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# GETTING STARTED: THE IMPACT OF TRAINING ON TEACHER SELF-EFFICACY AND IMPLEMENTATION OF ARTS INTEGRATION STRATEGIES

Sharon J. Reid-Kane  
*Southeastern University - Lakeland*

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GETTING STARTED: THE IMPACT OF TRAINING ON TEACHER  
SELF-EFFICACY AND IMPLEMENTATION OF ARTS INTEGRATION STRATEGIES

By

SHARON J. REID-KANE

A doctoral dissertation submitted to the  
College of Education  
in partial fulfillment of the requirements  
for the degree Doctor of Education  
in Organizational Leadership

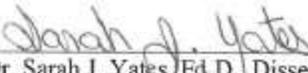
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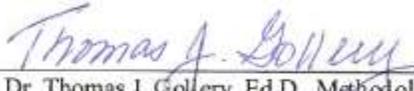
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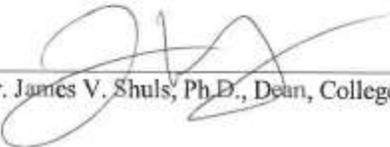
SHARON J. REID-KANE

Dissertation Approved:

  
\_\_\_\_\_  
Dr. Sarah J. Yates, Ed.D., Dissertation Chair

  
\_\_\_\_\_  
Dr. Thomas J. Gallery, Ed.D., Methodologist

  
\_\_\_\_\_  
Dr. Samuel Bennett, Ed.D., Committee Member

  
\_\_\_\_\_  
Dr. James V. Shuls, Ph.D., Dean, College of Education

## DEDICATION

For my family near and far - there simply are no words.

And for my amazing students – past, present, and future – who inspire me every day to be the best possible “Miss Sharon”. You are the ‘why’ of my work...

*But I have promises to keep,*

*And miles to go before I sleep,*

*And miles to go before I sleep.*

Frost, R. (1969). *The poetry of Robert Frost: The collected poems*. Henry Holt.

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## Abstract

Arts integration is a proven cross-cultural methodology for instructing through and with the arts (Sterman, 2018). Professional development experiences are met with enthusiasm and interest; however, a disconnect exists between completion of training and implementation of learned practices. Providers are, therefore, led to question program design and delivery (The Kennedy Center, n.d.). The purpose of this quantitative study was to evaluate the impact of training on perceptions of self-efficacy of teachers participating in The John F. Kennedy Center for the Performing Arts' professional learning programs and the implementation of arts integration strategies. Using a researcher-created instrument, 51 teachers from within The John F. Kennedy Center for the Performing Arts' Partners in Education national network were surveyed. Upon completion of arts integration training, participant responses regarding self-efficacy resulted in a very large effect of change. Contrary to expectations, however, the greatest degree of effect as a result of the study's intervention was reflected in "Efficacy in Developing Arts-Integrated Lessons" as opposed to "Basic Understanding of Arts Integration," as hypothesized. In an open-ended post-survey prompt, participating teachers additionally offered insights into lack of utilization by citing the need for on-going, in-service coaching in order to implement practices learned. Implications for current professional practice and recommendations for future research involve examination of training programs and processes to adequately address and resolve the discordance between the number of teachers participating in professional development opportunities and those eventually utilizing arts integration instructional strategies (Americans for the Arts, 2020).

*Keywords:* arts integration, teacher training, self-efficacy, professional development, collaborative learning, in-service mentorship, strategy implementation

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## I. INTRODUCTION

Arts integration works (The Kennedy Center, n.d.). As learning styles become increasingly diverse and educators face a barrage of unprecedented challenges, arts-integrated instructional approaches and curricula offer alternative paths to both student success and formation of a positive learning environment (Sterman, 2018). Converse to teachers' perceptions, strategies are easily accessible and immediately responsive (Americans for the Arts, 2020). Implementation percentages post-training, however, depict a clear division between instructor enthusiasm and application suggesting deficiency lies at the point of professional development (The Kennedy Center, n.d.).

### **Background of the Study**

#### **Historical Context**

Per Heath (2017), insufficient research exists considering the lived experience of teachers exhibiting high levels of self-efficacy toward instructional initiatives with consequential successful implementation of said strategies. The resulting phenomenological study concluded positive teacher beliefs can assist in crossing barrier thresholds while additionally serving as predictors of future achievement in practice (Heath, 2017).

Kelly and Doherty (2017) further reviewed archival, theoretical, and empirical literature exploring the effect of arts-based activities in engaging students of varied ages and abilities. Centered around the historic Hull House settlement in Chicago, Illinois, from the late 19th to

mid-20th centuries, findings confirmed the incorporation of visual art and music experiences as allowing for significant positive impact on student achievement academically and gratification personally. The value of teacher efficacy in utilizing corresponding arts-integrated approaches effectively was additionally supported (Kelly & Doherty, 2017). A foundational interest is, therefore, established in the causal relationship between themes of teacher self-efficacy for arts integration practices, specifically, and subsequent utilization.

### **Social Context**

Individual capacity for artistic endeavors, or lack thereof, serves as a deterrent to the pursuit of arts-integrated instructional methods of delivery (MacLean, 2018). A large-scale longitudinal study designed to ascertain factors impacting student teacher confidence measured perceptions over a 10-year period prompted by such personal inhibitors. Upon conclusion of collaborative and communal professional development sessions annually, attention shifted from self-doubt to interest and excitement regarding the level of support arts-based curriculum provided for non-traditional learners (MacLean, 2018).

Shabtay et al. (2019) emphasized the pivotal benefit of cooperation and teamwork within shared arts experiences. In a case study of pre-service teachers tasked with creating an original theatrical production portraying experiences prior to placement, participants reported an increased sense of competence both as arts integration practitioners and co-workers as a direct result of the collaborative and community-building nature of the coaching received and assigned performance. Parallel expectations anticipated among pupils drew further motivation for planned utilization in classroom settings (Shabtay et al., 2019).

## **Theoretical Context**

Per the internationally recognized “Blue Ocean Shift” concepts and strategies of Nelson and Bohanon (2019), enactment of the Every Student Succeeds Act (ESSA) in 2015 was the impetus for necessary change within the education field. Tasked with guiding youth intellectually and socially while facing ever-changing scholastic and behavior management needs, educators must be equipped with any and all available resources (Nelson & Bohanon, 2019). Research examining the chasm between arts integration training and authentic practice will address the inadequacies and eventual restructuring, improvement, and strengthening of professional development opportunities available for a proven instructional approach needed in facing current and future challenges within our schools.

## **Theoretical Framework**

The relationship between variables in a stated situation or phenomenon is represented through the study’s interpretive structure or theoretical framework (Creswell & Poth, 2018). The interpretive lens of Canadian-American Albert Bandura’s (1977) seminal self-efficacy theory (SET) served to be most germane to this examination. Professor Emeritus of Social Science in Psychology at Stanford University, Bandura is credited with the creation of self-efficacy in both language and concept. Defined as how well an individual is able to perform actions needed in successfully facing situations and/or challenges, Bandura’s concept focuses on a subject’s confidence and belief in personal ability to produce desired outcomes, with existing levels predicting positive or negative accomplishment accordingly (Pfitzner-Eden, 2016). As this study reviewed archival data measuring participants’ self-efficacy gathered prior to and upon completion of arts integration training, the causal relationship between levels of assuredness and

practical implementation of strategies conveyed was investigated most appropriately per the SET framework.

### **Problem Statement**

Higher education institutions aim to ready and release teachers into professional application (Reck & Wald, 2018). Simultaneous to producing core subject matter experts in language arts, math, social studies, and science is the added element of training educators not only what to teach but how to teach. As a proven methodology, arts integration offers a unique pedagogical approach to effectively reach all learners while consequently establishing new prerequisites in the readying of pre-service teachers (Reck & Wald, 2018).

Arts integration is an instructional approach employing methods and strategies from all artistic genres in the teaching of core fundamental subjects (Americans for the Arts, 2020).

Advocates continue to tout the positive impact and successful use of arts integration worldwide, with increasing numbers of schools adopting the practice annually. Recent research, however, does not reflect an increase in instructor self-efficacy regarding the implementation of arts- related practices (Lemon & Garvis, 2019).

A 2019 study by Lemon and Garvis utilizing convenience sampling involved the examination of 21 pre-service teachers' motivation and confidence in implementing arts education and integration techniques post-training. Via survey research methodology, each respondent completed a teacher's sense of efficacy scale for arts education and integration incorporating five artistic genres (dance, drama, media, music, and visual arts). Content analyses were conducted wherein individuals self-reported any concern and/or impetus regarding the potential use of arts integration as a teaching strategy upon completion of targeted professional development. Findings reflected eagerness to utilize every resource available for the

advancement of their students; however, the sense of uncertainty in putting arts strategies in place overrode any plans for utilization (Lemon & Garvis, 2019).

Significant systemic challenges can be considered participatory factors in this lack of teacher confidence. Educators view personal artistic challenges as precluding them from being qualified to incorporate arts strategies into traditional teaching methods (Peterson, 2017). Based on the premise and recorded favorable outcomes of teacher study groups (Jayanthi et al., 2018), Gore et al. (2017) additionally acknowledged the significance of collegial support, or lack thereof, in the implementation of newly learned arts-based strategies as fundamental to success. New teachers enter classrooms equipped with minimal arts integration knowledge, as are their seasoned counterparts, creating a void in potential mentoring or coaching scenarios and furthering lack of utilization (Americans for the Arts, 2020).

For those interested and willing to acquire proficiency, whether considered skilled professional or novice, the lack of documented, validated, and successfully delivered professional development opportunities focusing on arts integration presents significant barriers to usage of a proven practice (Collins, 2016). A study aimed at discerning deficiencies in training methods and design benefits teachers facing the needs and learning styles of increasingly diverse learners.

