"Showcase" vs. "Selective" Undergraduate Research Journals: Providing the Most Benefit to Students, Institutions, and the Academic Community

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Abstract

As Western post-secondary institutions strive to adequately prepare undergraduate students for an ever-changing world, increased interest and investment has been directed towards the undergraduate learning experience. Listed as a highimpact practice (Kuh 10), undergraduate research, in particular, has been increasingly implemented and expanded in a number of institutions over the past several decades, as shown by the growth of the Council on Undergraduate Research (CUR n. paq.). With the rise of undergraduate research culture, the undergraduate research journal (URJ) has emerged. URJs run within a university provide students with the opportunity to enhance their education through exposure to scholarly publishing, develop their research and communication skills, view themselves as content creators, produce higher quality work, and improve their graduate school applications or resumes by building essential skills for the changing job market. Despite the variability present in URJ formats, I have defined two broad categories which URJs fall into. Distinguished as "showcase" and "selective" journals, the two types are differentiated by the implementation of a peer-review process with "showcase" journals publishing papers that have not undergone peer-review and "selective" journals qualifying as scholarly publications. With the intent of providing the maximum benefit to the greatest number of students, a "showcase" journal, without the rigours of peer-review, may appear to be the best fit for achieving this goal as it has the potential to see more student papers published. However, the "selective" showcase journal provides the most cumulative benefits for the student, the institution, and the wider academic community. This is due to experiencing the submission process, which provides students with feedback from reviewers; the prestige of publishing in or housing a high-quality journal; and, growing a discipline's body of knowledge. While providing any type of publishing platform for undergraduate student work will benefit students, institutions may wish to consider the additional worth of "selective" journals when developing an undergraduate research journal program.

Keywords: undergraduate research journals, showcase journals, selective journals, undergraduate research, best practices, student research, baccalaureate, undergraduate experience.

Introduction

Today's graduates must carve out space for themselves in the world amid "transformative changes—environmental, global, intercultural, technological, scientific—that have farreaching implications for what counts as empowering knowledge. On every front, the world itself is demanding more from educated people" (Schneider 2). In turn, institutions of higher education are expected to meet the needs of undergraduate students to prepare them

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University of Saskatchewan Undergraduate Research Journal Volume 5, Issue 2, 2019

adequately for their futures. Enriching the undergraduate experience has, therefore, garnered increased attention over the last few decades. In 1978, the Council of Undergraduate Research (CUR) was founded by a group of chemists from private liberal arts colleges who wanted to promote the research that was being done by their students. Since that time, CUR has grown to "include 13 divisions spanning all disciplines, more than 13,000 individual members from undergraduate students to university presidents, and more than 700 institutional members from all types of institutions" (CUR n. pg). Aiding in this universality, the Boyer Report (1998), which specifically advocated for research universities to embrace the practice of undergraduate research, had the unintended yet positive effect of encouraging undergraduate research in many institutions of higher learning. Further supporting the value of undergraduate research, George Kuh listed undergraduate research as one of the ten high-impact educational practices that have proven to benefit students greatly, particularly those from populations that have historically been underserved (10). As part of the Liberal Education and America's Promise (LEAP) initiative set out by the Association of American Colleges and Universities (AAC&U), Kuh identified "a set of 'effective educational practices' that, according to a growing array of research studies, are correlated with positive educational results for students from widely varying backgrounds" (Schneider 1). Undergraduate research, along with the nine other highimpact practices, have been verified as having substantial educational benefits and will likely continue to prove useful in enhancing the education undergraduate students receive.

With the momentum of undergraduate research emerged the impetus to promote students' findings, enhancing a culture of inquiry and academia within institutions. One method of promoting student work is the undergraduate research journal (URJ). This paper will explore some of the benefits of URJs as well as compare the value offered by two types, "showcase" and "selective" undergraduate research journals. The value of these distinct types of journals will be based on the ability to provide benefits to students, the community, and the institution. While offering any form of publishing opportunity helps enrich the student experience, I suggest that "selective" journals with a peer review process should be the aim when creating an undergraduate research journal as they provide more benefits to students, the institution, and the academic community than their counterpart, the "showcase" journal.

