Educating Industrial–Organizational Psychologists: Lessons Learned From Master's Programs

JANET L. KOTTKE
California State University, San Bernardino

ELIZABETH L. SHOENFELT
Western Kentucky University

NANCY J. STONE
Missouri University of Science and Technology

As faculty who have, collectively, trained graduate students for nearly 70 years, we read with considerable interest the focal article ''Educating Industrial–Organizational Psychologists for Science and Practice: Where Do We Go From Here?'' by Byrne et al. (2014). We had anticipated the authors would address the full range of industrial–organizational (I–O) graduate education but found that the article focused exclusively on doctoral training. The primary concern raised by

Correspondence concerning this article should be addressed to Janet L. Kottke.
E-mail: jkottke@csusb.edu
Address: Department of Psychology, California State University, San Bernardino, CA 92407

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the authors—that doctoral programs are largely successful at training the ''scientist'' of the scientist–practitioner to the detriment of the practice—is very appropriate to address. Indeed, issues with the training of doctoral candidates have been a perennial topic in I–O psychology (e.g., Dunnette, 1966, 1984, 1990; Guion, 1994; Highhouse & Zickar, 1997; Tett, Walser, Brown, Simonet, & Tonidandel, 2013).

Our primary purpose here is to address the fundamental foundation of the authors' discontent and offer some suggestions for training doctoral candidates. Because we teach at the master's and undergraduate levels of education, we will not address all matters presented by Byrne et al.; but, we believe we can provide some insight into the concerns expressed regarding the practice component of graduate, and even undergraduate, training. First, we address the role of master's scientist–practitioner training in I–O graduate education and suggest that the master's model may lend some assistance in addressing some of the issues raised by Byrne et al. Next, based on our considerable experience with internships, we respond to Byrne et al.'s recommendations for the role of internships in graduate education including appropriate skills to teach in an internship and their suggestion that SIOP certify internship sites. We further respond to the role of internships based on survey data we have collected from site hosts and interns, as well as more than a decade's worth of intern performance appraisal ratings as those data relate to employability. We conclude by indicating our agreement with Byrne et al. that competencies taught in I–O graduate programs should be revisited; we propose however, using an approach integrating both master's and doctoral training.

Role of Master's Level Training

All three of the authors of this article firmly believe in the scientist–practitioner model as the fundamental approach to I–O education. Thus, we are in full agreement with the authors on the continued need for science as the foundation of I–O graduate education. We also are in agreement with the authors about much of the content they perceive as important to be addressed in graduate education (e.g., federal law, ethics, consulting skills). Our reservations stem from the lack of mention of the role of master's level scientist–practitioner training: The master's training model may lend some solutions to issues raised by the authors. Specifically, master's training may actually be a useful model for doctoral programs to consider for increasing their practitioner focus (Tett et al., 2012). The number of master's programs more than rivals the number of doctoral programs (SIOP's graduate training website: http://www.siop.org/gtp/), and master's programs produce far more graduates than do doctoral programs. Recently, a subcommittee of the SIOP membership committee estimated that there are 3,856 graduate students currently enrolled in I–O master's programs, more than the estimated 3,244 students currently in doctoral programs. Furthermore, it is estimated that there are 1,850 new graduates of I–O master's programs each year compared to 520 doctoral graduates (D. Sachau, personal communication, December 12, 2012). Thus, master's level education is quite relevant to discussions about I–O training.

Briefly, we note for comparison the SIOP guidelines for master's-level training with those for doctoral-level training. Within the SIOP master's level guidelines are 12 core I–O competencies as well as two research competencies. The core competencies listed in the doctoral guidelines are nearly identical to the master's competencies, with the primary expectation that many of the topics will be covered in greater depth (or at a more theoretical level) in a doctoral program than the coverage in a master's program. Nevertheless, though the time frame for a (stand-alone) master's program is by necessity typically half the time of a doctoral program, a comprehensive master's level education that covers the key competencies can be achieved within 2 years. In other

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words, within this truncated time frame, it is possible to train scientist–practitioners at the master's level (cf., Erffmeyer & Mendel, 1990; Kottke, 1994; Shultz & Kottke, 1997; Trahan & McAllister, 2002).