### **Purpose Statement**

The purpose of this quantitative study was to evaluate the impact of training on perceptions of self-efficacy of teachers participating in The John F. Kennedy Center for the Performing Arts' professional learning programs and the implementation of arts integration strategies. At this stage in the research, arts integration training was generally defined as professional development experiences focusing on implementation of an approach to teaching in

which students construct and demonstrate understanding through an art form, engaging in a creative process which connects an art form and another subject area meeting evolving objectives in both (The Kennedy Center, n.d.).

## **Overview of Methodology**

### **Research Design**

This study employed a quantitative, quasi-experimental, within-subjects repeated measures research design using survey data. The repeated measures design consisted of a pre-test and a post-test phase.

### **Study Participants/Sample Size Parameters**

Teachers participating in The John F. Kennedy Center for the Performing Arts' professional learning programs served as subjects. Using the G\*Power statistical power analysis platform (Dusseldorf, Germany) for sample size parameter purposes, a medium effect ( $d = .50$ ) in the pre-test and post-test difference required a threshold of 27 study participants to detect a statistically significant finding. A large effect ( $d = .80$ ) in the pre-test and post-test difference required a threshold of 12 study participants to detect a statistically significant finding.

### **Ethical Considerations**

The protection of human subjects is paramount. Permission from each participant was obtained via oral or written consent as indicated by completion of the survey. Confidentiality and each subject's ability to end participation at any time was emphasized. No personal identifiers were included as data was recorded, freeing interviewees from concern regarding any retribution on a personal, professional, or economical level. The investigator abided by all rules set forth in associated IRB applications and successfully completed the applicable Collaborative Institutional

Training Initiative (CITI) certification. Access to all data was restricted to the investigator and Southeastern University College of Education leadership and faculty, as appropriate.

### **Instrumentation**

A researcher-created survey instrument was used to capture the involved data. The survey was reviewed by a panel of subject matter experts including a K-12 performing arts specialist and a doctorate-level K-5 arts integration specialist, in addition to the researcher's Dissertation Chair and Methodologist from the College of Education at Southeastern University for accuracy and corroboration. Instrument validation using the Cronbach's alpha ( $\alpha$ ) statistical technique was conducted upon the completion of the data collection process.

### **Research Question 1**

1. Will there be a statistically significant effect in perceptions of self-efficacy for teachers prior to and upon completion of arts integration training?

### **Research Question 2**

2. Considering the elements of self-efficacy in arts programming identified in the study, which reflected the greatest degree of effect from the pre-test to post-test phases in the study?

### **Research Hypotheses**

In addressing the stated research questions, the following research hypotheses were considered:

*H<sub>0</sub> 1: There will be no statistically significant effect for study participant perceptions of self-efficacy in the wake of their completion of arts integration training.*

*H<sub>a</sub> 1: There will be a statistically significant effect for study participant perceptions of self-efficacy in the wake of their completion of arts integration training.*

*H<sub>a</sub> 2: The arts integration element of “Basic Understanding of Arts Integration” will reflect the greatest degree of intervention effect from the pre-test to post-test phases of the study.*

## **Overview of Analyses**

### **Projected Data Analyses**

Preliminary, foundational analyses addressing the issues of missing data and internal reliability were conducted as a segue to the analysis of the study’s research question. Descriptive and inferential statistical techniques were used to address the foundational analyses. The overarching research question was addressed using descriptive statistical techniques such as central tendency, variability, frequencies, and percentages. The inferential statistical technique of the *t*-test of dependent means was conducted to assess the statistical significance of finding. The probability level of  $p \leq .05$  represented the threshold value for statistical significance of finding. The magnitude of effect in the mean score differences between pre-test and post-test scores was assessed using the Cohen’s *d* statistical technique. Sawilowsky’s (2009) conventions of effect size interpretation was adopted for use in the study. The major assumption associated with the use of the *t* test of dependent means (normality of distribution of pre/post difference scores) was addressed using the skew and kurtosis values of pre-test and post-test scores. Skew values not exceeding -2.0/+2.0 and kurtosis values not exceeding -7.0/+2.0 were considered indicative of relative normality of data distribution (George & Mallery, 2018).

### **Limitations**

At the point data were captured, subjects were members of The John F. Kennedy Center for the Performing Arts’ Partners in Education national network. Respondents must therefore be identified as proponents of arts integration strategies though possessing varying levels of

personal confidence in usage. Additionally, the study's design did not allow for examination of a control group not involved in professional development experiences offered.

### **Definition of Key Terms**

The following words and phrases are key terms specific to this study:

- **arts integration:** an instructional approach to teaching in which students construct and demonstrate understanding through an art form, engaging in a creative process which connects an art form and another subject area meeting evolving objectives in both (The Kennedy Center, n.d.).
- **The John F. Kennedy Center for the Performing Arts:** United States' National Cultural Center in Washington, D.C. (The Kennedy Center, n.d.).
- **arts integration training/professional development/professional learning:** learning experiences aimed at maintaining professional credentials and/or increasing skills situated in practice (The Kennedy Center, n.d.).

### **Significance**

More than 43% of elementary-aged students in United States public schools are labeled via traditional assessments as struggling (Americans for the Arts, 2020). Seventy-eight percent of school administrators and classroom teachers report improved academic scores and engagement as a result of arts integration practices among not only these students, but all learners involved (The Kennedy Center, n.d.). As both anticipated and unprecedented circumstances necessitate the evolution of educational institutions, methods of instructional delivery must equally adapt. Referencing statistics from a distinguished resource in the artistic world, this study aimed to serve as discovery into barriers of teacher preparedness and eventual student success via practice of arts integration.

## **Summary**

Incongruency in the equation of educators who receive arts integration training and those employing strategies learned in classroom environments continues to highlight a chasm between information given and information used (Americans for the Arts, 2020). While significant research enforces the impact of arts-centered instructional approaches, few studies address this paradox (Reck & Wald, 2018). Examination into deficiencies within professional development efforts allows for revelation, readjustment, and ultimate improvement of training methods, thereby equipping teachers with all necessary internal and external implementation components.

## II. REVIEW OF LITERATURE

The purpose of this quantitative study was to evaluate the impact of training on perceptions of self-efficacy of teachers participating in The John F. Kennedy Center for the Performing Arts' professional learning programs and the implementation of arts integration strategies. Arts integration training was generally defined as professional development experiences focusing on implementation of an approach to teaching in which students construct and demonstrate understanding through an art form, engaging in a creative process which connects an art form and another subject area meeting evolving objectives in both (The Kennedy Center, n.d.).

### **History of the Approach**

The philosophical intent of education in the United States as a democratic nation claims to seek the production of well-rounded civilians who are informed, involved, and civic minded. Schools across the nation seek to foster children into thoughtful critical thinkers who will collectively pursue a healthy, fair, and inclusive society (<https://www.americansforthearts.org>). Pedagogical movements such as arts integration aimed at these desired whole-child outcomes can be understood when examined in tandem with milestones in the development and evolution of educational systems, both nationally and worldwide. One-room schoolhouses of the early nineteenth century, often called country schools, were located primarily in rural farming areas and involved a single teacher tasked with the instruction of students varying widely in age and

ability (Turner & Solis, 2017). At their height, more than 190,000 schools of this type were in operation in the United States with the same model being used in most countries throughout Europe.

In 1837, Horace Mann was named the secretary of education in Massachusetts with the charge of creating a more structured school system (Washburne, 2019). Eleven years later, in 1848, he implemented a technique observed in Prussia whereby students were grouped according to age regardless of academic aptitude, which rapidly became the normal practice (Washburne, 2019). Multi-age, one-room schoolhouses vanished from communities, and students were now expected to operate and learn at the same level as their peers, regardless of capability. Emphasis on quantitative outcomes was quickly adopted and became the accepted goal of these educational facilities, later warranting the appellation of factory model schools (Turner & Solis, 2017).

Considered radical for his time, Preston W. Search, the superintendent of public schools in Pueblo, Colorado, introduced the first recorded suggestion of student-centered rather than teacher-centric education (Washburne, 2019). In 1889, Search suggested that curriculum be intentionally designed to incorporate students' learning styles, allowing them to learn at their own pace and removing the anxiety associated with potential failure or retention. Though not successfully adopted due to financial limitations, his work did serve in raising questions regarding the incorporation of artistic instructional methods and in casting doubt on the ultimate success of the factory model schools (Turner & Solis, 2017).

John Dewey was perhaps the greatest influencer on the history of education in early America (Washburne, 2019). A professor of philosophy at Columbia University, Teachers College, and the University of Chicago, Dewey challenged the intent of education during the late 1800s by exploring and promoting the connection between art and learning (Hipp & Dowell,

2019). He openly criticized the schools of his time and campaigned for their reform into establishments that would not only address cognitive development but enable children to reach their full potential by incorporating their experiences and interests including artistic sensibilities and aptitudes (Williams, 2017).

The educational system further evolved with the introduction of standardized achievement tests in 1912. Standardized tests were designed to objectively measure academic aptitude in a uniform method of delivery (Lummis et al., 2014). Benefits of standardized testing included ease of school-to-school comparisons and teacher accountability. Unintended ramifications, however, included the lack of accommodation for students with non-traditional ways of processing information, such as aurally or kinesthetically. With the passing of additional regulatory legislative acts mandating prescribed annual yearly progress, emphasis within schools shifted from holistic education to the pressures of standardized testing (Collins, 2016).

Internationally, the work of noted Italian physician and educator, Dr. Maria Montessori (1870-1952) in the mid-1900s drew attention to the idea of tailoring education, both in subject matter and in method of delivery, to students via the practice of differentiated instruction heavily influenced by arts integration practices (Baligadoo, 2020). Montessori pioneered a pedagogy specific to the needs and learning styles of impoverished and unschooled children in the poorest districts of Rome, at the time called phrenasthenic children, who dealt with varying degrees of mental retardation or psychological disability. Classified as nonentities and burdens on society, these children were consequently confined to asylums without regular consultation, evaluation, or treatment of any type (Montessori, 1967/1948). Having studied the work of famed physicians Jean Marc Gaspard Itard and Edouard Seguin, Montessori was well versed in recommended

teaching attempts for cognitively delayed and feral children. A methodical approach of intentionally sequenced steps was utilized to reach designated goals (Montessori, 2014).

