In this Education and Training column, we continue our exploration of emerging trends in I-O education. Recent columns have considered current trends regarding master’s degree programs, Web-based education, and nontraditional programs in I-O. The current column takes this discussion a step further, not only examining trends or suggesting alternative designs of I-O education, but also challenging us as I-O psychologists to consider how we want to handle the responsibility of training future generations of I-O psychologists. The way in which education of our future colleagues is handled will ultimately affect the field at a deep level. David raises some important questions on the expanding multidisciplinary direction that I-O research and practice is taking as well as considering where future I-O and related programs may be housed. This piece will undoubtedly stimulate debate regarding the future direction of I-O.

David and I continue to solicit your feedback about the E&T column and look forward to more discussion of the future of education and training in I-O. Please send any questions, suggestions, or manuscripts to be considered for future issues to either David Costanza (dcostanz@gwu.edu) or me (jkisamore@ou.edu). If you have any questions concerning this article specifically, please contact David Costanza directly.

Whither I-O: Get Thee From Psychology?

David P. Costanza
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There has been a great deal of discussion recently within SIOP about the future of I-O psychology. These conversations have ranged from our name to licensing issues to the entry of clinicians into the practice of I-O to the future of I-O within psychology departments. Concurrent to these events, a number of things happened professionally that raised my interest in the future of I-O. First, the I-O psychology program here at George Washington went through a lot of change, including some pretty clear signals from the Psychology Department and the College of Arts and Sciences that, although valued, I-O might not have a prosperous future in the Psychology Department. Second, I was elected chair of a new interdisciplinary department that I had helped create. I-O considered joining this new interdisciplinary department and my...
interest, both as a faculty member and a chair, was piqued. Finally, I was asked to co-edit the *TIP Education and Training* column. Reading the submissions, talking with my co-editor, meeting with the editorial board, and working on various E&T Committee projects, including the entrance of clinicians into I-O, raised interesting questions as well.

In addition to the issues addressed formally by SIOP and these career developments, there has been a great deal of informal discussion and conversation among SIOP members about the future of the field. Personally, a series of conversations I have been having with friends and colleagues at the past few SIOP conferences and here locally in Washington confirmed that I-O psychology is in the midst of a complex and difficult time in its history as a discipline. How these issues of identity, discipline, and professional domain are resolved will impact the future of the field.

**Where Is I-O Psychology Now?**

Recently, I was asked to speak at the IOOB conference held at George Mason University. The topic of that talk was the future of I-O psychology. Because the room was going to be full of future I-O psychologists, I figured I would take the opportunity of preparing for the talk to collect a little data on the state of I-O psychology. Some of the results of that effort follow.

Overall, I-O psychology seems to be doing very well. On the input side, undergraduate students are expressing an increasing interest in I-O. At many schools, there are an increasing stream of students for undergraduate I-O concentrations, interest in obtaining research experience, and requests for letters of recommendation. At the graduate level, many programs have substantially more applicants than they can handle. A nonscientific sample of programs taken from the SIOP Web site suggested 10 well-known I-O PhD programs received on average about 100 applications (of course there is overlap among the programs with multiple students applying to the same set of programs), accepted about nine students, and enrolled four of them. The typical combined GRE Verbal and Quantitative score of enrolled students was about 1300 and the typical undergraduate GPA was about 3.7—these numbers are pretty impressive.

Because of the limited number of available slots at top- and mid-level I-O programs and the intense competition for admission, programs in related fields (e.g., organizational behavior, organizational development, human resources management) have been promoted and some new ones (e.g., organizational sciences) created to serve these students. Master’s and doctoral programs are growing and responding to the demand for graduate study in I-O psychology and related fields. Almost all of these other programs, however, have an intellectual connection to I-O psychology and are advertised as such. Although the labels vary, the core content of the programs is similar.
Moving on the output side, I-O master’s and doctoral students have many job offers, often before they graduate (much to the consternation of their advisors). Further, graduates at both the master’s and doctoral level do well in a variety of different job markets including academia, internal and external consulting, and research.

