

## Filling the gaps of graduate school training: Perceived relevance and efficacy of the *New School Psychology Bulletin*

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*We examined whether the New School Psychology Bulletin (NSPB), a peer reviewed journal operated by graduate students, was perceived as relevant and effective among individuals pursuing clinical, nonclinical (research and academic), and combined clinical and nonclinical careers. Individuals (N = 155) were surveyed for career goals, current research interests, as well as perceived relevance and efficacy of the NSPB. Although research interests differed by career goals, participants perceived the NSPB as effective for providing valuable writing and peer review experiences, cultivating research, and increasing communication between students and faculty, and relevant for training clinical and nonclinical students. The results of this survey suggest that students perceive those skills offered by the NSPB as relevant and effective in their professional development, which in turn, may foster the scientist-practitioner training model.*

Psychology professors are often expected to publish in scholarly journals, and serve as reviewers on grant committees and editorial boards (e.g., Byrnes, 2007; Landrum & Clump, 2004; Meyers, Reid, & Quina, 1998); thus, scientific writing and editing, as well as practical experience in the process of publishing, are arguably essential in the success of fledgling professors. Unfortunately, however, there is currently a lack of training in manuscript preparation and peer reviewing. This need for better training in peer review and scholarly publishing was emphasised by two presidents of the Association for Psychological Science (Mischel, 2008; Roediger, 2007). Mischel suggests that training graduate students in peer review and editing may address deleterious reviewing practices that undermine the rigorous scientific review. Similarly, Roediger reports that superior reviewing skills can help young scholars advance in their careers, yet only select students receive the opportunity to review for a professional journal, and among those who do serve as reviewers, they simply learn how to review by following their mentors.

In 2003, the *New School Psychology Bulletin* (NSPB), a graduate student peer reviewed journal, was created to fill a potential gap in the training of future psychologists. The journal is published semiannually, and is operated entirely by graduate students. The central aim of the NSPB is to give students a chance to practise submitting manuscripts and review articles during their graduate school training.

The editorial board is selected through an annual application process in which numerous graduate

programmes are contacted and electronic announcements are sent out via email. New members are selected based on past experience; research interests; participation in professional organisations; and overall potential to meet the responsibilities of peer reviewing, and they are asked to serve for one year. As editorial board members they review an average of four to five manuscripts. Each member receives written materials about editing and the expectations of the journal from the editors-in-chief, and is expected to write a constructive narrative detailing the strengths and weaknesses of a manuscript. Editors-in-chief and the reviewers discuss their response to manuscripts throughout each stage of the peer review process.

Manuscripts are received from graduate students on a rolling basis. Each stage of the submission process provides authors with a chance to develop their writing skills. Manuscripts must adhere to American Psychological Association (APA) format and NSPB guidelines. If a manuscript is accepted, authors are asked to address peer reviewer queries, and resubmit a revised manuscript and cover letter detailing the changes to the original paper. Authors are also encouraged to speak with coauthors, mentors, and the editors-in-chief about strengthening their manuscript throughout each phase of the submission process.

The editors-in-chief are responsible for overseeing the entire operation of the NSPB. They manage the budget, the selection of the editorial board, and all aspects of the peer review process. In addition, they work with the printers, the website developer, and graphic designers

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on the layout, printing, and distribution of materials. For an extensive review of the journal's history and operations, see Antonius, Brown, Todman, and Safran (2007).

Since the inaugural issue, submissions and peer review applications to the NSPB have consistently increased (Antonius & Brown, 2005, 2006) and according to a website tracker, the journal's website (<http://www.nspb.net>) was independently visited 942.20 times per day between January 1 and October 8, 2007 (Antonius & Brown, 2008).

