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Training Psychologists to Integrate Basic, Applied, and Evaluation Research: In Pursuit of Meaningful Contributions

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As many as 80% of psychology doctoral students being trained in Canadian universities will pursue careers beyond traditional tenure-track faculty careers. However, most research focused doctoral training programs in psychology primarily prepare students to conduct basic research in a way that will increase their chances of obtaining a tenure-track faculty position and eventually earning tenure. This paper describes an established psychology graduate training approach that prepares students to apply the science of psychology in both applied research and academic careers. Faculty in Canadian Psychology Departments are encouraged to think about how they might add at least some of the components of this approach to meet the needs of the changing graduate student population in Canada and to empower the next generation of Canadian research psychologists to purposely focus on using psychological science to promote social betterment in pursuit of meaningful career contributions.

Public Significance Statement

This paper describes a successful graduate training approach for psychology students as a model for addressing pressing needs in Canadian universities. This approach is designed to facilitate the development of psychology graduate students for engaging and meaningful careers applying the science of psychology in both applied research and academic careers.

Keywords: graduate education, careers in psychology, applied research, evaluation research

"Life is never made unbearable by circumstances, but only by lack of meaning and purpose."

-Victor Frankl

It has recently been reported that the vast majority of research psychologists being trained in Canadian universities no longer desire or will obtain traditional tenure-track professor positions throughout their careers. Some estimates are that this number has risen above 80% in recent years (Naylor, 2019). The same trend is

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The graduate programs and portfolio-planning process described in this paper were designed and redesigned collaboratively over time by the graduate faculty in psychology at Claremont Graduate University. A more full description and supporting documentation can be found on the psychology department website: https://www.cgu.edu/. The information provided about alumni is public information and more details can be found on their professional and personal websites.

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being seen in other countries throughout the world including the United States (Donaldson, 2019; Donaldson & Berger, 2006). Despite the scarcity of tenure track academic jobs and the fact that the majority of psychology graduate students prefer to seek meaning and purpose in applied research-oriented careers, many universities have nonetheless doubled down on training their doctorate students mainly for academic jobs and careers (Naylor, 2019). The purpose of this paper is to describe a somewhat unique graduate training approach that has been in operation for more than 50 years. This approach is designed to facilitate the development of psychology graduate students for engaging and meaningful careers applying the science of psychology in both applied research and academic careers (see American Psychological Association, 2019; Donaldson, Berger, & Pezdek, 2006; Donaldson, Csikszentmihalyi, & Nakamura, 2011; Neff & Donaldson, 2012).

The Claremont Experience

The Claremont colleges are a consortium of seven highly selective institutions of higher education located in Claremont, California. They comprise five undergraduate colleges—Pomona College, Scripps, Claremont McKenna College, Harvey Mudd College, and Pitzer College—and two graduate schools—Claremont Graduate University and Keck Graduate Institute. The con-

sortium was founded in 1925 by Pomona College President James A. Blaisdell, who proposed a collegiate university design inspired by Oxford University. He sought to provide the specialization, flexibility, and personal attention commonly found in small colleges but with the resources of a large university. Today the consortium has approximately 7,700 students and 3,600 faculty and staff and offers more than 2,000 courses every semester.

The graduate programs in psychology are housed at the Claremont Graduate University, but psychologists from across the consortium participate in graduate training. In the 1970s, with much input from potential employers and successful alumni working in applied settings, the traditional graduate psychology programs were redesigned to prepare students for a broader range of careers options focused on making meaningful contributions in society. The overall mission of the psychology doctoral program at Claremont Graduate University is to teach graduates how to conduct high-quality basic, applied, and evaluation research and to provide graduate students with experiences integrating all three focused on preventing and/or ameliorating a wide range of social, health, and organizational problems in societies across the globe. This mission is accomplished by providing coursework and requiring the completion of a doctoral portfolio focused on developing expertise in one or more of the following current concentration areas:

- Positive organizational psychology
- · Positive developmental psychology
- · Organizational behavior
- Evaluation and applied research methods
- · Basic and applied social psychology
- Applied cognitive psychology

A more detailed description of the concentrations listed above can be found on the Claremont Graduate University website (https://www.cgu.edu/).

