Building Collaboration Through Project-Based Theater Design

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Abstract

With the economic collapse of 2008, there has been a dramatic increase in government emphasis on the value of science and technology-based study in the nation's high schools as a means for the United States to remain competitive in the world economic market. Financial, political and societal support for the hard sciences, coupled with ever-tightening budget restrictions for education, have contributed to the devaluing, underfunding, and elimination of the performing arts as a viable and valued academic pursuit (Whitman, 2011).

The arts play an important role in secondary school education, developing a broad range of widely applicable social and organizational skills that strengthen a student's ability to pursue any course of study, while fulfilling the recent emphasis on 21st century skills.

This study documents a theater design curriculum and the experiences of a sample group of students who have completed two to four years enrolled in this project-based performing arts program in a Northern California public secondary school. The literature supports the theory that the 21st century skills of creative problem solving and collaboration, crucial to success in today's global society, are effectively developed through project-based arts curricula.

High school students in a theater arts class were asked to reflect upon their experiences in a theatrical design process. Findings indicate that students developed and refined a method for collaboration and could articulate that process in a discussion about their experience.

Chapter 1: Introduction

Trevor and Charlotte bounded around the scene shop, windmilling their arms, whooping and hugging each other, sharing a spontaneous, celebratory dance. Trevor scooped up their just-completed pentagonal pedestal—a scenic element for the upcoming production of *The Arabian Nights*—and brandished it jubilantly above his head. Charlotte interrupted him with an inspiration: they should show it to their other teachers. Their excitement grew; they hit upon the idea to display the platform for the parents at that evening's open house. Yelping with pride, the two raced out of the shop in search of their other teachers.

Over the past several weeks, Trevor, the scenic designer for the student production, had analyzed the script, met and brainstormed with the other designers and the director, determined a thematic concept and created scale technical drawings of the imagined piece. Charlotte, the technical director, had assessed Trevor's drawings, determined a lumber order, conceived of a build strategy, and had overseen construction, running the student build crew. This two-foot dais, the first fruit of their scenic labor, was the culmination of weeks of work for the pair and embodied a host of academic skill implementation: reading and writing, text analysis, identification and creation of metaphor, visual literacy and composition, complex geometry involving compound angles, mechanical drawing and beginning engineering. However, a less tangible, but arguably more important, skill radiated from the bear-hug embrace of these two students: collaboration.

With the assistance of several of their peers, these students had supported each other, filling in gaps in each other's knowledge, researching and problem solving together, though before this project they had not met. The two students exist in very different social circles; Trevor is a gangly, academic junior, Charlotte is an athletic senior. However, both are fulfilling the California state arts requirement through their participation in a very unusual Northern California drama program built around a student-run theater company.

Trevor's and Charlotte's success represents of the best aspects of a project-based arts education; they are deeply invested in the creation of something original; they have had to use a combination of previous knowledge and creativity to solve both intellectual and technical or practical problems; they have learned to act as leaders in a group situation; and they have learned to work effectively with an adult director, with a group of peer designers, actors and stage managers, and with each other.

This theater education program was founded in 1976 in a public, non-magnet high school. It began as an experiment in what is now referred to as project-based learning: students read, wrote, directed and acted in productions, which they also were responsible for producing. The program founder, paraphrasing Samuel Beckett, encouraged students to make as many mistakes as quickly as possible, learning on the job from their mistakes and successes, and from each other. The core principle of the program was and is Ensemble, and the focus of the instructors was to cultivate as many of the social skills inherent in this mindset as possible. The company emphasizes "many working as one,"

and actively values process over product. Cultivation of a safe learning environment is paramount and is the responsibility of students as well as teachers and guest artists.

Student learning is assessed based on four principles: attitude, including respect for peers and teachers, care of the theater space, practicing good work habits, and willingness to take risks; preparation, including quality and detail of reflective journal work, character work, script analysis, and coming up with ideas to share; participation, including meeting deadlines, time management, and self-direction; and performance, including application of learned skills in projects. Older students are graded based on their level of support for younger students.

This program is vibrantly alive today, thirty-six years later, and now sports a fledgling design and management program in addition to the award-winning acting and directing curriculum. Cornerstones of the program are in line with the original ideals: the program is open enrollment, welcoming any student at any level, with any educational challenges, and roles and positions are assigned based solely on availability and interest. All students are required to participate in three areas of theater production: as actors, as production or design staff, and as administrative staff. There is no specialization, no auditions, and no belief in "talent." Success comes through focus, mastery of specific and attainable skills, and support for all members of the company.

Collaboration is frequently touted as a crucial 21st century skill, singled out by educators, politicians, funding organizations and business leaders as critical for success in the American workforce. While student development of this skill is important, it is equally important for students to be cognizant of their new abilities, to assess their use of

these skills, and to be able to consciously apply these skills when seeking information or solving problems in other situations: the ability to transfer learning. While project-based performing arts curricula in which students work as performers has been shown to develop collaborative skill, among other social-emotional qualities (Davis, 2012), this study seeks to investigate the power of the visual components in a performing arts project to give students a springboard from which to develop self-awareness of their collaborative skill. In adding a tangible, visual component to a project-based arts production, the students can literally see the development of their ideas shift and modulate as they work with others. This creates opportunities for meta-cognitive awareness of collaborative skill.

