Summary on Survey
"Course Offers 'Key Skills' for Doctoral Students"

Ute Willhoeft
Dean's office at the Faculty for Mathematics, Informatics and Natural Sciences
E-Mail ute.willhoeft@uni-hamburg.de
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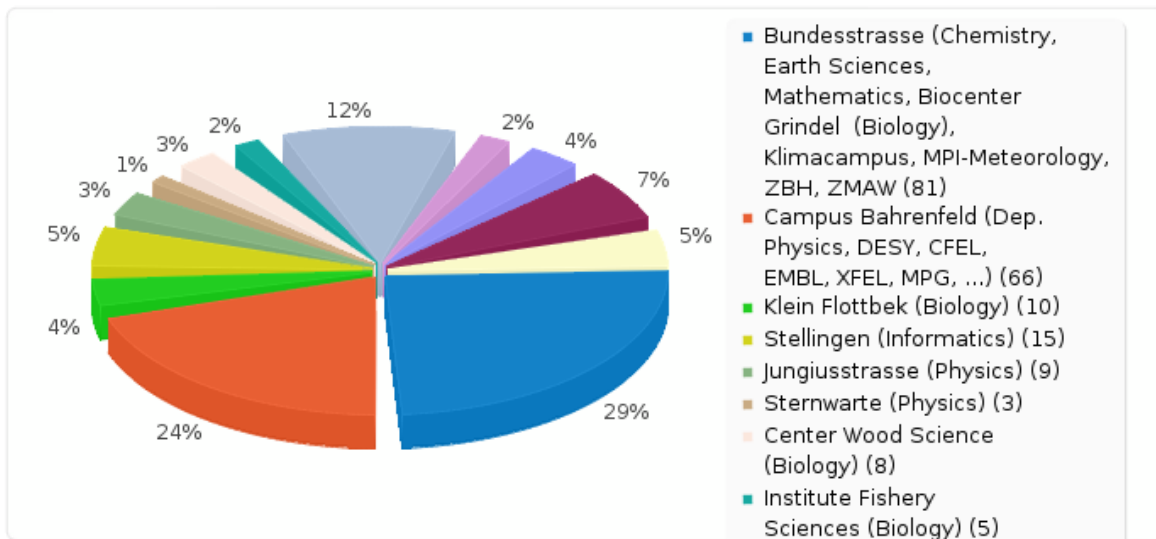
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In summer 2013 we invited about 900 doctoral candidates at the Faculty for Mathematics, Informatics and Natural Sciences to participate in the survey. 279 responses are summarized in this document.
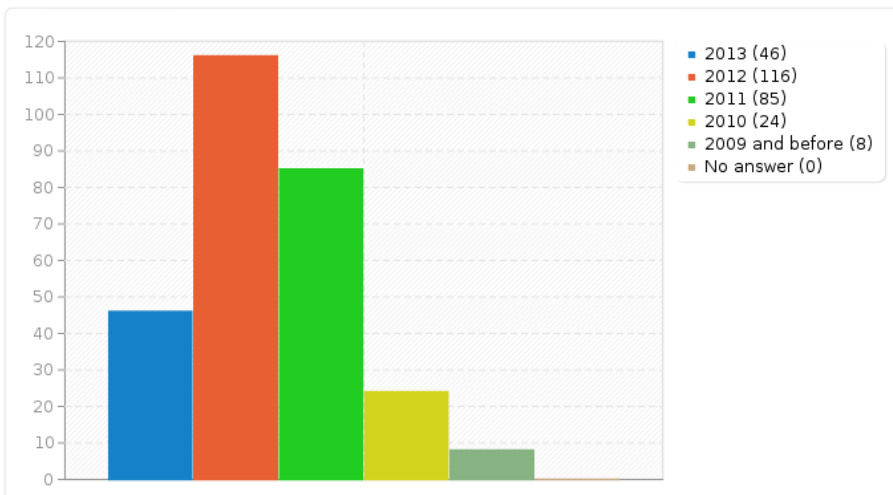
Contents