The increasing student interest and participation in peer reviewed journals suggest that the operation of a student journal, such as the NSPB, may function as a valuable model to enhance training in graduate school. However, extant research on the benefits of student-run journals has focused primarily on undergraduate students, and the results have been mixed (Ferrari & Davis, 2001; Ferrari & Hemovich, 2004; Ferrari, Weyers, & Davis, 2002; Powell, 2000). Powell (2000) posits that student-based journals serve as a good outlet for undergraduates to publish their work and, although they are not considered as prestigious as professional journals, may enhance one's curriculum vitae towards graduate school admission. Ferrari and Hemovich (2004) suggest that participation can augment skills in scientific writing, critical thinking and organisation, and foster mentorships between students and faculty. Despite this, Ferrari and Davis (2001), Ferrari, Weyers, and Davis (2002) and Ferrari and Hemovich (2004) report that faculty and training directors are often unfamiliar with undergraduate journals, do not recommend that undergraduate students publish in them, and publications in such journals do not increase the likelihood of an applicant's acceptance into a graduate school programme. Unfortunately, little is known about the benefits of a peer reviewed publication aimed towards graduate students (Antonius et al., 2007).

It is worth noting that the APA puts emphasis on combined practical and experimental training, and views student involvement in research activities as an important factor in APA accreditation (APA: Committee on Accreditation, 2005). However, although many psychology programs claim to offer a scientist-practitioner model, establishing a program that provides students with a balance of science and practice has proven to be difficult (Addis & Jacob, 2000; Bernstein & Kerr, 1993; Maher, 1999). Parker and Detterman (1986) conducted a survey among clinical psychology graduate students and found substantial support for a specialized clinical or research-oriented model, rather than that of a scientist-practitioner. Students primarily identified themselves as either clinicians, engaging primarily in clinical work, or as scientists, whose main interest was participating in research. Additionally, most survey respondents believed that their peers were either

scientists or practitioners, but not both, and few participants perceived the Boulder Model (scientist-practitioner) to be successful. Similarly, Perl and Kahn's (1983) survey of clinical and nonclinical graduate students revealed that students pursuing careers in clinical psychology demonstrated less interest in research and were less involved in research projects than nonclinical students.

In lieu of APA's focus on empirical training, and the apparent lack of formal training in editing and peer-review skills in graduate programs, the present study was designed to examine students' interest in research and how they perceive the relevance and efficacy of the NSPB on their training. Given previous differences in research interests among clinically and nonclinically oriented students, we expected that perceptions of the NSPB would differ by career goals. We hypothesised that in light of the attempts over the past three decades to foster the interest of research among clinical psychology graduate students, clinical students would report less interest in research during their training. Furthermore, we hypothesised that NSPB would be perceived as relevant to training and efficacious in providing opportunities for students to develop a variety of important publishing skills.

## METHOD

### Participants

One hundred and fifty-five individuals (109 women and 46 men) participated in the study ( $M$  age: 25.97 years,  $SD = 5.79$ ). Participants consisted of 59.7% White, 10.4% African American, 15.5% Asian, 5.2% Hispanic, and 9.1% other. Fourteen participants reported some previous experience of the NSPB.

Participants were divided into 33.8% undergraduate students (completed or enrolled in undergraduate studies), 42.8% masters level graduate students (completed or enrolled), and 19.4% doctoral students (completed or enrolled). Six participants who reported less than undergraduate education, and one participant who did not report their level of education, were excluded from further analyses. There were no significant gender differences found for age ( $p = .94$ ) and race ( $p = .61$ ); more women reported masters and doctoral level education,  $\chi^2(4) = 11.19, p < .05$ .

In order to assess hypothesised differences that would emerge as a function of career goals, participants were classified by the type of careers that they were pursuing. *Clinical* referred to clinical work; *academic* to teaching oriented work; *research* to nonteaching research-related activities; *combination* to participants hoping to combine research, clinical and academic interests; *unsure* to individuals not certain about their career goals; and *none of the above* to individuals who were not interested

in either a clinical or a nonclinical career in psychology. Participants were divided into 25.2% ( $n = 39$ ) clinical, 8.4% ( $n = 13$ ) academic, 5.2% ( $n = 8$ ) research, 23.9% ( $n = 37$ ) combination, 14.2% ( $n = 22$ ) unsure, and 19.4% ( $n = 30$ ) none of the above. To increase statistical power, academic and research were collapsed into one classification, *nonclinical*.

### Materials and Procedure

Participants were recruited through electronic announcements or fliers placed around the New School campus, or during a resting phase of an unrelated study. A questionnaire was developed and included questions about age, gender, ethnicity, level of education, and career goals. The remainder of the questionnaire consisted of Likert-type scale questions assessing student attitudes towards research and perceived efficacy and relevance of the NSPB.

