

# PhD Professional Development: Value, Timing, and Participation

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Professional development (PD) opportunities during PhD study are key to many career trajectories (Nerad, 2015; Sharmini & Spronken-Smith, 2020). Beyond coursework and the dissertation, structured experiences such as internships, conferences, workshops, and experiences abroad provide skill development opportunities for work in academia, business, government, and non-profits. However, as many colleges and universities face fiscal austerity post-COVID-19, graduate schools are less certain about the availability of these opportunities, and supporting them may not be the highest priority in the face of other pressing challenges (Okahana, 2020). Graduate schools and programs need to identify and prioritize how they might deploy scarce resources and support professional development opportunities for graduate students. To aid and transform campus conversations, using data from the Council of Graduate Schools' Understanding PhD Career Pathways for Program Improvement project, this brief provides insights into the perceptions of PhD alumni for the timing and usefulness of PD opportunities.

## Key Findings:

- **A Wide Range of Valued Skills.** Overall, PhD alumni found 17 different PD opportunities as useful. The opportunities that alumni most frequently marked as useful to their current jobs include: communication (95.8%), public speaking (93.6%), networking (91.3%), and digital literacy (90.9%). This was true for both those PhDs working as faculty members, as well as those who were not. Fewer PhD alumni noted that entrepreneurship, international travel seminars, and study abroad were useful for their current employment. (Figure 1)
- **Project Management and Entrepreneurship Emphasis for Non-Faculty.** When examining differences between faculty (N=1,677) and non-faculty (N=2,191), it came as no surprise that more faculty found academic writing, teaching preparation, and grant writing useful. More faculty also found international experiences, including research and study abroad as useful. Interestingly, more non-faculty noted project management and entrepreneurship were useful than their faculty colleagues. (Figure 2).
- **An Early Start.** Across nearly all PD opportunities found to be useful, PhD alumni noted that earlier in the doctoral program was the most ideal timing, particularly for diversity/multicultural competency (84.9%) and digital literacy (83.0%). Notable exceptions were resume/CV writing and interview preparation (61.6%), entrepreneurship (41.4%), and leadership development (35.0%) that were considered ideal toward the latter stages of the program. (Figure 3)