Doctoral Coursework

Psychology doctoral students are required to complete 72 units of graduate coursework. Most courses are either 3 hr once a week for 7 weeks (2 units) or 3 hr once a week for 14 weeks (4 units). The majority of this coursework is expected to be completed at the Claremont Colleges, but up to 24 units of approved graduate courses from other colleges and university may be transferred toward the PhD coursework requirement. All doctoral students are required to take at least 20 units in statistics and research methodology and approximately 40 units of core courses and related electives in their concentration area, complete a field or teaching internship and a transdisciplinary core course, pass an oral qualifying exam, and complete a doctoral portfolio (described in more detail below) and a doctoral dissertation. Some students also choose a co-concentration (similar to a minor), which requires coursework and related items to be included in their doctoral portfolio plan (DPP).

Doctoral Portfolio Plan

One hallmark of the psychology doctoral training program at Claremont Graduate University is the DPP. This seems to help students seriously reflect about their strengths and interests and to use this reflective practice to design a course of graduate study tailored to prepare them well for the pursuit of their most highly valued career aspirations.

All doctoral students are required to develop a detailed DPP during the first 2 years of their doctoral study. The student's academic advisor typically selects a committee of two faculty members who along with the student will convene a program planning and portfolio qualifying meeting. The adviser will ordinarily chair this committee. The purpose of this meeting is to (a) aid the student in defining his or her specialization area, (b) ensure that the student is advancing satisfactorily in each of the domains of preparation outlined below, (c) formalize an appropriate portfolio for the student, and (d) for students with prior graduate work elsewhere, evaluate the student's transcript to determine which courses will be accepted for transfer credit on the basis of relevance to the student's area of specialization.

In developing the DPP and selecting related core courses and research tools, the following domains should be represented:

- Mastery of field of specialization—Students should take
 the core courses as well as topics courses necessary for
 mastery of their field of specialization; relevant coursework outside psychology should be considered and any
 research or methods courses necessary to support the
 designated specialty area. As necessary, portfolio items
 should be selected to require such mastery.
- Breadth of preparation—Students should take content courses as well as methodology courses outside their program of specialization to enhance the breadth of their knowledge base.
- 3. Integration—Each student must include in her/his portfolio at least one item that requires integration of information in the area of specialization; this may be a review paper, a meta-analysis, a theoretical integration, or some other written project that accomplishes this goal.
- Research productivity—The portfolio should include one or more samples of research appropriate to the specialization area (e.g., MA thesis, publishable paper, technical report, etc.).
- Practical experience—The portfolio should include at least one item representing practical experience relevant to the student's career goals.

Students with career goals in academia must include the experience of teaching at least one college course, preferably on their own; these students should also have as portfolio items at least one research report submitted for publication (preferably with the student as Stewart I. Donaldson) in addition to the MA thesis research.

Students with career goals in nonacademic settings must include a field placement or work experience relevant to their area of specialization; these students should also consider as portfolio items an additional research tool and/or additional methodology courses that are utilized in their field of specialization as well as a grant proposal and/or technical report of the nature utilized in the field of interest. 244 DONALDSON

Contents of the DPP

The DPP is expected to represent a cohesive set of experiences that balance the student's training in their field of specialization. It is the student's task to prepare the DPP proposal to be given to each committee member at the time of the meeting. The DPP proposal should be discussed with the student's adviser prior to the meeting. Sample proposals are available in the Psychology Office. The DPP proposal will represent the domains of preparation outlined above and include:

- (a) A title and description of the proposed area of specialization
- (b) Specification of proposed core courses and research tools (a copy of research tool requirements is available in the Psychology Office)
- (c) A brief statement of career goals and possible job activities
- (d) Identification of skills appropriate to these goals and specialization
- (e) A proposed set of at least six portfolio items with a brief description and the proposed completion date for each
- (f) A current vita.

Procedure for Entering Items in the DPP

Each student's DPP must contain at least six items, each of which is relevant to the student's area of specialization. It is expected that each item approximates the work effort required in 4–8 units of graduate coursework. The following list illustrates, but does not exhaustively define, appropriate types of items:

- (a) MA thesis
- (b) Research article submitted for publication
- (c) Formal oral presentation at a professional meeting
- (d) Research or technical report
- (e) Research or grant proposal
- (f) Review paper
- (g) Teaching experience
- (h) Internship or field placement
- (i) Relevant job experience
- (j) Eight or more units of nonrequired methodology
- (k) Relevant nonrequired two sequence outside psychology
- A cohesive series professional development workshops from an accredited institution.