For perceived efficacy, participants were asked to rate (1 = *not effective*; 5 = *very effective*): How effective can NSPB be in cultivating research within a psychology program?, How effective can NSPB be in increasing communication between students and faculty in a psychology program?, Overall, how effective do you think NSPB can be in providing valuable experiences – such as writing, editing and reviewing papers, communication with other authors, and preparation for publishing in more prestigious journals – to students?, and How effective do you think NSPB can be in strengthening the overall academic experience at the school?

Perceived relevance was assessed with two questions using a five-point Likert-type scale (1 = *not relevant*; 5 = *very relevant*): How relevant is NSPB to students enrolled in a clinical psychology program? and How relevant is NSPB to students enrolled in an experimental psychology program?

Research interests were assessed with two Likert-scale items in which participants were asked: How interested are you in doing research now? (1 = *not interested*; 5 = *very interested*), and I see research as a requirement to get my degree rather than something I am interested in (1 = *not true*; 5 = *very true*).

## RESULTS

Data analyses were conducted in several steps. First, one-way analysis of variance (ANOVA) tests were conducted to examine the relationship between career goals and current research interests.

As expected, group differences were found ( $F(4, 142) = 12.16, p < .001$ ); career goals were related to research interests (see Table 1). Participants primarily interested in a nonclinical career had more interest in research than did participants with combined career goals, clinical

career goals only, those unsure about their career goals, and those not interested in a clinical or nonclinical career in psychology. Least significant difference (LSD) *post hoc* analyses ( $p$  values at  $< .05$ ) revealed that participants with nonclinical goals were significantly more interested in research than were clinically oriented participants, as well as participants who were unsure. Participants aiming to combine clinical, research and academic work reported markedly stronger research interests than participants who were unsure. Participants without any clinical and nonclinical goals reported significantly lower levels of research interest than all other groups.

In order to more clearly examine the relevance and efficacy of the NSPB among individuals pursuing clinical or nonclinical careers, or a combination of the two, those participants reporting unsure and none of the above on career goals were excluded from further analyses.

Another one-way ANOVA was conducted to further examine differences in research interests between clinical, nonclinical, and combination groups. The analysis revealed significant ( $p < .01$ ) group differences  $F(2, 92) = 7.72$ ; clinically-oriented participants ( $M = 3.08, SD = 1.22$ ) reported less genuine interest in research than both nonclinically ( $M = 2.10, SD = 1.51$ ) and the combination-oriented ( $M = 2.03, SD = 1.14$ ) participants.

**Table 1**  
Means and standard deviations results for research interests by participants' career goals<sup>a</sup>

	Research interest <sup>b</sup>
Career goal	<i>M (SD)</i>
Nonclinical <sup>c</sup>	4.62 (0.60)
Combined <sup>d</sup>	4.27 (0.90)
Clinical <sup>e</sup>	3.84 (0.90)
Unsure <sup>f</sup>	3.59 (1.20)
Neither <sup>g</sup>	2.87 (1.30)

*Note.* <sup>a</sup>Entries are means on five-point scales; higher values indicate more positive ratings.

<sup>b</sup>Mean (*SD*).

<sup>c</sup>Nonclinical: participants pursuing careers in research and/or academic instruction.

<sup>d</sup>Combined: participants pursuing careers combining clinical work, research, and academic instruction.

<sup>e</sup>Clinical: participants pursuing careers in clinical work.

<sup>f</sup>Unsure: participants pursuing a career in psychology but are unsure of their career goals.

<sup>g</sup>Neither: participants who are not pursuing a clinical or nonclinical career in psychology.

In the second phase of analysis, one-way ANOVAs were conducted to examine the perceived importance of editing and writing skills according to career goals. Career goals did not influence perceived importance of editing,  $F(2, 93) = 0.74, p = .48$ , and writing skills,  $F(2, 94) = 1.43, p = .25$ . All participants perceived editing and writing skills as moderately to very important (editing:  $M$  range = 4.15–4.49,  $SD$  range = 0.73–0.81; writing:  $M$  range = 4.18–4.43,  $SD$  range = 0.79–1.21).

