Collaborating, Collecting, and Analyzing Data: A Case Study of Experiential Learning in the Arts Management Classroom

by Amanda Nelson, Ph.D.

Virginia Tech School of Performing Arts 195 Alumni Mall (0141) Henderson Hall, Rm 344 Blacksburg, VA 24061

Office Phone: 540.231.6029 Email: amandajnelson@vt.edu

Collaborating, Collecting, and Analyzing Data: A Case Study of Experiential Learning in the Arts Management Classroom

Introduction

This case study describes how an ongoing data-based project examining student engagement with the arts on the Virginia Tech campus is providing an experiential learning opportunity for graduate students in arts leadership, while simultaneously informing the programming, engagement, and marketing practices of the Moss Arts Center (the university's presenting house), the School of Performing Arts (the academic unit which houses music, theatre, and cinema), and the Office of Student Affairs. The paper includes reflections on how students learn through a multidisciplinary collaboration encompassing the arts, business information technology, and statistics; discusses the development of the research conducted; and shares some of the challenges faced and opportunities discovered during the process.¹

The research and the methods used to carry out this project can be replicated on other campuses. It may be scaled to meet the resources, needs, and ultimate goals of other graduate programs. The paper is also intended to be an invitation to colleagues across the country to conduct similar studies and to share their data and experiences. Examining student engagement with the arts on campuses has the potential to reveal both national trends and commonalities, as well as differences among college populations. The sharing of insights gained from doing experiential projects in the classroom could inform and improve graduate curriculum in arts management.

Project Set-Up

Collecting and analyzing data to better understand both the barriers and motivations for patron participation have helped arts organizations (of all sizes) to develop ways to increase attendance, expand participation, and deepen engagement (Harlow 2015, vii). On the university campus, we too can benefit from research and in-depth analyses of a range of data on our patrons and our prospective patrons: namely students.

At Virginia Tech, the Moss Arts Center, the School of Performing Arts, and Student Affairs share a common mission to engage students in and with the arts on campus. We recognize that an examination of data is key to meeting our goals to both expand and deepen student engagement with the arts. We know that trends in audience development are ever-evolving, that our student population is diverse, and that research on perceptions versus actual consumer behavior is complicated. To meet these challenges and address our shared mission, we created an ongoing audience development research initiative. The idea for this project began to percolate in late 2014, and it was launched in the spring of 2015.

As the originator of the project and the point of contact for the School of Performing Arts for the research, I have served as project manager, coordinating the collaboration efforts and serving as teacher/mentor to the participating arts leadership graduate students. This project has been incorporated into my graduate level semester-long Arts Marketing course in the MFA program. Students in the class read, discuss, and then engage in the practice of audience development research through assignments and group projects. Each time the class is offered, a new group of graduate students joins the research initiative. To support regular and ongoing work on the project, additional student work hours are allocated

¹ Note: Aspects of this research project were discussed in presentations at the following conferences: College Arts Association (2016); AAAE (2016); and APAP (2017).

from assistantships in the marketing office of the School of Performing Arts. The Moss Arts Center and Student Affairs see the value in conducting audience development research, and so both regularly allocate staff time for research team meetings for planning and data analysis.

The Moss Arts Center is a new addition to the campus; its first year of full programming was 2013-2014. With the building of the new arts center came a renewed focus on the arts: the university established the position of Associate Provost for the Arts and a new committee, the Creativity and Innovation Board, to support and foster the arts at Virginia Tech. Prior to the start of this research project, the School of Performing Arts and Student Affairs, while open to research and data analysis, did not have the resources (time, people, or know-how) to engage in robust and ongoing audience development research. This need for data collection and analysis created an ideal opportunity for hands-on learning for the graduate students in the MFA in Arts Leadership program.

Data and Experiential Learning

The AAAE document, "Standards for Arts Administration Graduate Program Curricula," includes "research" as a core competency for study, noting that students should be able to "conceptualize, analyze, synthesize, and evaluate data" (6). The document further states: "The arts and cultural sector is changing, and arts managers need research skills. . . . Arts organizations are increasingly called upon to account for the effectiveness of their programs, the composition of their workforce and audiences, and their community and economic impacts in ways that demand research capacity" (AAAE 2014, 54). In addition, the growing competition to attract audiences created by rapidly expanding digital outlets and the need to justify applications for grants and donor support are greatly increasing the need for arts organizations to collect, analyze, and interpret data.