Statement of Problem

Despite anecdotal evidence which suggests that the study of the arts in high school is often one of the most rewarding and lasting educational experiences for high school students (Davis, 2012; Fowler, 1996; personal communication, 2012), financial and social support for the arts—particularly theater arts—in public high schools continues to decline at an alarming rate. In California, "State arts education funding…includ[ed] $105 million in ongoing funds for a new Arts and Music Block Grant Program; this amounts to less than $16 per student per year" which schools have independent discretion to reallocate to courses such as foreign language or other electives (SRI International, 2007).

The American education system, from local school boards desperate to balance a budget to a national Department of Education desperate to improve standardized test

scores and global achievement standings, continues to shift support toward those areas of study in which achievement can be quantitatively measured in terms of information or facts mastered, and away from programs and courses of study which develop social and analytical skills like empathy, negotiation, creative problem solving, or work ethic (Whitman, 2011). In the age of high stakes testing, emphasis is being placed on the development of competitiveness in our students, rather than on collaboration, despite lip service to the "four C's,"—creativity, collaboration, critical thinking and communication—which top of the list of necessary 21st century skills as defined by businesses—Apple, Intel, Adobe and HP— economists, and education experts—National Education Association, Pearson, and Scholastic (Partnership for 21st Century Skills, 2011).

Purpose Statement

This study is teacher action research, conducted to examine a unique, student-run, project-based program in theater design and production and to explore the potential resulting growth or development of collaboration skills in a sample of students who have completed at least three of the four-year curriculum. In investigating and documenting this curriculum and its effect on high school students, this study seeks to determine if social and problem-solving skills garnered through theater design are applied in other settings in the students' high school experience or in meeting challenges following their high school experience. It also attempts to determine whether students are cognitive of growth in collaborative skills, and are able to actively reflect on their growth and consciously apply these skills in other content areas or situations.

Research Question

What is arts education for? Is it important and why? These overarching questions have plagued the American education system, and arts educators specifically, for generations. While public and scholarly opinion is ever modulating, this study hopes to contribute to the evidence for tangible value in the pursuit of arts curriculum in secondary schools.

This study investigates the following: what are students' perceptions of their collaboration skills within a design curriculum setting? How is theater design specifically well suited to the development of collaborative skills?

With most available research pointing to the fact that arts education develops skills in step with cognitive development, social development and 21st century skill sets, why do the arts continue to be marginalized in American academic culture? The theater design and production curriculum observed incorporates a combination of visual, kinesthetic, analytical and vocational learning. Are there quantifiable or qualitative correlations between this type of project-based, student-driven theater arts project and the ability of students to work collaboratively?

Theoretical Rationale

The theoretical rationale for this study is rooted in the work of John Dewey. In *Art as Experience* (Dewey, 1934), he explores the relationship between viewing art, or studying aesthetics, and creating art, participating in an active exercise of realization. He lays the groundwork for the value of project-based learning. In this work, he establishes the correlation between creation of art and personal growth through reflection upon the

process. He explores the educational value of a tangible, self-made result as a catalyst for this reflection.

Davis (2012) discusses the benefits of character development through study of the arts; this study examines the specific ways in which a curriculum in theatrical design develops the specific social skills involved in collaboration.

Assumptions

This study assumes that pursuit of theater design at the high school level, and the work necessary to produce the visual components of a piece of theater, develop characteristics and specific collaborative skills in students which allow them to contribute to society on a variety of levels and increase their success in negotiation or problem solving with others beyond high school, regardless of areas of study or pursuit.

Background and Need

The structure of theater design is uniquely suited to developing collaborative skills. Unlike acting or directing, it is not hierarchical, and it has a tangible, visible result through which students can more easily assess and reflect upon their own work. The tangibility also forces responsibility to their peers and to the collective; it is clearly obvious when the work is not completed. Because in theater design one has to document and share developing ideas throughout the process, the student designer must implement a verbal and visual commitment to the group. The research shows the value of producing a piece of theater; in the design and production disciplines, students are responsible for the entirety of the work: the actual production.

In the program studied, student designers must collaborate across disciplines, must incorporate different learning modalities, must communicate with a group diverse in age—adult directors, peers in all 4 years, and must work with a group of peers diverse in learning abilities and challenges. Students must identify problems posed through a script, analyzing a piece of literature, production problems, artistic or design challenges, and problems in actualization of a concept, then use collaborative skills and negotiation to identify and implement solutions to those perceived problems, all while pitching and supporting their ideas to an adult director.

There is a clear need to examine the ramifications of student participation in theater design, as this is almost uncharted territory: high school drama traditionally implies only acting. There are almost no theater design programs in place in American public secondary education. Theater design is uniquely positioned to incorporate the benefits of collaborative performing arts in combination with production of a tangible, visual result which would likely aid students in personal reflection and therefore in self-assessment and application of learned skills.

Chapter 2: Review of the Literature

Introduction

The pendulum of public opinion has described a 180-degree arc in the ongoing

relationship between the arts and education. The role of the arts in public education

continues to be redefined, shifting from academic subject to performative activity, from

dogmatic cultivation of a specific and proscribed aesthetic to the personal expression of

ideas, thoughts or feelings of the individual student.   The arts have been viewed as

everything from an add-on extracurricular activity, a "fun" event akin to a school dance,

to a mere delivery vehicle for Trojan-horse conveyance of "legitimate" content. As a

nation, we cannot seem to settle on whether the arts are an important facet of learning and

development, and if so, what are they for and how should the knowledge be deployed?