Teaching approaches were further customized to engage students on a personal level. Social circumstances, individual interests, cultural influences, and artistic abilities were considered. The incorporation of music, dance, visual art, and child-directed play known as pretending theater consequently led children who had been deemed unteachable to the acquisition of simple life skills, display of self-control, and the eventual moniker of miracle children (Montessori, 1967/1948). Comprehension was evaluated through tailored assessments that correlated to the child's personal learning style. In years to follow, Montessori would evolve her techniques into an educational system and pedagogy appropriate for all children regardless of ability or disability (Montessori, 2014). Foundations of arts-based educational approaches and what would later become known as the Montessori Method were hence established (Montessori, 1967/1948).

### **Teacher Identity and Self-Efficacy**

Professional development programs that focus on specialized methodologies, such as arts integration, foster a pedagogical shift stressing student-centered education, constructivist principles, and creative approaches to both teaching and learning (Nykvist & Mukherjee, 2016). These conceptual shifts require teachers to re-evaluate professional identity as educators if true change and impact are to be achieved (Nykvist & Mukherjee, 2016).

As opposed to standard teacher coaching, arts integration training involves the metamorphosis of an educator's identity (Christensen, 2016). A wholly established teacher identity is comprised of an internal sense of connectedness and commitment, a sensed potential for career advancement, and a high level of perceived competence (van Lankveld et al., 2017).

Negative identity limits a teacher's consideration of and experimentation with unfamiliar strategies such as arts integration (Christensen, 2016). Positive teacher identity, conversely, leads to high levels of self-efficacy resulting in a willingness to explore new techniques (Christensen, 2016). Bandura (1977) defined self-efficacy as one's perceived ability to perform an action that will lead successfully to the accomplishment of a certain goal. Teachers' sense of self-efficacy provides powerful prediction of behavior in a classroom setting (Nykivist & Mukherjee, 2016). Those with a strong sense of self-efficacy are less afraid of failure, set higher goals, and seek out new strategies when those currently practiced prove to be unsuccessful (Bandura, 1977).

Effective instructor training and the resulting perceptions of self-efficacy remain an accurate, present-day predictor of success in the implementation of specialized methods of instruction such as arts integration (Nykivist & Mukherjee, 2016). The shaping of favorable teacher identity is ultimately reliant upon impactful training (Christensen, 2016) combined with the presence of consistent, in-service development and mentorship (Izadinia, 2017). Teacher readiness additionally requires active involvement often prompted and sustained through the use of collaborative learning techniques (van Lankveld et al., 2017).

The post-training confidence of pre-service teachers in the Netherlands was researched by Velthuis et al. (2014). The study questioned the effect of training on identity and self-efficacy for teaching science after taking two science-specific courses within an established teacher training program. Participating pre-service teachers derived from a cross-sectional sample from two universities ( $n = 139$ ) ranged from 17 to 39 years old with 15% male and 85% female. Upon completion of the science education courses, all participants received a 23-item questionnaire to gauge self-efficacy using a 5-point Likert scale. The Science Teaching Efficacy Belief Instrument (STEBI-NL) was used to measure Personal Science Teaching Efficacy (PSTE), having been

translated from the STEBI-A English version. The instrument was selected for use as it was specifically aimed at teachers' beliefs regarding science instruction based on Bandura's (1977) self-efficacy theory. With a minimum score of 12 and a maximum score of 60, the mean PSTE score for participants in Velthuis et al.'s sample was 37.96 with a standard deviation of 5.06. In relation to teaching science, these results can be interpreted as illustrating teachers' positive sense of self-efficacy following training courses (Velthuis et al., 2014). Limitations refer to the cross-sectional design measuring self-efficacy at one time only. A subsequent longitudinal study would strengthen results and diminish potential effects of extraneous variables such as teachers' education level, previous science knowledge, and gender (Velthuis et al., 2014).

While mentioning the inadequate number of similar studies to reference, Velthuis et al. (2014) referred to the work of Moseley et al. (2002) who reported a dip in teachers' self-efficacy following training and upon returning to classrooms resulting in lacking utilization of learned methods. Such findings imply the need for continual in-service coaching. Pre-implementation training alone produced minimal effects on teacher confidence. The strongest strategy suggested is, therefore, a combination of pre-implementation training and post-implementation coaching and mentorship by experienced practitioners (Velthuis et al., 2014), supporting the theories of Christensen (2016) and Izadinia (2017).

Empirical data confirms an increase in support of incorporating disabled students into mainstream classrooms (Sharma & Nuttal, 2014). Education professionals who have completed inclusion training, however, report not using strategies learned during that training. The disconnect between training and implementation creates a model whereby special needs students are merely placed in pre-existing classrooms rather than learning environments customized with accommodations enabling them to fully participate (Sharma & Nuttal, 2014). Sharma and Nuttal

(2014) hypothesized the cause to be inadequate and inappropriate training and posed a research question evaluating the effectiveness of an inclusion-specific course offered to pre-service teachers at an Australian university ( $n = 30$ ). Of the sample, 83.3% were female and 16.7% were male all falling within an age range of 19-29 years. In a quantitative study, each participant completed a 9-week elective course focusing on teaching techniques for learners with varying disabilities enrolled in mainstream classrooms. Additionally, subjects attended a weekly 2-hour workshop and were required to engage actively in class discussions, read assigned texts, and create and perform group presentations. A questionnaire utilizing the Teachers' Efficacy in Implementing Inclusive Practices scale (TEIP) was administered at the conclusion of the professional development course (Sharma & Nuttal, 2014). The TEIP consisted of 18 items answerable through a 6-point Likert scale measuring pre-service teachers' belief in their ability to incorporate inclusion strategies into routine activities within the classroom. Pre- and post-course responses were compared using paired sample  $t$ -tests.

Results demonstrated a significant increase ( $p < .001$ ) in teachers' self-efficacy for implementing inclusion practices with a mean post-test score of 5.53 (Sharma & Nuttal, 2014). Participants felt an overall sense of being better equipped to welcome students with disabilities into their classrooms after the training, while also noting an assurance that in-service development would be provided. Continued collaboration with other professionals was requested by all participants and ranked as a high priority and concern for successful progression in utilizing learned strategies (Sharma & Nuttal, 2014). Though the study involved participant self-selection bias, as the training course was elective and not mandatory, conclusions confirm the impact of targeted training and access to continued communal support (Velthuis et al., 2014).

Izadinia (2017) researched the relationship between teachers' likelihood of implementing newly learned strategies and access to modeling by experienced mentors. Two pre-service educators, Teacher A and Teacher B ( $n = 2$ ) majoring in drama education and music education, respectively, volunteered to participate after hearing the researcher's description of the project at an on-campus information session at a Western Australia university. A qualitative case study within social constructivism was utilized, consisting of semi-structured face-to-face interviews at three points during a 1-year teaching degree program: the outset of the degree program, the end of the teachers' first placement in a classroom with a paired mentor, and the end of the teachers' second placement in another classroom with a different paired mentor. Interviews were transcribed, coded, and reviewed in within-case and cross-case analysis (Izadinia, 2017).

Both Teacher A and Teacher B had positive experiences during the first placement (Izadinia, 2017). Teacher A reported a reduction in the stress he felt as a pre-service teacher, sharing that because of interactions with his mentor he felt as though he could "try new things and was in a safe place to experiment with different instructional methods" (Izadinia, 2017, p. 71). Teacher B felt her mentor's guidance and support erased the fear she had entering her first classroom as a teacher and greatly increased her confidence level. Both teachers felt the access to a mentor made first placements an overwhelmingly positive experience leaving them feeling confident in their abilities and excited to continue teaching (Izadinia, 2017).

Second placement experiences with mentors contrasted significantly with first placement experiences (Izadinia, 2017). Teacher A did not receive any positive reinforcement from his second mentor, describing her as being detached and uninterested. In powerful testimony, Teacher A concluded his second placement feeling as though his acquired teaching skills "had been taken away from him" and that he "no longer existed as a teacher" (Izadinia, 2017, p. 74).

Teacher B's interactions with her second mentor were equally negative leaving her with a lowered sense of self-efficacy and growing feelings of uneasiness when thinking about her next placement (Izadinia, 2017). The findings of Izadinia's work (2017) are meaningful as they highlight the role mentors and continual coaching play regarding teachers' self-efficacy.

In a case study of education students, understanding of professional teacher identity was examined by Nykvist and Mukherjee (2016). Over a 4-year period, data was collected from every new cohort of first-year pre-service teachers ( $n = 1789$ ) with 82% female and 18% male participants. Online surveys given at the end of the first semester of study were utilized to gauge understanding of professional teacher identity impact on self-efficacy and anticipated performance in-service (Nykvist & Mukherjee, 2016). Professional identity was defined as the way teachers view themselves as educators both collectively and individually. Findings reported 63.49% of first-year pre-service teachers viewed professional identity as influential to expected behavior in the classroom as an educator. Of the remaining participants, 25% ranked the influence of professional identity as neutral. Conclusions indicate how first-year pre-service teachers view the importance of professional identity and resulting impact on personal pedagogical approaches within the classroom (Nykvist & Mukherjee, 2016). The researchers concluded with a call to educators to understand professional identity as a catalyst for innovation in creating classrooms that are creative engaging spaces for inquiry able to reach students across all disciplines.