In the last set of analyses, one-way analysis of covariance (ANCOVA) were conducted to examine the perceived efficacy and relevance of the NSPB according to career goals, with current research interest entered as a covariate for all analyses. Means and standard deviations are presented in Table 2.

Career goals did not affect participants' perception of the NSPB as an effective tool in cultivating research,

and strengthening overall academic experience. Participants perceived the effectiveness of the NSPB in cultivating research, increasing communication, and overall academic experiences as somewhat effective to very effective. Group differences were found for perception of the NSPB as an effective tool for providing valuable experiences such as writing, editing, reviewing and preparing students for publishing. LSD *post hoc* analyses revealed that participants with combined clinical, research and academic goals, compared to clinically-oriented goals only, perceived the NSPB as significantly more effective in providing valuable experiences such as writing, editing, reviewing, and preparing students for publishing.

Career goals were not related to perceived relevance of the NSPB for nonclinical students; inspection of means indicate that all participants rated the NSPB to be

**Table 2**  
Means, standard deviations and analysis of covariance results for efficacy and relevance of the NSPB by participants' career goals

Question	Career goals <sup>a</sup>			ANCOVA <sup>b</sup>		
	Clinical	Nonclinical	Combination	F(df)	<i>p</i>	
Efficacy	How effective can NSPB be in cultivating research within a psychology program?	3.86 (1.03)	3.80 (0.89)	4.13 (0.91)	1.16 (2,83)	.32
	How effective can NSPB be in increasing communication between students and faculty in a psychology program?	3.84 (0.99)	3.95 (0.78)	4.23 (0.94)	1.37 (2,87)	.26
	Overall, how effective do you think NSPB can be in providing valuable experiences – such as writing, editing and reviewing papers, communication with other authors, preparation for publishing in more prestigious journals – to students?	4.22 (0.89)	4.30 (0.73)	4.69 (0.58)	3.55 (2,88)	.03 <sup>c</sup>
	How effective do you think NSPB can be in strengthening the overall academic experience at the school?	3.78 (0.92)	4.32 (0.67)	4.29 (0.86)	1.95 (2,87)	.15
Relevance	How relevant is NSPB to students enrolled in a clinical psychology program?	3.76 (0.99)	3.83 (0.79)	4.28 (0.68)	3.15 (2,80)	.048 <sup>d</sup>
	How relevant is NSPB to students enrolled in an experimental psychology program?	4.24 (0.96)	4.00 (0.87)	4.30 (0.91)	0.61 (2,80)	.55

Note. <sup>a</sup>Mean (SD).

<sup>b</sup>Analysis of covariance with current research interest as a covariate.

<sup>c</sup>Combination was significantly higher than clinical group,  $p < .05$ .

<sup>d</sup>Combination was significantly higher than clinical group and nonclinical group,  $p \leq .05$ .

moderately relevant to very relevant for nonclinical students. Career goals significantly affected perceived relevance of the NSPB for clinical students. LSD *post hoc* analysis examining mean differences revealed that participants with combined clinical and nonclinical career goals, compared to individuals with either clinically- and nonclinically-oriented goals, viewed the NSPB as significantly more relevant for clinical students. Participants pursuing a combined clinical and nonclinical career rated the NSPB as moderately, to very, relevant for clinical students, whereas participants with either clinical or nonclinical career goals rated the NSPB as somewhat relevant to moderately relevant.

## DISCUSSION

The present survey indicates that the NSPB is perceived as a viable model for training graduate students. The NSPB is perceived as efficacious for cultivating research, increasing communication among students and faculty, providing valuable writing and peer review experiences, and strengthening overall academic experiences, as well as relevant to the training of students pursuing clinical and nonclinical careers in psychology. Across all individuals, mean ratings for questions pertaining to efficacy and relevance of the NSPB ranged from somewhat effective to very effective, with 75.5–84.4% of all ratings falling within these categories. The strong endorsement for the benefits of the NSPB was found irrespective of participants' career goals and research interest, which in turn may benefit the scientist-practitioner model.

