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CUR Focus

Keys to a Professional, Profitable Regional Undergraduate Research Conference: The BigSURS at VMI

In April 2011 the Virginia Military Institute's Center for Undergraduate Research hosted the Big South Undergraduate Research Symposium (BigSURS), a one-and-a-half day regional conference conceived five years ago by representatives from colleges and universities affiliated with the Big South Athletic Conference. In all, 231 students from eight Big South schools and three neighboring institutions contributed to research presentations at the event. Participating colleges and universities included Radford University, the University of North Carolina (UNC)-Asheville, Liberty University, Presbyterian College, Coastal Carolina University, Winthrop University, High Point University, Southern Virginia University, Mary Baldwin College, Lynchburg College, and the Virginia Military Institute (VMI).

The conference featured 130 oral presentations, 48 poster presentations, and a screening of a filmed dance performance. We have received a great deal of positive feedback indicating that the BigSURS at VMI was a resounding success, offering a distinctive, professional forum for students to disseminate the results of their research efforts and to interact with an external audience of faculty and peers. The 2011 BigSURS also proved to be a profitable venture from both an economic and a professional-development perspective. The origins and merits of the notion of utilizing athletic conference membership as the foundation for a regional undergraduate research conference may be helpful to readers, as may our discussion of the more integral factors contributing to the success of the BigSURS at VMI and lessons learned in the process.

BigSURS Background: From Athletic Conference to Undergraduate Research Conference

Recently, "finding the proper balance between intercollegiate athletics participation and the goals of higher education [has become] a pressing issue for colleges and universities" (Gayles and Hu 2009). Research on athletes competing

in Division I of the National Collegiate Athletics Association (NCAA), in particular, shows that these students "are expected to place a greater amount of time and effort into training, practice, and competing" (Sturm, Feltz, and Gilson 2009) and therefore have stronger identities as athletes than identities as students. Unfortunately, "[t]his potentially weak focus on academics during college has repercussions for athletes after their collegiate athletic participation" (Sturm, Feltz, and Gilson 2009). On the other hand, studies show that student athletes who "participated more in academic-related activities ... had greater gains in learning and communication skills compared to student athletes who ... interacted less with students other than teammates, and participated less in academic-related activities" (Sturm, Feltz, and Gilson 2009). We believe that collegiate athletic conferences can assist student athletes to find a greater balance between their dual roles as athletes and students by promoting academic collaborations among the member institutions. An undergraduate research conference is one such possible collaboration.

According to Kyle Kallander, the commissioner of the Big South Conference, BigSURS was adopted as an initiative after the "Big South Conference presidents and chancellors spearheaded the effort to create an academic consortium within the conference. They felt developing shared activities beyond athletics would be positive for the members and help to develop a closer association." An undergraduate research conference is just one offshoot of the consortium; another is the Big South Quiz Bowl in which teams of students from conference schools compete in an annual "academic question-and-answer contest" (Big South 2010).

The BigSURS is consistent with the Big South Conference's stated motto of "Developing Leaders Through Athletics," because student researchers frequently develop qualities important to leadership, including skills in problem-solving, written and oral communication, and creative and critical-thinking; confidence; initiative; the capacity for independent learning; and the ability to work with other



High Point University student Aaron Robinson shares his research with an audience as part of an oral presentation panel at the 2011 BigSURS. Photo credit, Patricia Hardin.

team members (Osborn and Karukstis 2009). The BigSURS has allowed the Big South institutions to capitalize on their existing affiliations, build stronger coalitions, offer more student researchers the opportunity to share the results of their research with external audiences, and gain wider recognition for their athletic and academic programs and undergraduate research initiatives.

The stated purpose of the multidisciplinary symposium, based upon the NCUR model, is to provide “a regional opportunity for students, and especially student-athletes, from the Big South Athletic Conference colleges and universities to present their research, scholarship, and creative activities” to audiences beyond their home institutions (Big South 2006). It was intended initially that BigSURS would be held in the spring of the years when the NCUR site was west of the Mississippi River, when participation would be limited due to travel and lodging costs. As university budgets tightened, however, the charter was updated to read, “The Big South Athletic Conference plans to host regional undergraduate research symposia within their athletic conference membership when the NCUR site requires air travel” (Ponder 2006).

