



Researchers of tomorrow: 2nd wider context setting survey: initial results

SURVEY METHOD

As in 2009, all institutions were approached to take part in the survey with the result that 72 did so, an increase of four on the number in 2009. All participating institutions e-mailed the questionnaire link to PhD students, which resulted in a total of 6100 returns of which 4807 were useable in that they completed the questionnaire (1146 replies were incomplete) and they had no missing data in respect of the analysis variables (a further loss of 147). Corresponding numbers in 2009 were 6562 returns and 5410 useable.

Data were pulled into SPSS and edited to remove any inconsistencies and we are currently in the process of coding written in answers, of which there are more than last year due to the greater number of open questions and those with an 'other' opportunity. Thus the percentage figures given in this report will change, although the thrust of the findings will not. For this reason, it is strongly recommended that figures from this report are not quoted publicly given that some will change.

There is a higher proportion of Generation Y researchers in the 2010 sample (47%) compared with the 2009 sample (38%) and this will be borne in mind when the analysis proper is undertaken. The gender split in 2010 was identical to that in 2009, so skewed towards female researchers as indicated by comparison with the HESA statistics obtained at the outset of the project. Overall, the sample is slightly younger and more female than the population of researchers as a whole.

We have only commented on differences between the Generation Y researchers and the whole population when such differences are marked. The percentage figures are calculated based on all respondents ($n = 4807$) unless otherwise indicated in the question heading.

If there are queries about the data as presented below, please contact EfC directly and we will respond when the analysis is complete.



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1. First of all, did you complete this questionnaire last year?

- Two-thirds (65%) had not completed the questionnaire in 2009
- Most of the rest (28%) couldn't remember
- And just 7% thought they had done so

2. How old are you?

- Just under half the sample (47%) fell into the Generation Y cohort
- The rest divided between those aged 29 to 35 (26%) and 36 or over (27%)

3. Are you (*gender question*):

- There were slightly more females in the sample (58%) as males (42%)

(4. University or institution chosen from drop-down list)

5. Which of the following types of training in finding or using research information have you received over the PAST ACADEMIC YEAR? Tick any that apply

- Most (87%) had received some training, although this includes a quarter (24%) who said they had self-taught
- Thus just under two-thirds (64%) had received training provided by someone
- Most commonly cited were lecture or talk or demonstration (47% of all), workshop lasting half a day or less (36%), practical hands on session with instruction (30%), workshop of one day or more (27%) and 11% had trained via distance or e-learning

6. Which was the MOST RECENT training you received? (n = 3048)

- Among those that had received training, the rank order of the most recently received mirrored that of all training at Q5

7. When did this MOST RECENT training take place? (n = 3048)

- A quarter (26%) of those that had received training had done so within the last month
- And a third (33%) had done so within the past 2-3 months
- The remainder divided between those that received the last training 4-6 months ago (20%) and 6-12 months ago (19%)

8. Which department or unit of your institution organised and ran this MOST RECENT training? (n = 3048)

- The two most common providers of the most recent training were the researcher's own department or faculty (34%) or their Doctoral Training Centre (26%)



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- Generation Y researchers were more reliant upon their own department or faculty (38%) compared with 29% in the case of other researchers

9. What did this MOST RECENT training cover? Tick any that apply (n = 3048)

- There was a wide range of topics covered in the most recent training – the three most commonly cited were: specific information skills (28%), finding/using subject based resources (22%) and managing references and using technology (21%)
- Note that there was a high proportion of ‘other’ answers written in (33%) so the eventual percentage figures for individual answers could change markedly

10. What difference has this MOST RECENT training made to you and your research? Tick any that apply (n = 3048)

- There was a range of benefits identified from the most recent training – around half (48%) felt they had developed new or refined practical techniques and skills, a third felt they had gained useful experience (35%), developed new or refined knowledge and ideas (33%) or felt more confident about research as a result of the training (33%).
- Generation Y researchers felt they had received slightly less benefit in that they nominated an average of 1.64 benefits compared with others who selected 1.83.

11. Which of the following technologies provided by YOUR institution have you used over the PAST ACADEMIC YEAR? Tick any that apply

- Two-thirds of all researchers (68%) had used one or more of the listed technologies in the past year
- Generation Y researchers were more likely to have done so (72% compared with 64%)
- By far the most commonly used technology was citation or reference management tools (54% of all), with Generation Y researchers more likely to have used this technology (58% v 50%)
- All the other listed technologies were each used by fewer than 1 in 10 researchers
- Those that had used one or more of the listed technologies were asked Q12 – Q13



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12. Which of the following influenced your decision to use these technologies? Tick any that apply (n = 3266)

- A range of influences was evident, most commonly suggestions from peers (44%) and the specific nature of the research (44%)
- Instruction or suggestion from supervisors were less important (38%) as were suggestions from library/technical/other staff (29%) and a demonstration or seeing others using the technology (20%)
- Generation Y researchers were more likely to have been influenced by their peers (50% v 39%)

13. Have you had any hands on training in using any of these technologies over the past academic year from each of these people? Please choose one answer for each source of training. (n = 3266)

