
The Fantastic Four Years: Recommendations for Industrial–Organizational Programs

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Though Byrne et al. (2014) identified noticeable deficiencies in the education of industrial–organizational (I–O) psychologists, we believe their proposed remedy is problematic. Specifically, prolonging a graduate student’s admission into “the real world” through postdocs and internships can place a financial burden on those providing the additional education—especially if they are expected to offer “adequate pay and health benefits” as Byrne et al. recommend. As departments across the country face extreme budget cuts, petitioning for more funding does not currently seem like a viable option (see Oliff, Palacios, Johnson, & Leachman, 2013).

Nevertheless, this does not discount the educational shortcomings identified

in the focal article. Rather than extending a graduate student’s scholastic career, we propose that I–O programs can accomplish the same goals within a 4-year time frame. Specifically, we address this issue by presenting three phases of recommendations—beginning at the recruitment stage and ending with the dissertation. We understand that the resources of every program differ and not every program will find it feasible to act on these recommendations; however, our hope is that I–O programs find some value in them.

Phase I: Recruitment, Selection, and Ingratiation

I–O programs often rely on insufficient indicators of a graduate student’s ability to succeed in a PhD program. For instance, selection committees tend to place more weight on quantitative GRE scores than on understanding of I–O, performance in I–O courses, and performance in research

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methods courses (Tett, Walser, Brown, Simonet, & Tonidandel, 2013), the latter of which, we believe, are more representative indicators of future graduate student performance. Thus, we recommend the implementation of three selection devices: (a) structured interviews, (b) content specific (I–O) standardized tests, and (c) basic research methods examinations. There has been a great deal of research indicating that structured interviews are a desirable selection tool (e.g., Campion, Palmer, & Campion, 1997; Conway, Jako, & Goodman, 1995). Further, both scores from an I–O-specific standardized test and research methods exam would better reflect future performance in the PhD program.

Next, we recommend that programs increase their efforts in attracting compatible applicants. From a recruitment standpoint, this can be done by publicizing the culture of the program and research interests of faculty members, and providing a great deal of transparency during student visits about program expectations, career outcomes, and so forth. There are several empirically supported theories and research areas (e.g., attraction/selection/attrition, fit literature, and realistic job previews) that support these three notions. Realistic and transparent communication about program expectations will ensure a better fit for applicants and faculty members.

We also advocate the selection of fewer students each year so that faculty members can adequately provide the necessary developmental feedback and guidance for student growth and training. Thus, an associated recommendation is that major advisors check in yearly with students to make sure they are on track for their long-term career goals. This would begin with their first semester and concern topics such as their progress towards their career preference (e.g., research-oriented, teaching, hybrid, psychology, or business university; internal or external practitioner) and successful completion of specialized training for their area. The next phase will cover our recommendation for the education of I–O psychologists.

Phase II: Education

Some of the criticisms brought up in Byrne et al. concerned the lack of education in the areas of interdisciplinary research, consulting and business skills, grant writing, and teaching. In these next two phases, we argue that these areas can be addressed while keeping the total time in the program around 4 years. Specifically, we propose that the first 2 years of a graduate student's training focus solely on education and the integration of these presently neglected skills into the curriculum. As you can see in Table 1, it is possible to organize class schedules such that a graduate student can be exposed to a large breadth of I–O knowledge within their first 2 years. In addition, within these 2 years, one could take classes/seminars specifically concerning interdisciplinary research, grant writing, and teaching.

Finding Connections

Rather than allowing students to become overwhelmed by the disparity between different disciplines, students can be taught to find the *connecting similarities* during their coursework. It is important to emphasize to students that they do not have to be an expert in every topic. Instead, they should know how to bridge divides and find common ground to be able to solve interdisciplinary problems and work with people in other disciplines. As the graduate classroom is the perfect environment for critical thinking projects where students can be given the opportunity to engage in hands-on practical applications of theory and theory translation, we recommend integrating case studies and real world experiential learning into the coursework. For instance, a professor can bring in a panel of business professionals to judge team case projects (pulled from alumni network) and provide real-time feedback on their presentation skills. These projects allow both individuals and the team as a whole to receive specific feedback from the audience, teammates, panel of judges, and faculty members. This

Table 1. Example Program Layout

Year 1—Fall		Year 2—Fall	
<i>Psychological Foundations</i>	Fields of psychology (emphasis on social, physiological, and cognitive)	<i>Psychometrics</i>	Research design
	History and systems of psychology		Scale development
	Human performance/human factors		Classical test theory
<i>Principles of Business, Professionalism, & Ethics</i>	Industrial–organizational psychology	<i>Industrial Psychology II</i>	Item response theory
	Consulting and business skills (emphasis on interpersonal skills practice and training)		Generalizability theory
	Ethical, legal, and professional contexts of I–O psychology		Career development
<i>Research Methods I</i>	Descriptive, basic inferential statistics, qualitative methods Statistical methods data analysis	<i>Organizational Psychology II</i>	Criterion theory and development
			Personnel recruitment, selection, and placement
			Training: theory, program design, and evaluation
			Leadership and management
			Organization development
			Organization theory
			Consumer behavior
			Small group theory and team processes
Year 1—Spring		Year 2—Spring	
<i>Organizational Psychology I</i>	Attitude theory, measurement, and change	<i>Applied Research Methods</i>	All encompassing methods class
	Judgment and decision making		Basically preparing for research methods comprehensive exam
	Work motivation		
	Health and stress in organizations		