On the input side, there is more demand for programs than there are slots, especially for top programs and among the top students. On the output side, I-O graduates’ skills are in great demand and get good paying jobs. In both cases, demand exceeds supply as the economists would say. Hence, it is not surprising that there is a proliferation of new programs as well as new entrants (e.g., clinicians) into I-O.

Turning to the number and nature of all the programs in more detail, Table 1 (information drawn from the SIOP Web site) shows the number and variety of programs in I-O, OB, and related fields. These numbers were created by reviewing every program description on the Web site. Taking this program-reported data, programs were categorized by home department, degree level, and degree type.1 A few interesting trends emerge. Overall, traditional MA and PhD/PsyD programs that are in I-O and in psychology departments make up only 46% (92/200) of all the programs reporting. Only a few traditional I-O programs (5/200) are housed in departments other than psychology. That means that the majority of the programs (103/200) are neither traditionally I-O nor in psychology departments, but rather related, multidisciplinary, or interdisciplinary programs.

<table>
<thead>
<tr>
<th>Degree</th>
<th>Department</th>
<th></th>
<th></th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>MA/MS in I-O</td>
<td>Psychology</td>
<td>36</td>
<td></td>
<td></td>
<td>38</td>
</tr>
<tr>
<td>MA/MS in all other areas</td>
<td>Business/Mgt</td>
<td>2</td>
<td></td>
<td></td>
<td>53</td>
</tr>
<tr>
<td></td>
<td>Interdisciplinary</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>133</td>
<td>46</td>
<td>21</td>
<td>200</td>
</tr>
</tbody>
</table>

1 Thanks to Jess Deares for her assistance on this.

Table 1
Graduate Programs in I-O Psychology and Related Fields

Source: Data compiled based on published information on SIOP.org.
Where Is I-O Psychology Headed?

Two questions raised by these findings are why there are so many I-O and related programs being offered in departments other than psychology, and why that number is increasing? Of course, one could argue that many (but not most) I-O programs are still in psychology departments. Further, one might argue that this trend is simply a function of the demand component, that is, there are more interested students than there are I-O programs.

Rather, what I believe this trend suggests is that, in addition to the demand issue, the growing number of related, multidisciplinary, and interdisciplinary programs reflects the direction our field is headed. That is, there is an ever increasing focus on an interdisciplinary approach to studying organizations. This trend is reflected in the wide variety of programs in which I-O psychologists teach and research, such as the increasing number of I-O psychologists teaching in (and being chairs in and deans of) business schools, interdisciplinary programs and departments, and nonpsychology social science departments. Further, even for those in psychology departments, more and more I-O psychologists are bridging academic disciplines, departments, and colleges, looking outside their own psychology department for colleagues with whom they can and want to work.

I see several reasons for this growing interdisciplinary “look” to I-O. First, I-O, from its roots, has been a relatively interdisciplinary field. From Wundt’s early studies of human behavior in a laboratory setting to Scott’s contention that psychology be applied to the workplace to Taylor’s human engineering studies to Münsterberg’s interest in applying traditional psychological methods to work, early work in the precursors of I-O psychology came from a variety of backgrounds within and outside of psychology. Later, work by military psychologists (e.g., Yerkes), social psychologists (e.g., Katz & Kahn), and sociologists (e.g., Aldrich) among many others, contributed their discipline’s ideas and approaches to the field we now know as I-O psychology. We truly have a multidisciplinary history.

Second, I-O psychology is a maturing (but not mature) field. We have tested a lot of hypotheses, and the more we learn about people and their organizations, the less we know (at least we know that we don’t know). I-O psychologists have started to look to other disciplines for models, ideas, and approaches to increase our understanding. Sociologists can help us understand organizations, anthropologists can help us understand culture, management strategists can help us understand high-level leadership, and economists can help us understand decision-making behaviors.