- Peers were the most common source of hands-on help in the past year (53%), followed by library staff (38%) and supervisors (32%)
- Generation Y researchers were more likely to have received hands on help from peers (60% v 45%) and their supervisor (35% v 29%) whereas they were less likely to have had help from library staff (34% v 42%)

14. Which of the following technologies available on the OPEN WEB have you used in your research over the PAST ACADEMIC YEAR? Choose one answer for each technology

- The table below shows the key data from this question, with technologies ranked by their total usage levels (so passive and active use combined)

Technology	Passive use %	Active use %	Total use %	Not used %
Wikis	49	22	71	29
Mailing lists	26	18	44	54
'Consumer' social networks	13	26	39	61
Internet discussion forums	24	15	39	61
Social media sites	24	14	36	64
Skype	7	24	31	69
Blogs	20	11	31	69
Academic social networks	14	11	25	75
Podcast/vidcasts	17	7	24	76
Microblogging	6	5	11	89
Social book marking	4	4	8	92



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- The 2009 data isn't fully comparable with 2010 but in terms of 'Not used', there are some differences in both directions. In 2009, we asked respondents whether they used certain technologies in their research (ie we did not specify over the past academic year):
 - 49% not used wikis
 - 72% not used social media sharing sites
 - 67% not used voip
 - 76% not used microblogging (curiously, lower than in 2010)
 - 86% not used social bookmarking
- There was little difference between Generation Y and other students in the pattern in the table above, save that the two highlighted tools were slightly more likely to be used by Generation Y researchers
- Overall, nine out of ten researchers (90%) used one or more of the open web technologies, and Generation Y researchers were slightly more likely to have used them (92% v 88%)

15. Which of the following influenced your decision to use these technologies? Tick any that apply (n = 4324)

- A range of influences was again evident, most commonly suggestions from peers (50%) and the specific nature of the research (48%)
- Instruction or suggestion from supervisors was less important (19%) as was seeing a demonstration or others using the technology (15%) or suggestions from library/technical/other staff (9%)
- Of note is that the relative importance of supervisors and library staff as a prompt to use of open-web technologies was far less than in the case with institutionally provided tools (Q12 refers)
- Generation Y researchers were more likely to have been influenced to use open-web technologies by their peers (54% v 46%), as was the case with institution-provided technologies

16. Have you had any hands on training in using any of these technologies over the past academic year from each of these people? (n = 4324)

- Peers were the most common source of hands-on help in the past year (27%), followed by supervisors (13%) and the library staff (11%)
- There was markedly less help provided across all three sources than with institutional provided technologies (Q13 refers)



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17. Listed below are various factors that might constrain progress in your doctoral research. Please indicate the extent to which you feel these are or are not a constraint, by rating each from 1 (not a constraint at all) to 5 (a significant constraint).

- Listed below are the mean scores derived for each constraint scored by respondents: the higher the score the greater the constraint
- The table shows the result by researcher type and overall, ranked on the overall score

Constraint	Generation Y	Other researchers	Overall
Time pressures	4.00	4.69	4.37
Licensing restrictions etc	3.55	4.58	4.10
Lack of money/necessity to work	3.16	4.49	3.87
Restricted/lack of technology	3.11	4.53	3.87
Lack of own skills	2.88	4.26	3.62
Difficulty identifying/accessing resources	3.05	4.03	3.57
Location of main place of work	2.51	4.30	3.46
Family pressures	2.33	4.33	3.40
Relationship with supervisor	2.59	3.74	3.21
Opening hours of institution's libraries	2.11	3.63	2.92

- While the rank order of constraints was very similar across the two groups of researchers, Generation Y researchers felt less constrained in their work – their score for every factor was (markedly) less compared with other researchers

18. Have you already or do you intend to produce any of the following INTERMEDIATE RESEARCH OUTPUTS as part of your doctoral research? Tick any that apply.

- By far the three most common intermediate research outputs were: articles for peer reviewed journals (80%), conference papers (74%) and conference posters (54%)
- Then came open access journals (32%), book chapters (23%) and critical reviews (18%)
- All other outputs were mentioned by less than 10% each
- Generation Y researchers were more likely to produce articles for peer reviewed journals (83% v 77%) and conference posters (65% v 45%) whereas they were less likely to produce conference papers (72% v 76%) and book chapters (17% v 27%)



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19. Some doctorates require the researcher to seek information from outside their core discipline, looking into disciplinary areas other than their own. [...]. To what extent does your research require you to cross subject boundaries in this way?

- Virtually all researchers (89%) said they did look outside their core discipline although only 43% did so 'always' or 'regularly'
- Generation Y researchers were less likely to do so – just 37% said they did 'always' or 'regularly' compared with 48% of other researchers

20. How often during the PAST ACADEMIC YEAR have you physically visited an academic library at another university or college?