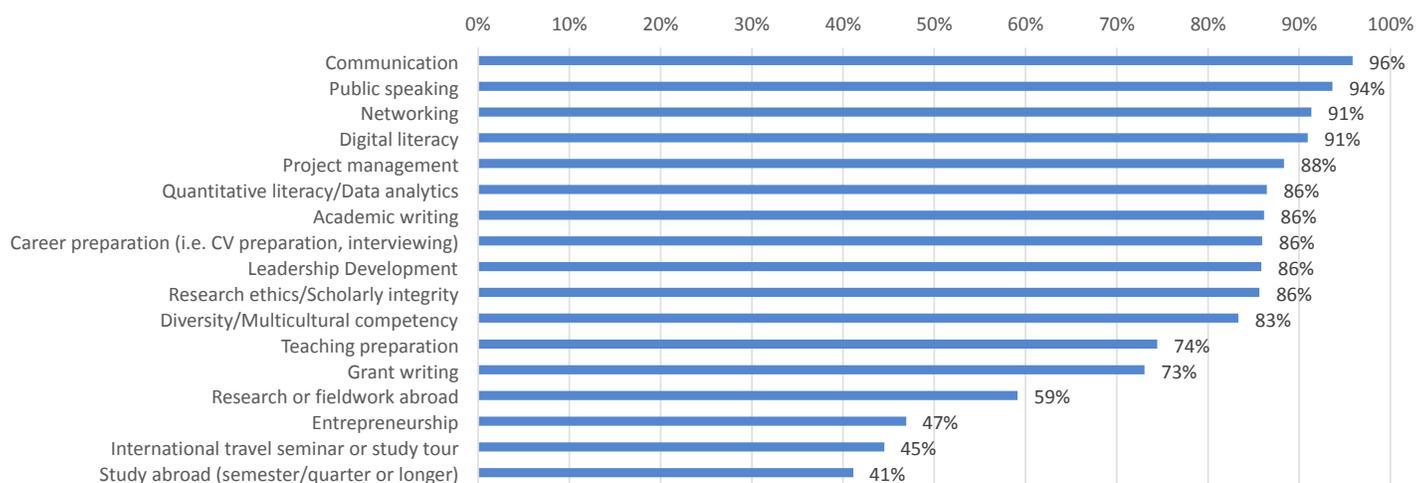


- Mixed Levels of Participation.** Among the opportunities found to be most useful, PhD alumni had varying levels of participation: public speaking (63.8%), networking (58.7%), communication (57.7%), and digital literacy (43.5%). Conversely, PhD alumni reported participating in academic writing (81.8%) and teaching preparation (79.1%) opportunities at higher levels. Stark differences, however, appeared when examining the humanities (N=813) and non-humanities (N=3,318) subsamples. Humanities alumni were more likely to have participated in teaching preparation, career preparation, fieldwork and study abroad. Conversely, non-humanities alumni

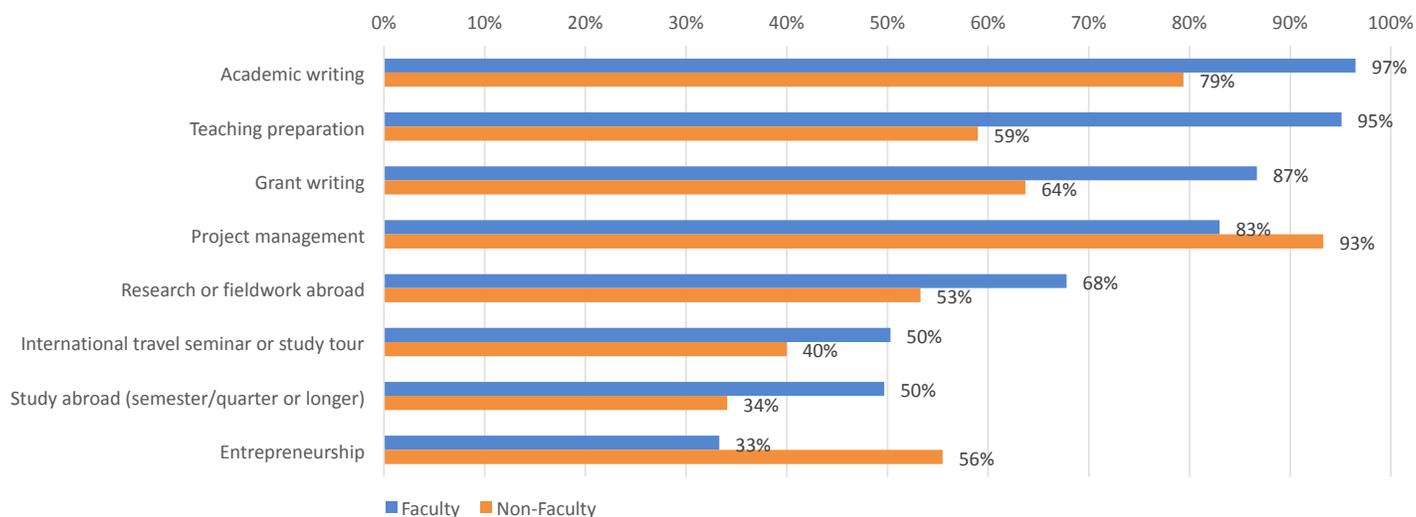
were more likely to have taken part in communication, public speaking, digital literacy, research ethics, and grant writing. (Figure 4)<sup>1</sup>

- Barriers to Participation.** For those who reported not participating in development they deemed useful, approximately 70% noted that such opportunities were not offered, or that they were unaware of such offerings as a student. Notably, 12.1% reported a lack of interest in networking. For international experiences, although a majority reported that these opportunities were available, competing priorities, timing, and cost were reasons for not participating. (Figure 5)

**Figure 1: Usefulness of Professional Development**



**Figure 2: Usefulness: Differences between Faculty and Non-Faculty**



<sup>1</sup> These percentages represent the portion of alumni who previously participated in each PD opportunity of those who found such opportunities useful.

