dec 98 SPSS for MS WINDOWS Release 6.1

Ranked mean responses for all under 25 doctoral graduates

Purpose-Purpose

Number of valid observations (listwise) = 2.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
SP_KNOWL	4.00	1.41	3.00	5.00	2	specialist knowledge
CONTRIBU	4.50	2.12	3.00	6.00	2	contribution of the f
IN_ACADE	4.50	.71	4.00	5.00	2	enhance career prospe
FUNDING	5.00	1.41	4.00	6.00	2	availability of fundi
OUT_ACAD	5.00	1.41	4.00	6.00	2	enhance career outsid
PERS_DEV	5.50	.71	5.00	6.00	2	personal development
ACAD_PRE	5.50	.71	5.00	6.00	2	gaining academic pres
RE_SKILL	5.50	.71	5.00	6.00	2	development of resear

Purpose-Definition

Number of valid observations (listwise) = 2.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
LIFETIME	2.50	.71	2.00	3.00	2	lifetimes work
TEACH	3.50	2.12	2.00	5.00	2	ability to teach
DISTINCT	4.00	2.83	2.00	6.00	2	distinctive level
AUTONOM	4.00	.00	4.00	4.00	2	work autonomously
SIGNIFIC	4.50	2.12	3.00	6.00	2	significant contribut
APPRENTI	5.00	.00	5.00	5.00	2	academic apprenticesh
TRAINING	5.50	.71	5.00	6.00	2	training in research
INITIATE	5.50	.71	5.00	6.00	2	initiation of a career
COLLAB	5.50	.71	5.00	6.00	2	work collaboratively

Process-Resources and Experience

Number of valid observations (listwise) = 2.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
BUSINESS	2.50	.71	2.00	3.00	2	business training
TEACHING	3.00	.00	3.00	3.00	2	teaching opportunitie
ENVIRON	3.50	.71	3.00	4.00	2	academic environment
STUDY	3.50	.71	3.00	4.00	2	additional study
SUPERVIS	4.50	.71	4.00	5.00	2	regular supervision
PEER	4.50	.71	4.00	5.00	2	peer support
PERSONAL	5.00	.00	5.00	5.00	2	personal skills devel
APPRAISE	5.00	.00	5.00	5.00	2	appraisal
WORK	5.00	.00	5.00	5.00	2	work experience
COMPUTIN	5.50	.71	5.00	6.00	2	computing facilities
EQUIP	5.50	.71	5.00	6.00	2	specialist equipment
CONFEREN	5.50	.71	5.00	6.00	2	conference access
LIBRARY	6.00	.00	6.00	6.00	2	access to library
EXPENSES	6.00	.00	6.00	6.00	2	research expenses

Process-Ways of working

Number of valid observations (listwise) = 2.00

Variable	Mean	Std Dev	Valid		N	Label
			Minimum	Maximum		
INDEPEND	5.50	.71	5.00	6.00	2	working independently
JOINT	6.00	.00	6.00	6.00	2	joint working
COLLABO	6.00	.00	6.00	6.00	2	collaborating with ot