Christensen (2016) conducted a phenomenological case study to better understand the role of teacher identity. Four unstructured interviews were held with a newly hired yet experienced teacher ( $n = 1$ ) within a private preschool over the course of one school year. Analysis of interview transcripts revealed that although the participant was considered highly

knowledgeable, lack of training specific to the private preschool involved had resulted in the participant's self-doubt and uncertainty regarding professional identity (Christensen, 2016). An absence of continued in-service coaching equally damaged the participant's sense of confidence and connectedness (Christensen, 2016). These results are significant as they show the impact of appropriate teacher training and continued professional development on teacher self-efficacy regardless of experience level.

A study of social studies teachers in Africa investigated the impact of professional development on the use of mobile phones as educational aids. Gloria and Oluwadara (2016) explored the influence of training on purposively selected teachers from two universities in Nigeria ( $n = 103$ ). Criteria for participation included a willingness to partake minus any compensation and exposure to a previously offered technology course (Gloria & Oluwadara, 2016). The study utilized a one group pre-test post-test design. Teachers were given a 17-item questionnaire with a 4-point Likert scale to measure technology self-efficacy prior to and upon completion of training. A summary of the paired  $t$  test reported a significant difference ( $p < .05$ ) in perceptions of self-efficacy. The pre-test mean score was 51.6 with a standard deviation of 6.67, while the post-test mean score was 59.76 with a standard deviation of 10.8 (Gloria & Oluwadara, 2016). The 8.16 point increase in the teachers' mean self-efficacy suggests the effectiveness of the training's design and delivery.

Though data confirmed the ability of the teachers to acquire new skills and effectively use mobile phones for instructional purposes, participant feedback revealed the focus on pragmatic use as vital to engagement. Equally impactful was the inclusion of hard-copy, hand-held support materials provided in the training workshops. Each teacher received a mobile phone

training package including a user manual plus audio and video versions of training and implementation processes for future reference (Gloria & Oluwadara, 2016). The group setting was also praised as being highly influential in overcoming hesitations, self-doubt, and negative attitudes toward the use of technology. As teachers saw peers benefitting from new methods of delivery, they were inclined to investigate the new methods being presented, whereas previously held cultural and historical biases may have otherwise prevented such exploration (Gloria & Oluwadara, 2016). Benefits of the study's collaborative learning design are important to note also as they reference the theories of van Lankveld et al. (2017).

The impact of identity on beginning teachers at a Dutch medical school was investigated by van Lankveld et al. (2017). Purposefully recruited beginning teachers participated ( $n = 18$ ). Eighty-two percent of the teachers were female and 18% were male with all having no more than 5 years of experience as general educators and now transitioning to the field of medical education. In a qualitative study from an interpretivist epistemological perspective, two semi-structured interviews were held with each teacher in the first year of training as medical educators (van Lankveld et al., 2017). Data were transcribed and independently coded for recurring themes. Analysis showed 50% of the teachers encountered identity dissonance resulting in difficulty integrating into the role of a medical educator. High-level doctors and medical practitioners within the medical school had shared opinions of teaching as a low-level profession, regardless of subject matter, influencing the teachers personally and professionally. Frustration, low sense of self-efficacy, and lack of confidence in teaching abilities in general were reported issues by the teachers individually and as a group. Emergent feelings of ill-preparedness had all 18 teachers questioning the decision to transition into medical educators (van Lankveld et al., 2017). Similar to the findings of Christensen (2016), this research confirms the effect of poor

teacher identity personally and in social contexts on teacher's enthusiasm for new approaches and the self-efficacy needed to put those approaches into practice.

White (2018) further examined the need for peer support as teachers strive to reach diverse learners through differentiated instruction. A mixed methods study was conducted questioning the impact of a collaborative, non-evaluative service known as the Peer Support Program (PSP). The PSP paired peer support consultants in mentoring relationships with teachers self-identifying as struggling and seeking assistance with differentiated teaching methods. Data were collected utilizing an online survey ranking effectiveness of the PSP through a 5-point Likert scale (White, 2018). The sample was comprised of 19 females and 12 males ranging between 26 and 50 years with 1-25 years of experience as a classroom teacher in Surrey, British Columbia ( $n = 31$ ). Following involvement in the PSP, the majority of the participating teachers rated the program as above average. Eighty-five percent of respondents reported a sustainable improvement in teaching practice as a result of participating in the PSP while also reducing stress and burnout (White, 2018).

Peer mentorship removes the intimidation of administrative examination and potential punitive repercussions, while providing much needed assistance for teachers (White, 2018). Operational expenses are minimal as compared to the costs of the stress-related medical leave, recruitment, and replacement measures needed when educators leave the field, adding further value (White, 2018). Conclusions drawn from White's (2018) study endorse the worth of in-service educator support as reported by Izadinia (2017) and van Lankveld et al. (2017).

Additional study by Ashrafuzzaman (2018) highlighted the importance of continuing professional development for English instructors at the English in Action intervention school (EIA) in Bangladesh. A qualitative review conducted according to grounded theory solicited

open-ended data from five purposively selected participants after each attended two cluster meetings with colleagues and peers ( $n = 5$ ). Upon being asked how the gatherings impacted classroom practices, all instructors felt the meetings were valuable in increasing self-efficacy. Questions and concerns, particularly regarding classroom management, were addressed, fulfilling a reported 80% of the teachers' needs (Ashrafuzzaman, 2018). The primary reported value of the meetings was camaraderie with the congenial atmosphere receiving high praise for establishing a sense of connectedness (Ashrafuzzaman, 2018).

Herman et al. (2019) conducted a study of secondary science teachers with informal support networks ( $n = 13$ ). Nine of the participants were regularly involved in their networks while the remaining four were non-participatory. The research question poses asked what difference existed regarding levels of self-efficacy between the group of teachers who were involved in support networks and the group of teachers who did not participate in support networks (Herman et al., 2019). The participants, four women and nine men, were experienced secondary science teachers with 2-14 years of practice. Using a qualitative framework, naturalistic inquiry approach, and emergent design flexibility, the study addressed how support networks impacted the teachers' instruction (Herman et al., 2019). Semi-structured interviews were conducted individually with each participant. Responses were analyzed through a semi-inductive approach and coded for emergent themes (Herman et al., 2019). The nine teachers who routinely participated in support network gatherings reported a stronger sense of confidence, self-efficacy, teamwork, and perceived potential for advancement into administrative positions. In powerful testimony, one teacher shared, "I could not have continued teaching without my support network" (Herman et al., 2019, p. 208). The teacher further commented that without the support network he would not be the teacher he is today (Herman et al., 2019). The nine

participating teachers additionally identified the support networks as more than opportunities for professional development but equally beneficial in forming familial-like bonds for those who were interested. In contrast, the four teachers who did not participate in support networks reported low levels of engagement with no interest in changing their involvement (Herman et al., 2019). Implications of the investigation suggest a rethinking of support networks to include not only professional but inter-personal encouragement as well (Herman et al., 2019).

The studies of Ashrafuzzaman (2018) and Herman et al. (2019) both found that ongoing coaching and mentorship impacted teacher self-efficacy and continued practice. Parallel correlations can therefore be drawn to the findings of Izadinia (2017) and van Lankveld et al. (2017) promoting the impact personally as well as professionally, of collaborative and continual professional development.

The educational philosophies of Search, Dewey, and Montessori collectively shared belief in sensorial education and the impact of arts integration on student growth and achievement, both academically and socially (Williams, 2017). A common reliance upon teacher preparedness including a thorough understanding of arts-integrated pedagogy and applications remains vital to the success of each historical educator's methodology (Williams, 2017). Buy-in and ownership of the practice and deep reflection about said practice must occur in conjunction with strategic teacher preparation and on-going professional development (van Lankveld et al., 2017). Review of related literature cites deficiencies in training design and delivery as failing to emphasize practical implementation of strategies, lacking communal support elements, and omitting continual coaching and professional development opportunities.

## Examination of Arts-Based Professional Development

### Theoretical vs. Practical Training

Referencing the limited number of arts integration studies available focusing on teacher training and self-efficacy, Atli et al. (2016) conducted a descriptive study examining the training experiences and subsequent perceptions of teacher identity with teachers in Ankara, Turkey. Utilizing a qualitative research method allowing for interpretation and explanation of a phenomenon, data were collected through interviews and observations with nine teachers working at three different schools. The participants were selected via purposive sampling on conditions of possessing either academic or professional credentials and actively teaching at schools practicing Montessori methods and arts-based approaches. Characteristics of the resulting sample population ( $n = 9$ ) were as follows: all participants were female teachers 20-40 years old; all possessed some form of license, academic degree, or credential; experience levels ranged from 1-10 years as a classroom teacher; and all had attended some form of professional development on Montessori and arts-based instructional methods prior to expected implementation of those methods (Atli et al., 2016).

A semi-structured interview questionnaire was designed to determine teacher preparedness and perceived self-efficacy regarding the use of Montessori and arts-based instructional methods under four primary areas of investigation: (a) had training on the methods been received? (b) was the pre-implementation training adequate? (c) had in-service or continuing training been received? and (d) how were current challenges being addressed? Responses were interdependently reviewed and coded by three researchers, and results were reviewed by two specialists. According to the Miles and Huberman formula, reliability was 93.8% which is well above the accepted minimum value of 70% (Atli et al., 2016).

All teachers reported having the opportunity for pre-implementation training; however, no training sessions were conducted in classroom environments involving children or students and the opportunity for observation of practice. Experiences were described as focusing on book learning and theoretical philosophy rather than real-life scenarios, leaving participants with little to no tools for practical application of arts integration strategies. Consequently, 78% of the teachers classified the pre-implementation training as inadequate. Further, 100% reported no continuing professional development opportunities had been offered since initial training took place. Perceptions of self-efficacy had not changed. Due to training deficiencies and lack of ongoing guidance from experienced coaches or mentors, teachers were left to learn implementation practices by trial and error in real time as they entered classrooms, improvising with assumptions. Teachers' comments expressed the need for not only pre-implementation training, but also continuing, practical in-service training in addition to the need for consistent mentorship by others with arts integration experience (Atli et al., 2016). One participant additionally noted the importance of personal disposition toward new pedagogical approaches (Atli et al., 2016). Conclusions illustrate the findings of Christensen (2016), emphasizing the need for positive teacher identity and strategic targeted professional development.