Historical Context

Arts curriculum has been part of the American education system from the earliest days of

our nation, but its perceived purpose elusively continues to modulate. In the earliest days

of our public schools, at the beginning of the 19th century, education was considered

necessary only for upper-class male students; in this framework, the arts were taught in a

historical context to develop the aesthetic sensibility thought to enhance one's status and

erudition. The practical applications of drawing or painting were taught to improve

handwriting, coordination and observational skills, rather than to develop expression or

the imagination. Later, as the young United States struggled politically to establish itself

as equal to the European nations, knowledge of the arts was considered proof that

Americans were just as refined as their European cousins. Schools took up the challenge to develop all students' understanding of the arts. Thus arts education developed a political edge (Davis, 2012).

With the industrial revolution, the visual arts in particular were seen as crucial in developing an effective, efficient workforce, and the focus of arts education shifted toward those skills applicable to industry, like drafting (Leeds, 1985). In the 1930s, American arts education was informed by European artists with bohemian backgrounds, well versed in Romantic philosophy, the Avant-garde movement and experimental modernist expression who saw the arts as a forward-looking discipline, rather than as historical content. As artist-educators like Rudolf Laben brought their work to the United States, arts education shifted again, focusing on a celebration of student self-expression as a complement to cognitive development. For the first time, students were taught not only about the art made by others, but were encouraged to create their own works as a means of communicating their own perspective (Leeds, 1985).

With the successful launch of Sputnik in 1957, the American fear of falling behind globally shifted arts education yet again. With American focus fixed firmly on the space race, the arts were relegated to an unimportant elective in high school curricula, inferior to the math and science needed to put the U.S. on top (Davis, 2012).

This attitude is pervasive even today; teaching our young people both appreciation and creation of art is viewed as less important in our poor economy than "core," "academic," or "hard" subjects (Whitman, 2011).

Theoretical Rationale

One of the first education theorists to tackle the importance of a project-based arts curriculum was Dewey (1934), who related the experience of tangible creation rooted in emotional exploration as crucial to emotional and intellectual development.

Review of the Previous Literature

Leeds (1985) chronicles the focus shift in arts education that occurred at the turn of the twentieth century as a result of the development of Romantic philosophy. Reflecting new introspective approaches to the arts through Dadaism, modern dance and experimental musical composition, the rationale for arts education moved from development of a skill set meant either to enhance one's personal worth in the drawing rooms of the nobility or as a valuable component in the newly industrialized work force to development of a method of self expression and a means by which to develop the relationship between the individual and society. Leeds explores the work of key arts educators in painting, music and dance, including Franz Cizek, Emile Jaques-Dalcroze, and Rudolf Laban. She highlights the new practice, still in effect today, of employing arts educators who were also arts practitioners. To become a California credentialed art teacher, one still must submit a portfolio of art works.

Davis (2012) examines the role of arts education in development of positive character traits, engaging students in their own education and preparing students for success as 21st century members of a global citizenry. She samples parents, students, teachers and administrators to develop a case for why the arts are a crucial aspect of

education in and of themselves, and not just as a means to bolster mastery in other subject matter. Davis discusses the parallels between project-based arts learning and teenage cognitive development, drawing on both qualitative and quantitative data to support her assertions.

Fowler (1996), who worked as an arts educator in secondary schools for over forty years, based his work on his personal experience with the arts in schools and the value derived from student engagement through arts curriculum. He writes to refute the "…naïve attitudes [that] continue to prevail, for example, the belief that the arts are extracurricular, that they are vocational education rather than a mainline part of the general education program and that they are strictly for the talented" (Fowler, 1996, p.v).

Unlike Davis and Fowler, Cooper (2004), in *A Struggle Well Worth Having: The Uses of Theatre-in-Education (TIE) for Learning*, associates the study of the arts, specifically theater, with cognitive development and the cultivation of broader essential social skills. "The imagination brings creativity to the process of learning and liberates the mind from the actual by projecting us into the possible" (p.87). Cooper uses a program in which students worked on *The Tempest* with guest artists to illustrate the ways in which theater work cognitively allows for deeper learning to take place in British primary school students.

Whitman (2011) discusses the political aspects of arts education, focusing on California's arts funding, and on the financial, economic and social returns from investing in arts education. He determines that the arts play a large role in providing jobs, supporting a functional society and providing skills that allow students to succeed in

artistic and non-artistic pursuits. "The arts are necessary subjects within the public school system. They positively impact student achievement, and they help foster cognitive and social skills. In turn, they serve the practical function of developing creative capital" (Whitman, 2011, p. 44).

Interview with an Expert

On September 4, 2012, I interviewed Michelle S. (personal communication, 2012), an educational consultant and former theater professional, who has been nationally recognized for successfully applying a project-based arts curriculum model to all academic content areas of secondary education, utilizing student collaboration, peer mentorship, and a focus on student-centered creative projects. After a career as a professional theater producer and director, followed by 22 years teaching in Northern California public high schools, Ms. S. now runs a firm that provides guidance to schools attempting to address the need for 21st century skill development through school-wide redesign.

The following summarizes my conversation with Ms. S.

Describe your training and background in the performing arts; how did you integrate this into or relate this to your work in education?