As noted, collectively we have considerable experience in training scientist–practitioners at the master's level, and our programs map quite nicely onto the SIOP's blueprint for I–O education. Even in undergraduate programs, students are exposed to many of these same competencies (Bott, Stuhlmacher, & Powaser, 2006) but to a lesser degree than in master's programs. Our programs are not unique in covering the SIOP competencies. Trahan and McAllister (2002) found graduates of master's programs rated their programs' coverage of content consistent with the SIOP *Guidelines* and those competencies upon which they were trained were rated as important for their current jobs—including the research/statistics courses. Given the breadth that we can afford our master's students, we are somewhat puzzled by the idea that some content simply cannot be covered within the confines of a doctoral program's usual 5-year length.

Role of Internships

We have significant concerns with regard to the internship becoming the (nearly) exclusive instructor of practical skills. We think it is not only *not* practicable to teach some topics (e.g., ethics, applications of federal law, individual assessment) within an internship that presumably concludes the doctoral degree, but we think it is too late to wait to teach such topics until an internship. Particularly, as Byrne et al. indicated in the focal article, some aspects of counterproductive behavior or lack of ethics should be a selection criterion for the internship. There are other aspects to the recommendations around the use of internships with which we disagree. For example, Byrne et al. recommended that employment law be taught in the certified internship rather than as part of the graduate curriculum. We certainly agree that employment law should be taught to I–O graduate students, a sentiment consistent with Tett et al.'s (2013) finding that suggests master's programs currently teach this more regularly than do doctoral programs. Two of us regularly teach the employment law course in our respective graduate programs, and one of the authors recently developed the instructor's materials for the most recent edition of a widely used Equal Employment Opportunity law book (Gutman, Koppes, & Vodanovich, 2010). We recognize this material can be difficult to teach. Yet, because of the challenges in teaching an employment law course, I–O graduate programs should assume this responsibility rather than deferring it to an internship host. With only a few exceptions, our experience with hundreds of interns over a period of several decades indicates it is rare for an intern to be exposed to employment law in sufficient depth to become proficient in the details of the law. Furthermore, because of the potential employer liability involved with employment law in practice, it is unlikely an internship host would delegate anything more than peripheral tasks to an intern.

With regard to Byrne et al.'s appeal to avoid counterproductive work behaviors, the authors recommend a greater emphasis on ethics in graduate training, something with which we readily agree. Some graduate programs have a course in which professional issues are addressed, including ethics. We applaud those programs, believing that ethical behavior and decision making should be taught well before internship placements. Interestingly, the authors of this article are aware of nationally recognized experts in ethics having had panels rejected by SIOP reviewers, with the strongest criticism that this type of session does not belong at the SIOP conference. Yes, there have been some ethics presentations at SIOP, but it appears the support for ethics training is mixed, at best.

We find the suggestion that internship sites be SIOP certified troublesome on several counts. First, given SIOP's reluctance (thus far) to accredit graduate programs, it seems even a farther reach to ask SIOP

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to certify internship sites. Would the certification be for doctoral specific sites? If so, how would they be differentiated from master's or undergraduate level sites? In our own experiences with internship sites (our master's programs require internships), it can be difficult to find suitable sites in adequate numbers. Further compounding this difficulty is that employers who are pleased with their interns often offer those interns permanent employment, with the likely result that the internship site is lost until the organization has grown sufficiently to again need interns. Would certifying a site require that the position be held solely as an internship (i.e., the employer would not offer employment to well qualified students, keeping the site exclusively an intern job) or would programs be compelled to continually find new internship sites to certify? We note here that internship hosts often perceive themselves as ''doing a favor'' to the university or program, not the other way round, as the idea of certification might be interpreted by some internship hosts.