Information about the working field of the responding doctoral candidates

Question 1. My workplace in Hamburg is

Legend:
- Bundesstrasse (Chemistry, Earth Sciences, Mathematics, Biocenter Grindel (Biology), Klimacampus, MPI-Meteorology, ZBH, ZMAW (81)
- Campus Bahrenfeld (Dep. Physics, DESY, CFEL, EMBL, XFEL, MPG, ...) (66)
- Klein Flottbek (Biology) (10)
- Stellingen (Informatics) (15)
- Jungiusstrasse (Physics) (9)
- Sternwarte (Physics) (3)
- Center Wood Science (Biology) (8)
- Institute Fishery Sciences (Biology) (5)

Question 2. I started my doctoral project in

Legend:
- 2013 (46)
- 2012 (116)
- 2011 (85)
- 2010 (24)
- 2009 and before (8)
- No answer (0)

Question 3. My PhD subject is

Legend:
- Biology (79)
- Chemistry (33)
- Earth Sciences (49)
- Informatics (20)
- Mathematics (15)
- Physics (83)
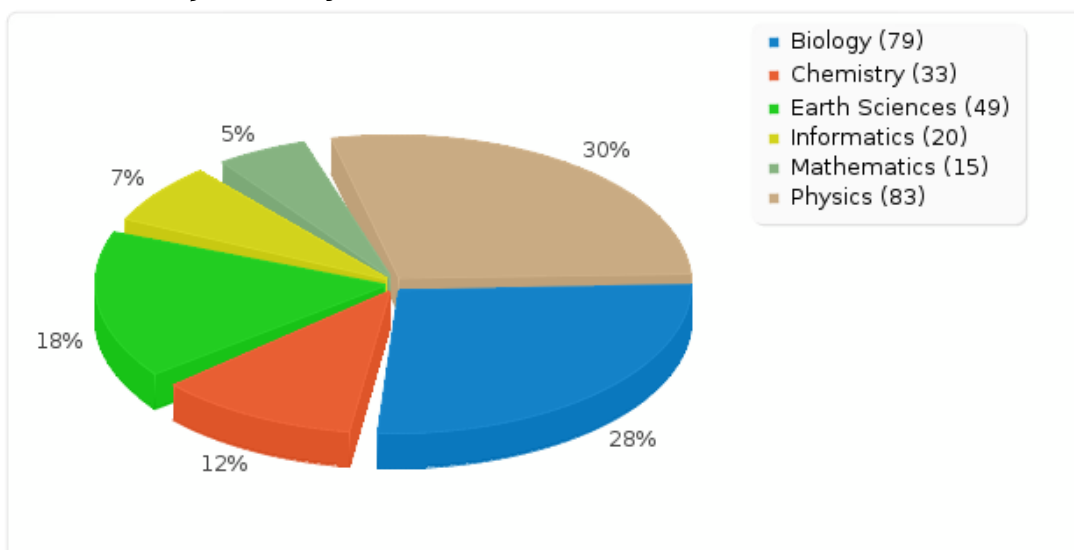
Question 4. I am member of a graduate school or research training group
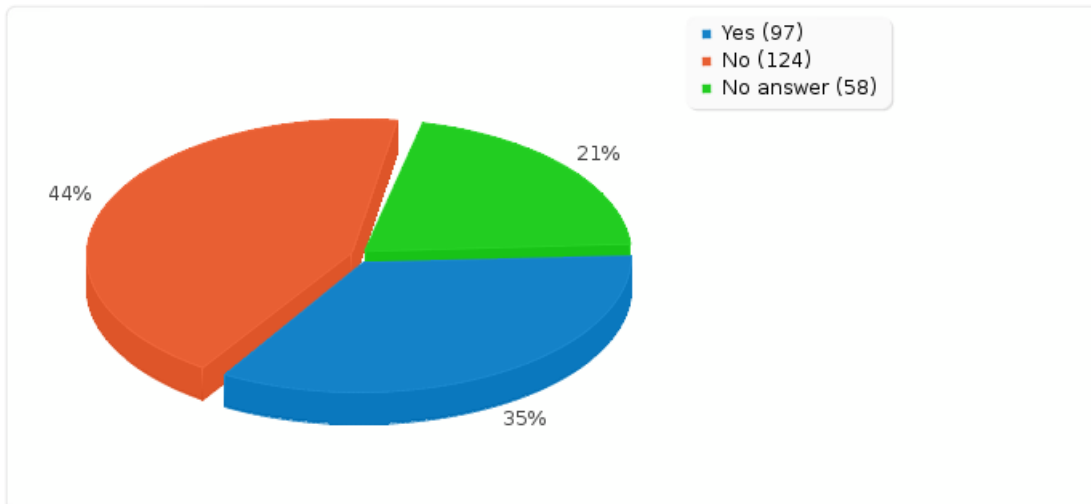
We asked for the workplace as this might help to keep the distance between courses and your work place as short as possible in the future.