Ms. S. has always maintained an interest in politics; she began her college career with a focus on political journalism. However, after John F. Kennedy was assassinated, she felt lost, disenchanted with the American political system. Her despair was largely alleviated by her discovery of theater, particularly the companionship and support of the

theater community developed through the collaborative process. She shifted her focus, attaining a bachelor's degree in theater and a master's in directing. Her experience with this peer support system informed the choices she made and the priorities she established in all her work from that point, regardless of venue or discipline.

Ms. S.'s entrée into education was through a guest artist program, in which working theater practitioners were invited to lead projects in a northern California public high school. She discovered the nexus of her three interests—politics, theater, and education—directing a student production of *Tom Paine* for the country's bicentennial.

Recognizing the opportunity to illuminate student pathways to viable careers in theater, Ms. S. formed a drama club, and eventually established a non-profit, student-run theater company, which commissioned and produced original works in which students acted, directed, and ran the company business. Ms. S. felt that theater provided not only an outlet for personal artistic expression, but also a vehicle for exploring content and igniting in students a thirst for knowledge and information; the theater demonstrated to them that information is not an end in itself, but a tool for expression and exploration. "Theater was the *hook*" (her emphasis).

Once she had discovered the power of theater arts to excite students about learning, she began to design programs in other academic content areas, eventually redesigning the operation of an entire high school to incorporate multi-age Integrated Studies curricula, and bringing the northern California school from last in the district to one of the top performing schools in the country. This attracted the attention of the US Department of Education, who christened the high school a model "New American

School." She continued to develop her project-based learning and peer mentorship model, helping to draft the 1994 School to Work Opportunities Act.

What were your primary educational goals for your students?

"You try to produce kids you'd want to have a conversation with." Ms. S. emphasized that her primary goal is to develop strong critical thinking skills. She is interested in fostering the student's ability to dissect a statement or an issue to determine the truth, rather than accepting information at face value, and then to take this one step further by defending this position. In the overwhelmingly burgeoning sea of information that we face, she feels that it is crucial for students to be able to discern fact from fiction, to untangle different perspectives on an issue, develop their own point of view, and contribute to the conversation. She wants her students to persist through a problem, thereby developing resilience.

She went on to describe that in her work, she felt that the key to students' deep exploration of ideas lies in team teaching, in which the instructors continually model collaboration. In her model, teachers collaborate with each other within the classroom, working on specific projects, but also across content disciplines. Ms. S. was withering in her critique of schools who try to "integrate" programs, but tack performing arts onto the end of the day as if an afterthought; she insists that performance-based projects allow students to make connections between all areas of content and to demonstrate their knowledge through public execution and explication of their thinking. She points out that it is impossible to teach theater in the absence of other content; theater is the glue, the method or the gateway to all information.

The performative element of theater production, presenting ideas and taking risks before a public audience, plays a "huge role in growing kids' capacity in stepping into adult shoes." Learning, as the student progresses to college or beyond, becomes more and more about the ability to research, present, explain and defend an analysis, an idea, or a theory and to be able to answer questions about both the subject and the interpretation. Integration of performing arts allows for a safe environment in which to develop and practice these skills.

What methods did you employ to achieve these goals?

Ms. S. feels that a well-crafted program structure itself provides the pathway to developing "strong thinkers." In creating her award-winning Integrated Studies Curricula, she determined that certain practices were indispensible to inspiring and focusing critical thinking. The first was integrating students of different ages. The benefits of this are threefold: the teacher spends at least two years with each student, developing a stronger, deeper relationship with each individual, allowing greater learning to take place as the teacher observes a longer arc of student development.

Second, when the classroom is a combination of experienced and new students, those with experience mentor the younger students. They pass on information and support the work of the teachers, reinforcing their own knowledge by explaining to their peers, developing self-confidence and strengthening understanding of the material for those teaching and also for those learning.

Third, the older students model a variety of non-academic skills and behaviors, including excitement for the material, focus, collaboration, care and kindness for others,

and a strong work ethic. Peer teaching also "speeds up the learning curve," as one-on-one work between older and younger students delivers the content faster, opening up time to deepen the student experience and to explore content further. In addition to content skills, students cultivate leadership, which older students also pass along to younger students, transitioning program leadership to the younger students halfway through each year.

 Ms. S was vehement in her exhortation of reflective journal work as "*crucial*" (her emphasis). She feels that it's imperative to learn how to reflect, and that the simple practice of metacognition on an ongoing basis is essential to learning how to learn in any context. She is not interested in prescribing topics on which to write, but in instigating habits that allow students to continually monitor their own development. "If you can't analyze your own thinking, you're just putting one foot in front of the other."

How do you imagine the integration of arts into general educational curricula?

 Ms. S views the arts and other content areas as completely overlapping, and that the methods and structures inherent in the process of creating a performance piece are absolutely transferrable to the exploration and mastery of any content. She noted that "common core will be really great for us; it's very active and performance oriented." She feels that performances and exams require very different forms of preparation, and yield different depth of mastery and retention. In her opinion, kids really have to care about the content—it "has to be very cool"—and projects provoke interest, excitement, investment, discovery and further exploration, encouraging kids to relate what they know

and what they already care about to new material. "Seeing connections gets kids to engage in a different way."

The team-based aspects of performing arts also teach students the collaborative skills needed to create and learn through study groups; sharing ideas and both giving and receiving peer feedback are integral skills for college success and beyond. She states that the number one success indicator for whether students will succeed in college is whether they work well in study groups, and that "we're not teaching this, and we should. Engagement is everything." She emphasizes both engagement with the content, and engagement with peers as partners in learning; the two feed each other.