- Just over half of all researchers (52%) had visited another library in the past year, although only 5% did so weekly or more often, with a third (33%) doing so quarterly or less often
- Generation Y researchers were less likely to have visited another library (44% compared with 59%)
- Those that had used another library were asked Q21 – Q23

21. Why have you used these other libraries over the past academic year? Tick any that apply (n = 2506)

- The most common reasons for using other libraries was to access research material not available in their own institution (mentioned by 71% of those that had used another library)
- Fewer did so because of a more convenient location (28%), because it was a more quiet or amenable place to study (20%) or to consult/work with research colleagues (13%)
- Convenience of location was relatively less important to Generation Y researchers as a motivator (22% v 32%)

22. Do you normally find what you are looking for when you use these other libraries? (n = 2506)

- More often than not the required material was found at other libraries – 13% found it 'all of the time' and a further 48% did so 'most of the time'
- Only 4% 'didn't generally find what they were looking for'

23. And what do you normally do with the material you find in these other libraries? Tick any that apply (n = 2506)

- Those that use other libraries were as likely to read the material they found at the library (52% or to photocopy it (50%), while slightly fewer borrowed it (40%) and only one in four (25%) downloaded it
- Generation Y researchers were relatively less likely to do any of these compared to other researchers



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24. Thinking now about open access sources, can you please indicate whether each of the following statements is true or false in your opinion.

- The table below shows the proportions that thought each statement true, false or that didn't know (including not stated), ranked on the 'true' column

Statement	True %	False %	DK/NS %
Open access is all works that are openly available on the web, which do not need any payment or permissions to look at, access or use it.	65	13	22
Open access is scholarly publishing in an e-journal without any payment requirement to access it and no, or limited restrictions on use	61	14	25
Self-archiving refers to authors depositing their work in open access institutional or subject repositories, or making material otherwise available on the web.	42	6	52
Some conventional, non-open access journals provide open access after an embargo period of 6–12 months or longer	33	6	61
Research funders are beginning to expect open access to the research they support: many have already adopted self-archiving mandates	26	5	69
Journal articles in conventional, non-open access journals are not self-archived by their authors	20	19	61
Open access journals are not peer-reviewed	9	54	37

- There was clearly a lot of uncertainty about open access journals with four of the seven statements attracting a majority of 'don't know' replies, although there was more clarity about the first two and last statement in the table above

25. What, if any, reservations do you have about using open access or self archived research resources in your OWN RESEARCH WORK?

- This question attracted a lot of written in comment which we are still categorising – in the meantime we have summarised the nature of the responses given
- Thus around half (52%) said they had no reservation and a fifth (20%) wrote in one or more reservations; the remainder either didn't answer (which could be interpreted as no reservations) (18%) or felt they didn't know enough about the issue (5%)



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- Generation Y researchers were slightly more relaxed about using open access sources – 55% had no reservations (compared with 51% of other researchers) and 19% wrote in a reservation (compared with 21%)

26. And what, if any, reservations do you have about using open access or self archived resources through which to PUBLISH your research work?

- A very similar pattern emerged in response to this question and further analysis will reveal the overlap between the two issues of using and publishing open access resources
- Thus around half (49%) said they had no reservation and a quarter (25%) wrote in one or more reservations; the remainder either didn't answer (which could be interpreted as no reservations) (18%) or felt they didn't know enough about the issue (5%)
- Generation Y researchers were also (just) slightly more relaxed about using open access sources – 50% had no reservations (compared with 48% of other researchers) and 24% wrote in a reservation (compared with 25%)

27. My research discipline is:

- There was a good overall spread of research disciplines in the sample
- Generation Y researchers were more likely to be in the natural rather than social sciences, and in engineering and computing sciences

28. Do you work on your own in your doctoral research or as a member of a collaborative research team?

- The majority of researchers (80%) said they work alone although fewer Generation Y researchers did so (72% v 88%)
- The corresponding figures for those that worked in a team were 28% v 12%

29. I am registered as doing a (type of PhD):

- The vast majority (87%) were registered for a traditional PhD, with a small minority pursuing a professional doctorate (7%)
- Generation Y researchers were more likely to be following the traditional PhD route (91% v 84%)
-

30. I am currently registered as studying:

- Three quarters of all researchers (76%) were studying full time
- Generation Y researchers were more likely to be full time (93% v 62%)

31. Which year of your research are you in?

- Overall a third of all researchers (35%) were in their first year, with ever decreasing proportions in subsequent years



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- Generation Y researchers were more likely to be in their early years

32. How are you funded? Tick any that apply.

- The main funders were the researchers themselves – one in five (21%) were entirely self-funded and an additional 12% were partly self-funded – 33% overall
- Generation Y researchers were less likely to be self-funded (entirely or partly) – the respective proportions were 18% and 45%
- One in four researchers (25%) received funding from departmental bursaries or contributions and a similar proportion (26%) had other external funding
- About 28% had some funding from a research council. About 16% of Generation Y indicated the EPSRC

33. Where is the one MAIN place you work on your research?

- Most researchers either worked in their institution (42%) or at home (37%) and 13% worked in a laboratory or studio in their institution
- Generation Y students were more likely to work in their institution (52% v 34%) and correspondingly less likely to work from home (21% v 51%)

3rd December, 2010