Reading about conducting and analyzing research in the arts is certainly one way in which our students can learn about research methods. But it is in the *doing* that students achieve a true transfer of knowledge, being "able to use what they learn in appropriate new contexts" (Eyler 2009). "As a practice, experiential education prioritizes active learning components, frequently uses reflection activities as a tool to develop further meaning, and emphasizes peer-to-peer interaction" (Furman and Sibthorp 2013, 18). In graduate arts management courses, experiential learning projects involving research and data can help students develop a range of *hard* and *soft* skills that will serve them well in their professional careers. These projects provide the opportunity for practice in hard skills such as:

- Data analysis (using Excel and CMS/database systems)
- Survey instrumentation (designing and implementing)
- Presentation Tools (including PowerPoint and business writing)

Just as important, experiential research and data projects also engage a student in using vital *soft* skills including:

- Critical thinking (synthesis and analysis)
- Creative problem solving (conceptualization)
- Collaboration
- Communication (written and oral; both formal and interpersonal)
- Empathy and active listening
- Iterative practice (test, analyze, refine, and repeat)
- Analysis and interpretation (judgment, discernment, and the establishment of priorities)

• Project management (organization and time management)

Experiential learning allows for autonomy in the doing of the work. Students learn from their mistakes and missteps. The iterative practice of doing, reflecting, and re-doing is a particularly effective approach to learning and to the development of surveys, the design of focus groups, and data analysis.

In "Taking Out the Guesswork," Dr. Bob Harlow outlines four basic steps for conducting audience development research: "1. Research Plan 2. Research Objectives (Methods, Participants, Questions) 3. Results 4. Acting on Results" (Harlow 2015, 5). Building upon Harlow's outline and adjusting his suggested steps for classroom use, I have developed the following process for our own audience development research:

- 1. Learning about conducting research
- 2. Defining the research problem
- 3. Determining appropriate research partners, methods, and tools
- 4. Designing research methods and obtaining IRB (an entity described herein) approval
- 5. Implementing research
- 6. Analyzing findings
- 7. Incorporating findings into programming and planning

Some professionals working in the field and students pursuing graduate work in arts management may find the mere idea of working with data and doing quantitative analysis intimidating. In a recent blog post, arts administration educator Kathryn Heidemann observed that Carnegie Mellon's "data-DNA is the reason that many of our students choose our program – and, admittedly, it is also the reason that many prospective students choose *not* to come here" (Heidemann October 2017). What this research project (and the teaching of conducting the research) has taught me is that there are ways to prepare future arts leaders for the data demands of the field without relying extensively on formal quantitative and statistical training. We can show our students how working in collaboration with those who are expert in quantitative analysis can bolster our own work. Our project at Virginia Tech has served as a platform for hands-on research and data analysis, as well as multidisciplinary collaboration.

Learning About Conducting Research

An important initial step, before engaging students in the study, is to provide them with a basic introduction to quantitative and qualitative research as it applies to the arts. Readings, followed by indepth discussion, form a basis from which the students can develop their own research practices. Joanne Scheff Bernstein's *Standing Room Only: Marketing Insights for Engaging Performing Arts Audiences* provides an introduction to research approaches and practice in the field today. In the Arts Marketing class, students review several reports on audience engagement from the NEA, including the 2015 report "A Decade of Arts Engagement 2002-2012" and "When the Going Gets Tough: Barriers and Motivations Affecting Arts Attendance." (Both reports are available online from the NEA, in an easy to download pdf format.) Students also view the video "How Audience Research Can Help Build Arts Audiences" (available online, http://www.wallacefoundation.org/knowledge-center/Pages/How-Audience-Research-Can-Help-Build-Arts-Audiences.aspx).