What do you see as the necessary next steps in developing arts education?

Ms S. scoffed, "Art for art's sake—forget it!" She feels that the future of the arts in secondary schools is a deeper integration in the overall learning structure, that the process of creating a performing art piece will be used as a method for mastery and demonstration of understanding of all content. Ms. S states that teachers crave collaboration; in survey after survey, teachers' top requests always include more time for collaboration with colleagues. Collaboration within departments is important, but Ms. S. suggests that the bigger breakthroughs will happen with interdepartmental work. When teachers in different disciplines work together, the students have the opportunity to observe successful interpersonal negotiation and exchange of ideas—they get to see teachers learning from each other, which signals the fact that learning continues throughout life. Students also get to see and experience the relationships between all content areas; they learn that the division between content areas is an imposed construct.

Most importantly, through the process of a collaborative arts methodology, they will receive a roadmap for *how* to learn.

The upcoming implementation of the common core standards will, in Ms. S's opinion, be a boon for those educators versed in the arts. Much of the prescribed delivery of the new standards is rooted in collaborative process, peer mentorship and project-based learning styles that are inherently found in the study of performing arts.

How does an arts education reach beyond the classroom?

Ms. S sees the effects of an education grounded in performing arts methodology as far-reaching for students. She feels that there is a misperception among secondary school instructors about the way college students are expected to take in and utilize information; among high school teachers, many of whom have had no contact with a college setting for many years, the perception is that college courses are taught in large lecture halls, with a professor delivering a lecture at the front.

In reality, posits Ms. S., the paradigm has shifted, and the pursuit of knowledge and understanding in college is now much more aligned with a project-based model: students work in small groups to solve problems. Online learning is developing quickly, and puts students in control of seeking out their own relationship to the content information, parsing it, determining their response to it, and contributing to the conversation. Work on a project-based performance gives students experience in peer-group investigation and discovery and reflective problem-solving, allowing students to experiment with strategies in a safe learning environment.

Beyond college, Ms. S. feels that a performing arts education prepares students for meaningful contributions in the workplace and society. The current job market demands workers who are well versed in creativity, who are used to developing their own resources, who are effective managers of both information and peers, and who straddle many different roles within an organization. Flexibility is key. The most sought-after workers are those who express a hunger for information, a curiosity about what they don't know, and the ability and bravery to explore. All of these skills are cultivated through a project-based, performing-arts curriculum.

Chapter 3: Method

Introduction

This study employed a qualitative approach. Student growth was evaluated by gathering

data from three perspectives: student self-reflection and analysis, cultivated through two

focus groups; observation of student skill development, assessed throughout one school

year; assessment of student learning as documented in student journal reflections and

peer reviews.

Sample and Site

Research was conducted in a Northern California public high school theater program with

no restrictions on participation; the participants in the program are entirely self-selected.

The school serves approximately 1150 students; the drama program, open to all students,

serves approximately 390 students over 11 class periods. All students who choose to

participate in the program must study theater design in their third and fourth years;

approximately 85 students are enrolled in third and fourth year curricula. No student may

specialize in any one area of drama.

Data was collected in the 8th period Production Class for third and fourth year

students, in which individual students are assigned specific roles in actualizing a

production. Students may express a preference for certain "jobs," but roles are assigned

based on a combination of student schedule, availability for specific projects, and

challenges deemed appropriate for each student by three drama instructors. Research was

conducted over the course of one year, in which the students mounted six full productions through design workshops and class time.

The sample group included nineteen students, aged 16-18, each with a unique project-based assignment as a designer of one aspect—scenery, lighting, costumes, sound or props—of a specific production. Roughly 8% receive free or reduced lunch. Approximately 12% of the group has an IEP, 504, or other documented learning disability with proscribed accommodations.

Ethical Standards

This paper adheres to ethical standards in the treatment of human subjects in research as articulated by the American Psychological Association (2010). Additionally, the research proposal was reviewed by the Dominican University of California Institutional Review Board for the Protection of Human Subjects (IRBPHS), approved, and assigned number 9094.

Access and Permissions

As a component of teacher action research, observations were conducted within the bounds of the students' daily class experience. As the instructor of record for the course, the research fell within the purview of reflection on personal practice. Students involved in the focus groups received a verbal explanation of the project prior to their participation in the focus group.

Data Gathering Strategies

Data was gathered in three ways, providing methods triangulation. Participant observation was employed to record the effects of project-based design work on the personal development and collaborative skills of the students enrolled in the design program.

Student work and journal entries were assessed for evidence of student awareness of engagement with their collaborators on each project, and for student self-assessment and peer assessment of the collaborative process and their own participation on each team.

Two focus groups were conducted when students had completed the year-long course of study. Each group was comprised of about ten students, and groups were determined by student availability. A focus group questioning route was developed to invite student comfort, to engage students and to encourage students to deeply consider their experience with the design program. The questioning route began with opening comments about project-based learning and work in a collaborative, visual medium. Initial questions were designed to make the participants feel comfortable and to open them up to the conversation. Transitional questions encouraged them to reflect on their own relationship to the experience, and key questions asked students to assess their involvement and development as a result of the experience. Ending questions provided an opportunity for students to comment on the observations of their peers and to clarify and confirm main points.