Third, the changing nature of work and the work force has increased need for new perspectives. As has been variously and frequently noted, the work force is increasingly more diverse, work is more service and information oriented (at least in the U.S. and Europe where most I-O psychologists work), and organizations are less traditionally structured. What were once some of
the great industrial organizations no longer make many products (e.g., IBM), no longer employ many people who make things (e.g., AT&T), or make money doing something other than making things (e.g., GM). New types of organizations (e.g., Google,) have emerged along with organizations with entirely new structures and characteristics (e.g., E.L.F) that defy traditional I-O psychology models and theories about organizations. Globalization, complexity, and technological advances are all raising new questions that may not be answerable just by psychological models.

As a result of these changes, I-O psychologists are seeking out and finding new methods (qualitative research), new models (strategic management literature and leadership), and new interdisciplinary and multidisciplinary research teams. For example, one project on which I worked combined psychological, sociological, and economic approaches to study work–family issues, satisfaction, and leadership. The result was a richer, more comprehensive, and more complete study of work–family. Conversations with colleagues suggest that many academics are similarly already working with faculty in other departments and disciplines—researching, teaching, and sharing resources. As one colleague quipped: “Is everyone working with someone in the b-school?” Overall, the products of these interdisciplinary and multidisciplinary efforts have the potential to provide richer models, deeper understandings, and more complete explanations of “psychological phenomena” because the traditional I-O approach has been augmented by and benefited from a diversity of perspectives.

Other Challenges Facing I-O Psychology

In addition to the growing need for inter- and multidisciplinarity, there are several other trends and challenges facing I-O psychology. The first is a weakening of support for I-O psychology within some psychology departments and universities. Two recent examples demonstrate this trend:

University “A”—The Psychology Department made a strategic decision to focus on clinical and cognitive/neuropsychology with a specific emphasis on health and prevention. Unless I-O psychology focused on occupational health psychology, or a related field, support for graduate students and new faculty hires by the department was going to end. The program decided to leave the department and join a new, interdisciplinary department focusing on organizations.

University “B”—As a result of financial and other difficulties, a university decided to cut a number of doctoral programs. I-O program faculty reported that the Psychology Department did not fight for the preservation of I-O. The I-O program was terminated and the faculty dispersed.

There are other cases of I-O programs facing cuts in resources, decreasing support within psychology departments, and increasing signs of the distancing of I-O.
Why might support for I-O be weakening? First, as I-O develops its own theories and focuses those theories on organizations and application, the field has less in common with other areas in psychology. This intellectual distancing from psychology programs, such as clinical, educational, and developmental, breaks connections with other psychologists and hence weakens support for I-O. This distancing is not inexplicable. The work of someone studying the impact of leadership on team processes and performance both appears to and actually does have a lot more in common with theories of strategic management than with theories of child development.

Second, the changing nature of higher education is causing universities to focus on "strategic excellence." All universities cannot be everything to everyone—they need to focus resources and efforts on specific areas. Although this trend raises bigger questions about undergraduate liberal arts education (and is worthy of a book unto itself), I-O may be left on the outside if the university and or department makes a strategic decision not to invest in a program.

Third, psychology departments are facing need for increased extramural funding. Such funding leads to additional resources for the department through buy-downs, research returns, graduate funding, and overhead. Unfortunately, in general, I-O has had a harder time pursuing and attaining funding from the sources that traditionally support psychologists (NIH, NIMH, NSF, etc.). I-O psychologists are more likely to get contracts and consulting projects. If those efforts are not run through the university such that the school and department get their share of the overhead, however, the financial benefits of such projects do not accrue, and I-O suffers as a result.

The second big challenge is that as more and more I-O psychologists teach and work in departments other than psychology, there may be fewer faculty to train the next generation. This movement to other departments, programs, and schools depletes psychology departments; makes it harder for students to find advisors, research mentors, and dissertation directors; and raises questions about the future of I-O education.