The questions 1 – 3 show that responses to the survey came from all subjects in our faculty with the expected distribution of candidates being in the 1st, 2nd or 3rd year of their dissertation project. The responses show no bias to a certain subject or stage of the dissertation project.

50 % of all answers came from members of graduate school or research training groups, while roughly 25 % of all doctoral candidates in our faculty are members in graduate programs.

Course attendance

Question 5. Since I started my doctoral project, I attended a course or several courses in key skills
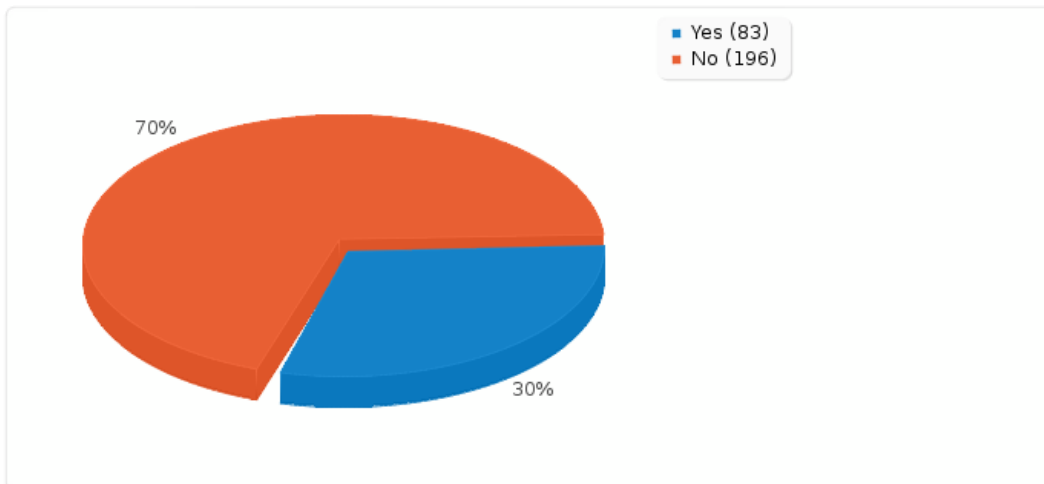
Question 6. I have not attended a course in 'Key Skills', because
This question was only displayed when the answer to question 5 was "no". Multiple answers were allowed.
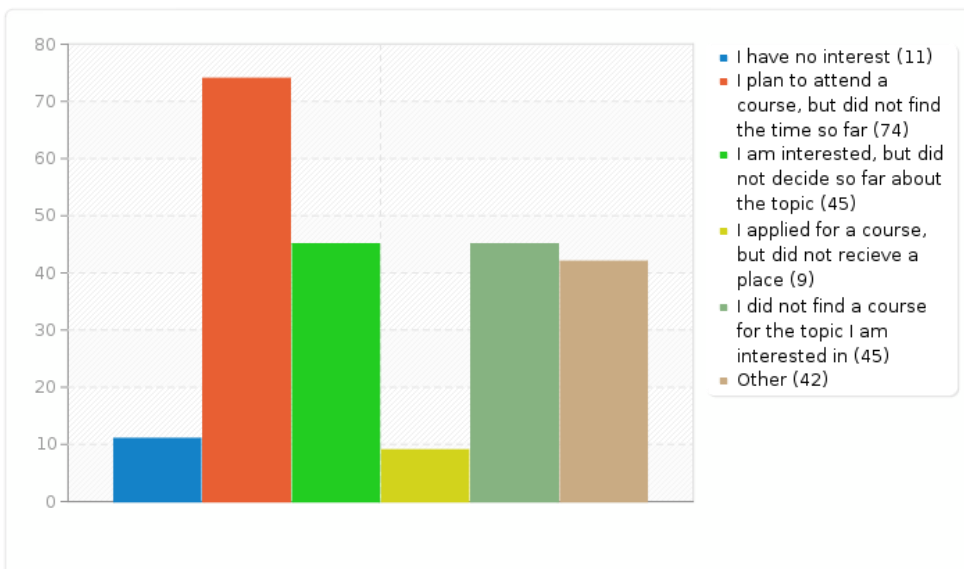
'Other' reasons:
- 6 answers – My workplace is not in Hamburg
- 26 answers – I did not know anything about such courses or how to apply for courses
- additional comments:
  - I am doing research in the lab
  - I have similar courses in my institute (EMBL)
  - there are some courses for master students that I want to attend, but they are taught in German.
  - I think it's not effective
  - Einstufungstest verpasst oder zu schwierig.