The focus group was split into two sections so that each student would have more time and space to voice his or her views and experiences. This allowed for two different group discussions, which may have developed different outcomes to the questioning route.

Additional qualitative data was collected through informal conversations with students who had completed the design program at least four years earlier, and note was taken of their awareness and application of collaborative skills garnered through the design process they experienced in high school.

Data Analysis Approach

The focus group conversations were taped; comments from the focus groups were transcribed, student journal entries were reviewed, and records of personal observation and conversation were collected. Recurring themes from student reports, student responses, and personal researcher observations were noted.

As part of the teacher Action Research, responses were compared to determine whether the design curriculum is effective in developing building-block collaborative skills, and whether student awareness allows application of these skills in other settings.

Chapter 4: Findings

Description of Site, Individuals, Data

This study was conducted at a Northern California High School four miles outside of a major urban center, in a community primarily characterized by high economic achievement, but with pockets of low-income neighborhoods. The school is a Title 1 School.

During the year in which the majority of research was conducted, there were 1162 students enrolled in grades 9-12; approximately 11 percent of the students are Asian American/ Pacific Islander, 5 percent African American, 8 percent Latino, 2 percent other minority.   Eight percent of the student body receives free or reduced lunch.

Of the over one thousand students, approximately 390, or just over one-third, are enrolled in the drama program. The ethnic and socio-economic makeup of the drama students is roughly commensurate with that of the student body as a whole. Eighty-five of these students, 7 percent of the student body, are third- or fourth-year drama students who participate in the design and production curriculum reviewed in this study. All design and production students must have successfully completed two years of drama coursework to be eligible; however, there are no further requirements for course enrollment. It is open to any student wishing to participate.

Aside from the salaries of two teachers, funding for the drama program comes primarily from fundraising, private donations, box office income, and programmatic grants. Five percent of the total program funding is provided by the school district, or

approximately $16 per student per year. This is commensurate with statewide support for arts programs in California public schools (Whitman, 2011).

For the purposes of this study, two focus groups were conducted involving nineteen design students, three juniors and sixteen seniors, 12 female and 7 male, all of whom had designed some aspect of one of six mainstage productions that year. All students in the room knew each other. For each production, students worked in design teams of five, with specific assignments based solely on student availability during each of the six specific time slots. These teams were mixed age and mixed gender. Teams were required to collaborate with each other, with two student stage managers, three student department heads, and one adult director, in addition to their design instructor.

All observations of student work, student journal entries, and student reflections were collected in the course of regular classroom instruction. Auxiliary information was garnered through casual interaction and conversation between the teacher/ researcher and former program participants.

Review of Focus Group Findings

At the completion of a full year of design curriculum, during which students were required to design one aspect of a full production, two focus groups were conducted to review and discuss the students' reflections on their personal collaborative growth. Focus groups lasted one hour. Focus groups were characterized by much laughter and camaraderie, with students frequently agreeing with each other and adding supporting

detail to their peers' comments. The following is a summary of the conversations and responses to the focus group questions.

How did you feel your design went? Was it successful? Were you happy with it?

Overall, students agreed that they were happy with their designs, many bringing up specific choices that they had made or specific incidents in which they had solved problems successfully. While some students talked about "liking" their completed designs, more students jumped to how completing their designs made them feel. Several students expressed that completing a design was either the most, or one of the most, satisfying experiences of their high school careers. Many stated that they were more proud of their design than of anything else they had ever produced. "I was looking at the stage, and I just realized that it was just like one of my research images. I looked in my binder and I couldn't believe that I had really done it, that I actually made what was in my head." One student summed up the importance of this event in her life with this anecdote: although she had acted in many productions, beginning in elementary school, the first time her mother ever brought flowers was for her costume design opening. Her mother had accurately observed that the design meant more to her and that she had worked harder on it than on any acting commitment she had ever had.

One student journal revealed that, "I have a much higher appreciation for theater art, and it made me think about working in theater professionally. [This project] made me realize how much thought, research, and dedication is [sic] put into each and every aspect of the play. I have acted in many plays, but I always assumed the set was easy to

make. It was not! You realize how much people put their hearts into their pieces of art, and how it can really show if you care for your art."

Another student summed up, "I'm just sad that I didn't design last year; it's just such an incredible thing to get to do."

What was the greatest challenge you faced in the design process? What was most surprising to you?

With no prompting, several students offered that the most challenging aspect of a design process was collaboration, both with peers and with the adult directors. Students struggled to negotiate with their peer crews, as they learned how to delegate work and to try on the role of leader. One set designer commented on collaborating on the design itself: "It was hard finding a balance with who you're working with—when to be independent—often we'd be, like, so uncommunicative and we wouldn't get anywhere and I'd just do it on my own. Then she'd get a different answer, and I wish we had talked about it. We didn't know how much work we had to do together—this is our job to do it together—it's easier when it's just you!" A young woman who had done two designs, a scenic and a sound design, discussed how she approached her second project differently in terms of peer negotiation: "I learned how important communication is. I was a hermit in the shop and didn't talk to anybody, and then it was so frustrating when things didn't work with other people's designs. But then with the sound, I was continually going up to people and asking them things. When you are proactive and go up to the director, you can solve those problems much easier, then you don't get shut down when you bring it later."