Examining and exploring research in the field has included reading case studies. The "Audience Revolution" series from Theatre Communications Group (TCG) and the Doris Duke Charitable Trust (2016) broaden student awareness of both the varied research methods available and best practices for data collection and analysis. The TCG case studies include a range of theatres from regions across the country,

including the Arkansas Repertory, Steppenwolf, and the Oregon Shakespeare Festival. These case studies are coupled with a close reading of the Wallace Foundation's research guidebook, "Taking Out the Guesswork." As author Dr. Bob Harlow explains, the guidebook "illustrates how research can support three tasks integral to successful audience building: (1) learning about potential audiences, (2) creating more effective promotional materials, and (3) tracking and assessing progress toward audience-building objectives" (Harlow 2015, vii). The guidebook synthesizes processes and findings from a series of audience development case studies. The students also examine the guidebook's corresponding individual case studies so that they can better understand the possibilities of using both qualitative and quantitative research for audience development and strategic planning. Through the readings, they gain familiarity with some of the terms and concepts used in quantitative and qualitative research, learn how to distinguish assumptions from facts, and develop an acute awareness of how biases can lead to erroneous and misleading conclusions.

An in-class assignment exploring online survey and digital analytic tools (i.e. SurveyMonkey; SurveyGizmo; TypeForm; Simply Measured; and True Social Metrics) provides students with a hands-on opportunity to compare and contrast available tools. Each student is assigned one survey and one analytic tool and is charged with examining purpose, cost, ease of use, and options and enhancements available. The information gathered is then shared with the class. We discuss that while the online survey tools can facilitate and ease the building and dissemination of a survey, the design of the survey (purpose, audience, and questions posed) is a complicated endeavor and will likely require multiple iterations to fine-tune the design.

To prepare students and to bolster their confidence, the class and reading assignments are followed by training sessions in survey development and focus group implementation. Students with limited experience with the software program Excel are encouraged to take the tutorial on its use available on Lynda.com. (Our university has a membership which allows students access to the Lynda.com resources.) Using expertise in the areas of statistical analysis and qualitative research from across our campus community provides another learning opportunity for the arts leadership students. The Laboratory for Collaborative Interdisciplinary Statistics (referred to as LISA at Virginia Tech) provides walk-in consulting, educational workshops and short courses, and general support of research projects. Consisting of faculty and students from the Department of Statistics, LISA provides expertise in experiment design and analysis. Labs like LISA have been set up on campuses across the country. In conjunction with graduate students in Statistics working for LISA, the graduate students in the MFA in Arts Leadership program have developed audience surveys. We have also found partners in the Office of Assessment and Evaluation on campus who generously provide training sessions on focus group planning and implementation for our graduate students.

Defining the Research Problem

In preparation for conducting the research, students review some of the research on and assertions about millennials, those born between 1982-2000. While there can be a danger in applying generalities to an entire generation, there is value in reviewing what studies have revealed. Students in the Arts Marketing course review Alan S. Brown's "Engaging Next Generation Audiences: An Overview of Findings," a large multi-site study about arts engagement on college campuses and Patricia Martin's "Tipping the Culture: How Engaging Millennials Will Change Things," a study about how major commercial brands are reaching millennials. This literature review is a key step in the research process, fostering insight into the population being studied and developing knowledge about complementary studies conducted in the field. These readings also provide students with ideas for possible research methods that they can employ themselves.

Alan S. Brown's report discusses a 2012 study conducted by eight performing arts centers on college campuses across the country. The study was designed to examine "how to maximize college students' performing arts participation and attendance, with a focus on the particular challenges of classical music" (Brown 2013, 2). Patricia Martin's report shares research on millennials and connects that research to marketing and engagement practices in the performing arts.

These studies reveal challenges in reaching and engaging college students. Brown notes that "college students are an idiosyncratic and enigmatic market segment. . . . They are an elusive and notoriously fickle customer segmentation" (4). Many of Martin's assertions about the millennial generation echo those of Brown. "They thrive on information and ideas to fuel their creative self-expression. They crave learning new things. They are networked and, as such, are influential. . . . Millennials live a paradox. They want to fit in and stand out simultaneously" (Martin 2010, 6, 20).

