The Value of the IMPULSE Experience for Non-Neuroscience Majors

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Introduction

The journal IMPULSE was started by four undergraduate students and one faculty member in the spring of 2003. The first issue was posted in 2004, and a total of ten issues have been archived annually. The current, 2014 issue is the eleventh. The journal has evolved from a once-yearly posting reviewed by students at a single institution, to rolling review and posting by students worldwide representing eleven institutions. The first issue was reviewed by 14 students from three countries and two continents with a single Faculty Advisor and Reviewer Training Site (RTS). The 2013 issue posted with over 100 student reviewers representing over 20 institutions in six countries and four continents. Many of these students were members of the 11 RTS, one of which was in South Africa and another in Spain. The rest of the Reviewers who individually wished to have the experience and applied to join as independent Reviewers. They were assigned to an RTS team and sent their reviews to the Associate Editor from that RTS. Each RTS had its own Associate Editor who compiled the team’s review and a Faculty Advisor who overseas and taught about the reviewing process. The most recent RTS to be added (2014) was from Brown University.

An average of 3.4 papers per year have been published by the journal; the tally for 2014 as of Nov. 1, 2014, is 46 posted papers. Approximately twice as many are submitted each year, with some being reviewed, but not returned by the authors, and others not reviewed due to inappropriateness of topic. The journal has been presented at 11 MN meetings, four FENS conferences, and two BDSS meetings, in addition to having two articles published in JUNE on the impact of the journal experience on undergraduate neuroscience teaching. A survey of the early cohorts of students that assessed the impact of IMPULSE on their post-baccalaureate careers was presented at the SIN 2013 meeting. It focused primarily on the value of this scientific publishing experience on students pursuing biomedically-related careers. However, it has been noted anecdemically that other types of students might also benefit from participation in this experience.

The journal was initially designed with the neuroscience major in mind, but many of the students working with the journal are not in neuroscience or related majors. For example, of the 21 reviewers at the ASU Reviewer Training Site in spring 2014, four were targeting neuroscience careers and seven were pre-medical students, but there were also other majors, including math (2), geology (2), journalism (1), religious studies (1), and undecided (3). They all joined to learn how to write and rewrite scientific papers; they were indifferent to the discipline of the vehicle used for that training.

In support of this observation are results from the survey conducted in 2012-13 with previous journal participants, indicating the value of the experience to non-neuroscience majors. As reported on the data from that survey, the majority of respondents felt it was useful for their professional writing and literature research skills (see data below), and that this applied to their long-term goals regardless of their field. While the outreach to recruit participants has historically highlighted majors in the biological sciences, the experiences for students pursuing careers in neuroscience, the past decade has shown that other majors are benefiting from this opportunity and that it should be extended intentionally to students in other fields.

The Value of IMPULSE to Non-Neuroscience Majors

Most respondents agreed that IMPULSE had a positive influence on their professional writing skills (n = 160, 97.6%).

- 63.3% strongly agreed, 33.3% agreed, 0.8% disagreed, and 2.4% neither agreed nor disagreed.

Most respondents agreed that IMPULSE had a positive influence on their literature research skills (n = 160, 97.6%).

- 63.3% strongly agreed, 33.3% agreed, 0.8% disagreed, and 2.4% neither agreed nor disagreed.

History of IMPULSE

2003: M. Wilkins, A. Sarty, L. LeSalcedo, and N. Bradshaw founded our journal with Dr. L.S. Jones, IMPULSE at 1st SYNAPSE meeting and 1st FENS Forum in Amsterdam.
2004: First issue posted online. IMPULSE at SfN (Soc. Neur. Abs)
2005: C. Warren became 2nd EiC.  2nd issue at SfN (Soc. Neur. Abs)
2006: M. Zito joined as Editor. IMPULSE at 3rd FENS in Vienna.
2007: IMPULSE at 4th FENS, 7th BDSS (Stellenbosch). 1st issue at SfN.
2008: IMPULSE 5th FENS in Barcelona.
2009: C. Warren became 2nd EiC. IMPULSE at 6th FENS in Florence. 2nd issue at SfN.
2010: IMPULSE 6th FENS. 44 members. 3 RTS set up at Stellenbosch. 3rd issue at SfN.
2011: IMPULSE 7th FENS in Vienna. 50 members. 5 RTS set up at Roanoke College. 4th issue at SfN.
2012: IMPULSE presented at 7th SYNAPSE, 8th FENS (Barcelona) and 8th RTS established at Roanoke College.
2013: IMPULSE presented at 8th SYNAPSE, 9th FENS Forum in Amsterdam, The Netherlands, and 6th RTS established at Appalachian State University.
2014: IMPULSE presented at 9th SYNAPSE, 10th FENS Forum in Florence, Italy, and 7th RTS established at Brown University.

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