Within this paper, unless otherwise stated, "peer" in "peer review" refers to academic sources such as faculty involved in the discipline or, in some instances, similarly qualified individuals, such as specialized grad students. Following the criteria of Sarah Foster-Ogg and Catherine Hanley, "the 'peer' in 'peer review' [does not mean] equal in rank, but rather equal in activity: researchers are reviewed by researchers" (87). While some journals use student peers to review submissions, this will not be considered peer review for the purpose of this paper.

Literature Review

Undergraduate research is any inquiry-based study where undergraduate students "practice research methods, ask complex questions... search for answers under the mentorship of teaching faculty and graduate students" (Hensley 720) and produce content "that makes an original intellectual or creative contribution to the discipline" (CUR n. pag.). The Council of Undergraduate Research (CUR), founded in 1978, has become the leading voice in North American undergraduate research, as it "has more than 30 years of experience working with faculty and institutions to build and sustain undergraduate research" (Rowlett 2). This "national organization of individual and institutional members," representing over 900 colleges and universities, seeks to "support and promote high-guality undergraduate student-faculty collaborative research and scholarship" (CUR n. pag.). Student participation in undergraduate research can yield the following benefits as outlined by CUR and stated by Hensley:

> Advantages include enhanced student learning through mentoring relationships with faculty; increased retention rates and enrollment in graduate education while providing career preparation; development of critical thinking, creativity, problem solving, and intellectual independence; gaining an understanding of research methodology; and promoting an innovation-oriented culture (722).

Since its founding, CUR has advocated for "meaningful and real-world research experiences for undergraduate students," but it was not until the publishing of the <u>Boyer</u> <u>Report</u> in 1998 that undergraduate research gained significant momentum across many types of institutions (723).

The Boyer Report_sought to "stimulate new debate about the nature of undergraduate education in research universities that [would] produce widespread and sweeping reform" (Kenny 2). The report was written in response to the perceived failure of American research universities to adequately prepare undergraduates for life past university (5). With the belief that "[e]veryone at a university should be a discoverer, a learner" the report suggests that research universities should take responsibility to ensure that all students are included in this mission, and outlines ways in which this can be accomplished (9). Such suggestions include taking advantage of the "immense resources of their graduate and research programs to strengthen the quality of undergraduate education" (7). Since the publication of the Boyer Report, "undergraduate research has increasingly become synonymous with a rich undergraduate educational experience" (Hensley 719). Although the Boyer Report specifically addresses research universities, undergraduate research is now "recognized as a high-impact educational practice that has the ability to capture student interest and create enthusiasm for and engagement in an area of study" in any higher educational institution including liberal arts institutions and community colleges (Rowlett 2).

George Kuh's highly influential work *High-Impact* Educational Practices: What they are, Who has Access to Them, and Why they Matter (2008), lists ten high-impact educational practices, including undergraduate research, and outlines why they are effective in helping students "actually achieve the forms of learning that serve them best" (Schneider 7). Kuh recommends that every undergraduate student participates in at least two highimpact activities during their undergrad experience to "reap the full benefits-economic, civic, and personal-of their studies in college" (1). In his early work, Kuh helped "spotlight and verify a set of 'effective educational practices' that, according to a growing array of research studies, are correlated with positive educational results for students from widely varying backgrounds" (1). Building on this research, Kuh identifies ten "high-impact" activities that contribute to student success; of these activities "undergraduate research seems the most ubiguitous and accessible for all students. Kuh suggests that the reason many colleges and universities are now providing research experience to a wider student audience is because highimpact practices increase student engagement and will help students "attain [their] educational and personal objectives, acquire the skills and competencies demanded by the challenges of the twenty-first century, and enjoy the intellectual and monetary gains associated with the completion of the baccalaureate degree" (Kuh 22). As Hensley points out, undergraduate research occurs at "all types of institutions, across all disciplines" demonstrating the general receptiveness of post-secondary institutions in adopting undergraduate research practices (Hensley 720).

As undergraduate research programs have increasingly been initiated as a way to improve the student learning experience, how institutions encourage and celebrate undergraduate research culture vary. One way that many North American and European institutions have undertaken is that of an undergraduate research journal housed within the institution.