In discussing these findings, the arts leadership graduate students begin to see connections between the generational tendencies revealed in the studies and the challenges of arts engagement on the college campus. Since many students participating in the project are millennials themselves, discussions typically include personal observations of traits and tendencies that they see in themselves and in their peers.

To formulate initial research questions for the project, the literature review was followed by conversations with the marketing staff of the Moss Arts Center and the School of Performing Arts. The staff members shared their own questions about millennial arts participation and noted current challenges and successes in reaching and engaging students.

Ultimately, the initial research team developed four key questions on which to center the project:

- What is the profile of a college student who attends performances, goes to our art galleries, or takes courses in the arts on campus?
- How are these students different from the rest of the student population?
- How can the arts entities on campus build bridges to students who are not currently engaged in the arts, and strengthen bridges to those who are?
- How might lessons learned about college student engagement with the arts influence and guide marketing, patron services, and programming?

Determining Appropriate Research Partners, Methods, and Tools

More than 25 students, faculty, and staff members have worked on the project at Virginia Tech to date. The disciplines and experience of those asked to join the research team have been intentionally diverse. I sought to mirror the field, where professionals routinely work with people outside of the arts including consultants (who aid with marketing, fundraising, or strategy), local business partners, and funders. Our project involves collaborators from across campus: faculty and students from the School of Performing Arts, the Statistics Department, the Business School, along with staff members from the Moss Arts Center and Student Affairs.

The multidisciplinary nature of the research has been of importance to both our approach and the work itself. In the arts, we routinely use the term *collaborative* to describe our work practices. But, real collaboration (which requires discussion, disagreement, as well as consensus-building) is not necessarily a given in the arts field at-large or in the college arts classroom. An important learning experience for our graduate students participating in the research has been practicing how to foster collaboration among the varied stakeholders involved. Discussions between and among the diverse research partners have been ongoing among all the players. But, the MFA in Arts Leadership students have been specifically

encouraged to explore, test, reflect, and identify productive means of communication for managing the project.

A series of discussions, drawing upon the studies and readings about research methods from our earlier literature review, provided much needed guidance in the identification of appropriate research methods and tools. Ultimately, the team decided that its research would be based on student surveys, focus group responses, and an analysis of ticket buyer and demographic data. From the start, we recognized that our research would be an ongoing effort. This long-term view of the work has meant that a range of research methods could be employed over time. To date, students from four separate cohorts (years) of the MFA in Arts Leadership have participated in different facets of the research.

Designing Research Methods and Obtaining IRB Approval

Small teams of students, faculty, and staff have been charged with focusing on at least one of the following components of the research:

- 1. Developing audience surveys and conducting focus groups to explore student engagement and participation with the arts on campus.
- 2. Conducting a ticket giveaway experiment to gather data on current student engagement with the arts on campus and to test the entourage effect (described below).
- 3. Examining student ticket buyer data to analyze student purchasing behavior.
- 4. Analyzing student demographic data to examine overall student body demographics and then comparing those demographics with those who do attend and participate in the arts on campus.

The initial audience survey was designed through a partnership between the MFA in Arts Leadership students and the graduate students in Statistics. The process revealed that there was a steep learning curve for both groups: The arts leadership students had little experience with survey development, and the statistics students were largely unfamiliar with the arts. One of the arts leadership students reflected that the "project was enlightening." She elaborated, explaining that the statistics students looked at the audience survey with "fresh eyes" and from a very different perspective. They pointed out that the arts students tended to use *insider lingo* (like *run time* and *house*), terms that may not be understood by those surveyed. The statistics students lent their expertise in survey development, helping to form, shape, and ultimately order the questions posed.

Together, the students discussed how biases could be inherent in surveys. They explored ways to limit biases in how questions are worded and in selecting survey takers. The arts students reflected on their own past experiences in seeing audience surveys being administered at theatres. This resulted in an important conversation with the statistics students about how bias was likely present not just in the questions and responses of many audience surveys, but also in the administering of the surveys themselves. Audience members with strong opinions (either positive or negative) would be the ones more likely to respond to a survey, especially if the survey were to be simply inserted into a playbill. If ushers were charged with distributing surveys, they might be inclined to give surveys only to those who *looked as if* they would complete the survey. With assistance from the statistics students, a randomization process for the collection of the audience surveys was created. Cultural and ethnic diversity within the team and among the target population emerged as another potential source of bias. This realization led team members to reflect upon their own awareness of and sensitivity to cultural diversity, which not only aided in constructing the survey but also will help them throughout their careers.