To date, there have been four BigSURS: in 2007 at Coastal Carolina, in 2009 at UNC-Asheville, in 2010 at Radford, and in 2011 at VMI. Some of the initial successes of BigSURS and its continuing viability can be attributed to the strong advocacy of Commissioner Kallander (who urges faculty and student participation via the Big South website and contributes financial support) and the dedication of the BigSURS Advisory Committee (which consists of undergraduate research directors from participating institutions).

Thus far, Kallander says, the symposium “has been very successful” at forging connections between Big South athletics and academics. After participating in the 2011 BigSURS, Angela Redmond, an NCAA Division I soccer player from VMI, described her experiences as a Big South student athlete this way:

Participating in both competitive atmospheres ... has given me a unique perspective to compare and comment on them both. I believe the most important connection between both types of competitions is the power they have to inspire positive change by exposing students to new ideas which they in turn take back to their own universities [and which often] result in richer academic experiences for students throughout the Big South as good ideas are passed from campus to campus.

For those student athletes who present the results of their research at BigSURS, the symposium provides them with an opportunity to highlight their achievements as students and researchers (e.g., all Big South Conference athletes who present at BigSURS are honored at the conference’s annual dinner). The event also gives them the chance to interact with their sports rivals in what Redmond describes as a “more collaborative and cordial” atmosphere than on the athletic fields. In addition, participating in BigSURS or similar conferences enables student athletes and non-athletes to interact and to work together on academic-related activities. These academically focused collaborations may also reduce the perception “that intercollegiate athletics is disconnected from the academic mission” (Lawrence 2009) of colleges and universities. Forging such connections among programs and institutions that already share an affiliation through membership in an athletic conference (membership that is typically based upon similar institutional missions and geographic proximity) can readily be achieved through the establishment of an annual undergraduate research symposium like BigSURS.

Infrastructure and Host Institution Responsibilities

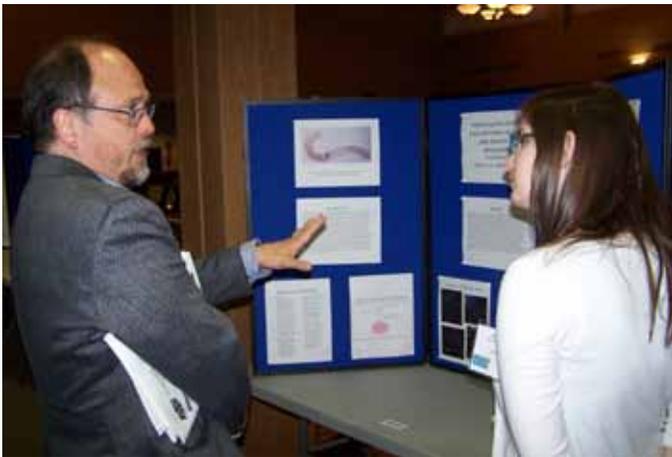
Existing undergraduate research program infrastructure. It is difficult to imagine that a campus could pull off an event of the magnitude of the BigSURS without the infrastructure of an existing undergraduate research program. The VMI Center for Undergraduate Research (V-CUR) is an established program and centralized office with the mission of both promoting and facilitating faculty-mentored undergraduate research and of fostering the development of a culture of undergraduate research at the institute. In addition, VMI has a robust Undergraduate Research Committee that

provides support at both broader, philosophical-strategic and specific, task-oriented levels, to the programs, mission, and leadership of V-CUR. This committee is a plentiful resource of potential subcommittee and task-force members.

Among the programs V-CUR routinely offers is a campus Undergraduate Research Symposium (URS) in the spring. The existing URS infrastructure provided a foundation for the BigSURS 2011 website and online form for abstract submissions; materials for poster displays such as mounting boards; and templates for guidelines for presenters and moderators. We highly recommend that any institution considering hosting other colleges and universities should first hold campus student research symposia to establish the framework for a larger-scale regional event.

