Transferable Skills and Qualities

From Your Experience as a Graduate Student

As a graduate student, you have probably grown accustomed to identifying yourself by labels, such as “I am a PhD student in molecular biology.” These labels, such as “PhD student” and “molecular biology,” typically give a clear message of your background and training in an academic environment. If you are considering a job outside of academia, however, you may have discovered that many jobs do not require a PhD or research experience in your particular field. Instead, most employers seek specific skills or competencies that you have acquired during the process of getting your graduate degree in a particular discipline.

When considering a career outside of academia, you will need to think beyond the academic labels and academic signifiers of success, such as the number of publications you have or invited talks you gave. Instead, focus on the skills you used to earn your degree that will be necessary to perform a particular job; these skills are your transferable skills. These skills are not limited to just your research or teaching experience, so think broadly. Did you volunteer somewhere and, if so, did you acquire leadership experience or additional communication skills? Have you informally edited or proofread your colleagues’ manuscripts or dissertations? If so, perhaps you developed copy-editing skills and the ability to provide constructive feedback.

To help you understand what transferable skills you might have developed or used during your graduate research and teaching experience, a brief sampling of transferable skills are listed below. These skills are grouped according to the categories by the SkillScan assessment: relationship, communication, management/leadership, analytical, creative, and physical/technical skills. You are encouraged to identify which skills you used during your graduate research experience, supplement this list with additional skills or experiences not mentioned here, and take note of which skills you enjoyed and did not enjoy using. In doing so, you can compile a list of skills that you would like to use in your future career and then use a database, such as O*Net (onetonline.org/skills/) to identify occupations that use these skills.

Transferable Skills: Research Experience

- **Relationship**
  - Work in teams on a project (with undergrads, grad students, postdocs, staff, professors)
  - Network with others in order to collaborate, share resources, brainstorm
  - Train undergraduates, graduate students, or postdocs
  - Serve as a liaison among professors, staff, and/or students to facilitate communication and build partnerships
  - Maintaining long-term relationships with mentors and advisors

- **Communication**
  - Present research (invited talks at conferences, poster presentations, PowerPoint presentations?)
  - Translate languages
  - Convert technical language into lay language
  - Write a grant
  - Persuade advisor about your idea
  - Write papers, book chapter, dissertation
  - Edit/copyedit colleagues’ work, your own work
  - Write reviews for papers or books
  - Read, write, and/or speak foreign language(s)
  - Provide diplomatic answers to advisors/colleagues’ ideas and provide constructive criticism
  - Negotiate with your advisor your timeline for exams, finishing your thesis
  - Attribute work properly (plagiarism, references, giving credit to colleagues)

- **Management/Leadership**
  - Create schedule/timeline
  - Design travel/research trips (logistics such as visas, flights, accommodation, permits, etc.)
  - Administer budget for fellowship/grant (or manage budget for research project)
  - Articulate a vision for a project
  - Negotiate conflict with advisor, committee, colleagues
  - Establish a laboratory for your professor (research equipment, negotiate with vendors, oversee installation, troubleshoot and calibrate machines)
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• Coordinate events, individuals, research trips in order to meet the goals of your project
• Set goals for your project, thesis, or exam study schedule

Analytical
• Assess legitimacy of resources
• Ask insightful questions that hit at a problem or heart of argument
• Review papers in field: provide suggestions for improvement, highlight weaknesses, recommend for or against publication
• Analyze an idea and come up with counter-arguments
• Consolidate/synthesize large amounts of information into a coherent argument
• Collect and analyze data and come to conclusions
• Organize and classify information
• Compare results and come up with recommendations

Creative
• Brainstorm ideas for your thesis
• Find alternative solutions or arguments
• Identify new topic in field to be addressed in your thesis (combining new fields of thought)
• Create an original work (could be a molecule, musical composition, article, or building)
• Develop new techniques or protocols

Physical/Technical
• Use databases
• Use technical languages, computers, computer programs to conduct research, analyze data, or communicate results of your research
• Install equipment and fix it when it doesn’t work
• Draw pictures, diagrams, or graphs
• Repair equipment

Transferable Skills: Teaching Experience

Relationship
• Work in teams with teaching assistants (TAs) to grade papers, develop grading standards
• Collaborate with professors, administrators, staff to address needs of low-performing students
• Embrace diversity in the classroom/create an inclusive environment

Communication
• Translate technical information into simple language
• Find analogies, examples, or demonstrations (from internet, colleagues, books, your mind) to illustrate points
• Mentor students on academic success, course schedule, or career interests
• Identify experts in field and invite them in as guest lecturers
• Give feedback and constructive criticism, both written and verbally
• Deliver lectures (with PowerPoint)
• Lead group discussions
• Ask questions
• Listen to student ideas

Management/Leadership
• Ensure fairness and consistency in grading students
• Discipline students (teach them professionalism)
• Prioritize work activities
• Develop a schedule/syllabus
• Meet deadlines
• Organize student trips (event logistics)
• Supervise undergraduate TAs

Analytical
• Develop grading standards
• Evaluate student progress throughout course and assess grade
• Identify most important concepts in a book and develop lectures, exams, quizzes, and assignments to test understanding of the concepts

Creative
• Come up with creative ways to convey difficult or new information
• Design a course from scratch by identifying key readings/concepts appropriate for the audience, identify learning goals, and structure course around them

Physical/Technical
• Use technology in classroom (develop podcasts, use Blackboard or eportfolios, etc.)
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Qualities
In addition to these transferable skills, you also possess certain qualities that have helped you excel in your graduate studies. In job advertisements, employers may state that their employees should have certain qualities, such as being detail-oriented or inquisitive. To assist you in identifying what qualities you possess as a graduate student, a brief list is included here:

• Ambitious
• Calm in a high-pressure environment
• Comfortable with ambiguity or situations where there isn’t a clear solution
• Competitive
• Compassionate
• Creative
• Detail-oriented
• Energetic
• Entrepreneurial
• Ethical
• Flexible/adaptable
• Goal-oriented
• Hard-working
• Humorous
• Imaginative
• Intelligent
• Inquisitive
• Methodical
• Organized
• Passionate
• Patient
• Positive
• Precise
• Poised
• Resilient
• Resourceful
• Responsible
• Respectful
• Self-motivated
• Self-sufficient
• Tactful
• Tenacious
• Tolerant