For the ticket giveaway component of the research plan, it was decided that peer undergraduate students would randomly ask students walking through high foot-traffic areas on campus to participate in a short survey. In exchange, the survey-takers would be randomly given either one or two complimentary tickets to an upcoming performance on campus. In addition to gleaning important information from the survey about if and how students from across the campus engaged with the arts, the research team wanted to test a hypothesis based on the *entourage effect*: students who received two free tickets would be more likely to attend the performance than those who were given just one. Initially, the team expected to be able to carry out a formal statistical test of the *entourage* hypothesis, but the number of responses was too small for the test to be done. (Subsequent ticket giveaways will be done to re-test the hypothesis.)

Building upon both the audience survey and the ticket giveaway survey, a more in-depth student engagement with the arts survey was developed and sent to a random sample of 4,000 students. Due to time limitations and project needs, this new survey was designed by faculty and staff involved with the project. Student researchers will be directly involved with the analysis of the results.

In addition to surveys, the MFA in Arts Leadership students have been conducting a series of focus groups to learn more about student perception of and engagement with the arts on campus. The focus group training, provided by colleagues in the Office of Assessment and Evaluation, offers a solid foundation from which the graduate students can organize the focus groups, including whom to sample and how to contact and encourage participation of those selected, delineate the roles of the graduate student researchers in conducting the focus groups, develop the questions posed, and analyze the comments made during the sessions.

MFA in Arts Leadership students have led the focus group effort in consultation with me and staff members from the Moss Arts Center. First, the students established an overarching objective: to better understand and examine real and perceived barriers students have that preclude them from attending and participating in the arts on campus, and determine ways to remove these barriers to encourage more student attendance and participation. The students then developed a series of questions to guide the conversation during the focus group sessions:

- When I say "Arts at Virginia Tech," what comes to mind?
- Do you know where you can see/experience the arts on campus? If so, which theatres, venues, galleries, or other spaces have you been to?
- How would you prefer to find out about the arts at Virginia Tech? Online? Social media? Email?
 Posters/flyers? Through Friends?
- Would you go to an arts event alone? If yes, why? If not, why?
- Why do you think students do or don't attend an arts event/activity on campus?
- What could the university do to encourage you to attend an arts event on campus?

Ticket buyer data is being culled to aid in the assessment of student attendance patterns for arts-related events and activities on campus. The student researchers concluded that, ultimately, they want to examine the data to try to answer the question: Who is likely to attend arts events most often? The team has developed a series of further questions to drill into the available data, including:

- Are students more likely to attend a performance or art event on their own or with a group of friends?
- Does participation in a related arts activity or taking a class in the School of Performing Arts make a student more likely to attend a performance?

Similarly, student demographic data have been and will continue to be examined to:

- Compare overall student body demographics with those who do attend and participate in the arts on campus.
- Examine demographic trends for those who take classes in the arts.
- Examine the majors and minors of the students who take our classes and/or attend our performances or gallery events to see if there are patterns or trends that we can explore and learn from.

The Role of the Institutional Review Board (IRB)

Doing research on a college campus, with college students, highlights the importance of having clearly articulated research protocols, procedures, and ethical conduct standards. As the Associate Director of the Office of Research Compliance at Virginia Tech explains: "Institutions, including universities and colleges, that receive funds from a federal department or agency that has adopted the Common Rule to conduct non-exempt research on human subjects are required to obtain approval from a registered IRB." While not all IRB ethical conduct standards directly pertain to arts research, having an awareness and understanding of the ethics inherent in conducting research on/with people sets both a tone and approach to audience research that reminds us all that the research should be for the betterment of the communities our arts organizations serve. At the outset of our project, we worked with our IRB office to ensure we met all institutional research requirements. The graduate students in arts leadership had no prior experience with the IRB process. Dialogues among team members about the ethical considerations involved in conducting research were fostered. Discussions on managing expectations of anonymity and/or confidentiality, as well as setting appropriate behavior guidelines for research conducted on a college campus have been fundamental to the learning of the participating graduate students.