In a year-long qualitative case study, Williams (2018) examined teacher experiences integrating spoken word poetry as a teaching tool in their classrooms. For the duration of one school year, teachers joined a study group focused on teaching via spoken word ( $n = 15$ ). The group attended two 4-hour workshops and two optional teacher retreats on a local university campus. Additionally, each participant received a monthly bulletin offering tips and tools. Twelve female teachers and three male teachers represented 12 middle and high schools within seven school districts in the Southwest region of the United States. Though little diversity of race

and ethnicity was included with 13 participants self-identifying as Caucasian/White, one as Hispanic, and one as Middle Eastern, diversity of teaching experience ranged from .5 to 20 years and diversity of age spanned 23 to 64 years old (Williams, 2018).

Research questions guiding the study focused on professional perspectives and personal attitudes toward the artistic genre of spoken word poetry, preparedness for implementation and continued use of spoken word poetry, and success and/or challenges experienced integrating the art form into their teaching practice (Williams, 2018). Congruent with the case study approach, multiple forms of data were collected including interviews, post-workshop and retreat questionnaires (open-ended), and ethnographic observations. Findings were analyzed using grounded theory, open coding, and constant comparative methods to allow for the emergence of themes (Williams, 2018).

Though all teachers labeled the training as meaningful, testimonies revealed varied usage of strategies learned (Williams, 2018). One English and creative writing teacher self-described as having a personal interest in the therapeutic value of the arts reported full implementation including use in all classes taught, establishment of a spoken word poetry club at their school site, and the creation of themed performance events for students. This teacher's pre-existing professional identity provided a foundation for learning new strategies and served as a catalyst for engagement in line with the theories of Christensen (2016). Seven teachers reported partial or limited usage in the form of revised spoken word poetry-infused units within pre-existing curriculum. The remaining seven participants reported no implementation (Williams, 2018). Though these teachers expressed general confidence in teaching abilities, those who reported partial or zero application cited lack of self-efficacy, hands-on training, and time required to appropriately prepare for utilization of an approach so different from their current methods of

instruction (Williams, 2018). Findings were evocative of Bandura's (1977) work, suggesting lack of self-efficacy will render teachers immobile to growth.

### **Communal Setting Effects**

Through a mixed methods study of teachers ( $n = 78$ ), Stanton (2018) of the University of Texas at Austin explored relationships between teacher concerns, self-efficacy, and level of comfort in implementing drama-based instruction (DBI) within a group setting as opposed to individual training. The study involved a year-long professional development program during which teachers from two public schools in Central Texas were divided into two sections. Teachers in the first group individually attended three in-service trainings and were classified as non-cadre teachers ( $n = 61$ ). The second group of teachers received ongoing focused support from a teaching artist throughout the year in addition to school-wide group trainings and were referred to as cadre teachers ( $n = 17$ ) (Stanton, 2018).

A primary research question examining the difference in self-efficacy among the cadre teachers versus the non-cadre teachers at the beginning and end of the year guided the study (Stanton, 2018). All teachers were given measures of self-efficacy and a Survey of Concerns in the form of a 35-item Likert scale survey at the beginning and end of their first year working with DBI. Self-efficacy scales given focused on three subscales of measures in instruction, engagement and confidence in implementation of alternative teaching strategies, and classroom management. The Survey of Concerns was specifically adapted to pose questions regarding teachers' apprehension regarding the utilization of DBI approaches. Additionally, qualitative data were gathered via informal group interviews with cadre teachers (Stanton, 2018).

Significant differences ( $p < .05$ ) were revealed through t-test analysis in cadre teachers' confidence with the methodology and implementation as opposed to non-cadre teachers both pre-

and post-program. The self-efficacy mean score at the start of the program was 7.45 for cadre teachers as compared to 7.24 for non-cadre teachers. Upon completing the program, the mean score of self-efficacy for cadre teachers was 7.67 versus 7.36 for non-cadre teachers (Stanton, 2018). Doubts regarding anticipated usage of new tactics learned were notably higher among non-cadre teachers on the Survey of Concerns. In direct contrast, significant interview comments from several cadre teachers expressed a newfound engagement and sense of ability to reach not only mainstream students but perhaps those previously considered unreachable, as well. These teachers reported the desire to further expand their new arts integration knowledge and skills to deal with students in challenging and/or disabling circumstances (Stanton, 2018). Experiences of the cadre teachers offer impetus for further study investigating the relationship between self-efficacy and targeted communal training combined with continued in-service development, per the research of Christensen (2016). These findings are important as they confirm an equation for successful implementation of proven educational strategies.

Saylor et al. (2018) continued examination of the need for shared learning experiences and post-implementation guidance from experienced colleagues with a case study focused on teacher-centered mentorship following professional development (PD). Three elementary and two preschool/kindergarten teachers ( $n = 5$ ) from an independent Montessori school in an economically and racially diverse Midwestern suburb served as subjects. Each teacher was selected by the Head of School to complete an 8-month program including informational sessions with mentors, small group assignments, check-in surveys, researcher observation, and reflective practice exercises (Saylor et al., 2018). Results reflected positive attitudes toward the shared commonality of the PD experience. All teachers rated the group aspect of the informational sessions with mentors favorably. The team-like atmosphere of trust within a non-

judgmental safe space promoted deep, multifaceted discussions about strategy implementation and practice in the name of student growth (Saylor et al., 2018). Each teacher further reported belief in the improvement of personal teaching skills and plans to utilize new knowledge gained. The sense of community forged among colleagues within the study continued post-experience and was credited with the continuing sense of self-efficacy and usage of arts-based methods by all teachers involved (Saylor et al., 2018). This research further confirms the positive effect of a communal setting as learned methodology and new approaches are put into practice.

### **The Impact of In-Service Coaching**

Research funded by the U.S. Department of Education's Arts in Education Model Development and Dissemination Program examined the effect of professional development through the Developing Reading Education with Arts Methods (DREAM) initiative over 3 years (Saraniero et al., 2014). Through an experimental design with a stratified random sample, two different approaches for teachers in arts integration professional development, more specifically in applying theater and visual art to reading curriculum, were created. One model utilized a summer institute, and the second model combined the same summer institute with additional in-service coaching. The research questioned which professional development model increased teacher self-efficacy in arts integration (Saraniero et al., 2014). Third and fourth grade teachers from schools within 10 designated school districts in California were initially eligible, with a narrowed focus on those from schools where a minimum of 35% of the student population qualified for free or reduced lunches. Teachers then completed a demographic pre-test using one-way ANOVAs to measure any statistically significant differences between levels of education, years of teaching experience, years teaching at the same grade level at the time of the research study, and the amount of arts integration coursework completed in undergraduate or certification

programs (Saraniero et al., 2014). Those selected ( $n = 116$ ) throughout the 3-year study were divided by grade level taught and randomly assigned to one of three groups. A coaching group attended the summer institute and received 25 hours of instructional coaching throughout the year. An institute-only group attended the summer institute but received no coaching support. The control group did not attend the summer institute and did not receive any coaching support (Saraniero et al., 2014).

Data were analyzed to identify the impact of each intervention on teacher utilization and practice of arts integration. Descriptive statistics and content analyses were used to evaluate qualitative information. Interviews and surveys were coded for emerging themes and patterns with triangulation across different methods used to confirm results (Saraniero et al., 2014). Teacher self-efficacy in integrating the arts generally, and theater and visual art specifically, was higher at the close of the treatment year for the coaching group than the institute-only group or the control group (Saraniero et al., 2014). A statistically significant difference ( $p < .001$ ) was found when year-end teacher self-efficacy was compared using a one-way ANOVA, producing values of  $M = 3.16$  for the coaching group,  $M = 2.76$  for the institute-only group, and  $M = 2.60$  for the control group (Saraniero et al., 2014).

Evidence suggested attendance at the summer institute succeeded in building confidence and understanding of arts integration for all teachers enabling implementation of learned strategies to a limited extent (Saraniero et al., 2014). Findings confirmed that attendance at the summer institute with the addition of the coaching intervention, however, had a greater impact on teacher self-efficacy and attitudes, ensuring increased frequency of arts integration use over the study's 3 years. Coaching group teachers experienced higher levels of confidence upon returning to classrooms, produced higher quality work samples, taught more reading concepts

through arts integration, implemented more arts standards, and used arts integration more frequently than did the institute-only or control group teachers. In addition, coaching group teachers reported an increase in creativity and renewed feelings of inspiration and enjoyment as educators. One participant shared at the end of the treatment year “[The arts integration strategies] gave new perspective and ideas on how to reach students, a fresh look at how to teach basics with new methods and brought back fun to the classroom!” (Saraniero et al., 2014, p. 12). Such enthusiastic feedback confirms the impact of including mentorship components in professional development models.

Newer work by Hipp and Dowell (2019) at Louisiana State University investigated factors impacting practice and beliefs regarding arts integration among first through fifth grade pre-service teachers (PSTs) with limited experience. The research question of the study examined the influences, factors, and circumstances which either promoted or served as barriers to the implementation of arts-integrated lessons for PSTs placed in urban public elementary schools. Through a phenomenological case study, subjects ( $n = 74$ ) selected via convenience and criteria sampling with 100% female identifying as White attended a 3-hour arts integration course within a 120-hour teacher preparatory program. Upon completing the session, participants were asked to respond to a two-part prompt addressing the biggest challenge and, conversely, the biggest support to the implementation of arts integration in elementary classrooms (Hipp & Dowell, 2019).