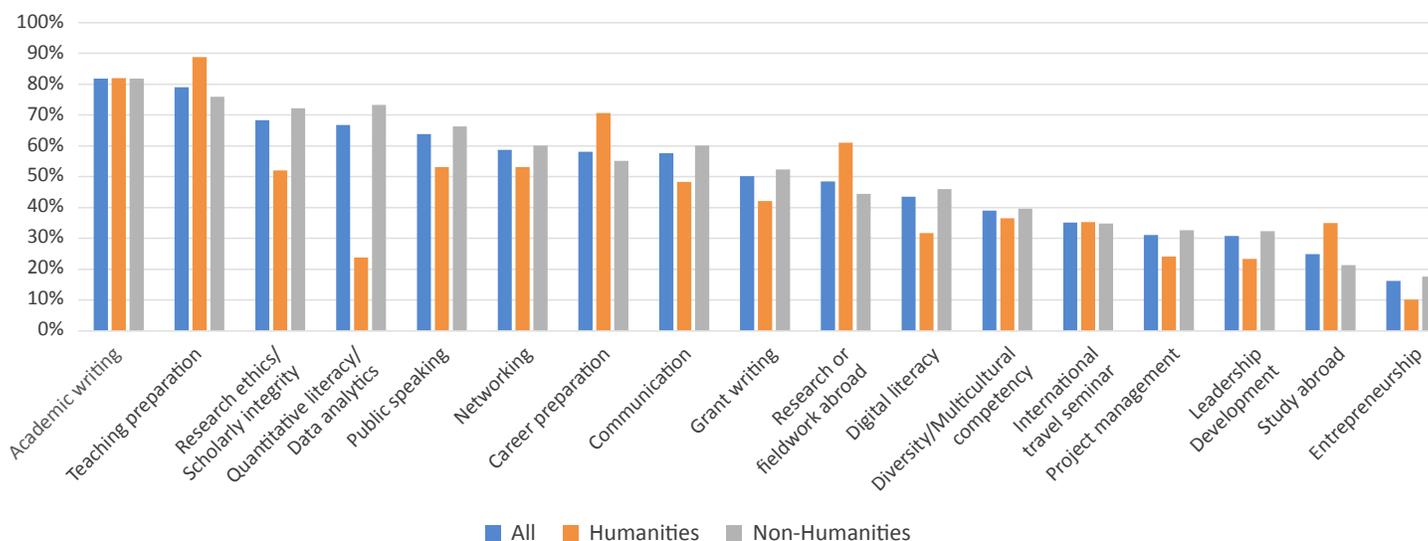


**Figure 3:** Item: Of the professional development opportunities that you believe are (or would have been) useful for your current position, when during the doctoral journey do you believe is the best time to receive such opportunities?

	Beginning	Middle	Latter Stages	After Doctoral Program
Communication	73%	19%	7%	1%
Public speaking	58%	31%	10%	1%
Networking	33%	31%	32%	4%
Digital literacy	83%	12%	4%	2%
Project management	30%	36%	24%	11%
Quantitative literacy/Data analytics	73%	21%	4%	3%
Academic writing	71%	23%	6%	0%
Career preparation (i.e. CV preparation, interviewing)	11%	25%	62%	2%
Leadership Development	18%	33%	35%	14%
Research ethics/Scholarly integrity	80%	16%	4%	1%
Diversity/Multicultural competency	85%	9%	4%	3%
Teaching preparation	42%	36%	19%	3%
Grant writing	21%	40%	30%	9%
Research or fieldwork abroad	21%	43%	29%	8%
Entrepreneurship	14%	22%	41%	23%
International travel seminar or study tour	26%	42%	23%	8%
Study abroad (semester/quarter or longer)	34%	39%	21%	6%