Undergraduate Research Journals

Higher education institutions have implemented enrichment programs such as undergrad research journals, which expose students to "scholarly publishing by managing the journal and/or contributing to it" in an attempt to enhance students' experience and education (Ho 1). The dissemination of research results is an integral part of the research process as scholarly communication is necessary to promote and expand knowledge in any given discourse. Julie Jones, Robin Canuel, and D. M. Mueller emphasize in their paper "Supporting the Dissemination of Undergraduate Research" the importance of distribution, as "[u]ndergraduate research initiatives will only be half realized if students do not also develop a keen understanding of the academic publishing process and scholarly communication, and, ideally, begin to participate in it" (541). They make the point that excellent research does not matter if no one can access the information. Further, "Characteristics of Excellence in Undergraduate Research" (COEUR), a document produced by CUR, states its expectation that students "who conduct research should... be able to communicate the results of their projects and the transformational nature of their experiences to citizens and public leaders. Opportunities for students to articulate their experiences beyond the academic community are the hallmark of a mature undergraduate research culture" (Rowlett 13-14). Therefore, universities that house an undergrad research journal are participating in undergraduate research culture by providing an excellent introduction for their students into the world of academic publishing.

While some scholars may question the validity of undergraduate research journals in comparison to scholarly professional journals, D. Alexis Hart points out that while it is "a laudable goal" to try and achieve publication in such journals, "it is a rare accomplishment" (11). She suggests that undergraduate research journals offer students a greater opportunity to share their work, and therefore experience the benefits of submitting, editing, and publishing in a journal. By submitting to a journal or participating in its production, students encounter many experiences that may not be afforded in a classroom setting and develop "a raft of academic, transferable and employment-related skills" (Rose 1). Alan Jenkins outlines the benefits of undergraduate research journals as follows: "(a) supporting students' entry and participation into a (discipline-based) research community; (b) the intellectual value to students in writing and rewriting in a public forum; (c) the benefits to students in being seen as producers of knowledge; and (d) the benefits to students, departments, and institutions of making student research public" (5). I would add to this list another category: (e) the benefits to students participating in the production of the journal.

Supporting students' entry and participation into a (discipline-based) research community. As the next generation of scholars, students should be encouraged to engage in their prospective disciplines as early as possible "to develop an interest in and an understanding of the research process" (Mariana 830). Submitting to a journal enables students to gain experience in both the research and writing process as well as boosting students' confidence in their research and writing abilities (830). Further, participation "will allow them to develop a greater appreciation for what it means to be a researcher and scholar while, in turn, developing their oral and written communication skills" (Shanahan 370). Karkowski states that "it is imperative that [students are offered] the experience of publishing their work, which includes submitting the manuscript, working with reviewer comments when making revisions, and submitting final drafts" if students are to develop the good habits of researchers in a given field (57). By embedding themselves in the research community, students will become more invested in their education and potentially their futures as academics.

The intellectual value to students in writing and rewriting in a public forum. During the journey from manuscript submission, acceptance, revision, and finally to publication, students will have had several instances of feedback, depending on the editorial process of the particular journal. Tutors and editorial staff "set their standards high, while ensuring that students get the support they need to reach the required standards, because undergraduate research journals put the public spotlight on what students and faculty are achieving and can highlight deficiencies as well as success" (Jenkins 7). In dealing with critiques by editors and reviewers students develop critical thinking abilities (Weiner 3). Beyond the benefit of constructive criticism and revision, students will produce higher quality work when writing for a journal as the knowledge that their article will be available to a larger audience than one instructor creates an added impetus to do well (Jenkins 6). In recognizing that their work "is of interest to a wider community with associated value and legacy," students will likely work harder to produce their best possible work (Rose 5). Writing in a public forum encourages high standards and motivation for students.

Benefits to students in being seen as producers of knowledge. Rather than being passive consumers of education, students can often be producers of knowledge. This view, however, "offers a radical, intellectually grounded critique of what can too often be a limited, passive college experience for students" (Jenkins 7). Char Miller and Char Booth argue that by making undergraduate research papers public, the "traditional hierarchical dynamics in academia and publishing" are challenged, and students can "assert their intellectual agency" (Hensley 725). The benefit of this intellectual agency is the ability for students to distinguish themselves professionally, gain a competitive advantage in graduate school applications and the job market (Jones 541).