Coding and analysis were based on constructivist paradigms and Creswell’s (2018) constant comparative method. Pertaining to the challenges of arts integration implementation primary areas of concern were time, training/competency, and continuing access to resources (Hipp & Dowell, 2019). Time emerged with the highest number of code instances. Mitigating

factors, however, such as lack of opportunity for adequate training and the inability of fellow teachers equally inexperienced in arts integration to offer mentoring support were subsequently re-classified under training/competency and access to resources (Hipp & Dowell, 2019). The belief of PSTs in their ability to execute actions required to successfully employ arts integration approaches, per Bandura's (1977) seminal definition of self-efficacy, represented the largest code instance in identifying support for arts integration implementation.

Implications of final analyses recommended the inclusion of multiple pre-service arts integration classes focusing on instructional practice more heavily than general philosophy of theory as opposed to the 3-hour coverage the teachers received. Though the majority of PSTs credited the course with increasing awareness and demystifying the nature of arts integration, all felt instruction on practical application was lacking. Additionally, the need for continuing in-service coaching by skilled and strategically trained mentors as new teachers enter classrooms was emphasized (Hipp & Dowell, 2019). Final assertions deemed a 3-hour preparation course ineffective in fully conveying a new approach, as was the lack of ongoing training and coaching. In structuring professional development, program design, delivery, and duration must be considered if teacher self-efficacy is to be adequate for eventual utilization.

### **Post-Training Implementation**

Equally vital to the success of professional development is the implementation of or the intent to implement learned strategies (Boice et al., 2021; Buck & Snook, 2020). Contemporary studies reflect numerous challenges faced by teachers in putting newly acquired pedagogical skills, such as the incorporation of arts-integrated lessons, into practice (Boice et al., 2021; Buck & Snook, 2020). As evidenced in studies cited in the examination of arts-based professional

development, the disconnect between arts integration training and the utilization of the pedagogy exists across all national and international borders (Buck & Snook, 2020).

Buck and Snook authored multiple studies from 2016 through 2018 measuring the positive impact of arts integration on student achievement and engagement (Buck & Snook, 2020). The research of Buck and Snook in 2020 focused on educators. In a qualitative study, generalist teachers employed at a small rural school in New Zealand ( $n = 6$ ) served as subjects. As a group, the teachers completed a 1-day professional development workshop in arts integration. Each participant was then expected to incorporate the strategies learned into day-to-day instructional practice within a classroom setting (Buck & Snook, 2020). Using a constructivist methodology, the teachers' experiences were examined. Ten hour-long, semi-structured interviews were held with each teacher to obtain individual narratives regarding challenges faced post-training (Buck & Snook, 2020). At the conclusion of the interview period, an inductive thematic data analysis was conducted. All participants responded positively to the premise and potential impact of arts integration on students and the learning atmosphere, as well as to the training received (Buck & Snook, 2020).

Naturalistic observations of professional development participants in classrooms, however, showed a regression in self-efficacy for arts integration (Buck & Snook, 2020). Although teachers attempted to emulate the instructional styles modeled in the professional development workshop, confidence levels waned during the first week of implementation leading to an abandonment of the endeavor (Buck & Snook, 2020). A consequent reversion to original pre-training instructional methods was selected by five of the six study participants. The absence of a supporting arts integration specialist onsite was cited by each teacher who opted not

to utilize the arts integration tactics learned in the professional development workshop (Buck & Snook, 2020).

In an evaluation of a teacher training program focused on Science, Technology, Engineering, Arts, and Math (STEAM) integration Boice et al. (2021) examined implementation rates of newly learned instructional methods. Teachers within nine participating schools in Georgia attended a 5-week professional development summer seminar ( $n = 17$ ). School levels represented by the teachers involved included elementary ( $n = 8$ ), middle ( $n = 5$ ), and high school ( $n = 4$ ).

A descriptive case study approach utilizing a mixed-methods triangulation design was used to combine the analysis of quantitative surveys and qualitative interviews (Boice et al., 2021). Pre-training and post-training surveys were given on the first and last day of the summer seminar indicating a statistically significant increase ( $p < .001$ ) in levels of teacher self-efficacy with a value of  $M = 7.80$ . As the academic year commenced, on-going systemic support was embedded in each school. Components of support included monetary and material resources as well as pedagogical coaching and reinforcement provided by faculty of the Georgia Institute of Technology (Boice et al., 2021).

A post-year survey was administered to capture final rates of self-efficacy and satisfaction which reflected an increase ( $M = 4.63$ ; Boice et al., 2021). Participants' focus groups and informal interviews were held virtually due to the COVID-19 pandemic and subsequent safety protocols. Qualitative data gathered were analyzed using an iterative content thematic approach and assigned codes to determine patterns and refine themes. Ninety-percent of teachers expressed high satisfaction with the continued coaching aspect of the experience, and requested that this support continue (Boice et al., 2021). Favorable outcomes of the Science, Technology,

Engineering, Arts, and Math (STEAM) training program were evident; however, successful implementation and integration of the pedagogy was directly attributed to the presence of an onsite content expert (Boice et al., 2021).

### **Summary**

Teachers are tasked with reaching increasingly diverse learners with diminishing resources, prompting the need for alternative instructional methods (Serman, 2018). Arts integration is a substantiated pedagogy able of successfully addressing such challenges (The Kennedy Center, n.d.). Associated strategies are accessible and elicit instant responses while simultaneously producing a positive and engaging learning atmosphere (Americans for the Arts, 2020). Studies, however, confirm training programs' initial deficiencies as focusing on theory rather than practice. The exclusion of collaborative learning elements equally diminishes impact (Stanton, 2018). Lack of continuing professional development and follow-up coaching results in decreased instructor confidence and ultimate disengagement (Saraniero et al., 2014). Literature, as such, reveals a gap between pre-training teacher self-efficacy, post-training teacher self-efficacy, and subsequent implementation of arts integration practices while equally noting a lack of current research (Atli et al., 2016; Velthuis et al., 2014). In order to increase utilization of arts integration, training programs must be examined and restructured (Boice et al., 2021; Buck & Snook, 2020). Teacher self-efficacy for not only the understanding of practices but implementation of learned strategies must be considered, prompting the need for further present-day research (Hipp & Dowell, 2019).

### III. METHODOLOGY

The purpose of this quantitative study was to evaluate the impact of training on perceptions of self-efficacy of teachers participating in The John F. Kennedy Center for the Performing Arts' professional learning programs and the implementation of arts integration strategies. Arts integration training was generally defined as professional development experiences focusing on implementation of an approach to teaching in which students construct and demonstrate understanding through an art form, engaging in a creative process which connects an art form and another subject area meeting evolving objectives in both (The Kennedy Center, n.d.).

#### **Description of Methodology**

##### **Participants**

The population selected for study purposes was defined as classroom teachers not utilizing arts integration practices prior to the commencement of arts integration training. The final, actionable sample of study participants consisted of 51 teachers from within The John F. Kennedy Center for the Performing Arts' Partners in Education national network. Each teacher was personally known to the researcher or the researcher's network contacts.

##### **Statistical Power Analysis**

In research questions one and two, the *t*-test of dependent means was used for statistical significance testing purposes. Statistical power analysis for the use of the *t*-test of dependent

means was conducted using the G\*Power software (Faul et al., 2009; Faul et al. 2020) version 3.1.9.2 to determine sufficiency of sample size using an alpha of  $p = 0.05$  and a power  $(1 - \beta)$  index of 0.80. As a result, a statistically significant finding was foreseen to be detected in a sample size of 12 with an anticipated large response effect ( $d = .80$ ). For an anticipated medium response effect ( $d = .50$ ), a sample of 27 was foreseen to be sufficient to detect a statistically significant finding.

### **Research Instrumentation**

The study's data were achieved via a researcher-created survey instrument. The absence of a pre-existing research instrument suitable for addressing the study's construct warranted the creation of the study's research instrument. The study's research instrument was a Likert scale-type survey consisting of a 5-point scale (5 = *strongly agree* to 1 = *strongly disagree*). As Dillman et al. (2014) noted:

The most common format survey instrument used today employs the five categories of 'strongly agree, agree, undecided (or neither agree nor disagree), disagree, and strongly disagree.' The use of such named categories is user-friendly and has been found to provide acceptable levels of reliability" (p.159).

The research instrument validation process mirrored the essential steps in the process outlined by Boateng et al. (2018). The first phase of the instrument validation process was content judgment in nature featuring a subject matter expert panel consisting of the researcher's dissertation chair and methodologist from the College of Education at Southeastern University, a K-12 performing arts specialist, and a doctorate-level K-5 arts integration specialist. Six essential agreed-upon themes surfaced in the content judgment phase of the instrument validation process.

The essential themes provided the foundation of the development of survey items represented on the research instrument (see Appendix B).

In the second phase, a piloting of the study's research instrument was conducted to determine suitability in addressing the study's construct with 25 study participants. The Cronbach's alpha ( $\alpha$ ) statistical technique was used to assess the internal reliability of study participant response to survey items on the research instrument. Cronbach's alpha has been described as "one of the most important and pervasive statistics in research involving test construction and use" (Cortina, 1993, p. 98). As a result, the internal reliability level achieved ( $\alpha = .92$ ) in the pilot phase of the study was well beyond the acceptable level of  $\alpha = .60$  (Griethuijzen et al., 2014).

In the third and final phase of the instrument validation process, the Cronbach's alpha ( $\alpha$ ) statistical technique was conducted upon using the study's complete data set. An alpha level exceeding  $\alpha = .60$  was considered adequate for internal reliability purposes (Field, 2018; George & Mallery, 2018).