Structure, leadership, and constitution of symposium committees. Assuming adequate infrastructure is in place, in our experience, a professional conference that maximizes the potential for student and faculty growth begins with critical decisions regarding the structure, leadership, and constitution of a program committee and a local-arrangements committee. The chairs and members of the 2011 BigSURS committees were chosen from VMI's Undergraduate Research Committee and the V-CUR staff, based on careful matching of faculty rank or experience and perceived strengths with the nature and amount of work required of the program and arrangement committees.

Delineation of responsibilities. Regardless of the makeup of the planning committees, they will not operate with



Winthrop University student Emily Bowie discusses her research with Dwight Dimaculangan, professor and director of the Winthrop University Undergraduate Research Initiative, during a poster session at the 2011 BigSURS. Photo credit, Patricia Hardin.



Lauren Rathbone, a representative of High Point University's Norcross Graduate School, offers some literature and information to a student at the university's exhibit at the 2011 BigSURS. Photo credit, Patricia Hardin.

optimal efficiency unless their responsibilities are clearly delineated. For the 2011 BigSURS, the chairs of both the program and arrangements committees were given written and verbal descriptions of the expectations for their committees. The chairs, in turn, conveyed these expectations to their committees and delegated specific duties to individual members. This approach ensures both coverage and accountability for the many small tasks that must be completed to yield a successful overall conference. It also guarantees that no one person assumes too much of an administrative or logistical burden.

Setting and communicating high standards. A conference that reflects favorably upon the host institution and provides a rewarding experience for all involved necessitates a professional approach and attention to detail with respect to all facets, ranging from catering to the keynote speaker. For the 2011 BigSURS, high standards were established for the quality, rigor, and professionalism with which the planning committees were to conduct their business. For instance, although they were evaluating undergraduate work, abstract reviewers were instructed not to approve subpar research or inadequately prepared or ineptly written submissions. To ensure consistency and to streamline the review process, the program committee provided reviewers with a concise, specific template by which to assess and comment on submissions, which employed reasonable, yet discerning, standards. The reviewers were further instructed to provide student researchers whose work was not acceptable with some brief written feedback as to why their abstracts were not found to meet the standards of the symposium. While the committee chose to limit abstract reviewers to VMI faculty members, the committee also worked to build cooperation among the other participating institutions by inviting their faculty members to serve as moderators during the confer-

ence. Similarly, the arrangements committee negotiated the best possible rates for conference participants at local hotels, confirmed that conference participants had ample parking, and ensured that out-of-town visitors were well taken care of while in Lexington. It also encouraged participation in the event by members of the community and the local K-12 schools. (See the section on community outreach below for more details.)

Teamwork and synergy. From our perspective, one of the most vital and rewarding aspects of a regional undergraduate research conference is the response to the “call to arms” from event organizers to the broader campus community. At the BigSURS at VMI, in addition to those serving on the conference committees, an additional 32 VMI faculty members reviewed abstracts, 30 served as moderators of sessions at the conference, and several more worked at the on-site registration desk. This admirable level of faculty involvement, combined with support from the offices of VMI’s superintendent and dean and the communications and marketing and catering staffs, as well as the Center for Leadership and Ethics, demonstrated the VMI faculty and staff’s investment in undergraduate research. The importance of this type of cross-campus backing cannot be overstated. As Big South Commissioner Kallander said, “It was clear that BigSURS was supported strongly by VMI’s senior administration, and that undergraduate research is valued by the institution.”

Profitability and Successful Community Outreach

In these economic times (for example, VMI’s 2012 operating budget includes an 8.2-percent-decrease in state funding), it is critical to the success of an undergraduate research conference to look for ways to benefit students, faculty, local educators, and the community without placing a financial burden on the host institution. For the 2011 BigSURS, VMI’s approach to keeping the costs low while delivering value was accomplished through a two-pronged method that consisted of creative cost-saving measures and enterprising practices designed to generate income. Many of these processes are readily transferable to other institutions.

Cost-saving measures. Perhaps the biggest impact on the conference’s profitability came through the novel approaches used by the arrangements committee to reduce the costs associated with conference “perks.” Many of the library’s

database providers—such as Lyris, Innovative, ProQuest and EBSCO—contributed notepads and pens branded with their logos that were included in each registrant’s packet. The arrangements committee also received partial funding from ASTM Standards (another library reference-related company) for the drawstring sports bags each registrant received. In return for their support, the conference organizers placed the database providers’ names and logos in the program at no cost.