Sharon Weiner and Charles Watkinson state that "[t]here is an increasing focus in colleges and universities on the quality of undergraduate education and its role in preparing students for the workplace and graduate study" (2). Reporting on an assessment done of the Journal of Purdue Undergraduate Research (JPUR), Weiner and Watkinson suggest that JPUR was created to provide a tangible record of students' work so that they could be recognized as the primary content creators by entities such as graduate schools and employers. It was decided that the journal be disseminated as both an open-access electronic version as well as a printed copy so that students could include the work in their portfolios or resumes. The continued funding of JPUR was dependent upon proving that the journal contributed to Purdue student success, which was defined as "increased rate of student degree completion, future employment or study, dedicated citizenship, and responsible leadership in the state, nation, and the world" (4). To measure the journal's success, several surveys were devised to assess the progress of each student stakeholder: article authors, abstract authors, and editorial board members. Of the student authors surveyed, 73% cited increasing their competitiveness for graduate school and 59% cited becoming more appealing to employers as reasons why they decided to write an article for JPUR (9).

In a 2018 Royal Bank of Canada report based on a year-long research project, a quiet crisis was identifiedyoung Canadians everywhere feeling unprepared for the future of work (Stackhouse 2). Acknowledging that the next generation of workers is "entering the workforce at a time of profound economic, social and technological change" the RBC sought to help shape the conversation of how young Canadians can navigate the changing job market brimming with challenges such as AI and job displacement (2). Studying the skills required for young people to be a part of the mobile, skilled workforce that will shape Canada's economy, the report found that "demand will be nearly universal for several key human skills, the ones that help us learn and acquire knowledge. Active listening, speaking, critical thinking and reading comprehension will be "relatively" or "very" important for virtually 100 percent of... job openings, across all industries" (16). Communication and analysis were also listed as foundational skills with the strongest demand (16). As pointed out elsewhere in this paper, students participating in undergraduate research and URJs build skills such as communication (Shanahan 370), critical thinking (Weiner 3), time management (Ho 11). The skills students gain from participating in publication, and from being recognized as content creators will aid their future endeavours whether it be in academia or otherwise.

Benefit to students, departments, and institutions of making student research public. The hallmark of an excellent undergraduate research program, according to Roger Rowlett S., Linda Blockus, and Susan Larson, is modes of public promotion for student success, such as "on the institution's website, in its print and electronic publications, and in its outreach to public and social media" (10). Sharing student success encourages "the development of a community of scholars on campus, deepens faculty relationships with alumni, and provides the academic community with a shared sense of purpose and attainment" (Mariana 831). In addition to the campus community, through a journal students can "communicate ideas with the public and others outside of their discipline" (831). Depending on the type of journal, works produced by students can be used to enrich the knowledge base of a discipline as their articles present original or creative content that has been approved by appropriate members of the discipline. Lastly, undergraduate research journals can function as recruitment tools for the university, as well as a way for the institution to achieve educational objectives (Jones 538). Undergraduate research journals enhance student authors' communication skills, provide the academic community's knowledge base, and serve as a status symbol for the institution.

Benefits to students participating in the production of the journal. Aside from the institution, scholarly community, and student authors, another group also benefits from undergraduate research journals-those students involved with developing and managing the journal. These students potentially "take on the responsibilities of editors or peer reviewers [and] have to learn how to evaluate academic writings and provide constructive criticism in the review process. They also have to work on planning, prioritizing, marketing, and time management" (Ho 11). In environments where students work as a team with faculty or staff, the students benefit most when they "(a) understand how their tasks relate to the larger project goals, (b) feel welcome to provide opinions about the work, (c) are listened to with patience and openness, (d) become more autonomous as they are given ownership of specific tasks and important aspects of the overall project, and (e) do work that will ultimately help them clarify and prepare for their career goals" (Shanahan 367). Involvement in a journal's editorial team has the potential to provide all of these aspects, and just as the student author becomes more competitive in graduate

applications and the job market, so too does the student participating in running the journal.

With the myriad benefits, it is unsurprising that many faculties within various institutions have chosen to undertake the task of producing an undergraduate research journal. However, there is not a particular standard that universities must follow when creating their publications, resulting in diverse journals with various editorial, selection, and publishing criteria. As Mack Mariani et al., prove, journal variability is abundant even within a singular discipline. They reported the results of a study that surveyed 13 political studies journals finding that "undergraduate political science research journals vary significantly in format, organizational structure, and editorial process" as well as in student-faculty collaboration (830). For example, their findings for editorial responsibility are as follows: 33% of the journals have students as solely responsible for editing, 33% were primarily edited by students, 22% divided responsibility between students and faculty, and 11% were edited primarily by faculty (833).