- I don't speak German, and cannot find any courses in English
- No time
- I attend at a course End of June
- I plan to do so in later stages of my PhD project
- Most of them are in the middle of the day

An unexpected high number of responses shows that it is worthwhile to improve distribution of information about course programs.

Question 7. Attended courses in Key skills

Following questions were only displayed when the answer to question 5 was "yes". 83 doctoral candidates had the possibility to give information about courses they attended so far. The charts summarize 120 course descriptions given by 83 persons.

About 50 % of the doctoral candidates who gave information about courses are members in a graduate school or research training group. In comparison, about 25 % of all doctoral students at the Faculty for Mathematics, Informatics and Natural Sciences are members in graduate programs.

Question 7a. The topic
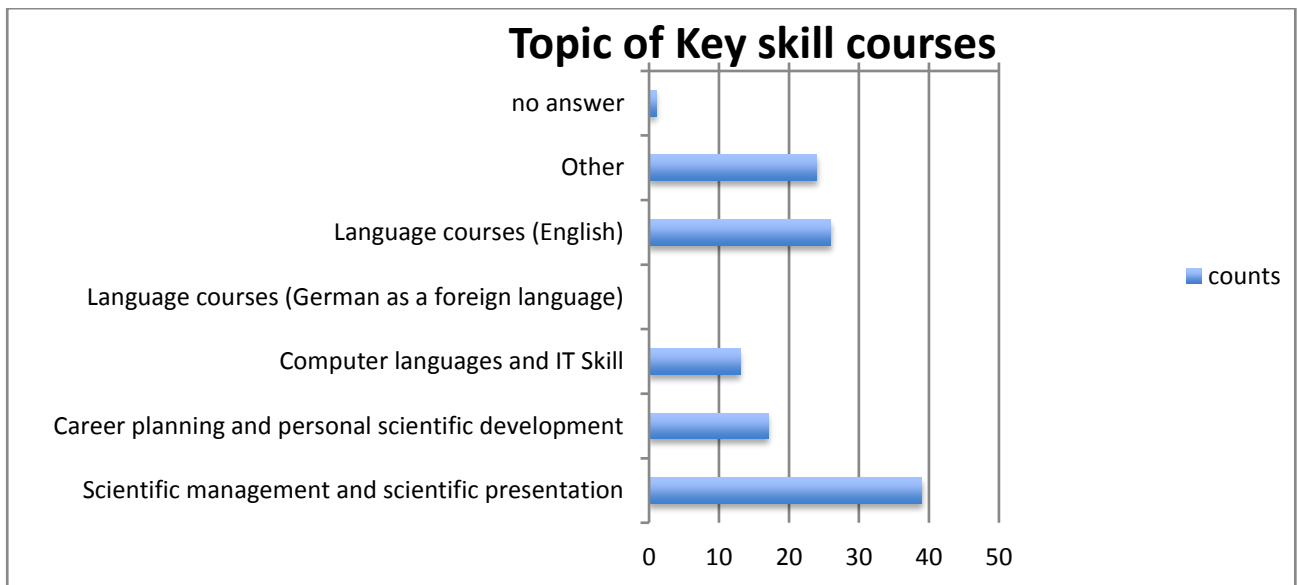
Other:
– scientific writing (8 answers)
– personal and scientific development (10 answers)
– research-related (6 answers)