Table 1. *Continued*

Year 1—Spring		Year 2—Spring	
<i>Industrial Psychology I</i>	Individual differences Individual assessment Job/task analysis and classification Job evaluation and compensation Performance appraisal and feedback	<i>Interdisciplinary Collaboration</i>	Each student has to take on the role of a different scientific literature and complete a project by the end of the semester
<i>Research Methods II</i>	Regression, meta-analysis	<i>Introduction to Grant Writing</i>	Capstone requirement Must submit grant proposal
Year 1—Summer		Year 2—Summer	
<i>Research Methods III</i>	SEM, factor analysis, IRT, network analysis, latent growth modeling, HLM	<i>Teaching Seminar</i>	Semester-long seminar as well as an actual evaluation of their teaching by a faculty member each time they teach

IRT, Item Response Theory; HLM, Hierarchical Linear Modeling.

has been well received by students and alumni in classes by Dr. Barbara Fritzsche at the University of Central Florida. Students quickly learn that creativity, innovation, and critical thinking skills are necessities in the real world as one cannot simply follow a textbook recipe to solve a problem.

Developing Mentoring and Feedback Skills

In line with Byrne et al.'s recommendation to train mentoring skills, we suggest that students need not wait until a postdoc position to begin. A key skill for them to learn is how to provide effective, accurate, and constructive feedback (both positive and negative). Drawing from our own experience, we have utilized role-playing exercises in our classrooms in which

students practice giving and receiving feedback. We then debrief as a class and discuss what worked and what could have been done more effectively. Further, I–O programs should promote a mentoring climate. Peer mentoring can be quite effective throughout a graduate program as students support one another through shared experiences and lessons learned. It is also an excellent way to socialize new students into the program, providing them with an additional resource for professional support as well as a referral source for navigating their graduate career.

Professionalism

In addition to mentoring and feedback skills, from the very first class professionalism, ethics, and character building should

be woven into every single course. It is important that students, especially those fresh from undergrad, are aware of the visibility of their actions as well as the importance of reputation and representing their organization in a positive manner. In a field as small as ours, you never know who will be making your hiring and/or promotion decisions one day.

Phase III: Application

The last phase of our program specifically targets the application of the newly trained knowledge and skills graduate students have learned in their first 2 years in the program. We know that trainees need the opportunity to perform the products of their training in a relatively safe environment, there should be support from their peers and supervisors, and the climate of the environment needs to support the behavioral expressions of their training (Blume, Ford, Baldwin, & Huang, 2010; Noe & Colquitt, 2002). For Phase III, our recommendation is for programs to provide opportunities for application and reinforcement of these newly trained skills. That is, we propose that the third year focus on internships and the fourth year on the dissertation. Though it is not a central point of this section, the third year is also an ample time for students to gain teaching experience, if they have not done so already.

Internships

In order to remain competitive, I–O students must learn the business lingo, especially if they plan to work as practitioners. We highly agree with Byrne et al.'s recommendation for required internships as they are not only key to skill development but to political savvy and interpersonal skills training as well. Internships are an opportunity for students to learn how to market their strengths and effectively illustrate their worth to an organization before going on the job market. In line with our fit recommendations, we propose that a student

select an internship based upon their future career aspirations.

While Byrne et al.'s recommendation of having a systematic database of certified internships through SIOP is being developed, I–O programs should utilize their alumni and faculty consulting connections to establish internships for students. Providing students with these opportunities will reinforce the knowledge and skills learned during the first 2 years. During the internship, graduate students should be tested on their methodological rigor, business skills, and professional ethics as well as be provided with feedback and suggestions for improvement.

For the students striving to join academia, we recommend what we call "Pre-Doc" internships. These internships specifically focus on conducting research in an organizational environment. Through combining their interests with the knowledge and skills they obtained over the past 2 years, these students should conduct their own research study and submit a first-author manuscript to a peer-reviewed journal. Their hypotheses should be a product of the discussions they have had with their faculty advisor during their annual meetings, to ensure they are establishing a research stream in line with their long-term career goals. This will reinforce the critical thinking skills necessary in the realm of academe and prepare them for the dissertation process to occur in Year 4.

The Dissertation

A student's dissertation is the final test of their academic training. It is a product of all of their accumulated knowledge and skills from coursework and internships/pre-doc positions. Thus, the dissertation should be the focus of the student's fourth year. Newly acquired business connections from their internship experiences could facilitate a dissertation based on data collected from the field aligned with their knowledge of theoretical contributions and real world application.

Conclusion

The authors of the focal article are correct: We need to take a good hard look at how we are training future I–O psychologists. We need to ensure that I–O graduates can compete with those from business schools, social and counseling psychologists, and behavioral economists. However, we do not believe there is a need to prolong formal education. Rather, we should make it more efficient. I–O psychologists' most basic training teaches us about efficiency, recruitment, and selection. Why not use what we know to better improve the training of our own "employees?"

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