Variability among journals, rather than being unusual, is expected. For instance, D. Alexis Hart's article "Undergraduate Research Journals: Why and How?" offers strategies for beginning and sustaining an undergraduate research journal. She states that

> [s]ince the selection criteria are likely to be significantly divergent depending upon each institution's resources and each journal's mission statement (whether it is to showcase the most advanced, highest quality undergraduate research, to highlight student potential, or to feature a range of student texts), the editorial board for the journal must clearly delineate the standards and make them known (14).

Because publishing teams have such freedom in formatting their undergraduate research journal, it is important that they consider their objectives for their journal and choose the appropriate journal type to meet their needs. In using specific journals as examples, I hope to show the potential advantages of the categories of "showcase" and "selective" undergraduate research journals and the superiority of "selective" journals.

"Showcase" vs. "Selective" Journals

Regardless of the type of journal implemented by the institution, students will encounter benefits such as the opportunity to engage in a research community, improve writing and communication skills, the chance to share their work as content creators, produce high-quality work, and enhance their graduate school applications or resumes. As stated above, there is not one single way of creating a

journal. The purpose of this paper is to weigh the ability of two types of journals, which I have deemed "showcase" and "selective," to benefit students, the hosting institution, and the broader academic community. The most significant distinction between these journal types is the process of peer-review. As stated above, peer-review does not refer to undergraduate student peers, but to faculty or qualified grad students reviewing the material as an expert in the discipline that the undergraduate researcher is hoping to contribute to.

While the purpose of both "showcase" and "selective" journals is to promote and celebrate undergraduate research achievement, a "showcase" journal is one in which as many undergraduate works as possible are displayed to promote and encourage student research activities. This type of journal is not restricted by a process of peer-review¹. The main benefit of this type of journal is that it can potentially provide more students with the opportunity to publish their work and access the benefits of doing so. Unlike the "showcase" journal, the "selective" journal only accepts undergraduate work that passes a peer review process, thus presenting the highest-quality undergraduate work. According to Kelly et al., "[p]eer review has become the foundation of the scholarly publication system because it effectively subjects an author's work to the scrutiny of other experts in the field" (n. pag.). The purpose of peer review is to determine the validity of the work and to improve the quality of the manuscript; thus, articles published in peer-reviewed journals are considered scholarly works and contribute to their respective disciplines (n. pag.). One noted criticism of the peer review process is that there is a limited number of qualified reviewers (n. pag.), thus finding reviewers for papers can present a time-consuming challenge.

The most significant appeal of a "showcase" journal is its potential to engage many students and publish large quantities of articles. The purpose of Kuh's report is to encourage high-impact educational opportunities for all students. While participation in undergraduate research journals is not specifically listed as a high-impact practice, journals support and enhance undergraduate research on campus. Further, students benefit in several ways when they submit to or help run a journal. With the goal of having "each institution take action to ensure that all students participate in at least two [high-impact] practices," a "showcase" journal, with its potential to offer more students a chance to reap the rewards of publication, may seem like the logical choice when establishing a journal (Schneider 8). Carol Geary Schneider brings up the concern that not all students are being reached, and while "progress has certainly been made in developing and expanding access to the practices described in [Kuh's article]," far too little has been done to reach all students (7). With this goal in mind, it is in the best interest of an institution to engage as many students as possible, and participation in undergraduate research journals is another way in which institutions can work towards this goal.

"Showcase" journals have the potential to publish more articles due to an acceptance rate which is not limited by peer-review and which often rejects or delays publication of papers as they are reworked. Depending on the process of peer-review that a journal employs, the process can be quite rigorous and time-consuming. The submission process for Epistimi, Capital University's Research Journal, "mirrors the submission process for any professional journal" (Karkowski 58). The student's manuscript is first sent electronically to the faculty editor who distributes it to two faculty members for review. The reviewers complete a review form, and "make a recommendation about the suitability of publication" (58). The faculty editor then works with the student editors to act on the suggestions of the reviewers, with the students making the final determination about each submission. Although Karkowski states that publishing is hard work, she maintains that the result is well worth the effort (59). While peer-review ensures quality articles, finding appropriate reviewers can be challenging and time-consuming, something that not every institution may deem necessary for their goals. By not requiring a peer-review process, journal articles can be published faster, and as a benefit to the institution, less faculty and student effort are required as appropriate peer-reviewers do not need to be found.