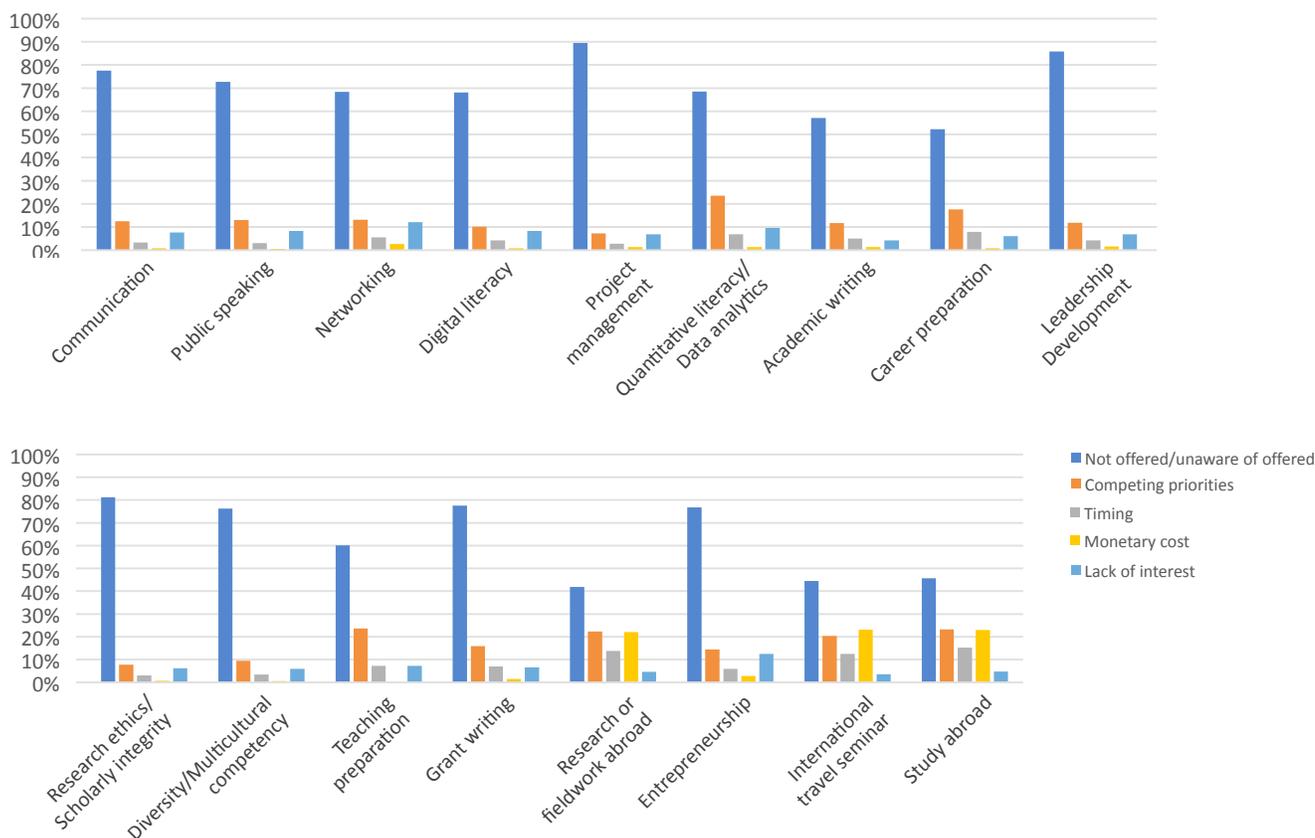
Professional development opportunities with more than one category highlighted in blue indicate a statistical tie for most popular response.

**Figure 4:** Professional Development Participation: Humanities vs. Non-Humanities





**Figure 5: Reasons for Not Participating in Professional Development Opportunities**



## Takeaway Points

- There are four areas most frequently cited as useful: communication, public speaking, networking, and digital literacy. There was no statistical difference between humanities and non-humanities PhDs in reporting usefulness.
- In the four areas of PD determined to be the most useful, humanities PhDs reportedly participated less than non-humanities counterparts in the survey sample. Overwhelmingly, all non-participants cited "not offered/unaware of offered" as the primary reason for non-participation while pursuing their PhDs.
- More humanities PhDs found "Diversity and multicultural competency" training to be useful than their non-humanities PhD counterparts; however, only 37% of them took part in formal training opportunities while pursuing their PhD.
- The majority of respondents suggest that professional development opportunities would be most useful in the beginning stages of PhD. The one exception is networking, which respondents believed had high utility at all stages of doctoral study.
- Focusing on early stage PD opportunities in communication, public speaking, and digital literacy, as well as PD opportunities in networking throughout the PhD journey may be an efficient approach for graduate schools. However, a concerted effort should be made for marketing and advertisement of the programs, so that PhD students in humanities become more aware of resources that may be helpful to them.