A journal entry supported the need for effective peer collaboration: "[T]hroughout this design process I learned the extreme importance of simple communication strategies. I have found that if you try to ask too much of one thing, and it is too complicated, the recipient of the order will most likely do it wrong, or ask you to re-explain it. I learned that you must simply state a project in stages and work with them for a little while in order to ensure that it is being done correctly."

Many students found it extremely challenging to work with the adult directors, trying to navigate a new, more professional and equitable relationship. Students had difficulty finding the delicate balance between serving their own artistic intention and satisfying the needs of the production as outlined by a director. One student noted the difficulty in seeing the directors as on equal terms: "It wasn't like they were a teacher and you had to do what they say. I was a little bit intimidated." Another summed up, "I learned that everything is, like, *with* the director and not *for* the director."

Other students expressed frustration with negotiation. "[The director] didn't have many questions in production meetings, so I had to develop my own ideas; but then when we got into tech, she would say the simplest thing—how are you feeling about this color, and I would get so frustrated and be, like, if you could see inside my head, you would love this color…I wanted to cling on to my idea; you don't understand what I'm doing here—it was really hard to get her to understand. I realize I should have taken it less personally. I think now I would take it less personally." Another student added, "The hardest thing for me was compromising with the director: I had my renderings—this was my vision. I had a hard time finding a median between me and [the director] which was

satisfying for both of us—when he told me what he wanted, I felt totally defeated, when I told him what I wanted, I felt like a bitch, like too direct. I think we figured it out, like, got better at it, but it was hard."

Several students mentioned that it was difficult for them to adapt designs based on input or feedback from the directors, and that it was very difficult to accept that there can be more than one solution to a problem, or that having a great idea is not necessarily the end of the work. A key component in collaborative creation is occasionally giving up ideas; the students really struggled with this. A set designer noted, "The hardest thing for me was when we had our first design and she just shat on it—and we did a whole other design and she destroyed it again, and it sucked so bad, but it made it even better— it's not only matching what the play wants, or what you want, but what the director wants for the play." A costume designer added, "What was really hard was, like, changing direction, it was a very hard thing to think about." A third student concurred, "Learning how to be wrong, but accepting being wrong—that's really hard to do for me."

In discussing this later, one alumnus noted, "I believe…the teachers—and our peers—expected more out of us. It is incredibly important to have people in your life that expect you to reach a high standard."

Collaboration also featured strongly in student responses about their greatest successes. Several students made comments like this one: "My favorite was those moments when your design worked perfectly with someone else's design, when we talked about how this moment's really important, and you just work it out and then light and sound are just perfectly melded."

How well did you feel your group worked together? Did working on a design change the way you work with other people? How did you negotiate working with a director? How did you work with other people?

In responding to this question, many students demonstrated awareness of personal growth, or noted ways that they planned to change their approaches to collaboration in the future as a result of their design projects.

A costume designer, who had a hard time getting his bearings, described his vacillating process as he attempted negotiation: "At first, I was like, I'll do anything she wants, then I was like, I'm not going to do *anything* she wants, then I learned that the way to deal with it is to just talk it out."   Another student discussed her growth in working with peers this way: "I had to gain a level of patience and learn to take my time—he has a good idea, I just don't get what it is. I had to do trial and error—through that, you do understand what they [your teammates] are trying to say. I would have done differently: ask more questions, communicate more. With other designers—we were all changing throughout, we were all stumbling in the dark together. When I ended up seeing things in context on stage, I understood what they wanted more." Another student who had done two designs responded, "I'm kind of a control freak, and I didn't really understand that—it was interesting how we couldn't really comment on each others' designs. I had to hold back; I had to learn not to critique other people's designs."

Did working on a design affect how you see yourself?

When students addressed this question, they often included reflections about their collaborative abilities, though often they did not realize that this was a component of their

growth. A few students referred to leadership skills; a two-time lighting designer jumped in right away with this: "I thought that it made me more confident; it was nice to feel like I can offer help to other designers." A set designer added, "Afterwards you do feel a sense of accomplishment. It will be really useful when I learn other things. You don't know a skill until you can teach it to somebody else, and I feel like that's what design gives you."

A stubbornly self-sufficient costume designer opened up with this about peer collaboration: "I learned to utilize other people and their resources, I learned how to ask other people for help, to know when I needed help." Another costume designer had this to say: "I had to learn how to work with different people—there are different ways to approach different people and get them to do something."

A lighting designer showed growth in developing empathy through his collaborative work. "I have become more aware of how I think and how I see things, more aware of my perception and that there are a lot of other perceptions that other people have."

Is there anything you learned in the design process that is applicable to other areas of life?

Most students included collaborative skills in answering this question as well, reflecting on both aspects of collaboration: taking feedback, and giving direction. One student "learned a whole new level of organization. I thought I was organized before, but there's a whole new level. You have to delegate, and that seems like a good skill, like, how to delegate, and you can't delegate unless you're really, really organized." Another

mentioned delegation, "It was the first time in my life I got to boss someone around. It was the first time I was in a position of being able to ask someone to do something. I was more comfortable doing it myself. I had to learn to stay calm when you're in that position."

A sound designer added, "Being able to take advice from people. It sucks when the director first tells you they don't like something, but that's really important for working in a team."

One student addressed this question in his journal, discussing strategies for negotiating. "The most important thing that I learned during this play was how to present myself and my work. While in design meetings, there would be questions asked that I would not have an answer to, or, if I did, the director would disagree and not like it. I gradually learned that in these meetings, you have to be honest about what you want and why you want it, and if you don't know, you say that you do not. If you love something that the director wants to strike, you have to make a case for keeping it."

