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 six issues have been published annually, the latest is the current 2013 issue. The journal has evolved from a one-year project reviewed by students at a single institution to a full-blown journal and publishing by students worldwide representing nine institutions. The first issue was reviewed by 14 students from three countries and two continents with a single Faculty Advisor and Review Board. The 2013 issue posted with over 100 student reviewers representing 24 institutions in six countries and four continents. There were seven RTs, each with their own Faculty Advisor, and one of those was in South Africa. Eight RIS in Spain was added in the spring of 2013. In total, 152 were trained and 206 were added (Wake Forest U and UCSB).

An average of 3.4 papers per year have been published by the journal. Approximately twice as many student editors have been added each year, with some being reviewed but not included by the authors and others not reviewed due to inappropriateness of topic. The journal has been presented at 10 SfN meetings, three FENS conferences, and two IBRO meetings, in addition to having a series of (not always published) articles published in JUNE as the impact of the journal experience on student careers. As a first cohort of students have now moved on, 6-8 years past their post-baccalaureate careers, the impact on editors, reviewers, and authors can be better assessed. Anecdotal evidence has long supported the positive influence of the experience on career path choices and success, but no more systematic evaluation of the impact was made.

Methods

The names of all previous reviewers, editorial team members, and authors from the previous 10 years of IMPULSE were collected. An attempt to find contact information for them was undertaken while a survey was created and submitted in ASC’s BBB for approval (Study # 14-0830). The 26-question survey was launched using SurveyMonkey and sent to 152 addresses. Many of the addresses were sent back as invalid, but 41 responses have been received to this point, which is a 26.7% response rate. Response analysis is through SurveyMonkey.

Results

The respondents completed their undergraduate programs in 2005–2012 (2–4 year), except 2011 (3), 2012 (3), and 2013 (7) from nine countries. Demographically, there were 18 females and 23 males, with 30 self-describing as White/Caucasian, one as African-American, one as Indian, two as US of Indian origin, one from China, two Hispanic, and one Greek-Cypriot.

The majority of respondents were individual editors (83.4%), followed by those who also served in some editorial role (46.3%), and RT team members (31.7%) even the results exceed 100% as editors were also reviewers at one time. Most experienced reviewer training through a formal course (63.4%), or informal mentoring through an IMPULSE group (53.7%), with others having mentoring through a lab group (19.9%), the online tutorial (7.8%), or none (14.4%). Most reported spending up to 1 hour reviewing manuscripts (45.9%), with 26.4% 5–10 hour-long, 19.4% 10–20 hours, and 15.9% more than 20 hours, most served on the journal from two (39%) or three (37.1%) years, with 19.2% having one year experience. When reviewing 5–7 papers total, 24.4% reported reviewing 3, and 29.3% said they did 8 papers. 9.8% of respondents did only 1–5 reviews.

Only four respondents were authors, and all of them reported receiving an “appropriate” level of input for their manuscript. However, 45.8% still reported on their work with IMPULSE, either from the journal or the work that was later published at a conference.

In response to questions whether IMPULSE was a positive influence on writing skills, literature research, ability to read papers, or selection of career choice the majority marked Agreed or Strongly Agree (Figure 8 right). However, most would not be satisfied or only agreed that it had a positive influence on their lab research skills. In addition, 71% reported that their research was career oriented. Similarly, responses were spread on whether IMPULSE helped with their post-baccalaureate program or on professional performance. The largest responses were Strongly Agree or Strongly Agree (53.3% and 74.4% respectively).

Discussion

While the first cohort to such a study is only those that are happier (or unhappier) typically respond to this type of survey, it is noteworthy that the response rate was relatively high, (41/152 emails) and that the overwhelming majority of those responding rated the IMPULSE experience as generally very positive both in terms of the learning at the time and its application in the post-graduation professional path. The majority reported that the IMPULSE experience taught them to think critically, ask the right questions, and to work as a team. For most, the experience reframed how they approached their group projects and future collaborations through the life science professions.

The conclusion to be drawn from this small, first study after a decade is that working on IMPULSE is seen as a useful tool to the “alumni” who worked on it during their undergraduate years. It is an option for students who do not have the time or opportunity to do laboratory research and may serve as a means for faculty to provide some level of laboratory experience and to get reviews from them.

History of IMPULSE

America. The first issue was reviewed by 14 students from three countries and two continents with a single Faculty Advisor and Review Board.

The Premier Undergraduate Neuroscience Journal

A Decade of the Journal IMPULSE: Growth and Impact

Jones LS1, Cobb D2, Dixon S3, Ester C4, Kimmich S5, Rossi A6, Russell D7, Sasser K8, Woodward D9

1Honors College, Appalachian State Univ, Boone, NC; 2Furman Univ, Greenville, SC; 3Univ. California San Diego, San Diego, CA

Most Strongly Agreed that it improved their ability to read scientific papers and that they would recommend the experience to others; they also indicated that they list it on their current resume (Figure below). The pie chart illustrates what these IMPULSE alumni are currently doing, with the largest number pursuing Ph.D.s (28.6%), followed by M.D.s or current residency (15.9%).

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History of IMPULSE


10. Published at Appalachian State Univ; Boone, NC; James M. Moore.