### **Study Procedures**

The study was conducted using a one-group, quasi-experimental, within-subjects repeated measures design (Fraenkel et al., 2018). Surveys were administered to all participants prior to and upon completion of an arts integration training session as part of the 2021 Partners in Education network convening. Seven questions were posed to measure basic understanding of arts integration methodology, perceived self-efficacy regarding arts integration strategies, and planned implementation of arts integration practices pre- and post-training. Each survey item was answerable through a 5-point Likert scale of potential responses. An additional open-ended prompt was offered post-training to solicit participants' requests for continuing education

opportunities and resources to be made readily available. Surveys were fully completed by all participants ( $n = 51$ ) with all data included in the final analysis.

### **Data Analysis**

Issues of missing data and internal reliability were addressed through preliminary foundational analyses as a transition into examination of the study's research question. Foundational analyses were conducted through the use of descriptive and inferential statistical techniques. Preliminary data analyses included descriptive statistical techniques such as central tendency, variability, frequencies, and percentages. The research questions were assessed via the inferential statistical technique of the  $t$ -test of dependent means. The threshold value for statistical significance of findings was represented by a probability level of  $p \leq .05$ . Cohen's  $d$  statistical technique was used to assess the magnitude of effect in the mean score differences between pre-test and post-test scores. The interpretation of Sawilowsky's (2009) conventions of effect size was adopted for use in the study. The major assumption associated with the use of the  $t$ -test of dependent means is the normal distribution of pre and post-test scores. The normality of data was addressed using the skew and kurtosis values through skew values not exceeding  $-2.0/+2.0$  and kurtosis values not exceeding  $-7.0/+7.0$  (George & Mallery, 2018).

### ***Research Question 1***

Will there be a statistically significant effect in perceptions of self-efficacy for teachers prior to and upon completion of arts integration training?

$H_0 1$ : There will be no statistically significant effect for study participant perceptions of self-efficacy in the wake of their completion of arts integration training.

$H_a 1$ : There will be a statistically significant effect for study participant perceptions of self-efficacy in the wake of their completion of arts integration training.

## ***Research Question 2***

Considering the elements of self-efficacy in arts programming identified in the study, which reflected the greatest degree of effect from the pre-test to post-test phases in the study?

*H<sub>a</sub> 2:* The arts integration element of “Basic Understanding of Arts Integration” will reflect the greatest degree of intervention effect from the pre-test to post-test phases of the study.

### **Summary**

A one-group, quasi-experimental, within-subjects repeated measures design featuring a survey research approach was utilized in effort to address the study’s topic and research questions with a sample of 51 participating teachers. Pilot study validation procedures resulted in an excellent level of internal reliability achieved in responses to the researcher-created research instrument. Descriptive and inferential statistical techniques were used in the study’s analyses at the preliminary level and in addressing the study’s two research questions and hypotheses. Results of the analyses are presented in chapter four.

## IV. RESULTS

The purpose of this quantitative study was to evaluate the impact of training on perceptions of self-efficacy of teachers participating in The John F. Kennedy Center for the Performing Arts' professional learning programs and the implementation of arts integration strategies. Arts integration training was generally defined as professional development experiences focusing on implementation of an approach to teaching in which students construct and demonstrate understanding through an art form, engaging in a creative process which connects an art form and another subject area meeting evolving objectives in both (The Kennedy Center, n.d.). The study's sample was comprised of 51 teachers from within The John F. Kennedy Center for the Performing Arts' Partners in Education national network participating in the annual convening of 2021. A one-group, quasi-experimental, within-subjects repeated measures design featuring a survey research approach was utilized to address the study's topic and research problem. Descriptive and inferential statistical techniques were used in the study's analyses at the preliminary level and research questions. Chapter IV contains the formal reporting of the findings achieved in the study.

### **Preliminary Findings**

Analyses of a foundational, preliminary nature were conducted in advance of the formal analysis of the study's research questions. Specific evaluations of the study's survey completion

rate/missing data, internal reliability, and initial findings were conducted using descriptive statistical techniques.

**Descriptive Statistics: Pre-Test Initial Findings**

The study’s response set data at the pre-test phase were evaluated using descriptive statistical techniques. The focus of the descriptive statistical analyses was upon measures of typicality (mean scores), variability (ranges, standard deviations), standard errors of the means, and data normality (skew, kurtosis).

Table 1 contains a summary of findings for the preliminary analyses associated with the study’s response data at the pre-test phase.

**Table 1**

*Descriptive Statistics: Pre-Test Initial Findings*

Variable	<i>M</i>	<i>SD</i>	<i>n</i>	<i>SE<sub>M</sub></i>	Min	Max	Skewness	Kurtosis
Pre-Test Item 1	3.65	1.13	51	0.16	1.00	5.00	-0.79	-0.10
Pre-Test Item 2	4.22	0.86	51	0.12	2.00	5.00	-0.81	-0.17
Pre-Test Item 3	3.24	0.95	51	0.13	1.00	5.00	-0.48	0.10
Pre-Test Item 4	2.49	1.07	51	0.15	1.00	4.00	-0.27	-1.22
Pre-Test Item 5	3.10	1.06	51	0.15	1.00	5.00	-0.50	-0.23
Pre-Test Item 6	3.51	0.83	51	0.12	2.00	5.00	0.70	-0.58
Pre-Test Item 7	3.67	0.62	51	0.09	3.00	5.00	0.35	-0.67

**Descriptive Statistics: Post-Test Initial Findings**

The study’s response set data at the post-test phase were evaluated using descriptive statistical techniques. The focus of the descriptive post-test analyses was on the mean scores, ranges, standard deviations, standard errors of the means, and data normality (skew, kurtosis).

Table 2 contains a summary of findings for the preliminary analyses associated with the study's response data at the post-test phase.

**Table 2**

*Descriptive Statistics: Post-Test Initial Findings*

Variable	<i>M</i>	<i>SD</i>	<i>n</i>	<i>SE<sub>M</sub></i>	Min	Max	Skewness	Kurtosis
Post-Test Item 1	4.75	0.44	51	0.06	4.00	5.00	-1.12	-0.73
Post-Test Item 2	4.78	0.50	51	0.07	3.00	5.00	-2.28	4.36
Post-Test Item 3	4.27	0.72	51	0.10	2.00	5.00	-0.78	0.42
Post-Test Item 4	3.53	0.88	51	0.12	1.00	5.00	-0.89	1.07
Post-Test Item 5	4.08	0.87	51	0.12	2.00	5.00	-0.34	-1.13
Post-Test Item 6	2.59	0.61	51	0.08	1.00	4.00	-0.61	-0.01
Post-Test Item 7	4.33	0.65	51	0.09	3.00	5.00	-0.45	-0.71

**Survey Completion Rate/Missing Data**

The study's extent of survey completion rate and subsequent missing data were evaluated using the descriptive statistical techniques of frequencies (*n*) and percentages (%). As a result, the study's data sets at the pre-test and post-test phases reflected no missing data and were, therefore, 100% intact.

**Internal Reliability**

The internal reliability of study participant response to survey items on the research instrument across the pre-test and post-test phases of the study was conducted using the Cronbach's alpha ( $\alpha$ ) statistical technique (Field, 2018). As a result, the internal reliability level achieved in the study was considered excellent using the conventions of alpha offered by George and Mallery (2018).

Table 3 contains a summary of finding for the internal reliability analysis conducted across the pre-test and post-test phases of the study.

**Table 3**

*Internal Reliability: Finding across Pre-Test and Post-Test Phases of the Study*

Scale	No. of Items	$\alpha$	Lower Bound	Upper Bound
Pre-Test/Post-Test	14	0.92	0.90	0.94

*Note.* The lower and upper bounds of Cronbach's  $\alpha$  were calculated using a 95% confidence interval.

### **Findings by Research Question**

Two research questions and hypotheses were stated in the study. Descriptive and inferential statistical techniques were used in the analyses associated with the research questions and hypotheses. The probability level of  $p \leq .05$  represented the threshold level representing a finding considered as statistically significant. The conventions of effect size interpretations proposed by Sawilowsky (2009) were adopted as a means of assigning qualitative descriptors to numeric effect sizes achieved. The analysis of study data was conducted using IBM's Statistical Package for the Social Sciences (SPSS v. 27).

The following represents the reporting of finding achieved by study question.

#### **Research Question 1**

Will there be a statistically significant effect in perceptions of self-efficacy for teachers prior to and upon completion of introductory arts integration training?

A *t*-test of dependent means was conducted to determine the statistical significance of mean score difference between study participant perceptions at the pre-test and post-test phases as a result of completion of an introductory training program. The assumption of normality of the difference score in pre-test and post-test perceptions was assessed using skew and kurtosis

values. As a result, the skew value of 0.47 and kurtosis value of 0.31 reflected in the pre-test/post-test difference score was well within the parameters of normality of  $-/+2.0$  for skew and  $-/+7.0$  for kurtosis proposed by George and Mallery (2018).

The result, the mean score difference between pre-test and post-test of 0.64 was statistically significant,  $t_{(50)} = 10.98$ ;  $p < .001$ . The magnitude of effect for the study's intervention variable of study participant completion of an arts integration program upon study participant perceptions of self-efficacy was considered very large at  $d = 1.54$ .

Table 4 contains a summary of finding for the evaluation of the impact of the study's intervention variable upon perceptions of self-efficacy.

**Table 4**

*Impact of Introductory Arts Integration Training: Pre-Test/Post-Test Summary*

Post		Pre		<i>t</i>	<i>p</i>	<i>d</i>
<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
4.05	0.50	3.41	0.72	10.98	< .001	1.54

*Note.* N = 51. Degrees of Freedom for the *t*-statistic = 50. *d* represents Cohen's *d*.

*H<sub>0</sub> I:* There will be no statistically significant effect for study participant perceptions of self-efficacy in the wake of their completion of an introductory arts integration training.

In light of the statistically significant finding achieved in research question one, the null hypothesis was rejected.

*H<sub>a</sub> I:* There will be a statistically significant effect for study participant perceptions of self-efficacy in the wake of their completion of an introductory arts integration training.

In light of the statistically significant finding achieved in research question one, the alternative hypothesis was retained.