An alumnus mentioned that "Learning to work with a variety of people and personalities was probably the most important thing I learned from design and production."

Emergent Themes

The design students participating in the focus group expressed several views on collaboration in general. They were clear on the fact that they had been using collaborative skills during the design processes, and they were thoughtful in their reflections on the collaborative process and its effects on their own individual work;

however, student awareness of the actual growth in their collaborative abilities was limited immediately following the design process. Students only engaged in meta-cognitive observation about the actual skill required to effectively collaborate once they had gained some distance from the projects and had encountered different situations—either within or outside the drama program—in which collaboration was necessary. The students' journal work reflected that all students were conscious of the collaboration skill levels of their peers, and most included extensive observations about how well they perceived their peers to have participated in the ensemble work of the production.

Observation of student interaction throughout the production process yielded that collaboration built investment and excitement in the project; overall, students enjoyed working with each other, as well as working with an adult director in an equal, collaborative role, rather than in a expert/ novice dynamic. Students gained self-confidence through both the unusual, equitable relationship with an adult, and through the peer mentoring involved in directing collaborators in the execution of their designs. Students commented that negotiating with peers versus with adults stretched different aspects of their collaboration skills. It was difficult for students to move beyond the instinct to seek approval from the adults involved in the process, and to learn to pitch an idea, simply supporting it with their own research.

Students in the focus group linked collaboration to personal development and success; while they did not reflect specifically on their improvement as collaborators, students found that collaboration had contributed to both greater individual achievement and a stronger overall production. The symbiotic combination of pressure from the group

to succeed and a heightened sense of personal responsibility toward supporting their peer collaborators encouraged them to push themselves, taking greater risks which yielded stronger results. This positive feedback seems likely to encourage collaboration in the students' future.

Students were aware of their use of collaborative skills, but less aware of their personal growth in this specific area. They frequently discussed the challenges of collaboration, citing specific situations in which they had difficulty. Students were aware of the fact that they had worked through and surmounted the challenges of a group process with varying degrees of success, but in reflecting, they focused more specifically on the tangible design outcomes of their negotiations, rather than on their intangible skill development.

Students who had continued to college and beyond following participation in the design program were clearer about the value of the interpersonal collaborative skills in negotiating both college-level learning and career advancement. Only one of five former students who contributed to the conversation had chosen to pursue theater, but all noted the transferability of the social negotiation skills from the design process to their individual pursuits.

Chapter 5: Discussion /Analysis

Summary of Major Findings

The theater design process as a structural model for delivering collaboration skills is unique and especially well suited, even compared with other project-based performing arts curricula. Students who participated in a design process as part of a theatrical production were able to assess their own collaborative skill growth and apply it in new situations, regardless of content area or discipline.

Comparison of Findings to Previous Research

The findings of this study are in alignment with the previous research. The study supports research which documents the development of collaboration, among other social skills, through a performing arts curriculum. It concurs with research that has determined value in project-based study and with research that endorses the creation of a tangible product as a vehicle for development of collaboration and creative problem solving. Previous research, however, does not address the specific value in student engagement through the visual medium of design.

Limitations/Gaps in the Study

This study was limited by the small sample size and limited scope. Only nineteen current program participants were assessed; only five former students were included in personal conversations about their successes in the program and how they have applied these skills.

Only one high school theater design program was included—a necessarily small sample, given the lack of such programs in the U.S.

Additionally, there was no control group in which collaborative skill growth was assessed in students who participated in performing arts curricula, but who were engaged in other areas of study, such as acting or directing.

There are gaps in the literature regarding performing arts programs in high schools; for this research, no studies were found that address the collaboratively conceived visual aspects of the performing arts: scenic, lighting, prop and costume design as applied in project-based learning.

Implications for Future Research

This study invites further research on the use of a design component in secondary school performing arts. The findings of this study suggest that there may be further benefits to students in creating designs as part of a project-based performing arts project. Further research on theater design in general, and how it is different from acting or directing in the performing arts is warranted. Theatrical design is a supportive medium—supporting the text, the acting, directing and the thematic analysis as conceived by the design team; this invites further study of the design discipline's relation to development of social skills and supportive social behaviors.

In terms of teacher action research, future study should be focused on the students' meta-cognitive reflection of their processes and their consideration of the future application of their newly gained skill sets.

More research is also warranted into the differences between collaboration in a language-based medium and in a visual-based medium—why does a visual arena lend itself specifically to the ability of students to observe their own collaborative growth?

Overall Significance of the Study

This study opened up an investigation into the relationship between the specific skills garnered through a theater design curriculum and the development of a collaborative working style. Students who participated in the design program at a specific northern California high school strengthened their collaborative strategies in three areas: as experts directing peers in execution of a determined outcome, as equals pitching ideas to and incorporating feedback from an adult collaborator, and as one of a group of five who had to reach consensus on a collaboratively-devised visual concept. Students showed through responses during a focus group and in reflective journal entries that they were cognizant of their development through the program, and were able to apply the learned social skills in other arenas.

About the Author

Heather Basarab is a guest artist in a northern California high school, where she leads theater design and management workshops and oversees 8 student-run productions annually. She continues to enjoy a successful career as a professional theater designer.

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