Each item will first be submitted to the adviser who will determine its relevance for the DPP and the need for additional readers. Items such as research reports, grant proposals, and review papers will be reviewed by a second reader as well before being added to the DPP.

An item will be signed off on the DPP if the adviser determines that it meets the specifications of the plan and, for items with two readers, if:

- (a) Both readers approve it or
- (b) One reader approves and one disapproves. In this case the item will be entered in the portfolio at the student's option with a copy of the review from the dissenting reader
- (c) An item disapproved by both readers may be revised only once and resubmitted; no item will be reviewed more than twice by each reader
- (d) If one item is disapproved by both readers or if more than one item is disapproved by one reader, the committee chairperson will reconvene the committee to review the student's overall progress and determine what action should be taken
- (e) Appropriate documentation of each portfolio item, as specified by the committee, will be filed in the department office and available for inspection by the faculty until after the student's advancement to candidacy for the PhD. The final DPP, signature sheets, and an updated copy of the student's vita will be kept in department files permanently.

Changing the DPP

The student may request a change in the DPP by submitting in writing to the committee a detailed description of the proposed changes along with a rationale for these changes. The students should sign the proposed change and provide a space for approval signatures of the portfolio committee. To become effective, the proposed changes in the plan must be endorsed by all committee members. The student's adviser will determine whether the committee should reconvene to consider the proposed changes. With a specific written rationale, the student or any committee member may request changes in the committee membership. Any proposed changes will be decided by a majority vote of the committee.

The Final Steps

Once a student completes all the required coursework and requirements of the DPP, he or she is eligible to schedule an oral qualifying exam. Upon the successful completion of the oral qualifying exam, the student is eligible to propose a dissertation topic to three faculty members. Upon approval of the dissertation proposal, the student is advanced to candidacy (all but dissertation) and is given approval to complete and then orally defend the doctoral dissertation.

At the end of this doctoral training experience, most students report having strong basic, applied, and evaluation research skills that they can applied in either an applied research or academic career. Of particular importance seems to be their training to build and manage data sets as well as strong analytic and statistical skills necessary for answering basic, applied, or evaluation research questions. The DPP appears to help them develop a wide range of job-related practical skills outside what they learn in the classroom, which serves them well when they are on the job market and throughout their research careers.

A Sample of Alumni in Meaningful Careers

After implementing this curriculum for close to 5 decades, we have been able to observe the career paths of more than a thousand alumni. These observations have revealed there are at least five common career paths: (a) academic careers within psychology, (b) academic careers in other disciplines, (c) applied research and evaluation careers, (d) consulting careers, and (e) careers that evolve into various types of leadership positions. Many examples of the careers of research psychologists who have been trained at Claremont are described by Donaldson et al., 2006. A few illustrative examples for each of the five categories are provided below.

Academic careers in psychology. Elisa Grant-Vallone (1998), Robert McKenna (1998), and former U.S. Olympian Lacy Barnes-Mileham (2009) developed their careers within psychology departments. However, all of them have also risen into academic leadership positions. Dr. Grant-Vallone is currently professor of psychology and chair of the psychology department at California State University, San Marcos, California. Dr. Robert McKenna is currently professor of psychology and chair of the industrial/organizational program at Seattle Pacific University. In addition, Dr. Lacy Barnes-Mileham is professor of psychology at Reedly College in California and president at the State Center Federation of Teachers in Fresno, California.

Academic careers in fields other than psychology. The Claremont approach of integrating basic, applied, and evaluation research provides students with the skills to work across disciplinary boundaries and often inspires students to pursue real-world problems that are multidisciplinary or transdisciplinary in nature. Many of our alumni who pursue academic careers find themselves thriving in departments other than psychology departments. David B. Wilson (1993), Ellen Ensher (1998), and Bianca Montrose-Moorehouse (2009) have developed their careers in fields outside but related to psychology. Dr. David B. Wilson is currently professor and chair of the Criminology, Law, and Society Department at George Mason University in Fairfax, Virginia. Dr. Ellen Ensher is currently Professor of Management at Loyola Marymount University in Los Angeles, California. Dr. Bianca Montrose-Moorehead is currently Associate Professor of Research Methods, Measurement, and Evaluation at the University of Connecticut, Hartford, Connecticut.