The committee also benefitted from internal support structures—including academic departments, alumni, and sponsors/donors—enabling less reliance on more costly external resources. An extremely cost-effective use of internal support came through printing the program in-house, thereby saving the cost of designing and printing by an external commercial firm. Student volunteers completed the collating and binding at no cost. Thus the only expenses for the printed conference program were the costs of the paper and the spiral binders—a significantly lower cost than that typically charged by a commercial printing company.

Smaller cost savings also resulted from the fact that organizers invited two VMI alumni, who graciously waived their typical honoraria and travel reimbursements, to serve as featured speakers at the conference. By blocking hotel rooms early so that out-of-town participants could reserve accommodations within walking distance of the conference venue, the committee also avoided the high costs of providing shuttle buses from the conference hotel to the conference venue.



VMI faculty member Stanton Smith shares a moment at the 2011 BigSURS with his former undergraduate research mentor, John Gupton of the University of Richmond. Gupton served as a “master mentor” panelist during the Mentor Summit at the conference. Photo credit, Patricia Hardin.

Income-generating activities. The arrangements committee considered ways to generate conference income beyond the registration fees. Keeping in mind that any income-producing activity ought to be consistent with the professional, academic, and outreach aims of the conference, the committee invited area graduate school exhibitors to the conference. This invitation resulted in five graduate schools paying exhibitor fees to promote their programs during both days of the conference. In return, the conference organizers included an exhibitor listing in the conference program and on the BigSURS website. These graduate school exhibitors not only contributed to the profitability of the conference but also were genuinely beneficial to the conference attendees. In fact, their presence at the BigSURS was so well-received that one director of undergraduate research at a Big South institution said that he wished that even more graduate programs had been represented to provide additional information to the student participants and their faculty mentors.

Community outreach. The innovative ideas implemented by the arrangements committee extended to community outreach. Recognizing that the use of inquiry-based learning is encouraged by local K-12 schools, the conference organizers informed the local superintendent of schools and school principals about the conference and worked out an agreement by which teachers could receive continuing-education credit for attending conference sessions and a mentor summit and completing supplemental readings. The principals

Table 1. Percentages of BigSURS Student Respondents Reporting Gains or Very Large Gains (ratings of “4” or “5”) in Specified Domains

Domain	Percentage
Ability to read and understand primary literature in their field	63%
Ability to analyze data and other information	55%
Skill in interpretation of results	65%
Understanding of the research process in their field	62%
Skill in how to give an oral presentation	64%
Readiness for more demanding research	75%
Clarification of career path and/or intentions to pursue a graduate degree	43%
Self-confidence	86%

and the superintendent were very receptive and paid a nominal fee for the participation of their teachers, thus contributing to conference income.

The arrangements committee also invited the director of the local Chamber of Commerce to exhibit at the conference. This exhibit benefitted conference attendees and area businesses at no cost to VMI. Attendees were able to collect additional “freebies” and to ask for information about restaurants, hang-outs, sightseeing trips, or events coinciding with the conference (such as the annual downtown merchants’ “sidewalk sale”), while community businesses enjoyed increased sales.

Conference Outcomes and Lessons Learned

Outcomes. Organizers received numerous informal compliments regarding the structure and execution of the conference. In addition, a post-conference online survey yielded responses from 32 student participants. Students were asked to rate, on a 5-point Likert scale, the extent to which they experienced gains in eight different domains as a result of their participation in the BigSURS at VMI. Table 1 shows the percentages of respondents reporting gains or very large gains in each of the areas assessed.

In addition to this quantitative assessment, the online survey included an opportunity for respondents to provide open-ended comments regarding their experiences at the BigSURS. One student stated, “I thoroughly enjoyed the entire process. This was my first conference presentation and ... I feel that I gained much needed hands-on time with working on research and presenting it to professionals.” Another student wrote, “Everyone I encountered on the campus was extremely supportive, and the conference itself is something that I will treasure for the rest of my life.”