Our project has gone through the IRB process and the collaborators have been through the university's IRB training and understand research protocols as they pertain to this work. When a new component of the research is embarked upon or new members join the research team, our IRB protocol is updated. The MFA in Arts Leadership graduate students have been involved with the IRB process, and I believe that the attention to procedures and ethics has both strengthened the project and has better prepared our students to conduct ethical and thoughtful research in the field.

Implementing the Research

As noted, this research is ongoing. A first round of surveys and focus groups has been implemented and initial analysis of ticket buyer and demographic data has been undertaken. Following are some facts and figures regarding implementation:

- More than 25 students, faculty, and staff members have been involved directly with the research project to date.
- Over the course of three separate dates, 168 randomly selected students took part in the survey and ticket giveaway experiment. The random selection resulted in close to half women and half men having taken the survey. (At Virginia Tech, the overall student population has more men than women.)
- The statistics students took on primary responsibility for the implementation of the arts survey/ticket giveaway experiment.

- The MFA in Arts Leadership students in concert with graduate students in Statistics led the audience survey component of the project. Surveys have been administered and collected at each performance of the Theatre department's mainstage productions.
- More than 600 audience surveys have been collected.
- A total of 31 undergraduate students have participated in a total of four focus groups conducted by the MFA in Arts Leadership students.
- An in-depth student engagement with the arts survey was emailed to 4,000 randomly selected students across campus.
- A student in Business Information Technology, under the guidance of a faculty member, has taken
 the lead on examining ticket buyer, class rosters, and demographic data for further analysis by
 the research team.

Analyzing Findings: Discoveries About the Research Process

Throughout the project, the team has been immersed in the analysis of data collected and culled, which has required the students to exercise synthesis and analytic skills (critical thinking). The students have actively employed iterative practice and creative problem solving: testing survey and focus group questions, then analyzing results and refining the questions to limit bias. They have established collaborative practices among team members, practices that best serve the multidisciplinary work. Collaboration has also resulted in enhanced empathy and active listening among the team members and in conducting the focus groups. Students have further developed their project management skills (organization and time management), and they have expanded their ability to judge and interpret the data collected.

A student from Business Information Technology employed descriptive statistics to explore data from the university's event ticketing system and class rosters from performing arts courses. The descriptive statistical analysis required not just the raw data, but also input from those team members from the arts. Without this arts-based context the data could have been easily misinterpreted, a lesson which resonated among all team members. For example, at first glance, an examination of the class rosters seemed to reveal a direct correlation between those students enrolled in arts courses and attendance at arts events. However, for several of the classes examined, students were required to attend specific arts events, which meant that arts event attendance did not necessarily demonstrate an interest in the arts. Here, the data needed to be reexamined with a more complete understanding of the context.

In analyzing the feedback from the focus groups, the MFA in Arts Leadership graduate students put together two-paged reports and made formal presentations of their findings to the team. As the students examined and discussed the research, narratives began to emerge. The group found itself telling stories using the findings. And, in those narratives, the students made practical suggestions for ways to incorporate the lessons learned into programming and planning.

To share our work as well as to seek possible research partners on campuses across the country, we have presented our initial findings at conferences. These conferences have also provided professional networking opportunities for students involved with the research: Two of the MFA in Arts Leadership students participated on a panel at the Association of Performing Arts Professionals with me and another faculty researcher.

Incorporating Findings into Programming and Planning

While the data collection and analysis is ongoing, small adjustments have already been made to the marketing of the Moss Arts Center and the School of Performing Arts, including new signage and

messaging to better direct students to arts resources and event information and venues. The Moss Arts Center has formed a student ambassador program. The ambassadors develop marketing campaigns and activities to promote the arts among their peers. The group also provides input on programming, including suggestions for guest artists, concerts, and events. The School of Performing Arts has adopted audience surveys developed through this project and now conducts surveys at every mainstage theatre performance. As the research develops, we expect that more substantial adjustments, additions, and alterations will be made to marketing and programming.