Applied research and evaluation careers. Many of our students pursue careers that involve conducting research and/or evaluation in a wide variety of real-world settings. It is estimated that as many as 75% of our current doctoral students will seek careers in this category. Dr. Katrina Bledsoe (2003) is principal research consultant at the Education Development Center in Washington, D.C. Dr. Shabnam Ozati (2012) is Director of User Experience Research at Google in San Mateo, California. In addition, one of our recent graduates, Sara Mason (2018), was hired last year to

conduct research and evaluation, and to help develop a research and evaluation center at the University of Mississippi in Oxford, Mississippi.

Consulting careers. One of the most popular career paths in recent years involves providing a wide range of research, applied measurement, and evaluation consulting services. Dr. Chrismon Nofsinger (2001) specializes in leadership advising and training using applied research and evaluation at the Nofsinger Consulting Group in Seattle, Washington. Dr. Rena Yi is a people analytics consultant at LinkedIn in San Francisco, California. A recent graduate, Dr. Lara Hilton (2019), is senior manager of government and public services at Deloitte Consulting in Los Angeles, California.

Leadership careers. Many of our alumni decide to develop and lead their own nonprofit or for-profit organization focused on important social, health, or organizational issues.

Others seem to rise to leadership positions rather quickly in large organizations. For example, Dr. Geoffrey Smart (1998) is chairman and founder of ghSMART in Denver, Colorado, and Dr. Kevin Groves (2002) is president of Grove Consulting Group, Hermosa Beach, California. Dr. Maren Dollwet (2016) is an example of an alumna rising quickly in a large corporation. She is currently senior director of U.S. People at Walmart Headquarters in Bentonville, Arkansas.

Conclusion

One main purpose of this brief article is to describe a longestablished psychology doctorate training approach that could be emulated, at least in part, to respond to current trends facing Canadian universities. For example, conversations with potential employers and successful alums working in applied settings in Canada might reveal key insights about which aspects of the DPP and the Claremont model in general are most relevant and address current needs. This approach, based on teaching psychology doctoral-level students ways to integrate basic, applied, and evaluation research to promote social betterment and justice in many forms and settings, may turn out to be a fruitful direction for preparing future research psychologists aspiring to meaningfully contribute to Canadian society over the course of their careers. One virtue of this approach is that students can sample many of the career options discussed early in their training and early in their careers and have the knowledge and skills to navigate successful career changes as their needs and interests naturally change over the course of their lives and careers. It is important to note that masters, certificate, and professional development training are also provided using this approach, which can better prepare psychology graduate students for the rigor of doctoral work focused on applying the science of psychology. These other forms of education can also lead to a wide variety of research and evaluation positions that do not require a PhD. It is my hope that the approach and applied research and academic career paths discussed will inspire Canadian Psychology Departments to think about new ways of meeting the demands of the changing student populations and empowering the next generation of Canadian research psychologists to purposely promote social betterment in pursuit of meaningful career contributions.

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Résumé

Jusqu'à 80 % des étudiants au doctorat en psychologie, formés dans les universités canadiennes, vont poursuivre leur carrière au-delà des postes traditionnels en milieu universitaire. Cependant, la plupart des programmes de doctorat en psychologie axés sur la recherche préparent principalement les étudiants à mener des recherches de base de façon à augmenter leurs chances d'obtenir un poste menant à la permanence et éventuellement un poste permanent. Cet article décrit une approche de formation d'études supérieures en psychologie qui prépare les étudiants à appliquer la science de la psychologie dans des activités de recherche appliquée et dans les carrières universitaires. Les membres de faculté des départements de psychologie au Canada sont encouragés à réfléchir à la façon dont ils pourraient ajouter quelques éléments de cette approche pour répondre aux besoins de la population étudiante changeante des cycles supérieurs au Canada et pour préparer la prochaine génération de chercheurs en psychologie à favoriser l'utilisation de la psychologie scientifique pour promouvoir le mieux-être social dans la poursuite de carrières enrichissantes.

Mots-clés : enseignement aux cycles supérieurs, carrières en psychologie, recherche appliquée, recherche en évaluation.

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