The University of Plymouth established an undergraduate research e-journal as a way to make engagement with research more explicit to students who may not realize their work is research. This e-journal is an example of a "showcase" journal with the objective of promoting, encouraging, and celebrating student research activities. Although rejections have been minimal and "articles are presented largely in their original state" (Gresty 81), the works are ones "that have been rated as 'excellent' by relevant faculty members" (83). While the journal does provide many of the benefits listed above, the article does state that "a small number of staff expressed reservations about the quality of articles and what the journal could offer compared to a mainstream academic journal" (83). The question then becomes what do scholarly "selective" journals provide that "showcase" journals cannot?

¹ This does not mean that faculty are excluded from involvement with the journal, only that the process of selecting papers for publication is less academically rigorous than journals undergoing peer review.

Before addressing the advantages of a "selective" journal, it is important to realize that "selective" journals do not inherently lead to fewer students participating in the journal through the submission process or through the editorial team. As there is no regulatory structure for URJs, institutions have immense flexibility in structuring their journal's editorial board and submission process, meaning numerous students can reap benefits while still keeping the high academic standard of a peer-reviewed publication. For example, as of April 2019, the University of Saskatchewan Undergraduate Research Journal (USURJ) has had 138 student editors, 35 of whom have served two years or more (Marken n. pag.). USURJ is a "selective" journal that requires double-blind peer-review of its articles and also happens to surpass many other North American multidisciplinary undergraduate research journals in the number of student editors engaged (Marken n. pag.). Similarly, students whose papers do not make it to publication are not devoid of benefit. "Selective" journals can offer support to these students such as feedback from the faculty that reviewed their paper, and even the process alone can be viewed as a positive experience. As Hart states "the process of preparing a paper, submitting it for review, receiving reviewer feedback, and revising in response can in themselves add significant value to an undergraduate's research experience, even if he or she does not achieve the ultimate goal of getting the paper published" (11). Reinvention's editorial team, from the University of Warwick, UK, has always had a philosophy of support and offers "more thorough feedback and re-writing support than other, more traditional journals" (Foster-Ogg 86). The editorial team "does all it can to turn a submission into a published paper," but authors who do not ultimately get their work published still receive valuable support and advice from editors that they can use to improve subsequent writing (86-7). Sarah Foster-Ogg and Catherine Hanley also state that "the time and effort put in by many of the reviewers is outstanding and has provided some of [their] authors with insights and guidance of a guality that they would be unlikely to receive under any other circumstances" (87). Here is direct support for a "selective" journal as it provides an opportunity that "showcase" journals do not-feedback from the peer-review process.

Further, peer-review does not necessarily hinder the number of published works in comparison with "showcase" journals. The University of Central Florida's Undergraduate Research Journal, UCF URJ, has a solution to this differential; while they require submissions to go through a formal process of double-blind peer-review, the journal "is published electronically on a rolling basis in order to disseminate it as extensively as possible" (Pugh 93). They also provide writing workshops specifically geared to increase the number of submissions they receive. Whether the students participating in the workshops do or do not submit, they will have had the opportunity to improve their writing skills. As "selective" journals can employ numerous student editors, provide quality feedback to students whose manuscripts are denied, and are not necessarily limited in the number of articles published, "selective" journals are not at a disadvantage to "showcase" journals regarding the number of students that can potentially benefit from the journal.

Joining the research community is a positive result of engagement with undergraduate research journals. While both types of journals support students' entrance into their prospective disciplines, a "selective" journal exposes students to the peer-review process, something that scholarly publishing necessitates. By encountering scholarly publishing early on, students will get a taste for what they can expect should they pursue academia. Hart, quoting Walkington and Jenkins, makes the point that "understanding that [a] publication is highly selective, and rejection is a possibility, is part of the process of becoming a researcher" (11). In expressing CUR's ultimate goal for research dissemination, Roger S. Rowlett, Linda Blockus, and Susan Larson state that

> research results should be disseminated in a form that is appropriate for a scholar in the research field, and the highest level of dissemination of undergraduate research is in the form of peerreviewed publication... It is important that faculty and students strive for this level of scholarship because it typically provides the greatest intellectual benefits for students (11).