Despite these concerns, and to be clear, we believe the internship is an excellent place for doctoral students to acquire skills that will make them useful not only to organizations but also for many academic placements. As emblematic of this need for practice skills at the doctoral level, finding new faculty for master's programs who can teach applied skills can be a significant challenge because the focus of so many doctoral programs is on theory and research without much emphasis on application in organizations. Teaching internships or specific graduate training in teaching to acquire instructional skills are a good idea and something that can be found within master's level programs where advanced graduate students teach labs or other lower level courses.

Role of Internships in Master's Programs

Internships are a vital component of master's level training because most terminal master's students are likely to secure employment in organizations and not continue to doctoral training. Within on-going internship programs, students find internships in a wide variety of organizations, ranging from *Fortune* 50 organizations to organizations that employ fewer than 50 employees. Meaningful internship experiences can be gained in most organizational settings, recognizing that sometimes internships provide information about careers or practices interns would like to avoid in their careers. Acquiring relevant career information from an internship is especially valuable at the undergraduate level.

We wholeheartedly agree with Byrne et al. that internships can be very valuable learning mechanisms for students, graduate and undergraduate. In two surveys of organizational hosts and master's-level interns (Shoenfelt, Kottke, & Stone, 2012), we asked respondents about the need for 12 competencies at internship entry and found that all 12 were expected at entry and all ultimately were strengthened during internships. Of particular note, in light of the Byrne et al. recommendations, ethical behavior/integrity and professionalism were rated by organizational hosts as two of the top three skills required *upon entering* the internship (statistical analysis was the third). Furthermore, our findings suggested that the relationship between the organizational host and the campus program was important to the success of the internship for both the host and the student. Securing the internship site was often predicated on an already existing relationship between the organization and the graduate program (i.e., a site had already hosted interns and was willing to host more). Interested readers are referred to Shoenfelt et al. (2012) for a more detailed discussion regarding internships.

Employability

Another way to evaluate the value of internships is through the lens of employability, which is defined as the ''capacity to gain and retain formal employment, or find new employment'' (Hogan,

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Chamorro-Premuzic, & Kaiser, 2013, p. 3). Hogan et al. suggested that this construct can be invaluable to understanding why some people remain chronically unemployed whereas others thrive in their careers. Specifically, they suggested there are three components that make some people more employable than others; these individually based facets are ''rewarding to work with'' (R), ''able to do the job'' (A), and a ''willingness to work hard'' (W). In terms of what employers want, the R and the W are more likely to be the defining factors for selection and retention, as most interns who have completed graduate I–O training likely will have the ability to perform the job. Internships are a marvelous opportunity to develop all three RAW facets, with special emphasis on rewarding and willingness (Shoenfelt, Stone, & Kottke, 2013). We have been analyzing 12 years of data from intern performance appraisals for evidence of employability (Kottke, Shoenfelt, & Stone, 2013). Though our analyses are not yet complete, there is clear evidence thus far that master's students are typically evaluated on the three facets of employability and that all three facets are highly prevalent as descriptors of intern performance.

Thus, combining both the competency and the RAW approach as a means to evaluate internships leads to the same conclusion, which we share with Byrne et al.: Internships are a valuable experience for graduate students. That said, we are apprehensive about Byrne et al.'s recommendation to defer some specific I–O competencies (e.g., ethics, employment law) that our data (Shoenfelt et al., 2012) suggest should be taught prior to internship entry, as deferring this content to the internship could be a disservice to the student, the program, and the organizational host.

Conclusion

We agree with Byrne et al. that competencies targeted for I–O graduate training should be revisited in light of changes in the work place and work force, as well as providing realistic expectations for graduate programs. We propose, however, that SIOP take a more integrated approach in reviewing the I–O education guidelines. Even a casual reading and comparison of the master's and doctoral competencies indicates great similarity in the competencies expected at each level. We suggest that the differences between master's and doctoral education may truly lie in degree, not type of competency, and believe that an approach that spans undergraduate to doctoral education would best serve SIOP members and the profession. Most master's programs by necessity have focused more on the practitioner side of the scientist–practitioner model; perhaps there are lessons from these experiences for increasing the practice focus in doctoral training programs.

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