## Conversation Starters for PhD Program Improvement

We encourage graduate schools to engage in campus conversations about PD opportunities. Culture change happens incrementally and requires active participation of students, faculty, and administrators. A good first step is understanding how your campus community communicates about PhD professional development. Some of the questions that you may want to begin asking your campus colleagues (e.g. graduate school staff, college deans, graduate program directors, etc.) and others include:

- What kind of professional development opportunities do your institution and graduate programs offer to PhD students?
- How are PD opportunities promoted to PhD students early in their program? Specifically, are students encouraged by graduate programs and faculty to participate in PD opportunities during the summer when they have fewer academic and teaching responsibilities?
- How are learning outcomes of PD opportunities assessed? Given the move towards virtual offerings during the COVID-19 pandemic, how effective are these offerings compared to in-person offerings?
- Given the national conversation surrounding equity in society generally and graduate education specifically, how can institutions ensure that all students complete their program with greater competency in diversity and multicultural awareness?
- While academic conferences are excellent opportunities for communication, public speaking, and networking, conferences are expensive in both actual (e.g. registration fees, travel, lodging) and opportunity costs (taking time off of work, family responsibilities). How can your institution help provide similar PD on campus?
- How can PhD students benefit from an Individual Development Plan (IDP) to align PD with a diverse array of career options?

## About the Data Source

The CGS PhD Career Pathways Project Alumni Follow-Up Survey was distributed in summer 2020 to doctoral degree recipients that were three, eight, or fifteen years out of their PhD in selected programs at participating institutions when they previously completed a baseline survey between 2017-2019. This brief is based upon this aggregated data set, which includes 4,370 doctoral degree recipients from 58 institutions.

## References:

- Nerad, M. (2015). "Professional Development for Doctoral Students: What is it? Why Now? Who does it?" *Nagoya Journal of Higher Education*, 15, 285-319
- Okahana, H. (2020). "The Impact of COVID-19 on Graduate Education." Council of Graduate Schools
- Sharmini, S. & Spronken-Smith, R. (2020). "The PhD—Is it Out of Alignment?" *Higher Education Research & Development*, 39(4), 821-833.

## Additional Resources

**CGS Resources for Graduate Student Professional Development:** CGS has led a series of Best Practices projects in the professional development domain, including the [NextGen PhD Consortium](#). Project reports and resulting resources for graduate schools are [available on the CGS website](#).

**CGS Communications Guide for Career Diversity:** CGS has developed a [communications resource](#) that is designed to help university partners advocate for greater transparency about PhD careers and to support career diversity. The tool includes tips for supporting career diversity in campus social media as well as guidance on communicating the value of diverse careers.

**Individual Development Plans (IDP):** With increased focus on career planning in doctoral education, several disciplinary societies and academic institutions have created resources meant for doctoral students and postdoctoral associates. These resources can be used iteratively by early career academics and their mentors to assess career options and set goals. Learn more about IDPs from the [American Psychological Association](#) and the [University of California, Berkeley](#).

**Graduate Career Consortium (GCC):** Since 1987, the Graduate Career Consortium is a 400+ member organization of higher education professionals who work with graduate students and postdoctoral associates on issues related to career and professional development. Learn more about the [Graduate Career Consortium](#).

## The CGS PhD Career Pathways Coalition

CGS PhD Career Pathways is a coalition of 75 doctoral institutions working to better understand and support PhD careers across all broad fields of study. Over the course of the project, universities will continue collecting data from current PhD students and alumni using surveys that were developed by CGS in consultation with senior university leaders, funding agencies, disciplinary societies, researchers, and PhD students and alumni. The resulting data are allowing universities to analyze PhD career preferences and outcomes at the program level and help faculty and university leaders strengthen career services, professional development opportunities, and mentoring.

## About CGS

For over 50 years, the Council of Graduate Schools has been the only national organization dedicated solely to advancing master's and doctoral education and research. CGS members award 86.9% of all U.S. doctoral degrees and 59.8% of all U.S. master's degrees. CGS accomplishes its mission through advocacy, the development and dissemination of best practices, and innovative research.

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The brief was prepared by Radomir Ray Mitic and Hironao Okahana. R.M. conducted data collection and preparation, analyzed the data, and prepared an initial draft. H.O. directed the underlying research activities and supervised the analysis for this work. Both authors discussed and contributed to the final brief. Suzanne T. Ortega and Julia Kent reviewed and commented on earlier drafts. Matthew Linton provided production support. This brief is based on work supported by grants from The Andrew W. Mellon Foundation (grant number 1809-06155) and the National Science Foundation (grant number 2000750). Any opinions, findings, and conclusions or recommendations expressed in this brief do not necessarily reflect the views of the funders.