Moreover, participants indicated that scientific writing and editing skills are important aspects of graduate student training, regardless of their career goals. This is an important finding when taking into account that participants view the NSPB as a relevant and efficacious way to attain these skills. Thus, the development and operation of a graduate student-operated journal, such as the NSPB, may function as a model for gaining additional practice in writing and editing skills before entering a highly competitive work force, as well as increasing dynamic interactions and innovative learning opportunities between faculty and students with clinical and nonclinical aspirations. Since most professional journals are highly selective in terms of manuscript acceptance rates and editorial boards, journals like the NSPB may be an ideal way for teachers of psychology to fill the publishing and peer review training gap for students before they graduate.

As predicted, differences in research interests emerged as a function of career goals. Consistent with previous findings (Parker & Detterman, 1983; Perl & Kahn, 1986) and speculations (Addis & Jacob, 2000), individuals pursuing careers solely in clinical work reported less current interest in research and were more likely to view

research as a means of graduating, rather than something that they were genuinely interested in. Clinically-oriented individuals were also less likely to view the NSPB as effective in providing valuable skills in publishing and peer review, and less relevant for the training of clinical psychologists. Yet, these differences should be interpreted with some caution as study participants with clinical career goals still rated these questions rather positively, ranging from somewhat effective to very effective. Therefore, despite differences between clinically-oriented and nonclinically-oriented people, the NSPB still appears highly relevant and effective in student training. Such findings are promising for using the NSPB as a model for promoting research among clinical students, and thereby supporting the scientist-practitioner model in clinical programmes.

Some caution should be taken when generalising these results. Due to the small sample size, research- and academically-oriented participants were entered into one category (nonclinical) to increase statistical power for analyses. It is noteworthy, however, that participants in this study, regardless of career goals, perceived the NSPB as relevant and effective. Future research examining a wider range of students across the subfields of psychology will provide a more comprehensive understanding of the NSPB's, or another graduate student-operated journal's, merits. Because the aim of the study was to focus on perceptions of the NSPB, the interpretations of the findings are also limited by the lack of objective measures that could have assessed the NSPB's direct effect on various areas of training and professional development. Moreover, as with the work conducted by Ferrari and Davis (2001), Ferrari et al. (2002) and Ferrari and Hemovich (2004), the benefits of the journal may be limited to helping students to develop research-related skills, but may not necessarily translate to increased opportunities to serve on editorial boards or advantages when applying for postgraduation work. Additionally, the study was not designed to assess whether participation in a graduate student-operated journal improves student performance in the classroom or laboratory. Prospective studies can provide us with information about both short-term and long-term benefits of participation in a graduate student-run journal.

Another potential confound was the inclusion of undergraduate, masters, and doctoral students in the study. However, follow up analyses indicate that these groups perceived the NSPB to be of similar relevance and importance, except from on overall academic experience, where undergraduate students perceived the NSPB to be of significantly less importance than did graduate and doctoral students.

In conclusion, this survey confirmed the investigators' hypothesis that a student-operated journal, such as the NSPB, is perceived as beneficial for students irrespective

of career goal and, in addition, the journal has the potential to serve as a new approach to teaching overlooked aspects of training. Moreover, given the strong endorsement of the NSPB among students interested in clinical careers, the operation of a student journal may promote the scientist-practitioner model within a program. Our findings are consistent with research from natural and social sciences demonstrating empirical and anecdotal support of employing peer reviewing and manuscript preparation directly into coursework (Dochy, Segers, & Slujsmans, 1999; Henderson & Busing, 2000; Marcoulides & Simkin, 1991; Robinson, 2002; Somervell, 1993; Topping, 1998; Towns et al., 2000; Trautmann et al., 2003; Venables & Sumit, 2003). Research prospectively exploring longitudinal benefits of student-operated journals is warranted to further understand the potential importance of such journals, and ideally, begin to fill a heretofore unexamined gap in training.

### ACKNOWLEDGEMENTS

We thank Matthew J. Hoptman, and James Root for their comments on this article. Portions of this paper were presented at the 2008 Annual Meeting of the American Psychological Association, Boston, MA.

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*Manuscript received 14 March 2009.*

*Revision accepted for publication 14 September 2009.*