Question 7b. The course language
– German (84 answers)
– English (32 answers)
– N/A (4 answers)

Question 7c. The course duration

Course duration

Category	counts
N / A	~1
several days	~60
other schedule	~10
2 SWS (semester working hour)	~23
1 SWS (semester working hour)	~7
half day	~7
full day	~11

Horizontal axis: 0, 15, 30, 45, 60, 75
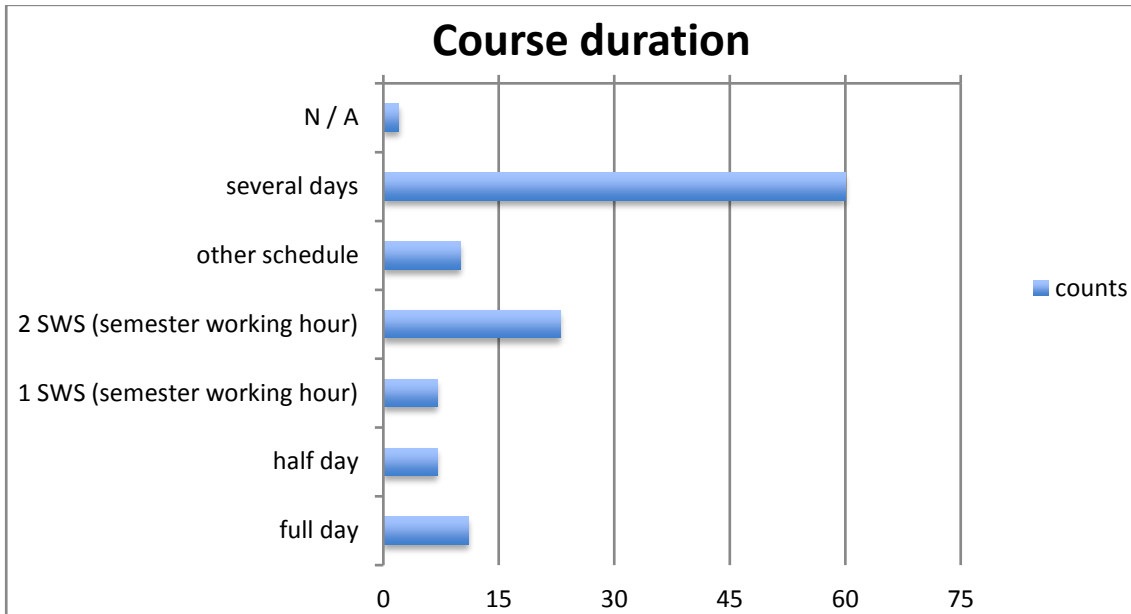
Question 7d. The course was offered by

Course offered by

Category	Counts
N / A	~5
Center Higher Education Teaching	~1
Pro Exzellenzia	~1
Piasta	~4
Other provider in Hamburg	~8
my Research Institute (e.g. DESY, BNI)	~28
my Graduate School or Research Training Group	~43
my Department or Institute at University of…	~6
external cours offer (outside Hamburg)	~4
Career Center at University	~14
Anna Logica (Informatics)	~4