The reasons for the movement away from I-O psychologists working in psychology departments are not a mystery. As already discussed, there is a disconnect between I-O and other areas, and this may drive I-O psychologists away from jobs in psychology departments and to programs and departments where they feel a greater intellectual connection. Of course, with more and more I-O psychologists working elsewhere, it gets easier and easier for new PhDs to take jobs elsewhere too. Related to this, I-O psychologists may find they have more in common with other faculty, sharing a target of their investigations (people in organizations) rather than a discipline (psychology) for studying widely varying phenomena.

Another reason is exemplified by the response of the students at the IOOB conference. Before starting my talk, I asked the attendees a few questions. When asked "How many of you are interested in academia?" about half raised their
hands. Next, I asked “of those interested in academia, how many would consider going into psychology departments to teach?” Almost all of those interested in academia raised their hands. Finally, I asked “How many of you would be lured by better salaries elsewhere?” Again, all the hands were raised. This points to another reason for the movement away from psychology departments—money.

A recent study Oklahoma State University compared the starting salaries of faculty in a variety of disciplines. Using a salary index where new assistant professors in English departments = 100, Table 2 shows the indexed salaries. With starting salaries in business and management schools nearly double those in psychology departments (even recognizing that there is variability based on discipline; i.e., finance makes more than HR), it is no surprise that new PhDs seriously consider not working in psychology departments. Although the problem of why business school salaries are so much higher than others is another discussion in and of itself, this salary trend also raises the question about who will be left in psychology departments to train future I-O psychologists.

Table 2
Starting Salaries for New Assistant Professors (English = 100)

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>100</td>
</tr>
<tr>
<td>Music</td>
<td>96</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>106</td>
</tr>
<tr>
<td>Psychology</td>
<td>109</td>
</tr>
<tr>
<td>Business Management</td>
<td>214</td>
</tr>
</tbody>
</table>

Source: Office of Institutional Research and Information Management, Oklahoma State University—Universities include mostly public, land-grant institutions.

The Future of I-O Psychology

Given the trends toward interdisciplinarity and multidisciplinarity, the weakening of support for I-O, and the reduction in the number of I-O psychologists teaching in psychology departments (due to lack of support and salary trends), the question is, should I-O even try to stay in psychology? Well, as with many of our models, it depends. There are several possibilities:

Should I-O stay in psychology? On the one hand, if the focus of program matches up with others in psychology department, the answer is likely yes. Cases like this might include programs with a more “I” bent where I-O might find a natural connection with cognitive or clinical psychologists or where “O” programs have connections with the social or counseling psychologists in the department. Of course, if the department or university makes a conscientious decision to support I-O or if there are no viable alternatives, I-O should stay as well. On the other hand, if the focus of program diverges from the rest of the department (e.g., an “O” program in a clinical/cognitive-neuroscience department) or if the department or university makes conscientious decision not to support I-O, there may be no option but to leave.
If the decision is to look for a home outside of a psychology department, what are the options? Business schools, stand alone departments, and interdisciplinary or multidisciplinary departments are all options. Each of these has its strengths and weaknesses, and I-O psychologists should carefully evaluate factors such as the climate supporting research, financial support for graduate students, and productivity criteria, as well as weigh factors such as increased salaries and the presence of new ideas and perspectives for thinking about research problems before deciding whether to leave.

I-O psychology is at a crossroads and is facing a number of challenging and difficult questions. Should I-O programs stay in psychology departments? The answer is maybe, but in many cases, the faculty, students, and the field might be better served by exploring other options. Who will train the next generation of I-O psychologists? That one is easy, I-O psychologists—they just may not be working in psychology departments. The point here is that we can research and teach I-O psychology in a variety of departments. How I-O psychology will continue to thrive while maintaining its identity is by staying connected to our psychological roots (including having students continue to take core psychology courses), no matter the offering department or school. But at the same time, we must recognize that the nature of work, workers, our field, and education in general is changing and that I-O psychology must recognize and respond to these changes. We must practice what we preach, study ourselves as individuals in multiple organizations, and respond to the changing educational environment for I-O psychology.