We also received positive feedback from colleagues on the BigSURS Advisory Committee. Mark Harvey from UNC-Asheville noted, “The conference was very well-organized, the [keynote] speaker was fantastic and the Cadets were wonderful hosts.” Radford’s Joseph King wrote, “Radford University was particularly pleased with the venues ... for Fine Arts presentations ... [and] the opportunity for folks to interact.... Just what a professional conference should provide.” Big South Commissioner Kallander added, “The 2011

BigSURS hosted by VMI was one of the finest undergraduate research events the Big South has experienced.”

Perhaps another measure of success that can be applied is the number of students attending (or at least registering for) the BigSURS at VMI relative to previous meetings. In 2009, a total of 172 students registered for the BigSURS. By 2010, the conference had grown to 189 student participants. Even more significant growth was achieved by VMI for the 2011 BigSURS, however, with 248 students registering.

Another positive outcome of the 2011 BigSURS has been the impact on VMI. BigSURS profits have been channeled back into V-CUR's programs, to the benefit of VMI undergraduate researchers and their faculty mentors. A long-term impact is the significant contribution of the conference toward V-CUR's mission to promote the continued development of a culture of undergraduate research at VMI. Understanding that offering explicit informational sessions or workshops for faculty at the conference would enhance such an institutional culture, one of the highlights of the BigSURS at VMI was a Mentor Summit entitled “Models and Rewards of Undergraduate Research.” The summit featured four “master mentors” nominated by VMI faculty. Their presentations not only generated fruitful discussions among an audience consisting of faculty from various institutions but also represented a unique professional-development opportunity that served to engage faculty at a level exceeding what might have otherwise been achieved at a conference focused on undergraduate research. Finally, while prior experiences with VMI's own undergraduate research symposium helped shape the BigSURS, that event has, in turn, raised the bar in terms of V-CUR's expectations and planning for a more professional and rigorous internal symposium.

Lessons learned. Despite our successes, we learned that good ideas do not always work out in practice. As a case in point, we created a blog that was accessible through the conference website in an attempt to get conversations started among participants with similar interests prior to the face-to-face conference sessions. Regrettably, aside from one VMI student volunteer, no one posted comments on the blog. Furthermore, we had anticipated that the conversations started on the blog would naturally lead to topically organized roundtable breakfast conversations on the second day of the conference. However, since no conversations were initiated on the blog, no roundtables were organized.

We also found that while organizing panels by common themes, with appropriately eye-catching titles, makes for an engaging and accessible program, it may also result in panels made up of student presenters from a single institution—particularly if the students have the same faculty mentor and research focus. Consequently, such panels fail to take advantage of the opportunity to create “cross pollination” among participating institutions, and student researchers therefore have less opportunity to present for and listen to more diverse audiences. In fact, the only negative comments from the online post-conference survey highlighted this oversight. As one student remarked, attendance at his panel “was limited to students from [his] own university, meaning [they] had all already seen each other's presentations.” Despite this disappointment, however, the student went on to write that his “involvement in the BigSURS process—rather than merely the conference itself—facilitated healthy interaction with peers and accelerated [his] knowledge in the field.”

Finally, while we were able to obtain limited quantitative and qualitative post-conference assessment data supporting the notion that the symposium was successful overall, we missed an opportunity to evaluate conference-related outcomes on-the-spot, during and immediately following the meeting, when survey completion might have been maximized and participants' experiences and impressions would have been most salient. For these reasons, we strongly recommend that organizers of future conferences administer assessment surveys on-site to presenters, faculty mentors, moderators, and audience members.

Conclusion

The 2011 BigSURS hosted by VMI serves as an example of a professional and profitable regional undergraduate research conference due to the key strategies outlined above. Clearly, the relatively small geographical area and similar institutional missions represented by the Big South colleges and universities facilitate the use of the athletic conference as an organizing principle for a regional undergraduate research symposium. While we believe we have demonstrated that an academic-athletic consortium has merit, the basic strategies for running a professional and accessible conference that we have discussed can be applied to other small regional conferences as well, whatever the ties that bind the participating institutions together.

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