Horizontal axis: 0, 13, 25, 38, 50

Interests

Question 8. I am interested to attend (further) courses
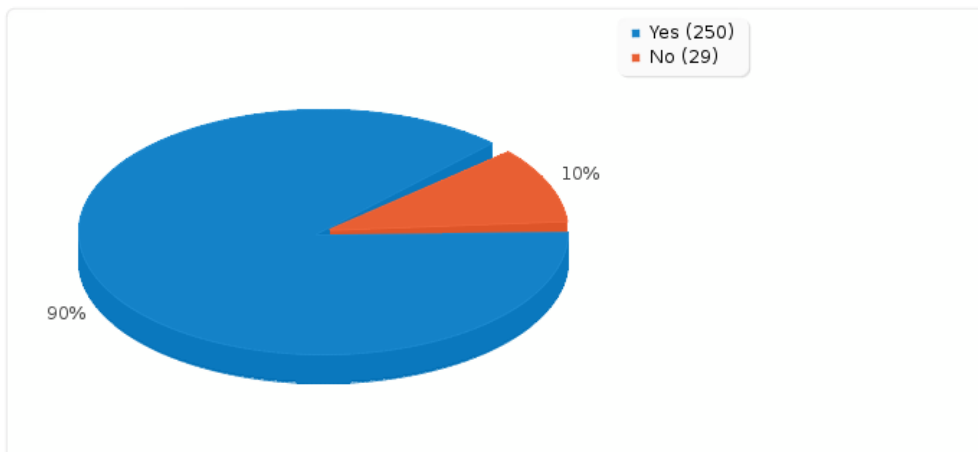
Question 9. Which key skill courses are of interest for your personal development and scientific career?
Selection of 0 to max. 3 topics was possible.

Topic	1.	2.	3.	sum	% of sum
Scientific Writing	42	30	19	91	13,75
Presentation Skills	31	29	19	79	11,93
Project management	22	19	19	60	9,06
Career possibilities in industry	18	17	22	57	8,61
Grant writing	11	18	13	42	6,34
Funding possibilities	17	9	15	41	6,19
Good scientific Practice	13	11	14	38	5,74
Time management	12	13	11	36	5,43
Sucessful research	5	14	15	34	5,13
Career and family	9	7	14	30	4,53
Career possibilities in Academia	8	11	4	23	3,47

Topic	1.	2.	3.	sum	% of sum
Communication	6	9	7	22	3,32
Graphic design in scientific publication	7	10	4	21	3,17
Leadership	5	7	8	20	3,02
Buisness administration	5	5	6	16	2,41
Patent and legal aspects	4	5	6	15	2,27
Application training	4	3	5	12	1,81
Conflict management	4	1	5	10	1,51
Negociation strategies	3	2	4	9	1,35
Team work	2	3	1	6	0,9
total	228	223	211	662	

Question 10. Which key skill courses from the area IT skills are of interest for you?
Selection of 0 to max. 2 topics was possible.

Topic ‚IT Skill'	1.	2.	Sum	% of sum
Speciallized Software from my research project	66	41	107	27,8
Statistics (R, SPSS, ..)	41	29	70	18,2
Latex	33	27	60	15,6
C++	30	26	56	14,5
Matlab	25	26	51	13,3
Fortran	12	10	22	5,3
Mathematica	9	9	18	4,7
Total	216	168	384	

Question 11. Which language courses are of interest for you?
Selection of 0 to max. 2 topics was possible.

Language course	1.	2.	sum	% of sum
English for scientists (native speaker)	15	10	25	9.0
English for scientists (non-native speaker)	134	11	145	52.3
German as a foreign language (A1)	7	4	11	4.0
German as a foreign language (A2)	16	8	24	8.7
German as a foreign language (B1. B2)	14	20	34	12.3
German as a foreign language (conversation course)	9	25	34	12.3
total	195	82	277	