"Selective" journals provide this beneficial level of scholarship and contributing to such a journal "helps to build [students'] credentials as new members of their disciplines" (Pugh 95).

As previously mentioned, writing for a larger audience encourages students to produce their best work. With the addition of a peer-review process, high-quality publications are ensured. In cases where the institution reaches out to off-campus professional reviewers, the prestige and credibility of the journal increase "due to the perceived rigor of the review process," thus making it a more useful marketing tool for a university (Hart 15). The University of Warwick established an undergraduate research journal, Reinvention, in 2007 to promote research activity in the undergraduate curriculum. One of the issues that came up when they were creating the journal "was whether to publish only articles of the highest quality (thus [demonstrating] what undergraduate researchers were capable of) or to publish any undergraduate work (thereby making the journal more inclusive as a vehicle for students to disseminate their work)" (Foster-Ogg 85). Although debated, in the end, it was decided that

if the Reinvention Centre [in creating *Reinvention*] wanted to promote and publicize undergraduate research, the best way to achieve that was by publishing high-quality papers evidencing the value of such research in its own right. The journal's leadership maintains that this was the right decision and has enjoyed favorable reviews about its quality and academic standards (85).

They are now "dedicated to the publication of high-quality undergraduate student research" and maintain their standards by requiring refereeing by two or three anonymous academic specialists, initial screening by editors, and rigorous double-blind peer-review (85). The University of Warwick's decision to implement this type of journal demonstrates how a "selective" journal's quality and academic standards can encourage undergraduate research as well as draw favourable attention to the institution. Certainly, URJs have the potential to serve as marketing tools for the institution.

Expanding out from the institution, a "selective" journal benefits the academic community in a way that a "showcase" journal cannot. While articles in a "showcase" journal are accessible to the broader community, scholars are unable to cite the research in their own works as the articles have not been approved by peer-review. Rather than an optimistic but unlikely event, undergraduate works are contributing to the academic body of knowledge. For an example of a "selective" journal's contribution, one can look at the contributions of the University of Saskatchewan Undergraduate Research Journal (USURJ) since its 2014 inception. As of April 2019, USURJ has produced nine issues totalling 90 articles and nine artist's statements, with articles distributed across its five journal sections: health science, natural sciences, social sciences, humanities and fine arts, and interdisciplinary. The journal has received 272 submissions, and approximately 35 papers are currently being reviewed by faculty (Marken n. pag.). These papers, once published, are available on databases such as Google Scholar for any person to read and cite in their paper. As USURJ is an Open Access journal (indexed in the Directory of Open Access Journals), these articles are also available on the USURJ website (usask.ca/urj). Total abstract views were 59,651, and the total PDF views were 75,500 (Marken n. pag.). "Selective" undergraduate research journals, like mainstream scholarly journals, publish papers that are of interest and use to the wider academic community.

Conclusion

The purpose of higher education is to prepare students not only to meet the needs of the future, but also to excel. Undergraduate research is well established as a productive way to enrich and enhance the baccalaureate experience, and undergraduate research journals have evolved as a way to support this high-impact educational practice. Journals vary considerably among institutions, but they all offer opportunities for students to engage fully in their education and participate in their chosen disciplines. While not every journal will confer every benefit to those involved, every journal certainly offers something to participating students. Although "showcase" journals have the potential to publish more student work, and thus engage more students in the publishing process, the benefits of a "selective" journal surpass those of a "showcase" journal. "Selective" journals are just as capable of benefiting scores of students as "showcase" journals, and the students who do participate in "selective" journals have a deeper engagement with academia as they become familiar with scholarly publishing. Further, the wider academic community has access and ability to use the work produced by undergraduates. While other URJ benefits may be identified, the purpose of this paper is to suggest that the benefits of a "selective" journal outweigh those of a "showcase" journal. For this reason, Western undergraduate institutions should consider initiating or switching to a "selective" undergraduate research journal if they have not already done so.

AcknowledgementsI would like to thank both my English 496 professor Kathleen James-Cavan and supervisor Liv Marken for introducing me to the importance of undergraduate research journals during my internship with Student Learning Services at the University of Saskatchewan

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