Conclusion: Challenges and Opportunities

Through the research, we have learned more about overall student engagement with the arts on campus. But more important, we have come to realize the value of this research project to the graduate students involved. A key aim of our research project was to build a process for collective learning and sharing of experiences - collaboration.

Paramount to this project has been balancing quantitative research methods with qualitative and creative processes. For most of the arts students involved with the project, it was the first real exposure to conducting research and analyzing data. For the statistics and business students involved it was new territory to explore - - most had not attended a performance or exhibit on campus themselves (and some were not even aware we had arts programs). Over time, the diverse student groups seemed to value and appreciate the views and knowledge of the other.

Engagement in the project was not always easy, and the entire team realized that the challenges in cross-collaboration provided an important learning experience for students and faculty alike. Challenges observed from the arts perspective included:

- Translation between arts-speak and stats-speak
- Insufficient time to learn about how our partners in statistics and business organize and analyze the data

One of the graduate students in statistics commented, "I'd say the biggest difficulty was in describing what was possible for us to do based on the data we received. There can be a lot of subtleties in the numbers, so sometimes the specific question a client hopes to have answered can't necessarily be done appropriately." Another noted, "Some challenges I had with this project, as I do with most all projects in collaboration, is the difference in knowledge between both parties." As this project moves forward, additional sessions with both the arts leadership students and the statistics students will be incorporated to allow for more in- depth discussion of process and analysis.

Upon reflection of the research project to date, the Associate Director of Programming at the Moss Arts Center identified an internal challenge that has emerged from doing the project: building in sufficient time for data analysis and incorporating the findings into programming decisions and marketing plans. He hopes that the Center will be able to make adjustments to its workflow to put more of the research into practice.

As the work has developed, unexpected challenges and surprising opportunities have emerged requiring team members to adjust expectations, approaches, and processes. The clearly defined research steps described in this article are a result of my own iterative practice with the project: they have been adjusted and honed as work has progressed. This is a time-consuming endeavor. Faculty interested in replicating the project might do well to seek release time. Buy-in from campus partners is essential. The relationships

developed with Statistics, Business Information Technology, the Moss Arts Center, and Student Affairs have made this project possible.

The impetus for this research has been, and continues to be, two-fold: to provide experiential learning for arts leadership graduate students and to paint a picture, so to speak, of students who attend or participate in (or are *more likely* to attend or participate in) the arts so that we can better program to their interests, attract them to our performances and events, and encourage them to take classes in the arts. We hope others at campuses across the country will replicate aspects of this project and collaborate with us.

Works Cited

- AAAE. November 2014. "Standards for Arts Administration Graduate Program Curricula: A Living Document."
- Brown, Alan S. May 2013. "Overview of Findings- Engaging Next Generation Audiences: A Study of College Student Preferences Towards Music and the Performing Arts," commissioned by the Hopkins Center for the Arts, Dartmouth College.

 http://www.americanorchestras.org/conference2013/wp-content/uploads/2013/02/Student-Engagement-Study.pdf
- Eyler, Janet. Fall 2009. "The Power of Experiential Education." *Liberal Education* 95 (4). Accessed online July 17, 2017.
- Furman, Nate and Jim Sibthorp. 2013. "Leveraging Experiential Learning Techniques for Transfer." In *New Directions for Adult and Continuing Education*, 17-26. DOI: 10.1002/ace.
- Harlow, Bob. 2015. "Taking Out the Guesswork: A Guide to Using Research to Build Arts Audiences." New York: Wallace Foundation.
- Heidemann, Kathryn. October 3 2017. "For the Love of Data." SMU National Center for Arts Research Blog. http://mcs.smu.edu/artsresearch2014/ArtsDataSalon17-KH.
- Martin, Patricia. 2010. "Tipping the Culture: How Engaging Millennials Will Change Things." Chicago, Illinois: LitLamp Communications.
- © 2017 All rights reserved.