## Research Question 2

Considering the elements of self-efficacy in arts programming identified in the study, which reflected the greatest degree of effect from the pre-test to post-test phases in the study?

A *t*-test of dependent means was conducted to determine the statistical significance of mean score difference between study participant perceptions at the pre-test and post-test phases as a result of completion of an introductory training program for identified elements of self-efficacy. The Cohen's *d* statistical technique was used to evaluate the magnitude of effect in the difference from the pre-test to post-test phase in the study for respective elements in the comparison.

**Table 5**

*Intervention Effect Comparison for Art Integration Elements of Self-Efficacy*

Element	Pre-Test/Post-Test Mean Difference (SD)	<i>t</i>	<i>d</i>
Basic Understanding of Arts Integration	1.10 (0.90)	8.71***	1.22 <sup>a</sup>
Efficacy in Utilizing Ready-Made Arts Integrated lessons	0.57 (0.72)	5.58***	.78 <sup>b</sup>
Efficacy in Developing Arts Integrated Lessons	1.04 (0.66)	11.21***	1.57 <sup>a</sup>
Efficacy in Developing Genre-specific Arts Integrated lessons	1.04 (0.87)	8.52***	1.19 <sup>a</sup>
Efficacy in Assisting Others with Arts Integration Techniques	0.98 (0.79)	8.90***	1.25 <sup>a</sup>
Implementation Intent	-0.92 (1.15)	-5.74***	-.80 <sup>b</sup>

\*\*\**p* < .001    <sup>a</sup> Very Large Effect    <sup>b</sup> Large Effect

Table 5 contains a summary of finding for the comparative analysis of magnitude of effect for the study's intervention variable featured in research question two.

*H<sub>a</sub> 2*: The arts integration element of “Basic Understanding of Arts Integration” will reflect the greatest degree of intervention effect from the pre-test to post-test phases of the study.

In light of the superior effect reflected in the arts integration element of “Efficacy in Developing Arts Integrated Lessons,” the alternative hypothesis was rejected.

### **Summary**

Excellent levels of survey completion rate and internal reliability of study participant response to survey items on the research instrument were achieved in the study. Study participant perceptions of self-efficacy reflected a statistically significant, very large effect of change in the wake of their completion of an introductory arts integration program. The element of arts integration reflecting the greatest degree of effect in light of the study’s intervention variable was “Efficacy in Developing Arts Integrated Lessons.” Chapter V contains a thorough discussion of the findings achieved in the study as reported in Chapter IV.

## V. DISCUSSION

The purpose of this quantitative study was to evaluate the impact of training on perceptions of self-efficacy of teachers participating in The John F. Kennedy Center for the Performing Arts' professional learning programs and the implementation of arts integration strategies. Arts integration training was generally defined as professional development experiences focusing on implementation of an approach to teaching in which students construct and demonstrate understanding through an art form, engaging in a creative process which connects an art form and another subject area and meeting evolving objectives in both (The Kennedy Center, n.d.).

### **Review of Methodology**

The present study's topic and research questions were addressed through use of a quasi-experimental, within-subjects, one-group design approach surveying 51 teachers. Each teacher was a member of The John F. Kennedy Center for the Performing Arts' Partners in Education national network and participated in an arts integration training session as part of the 2021 annual convening. Pre-session and post-session surveys consisted of seven questions posed to measure foundational understanding of arts integration methodology, sensed perceptions of self-efficacy regarding arts integrations strategies, and plans for implementation of learned arts integration practices before and upon completion of training. Opportunity for each respondent to

share comments and suggestions was additionally offered through an open-ended prompt on the post-test survey.

### **Preliminary Findings**

Descriptive and inferential statistical techniques were used to analyze survey completion rate, any missing data, and internal reliability. No missing data were reflected at the pre-test or post-test time of capture, therefore producing a completely intact data set. Using the conventions of alpha by George and Mallery (2018), internal reliability was considered excellent with a credibility and trustworthiness of measurable responses able to address the posed research questions.

### **Discussion by Research Question**

#### **Research Question 1**

Will there be a statistically significant effect in perceptions of self-efficacy for teachers prior to and upon completion of arts integration training?

*H<sub>0</sub> I:* There will be no statistically significant effect for study participant perceptions of self-efficacy in the wake of their completion of arts integration training.

*H<sub>a</sub> I:* There will be a statistically significant effect for study participant perceptions of self-efficacy in the wake of their completion of arts integration training.

Results of the *t*-test of dependent means showed a mean score increase of 0.64 from respondents' pre-test to post-test perceptions of self-efficacy. Moreover, the  $d = 1.54$  magnitude of effect was considered very large. The null hypothesis was rejected, and the alternative hypothesis anticipating a statistically significant change in teachers' self-efficacy post-training was retained.

The John F. Kennedy Center for the Performing Arts is considered the gold standard-setting resource for arts integration education and training by the nation's leading arts researchers and practitioners (Arts Integration, n.d.). Assemblies of the Kennedy Center's Partners in Education, Any Given Child, and Changing Education Through the Arts Schools national networks gather hundreds of teachers, artists, presenters, administrators, and executives from within the arts and education fields annually with a mission to empower educators, maximize resources, and realize meaningful change (The Kennedy Center, n.d.). As the present study involved professional development created by and delivered with the endorsement of The John F. Kennedy Center for the Performing Arts, the increase in self-efficacy of participants as reflected in the findings was not unexpected. One participant described the training as "stellar" and explained that "we knew immediately we were learning about arts integration from the best of the best." Another shared "I can't imagine learning about anything related to arts education and [arts] integration from any other entity than The Kennedy Center. It's like learning about the Montessori method from Maria Montessori herself."

Although the research of Velthuis et al. (2014) corroborated the positive effect of training on the self-efficacy of teachers, the subjects involved were pre-service educators. The present study, in contrast, included participants with varied levels of experience. Years of teaching, however, did not influence improvements in overall teacher confidence. Participants within each category of experience level reported significant growth in self-efficacy post-training.

Furthermore, participants' perceptions of self-efficacy greatly increased regardless of how they rated personal understanding of arts integration principles prior to training. These outcomes are of particular interest as the conjecture of the alternative hypothesis predicting

significant change in perceptions of self-efficacy regardless of experience or baseline knowledge is reinforced.

In accordance with the seminal work of Bandura (1977), high levels of self-efficacy produce a perceived ability to successfully reach established goals. Equally, the fortitude required to identify and utilize unfamiliar means of accomplishing said goals is gained through increased self-efficacy (Bandura, 1977). Fear of failure is overridden by an innate sense of confidence (Bandura, 1977; Christensen, 2016). As such, because participants of the present study reported heightened levels of self-efficacy, utilization of learned strategies would be predicted in agreement with Nykvist and Mukherjee (2016). As noted in a 4-year case study, targeted instructor training and consequential perceptions of self-efficacy provide accurate predictors of usage and success in the implementation of specialized methods of instruction such as arts integration (Nykvist & Mukherjee, 2016). Therefore, the findings achieved in the present study would deem the training successful, at this point, as transference of arts integration knowledge resulted in overall gains in teacher confidence and implementation was expected.

## **Research Question 2**

Considering the elements of self-efficacy in arts programming identified in the study, which reflected the greatest degree of effect from the pre-test to post-test phases in the study?

*H<sub>a</sub> 2:* The arts integration element of “Basic Understanding of Arts Integration” will reflect the greatest degree of intervention effect from the pre-test to post-test phases of the study.

By conducting a *t*-test of dependent means, the statistical significance between mean score pre-test and post-test perceptions of participants’ self-efficacy for identified elements was determined. Magnitude of effect in the difference from pre-test to post-test scores was evaluated utilizing the Cohen’s *d* statistical technique. The identified element of “Efficacy in Developing

Arts-Integrated Lessons” reflected the greatest degree of magnitude of effect in comparison of pre-test to post-test scores upon completion of training ( $d = 1.57$ ) and was interpreted as very large. The alternative hypothesis was consequently rejected. As such, findings regarding perceived ability to create arts-integrated lessons are considered revelatory.

With excellent levels of survey completion and apparent internal reliability, study participant responses regarding self-efficacy resulted in a statistically significant, very large effect of change upon completion of arts integration training. Initial assumptions anticipated greatest gains in basic understanding of arts integration principles with aspirations of improved utilization intent. Predictive outcomes of this type would directly support Bandura’s (1977) theory of self-efficacy, emphasizing the direct correlation between teacher confidence and usage of alternate methodologies. However, inverse findings were reflected in teacher self-efficacy post-training and plans for implementation ( $d = -.80$ ). The disconnect between successful arts integration training experiences and eventual employment of learned strategies which served as the present study’s impetus can consequently be focused on aspects other than teacher self-efficacy in developing arts-integrated lesson plans.

The continuing anomaly of successfully trained teachers versus those employing competencies learned was demonstrated in the findings. The training experience involved, therefore, must be classified as insufficient and/or unfinished as application is lacking. For that reason, further investigation into the training’s design and delivery is warranted. Heath (2017) corroborated arguing inadequate investigation has been conducted associating high levels of teacher confidence to subsequent usage of newly acquired instructional practices in instructional settings.

Previous research contains support for the deficiencies in arts integration training models as stressing theory over practical application (Atli et al., 2016; Williams, 2018), omitting a communal or group-support aspect (Saylor, 2018; Stanton, 2018), and overlooking the importance of on-going mentorship and opportunities for professional development (Hipp & Dowell, 2019; Saraniero et al., 2014). Based on the present study's findings, practical application via the development of arts-integrated lessons was successfully conveyed. Informal responses solicited post-training through the open-ended prompt provided cited no mention of a group dynamic or lack thereof despite the non-traditional method of delivery warranted by COVID-19 safety protocols. Participant comments did reflect the theme of mandatory coaching and continual in-service training if utilization were to occur.

### **Study Limitations**

Certain limitations of the present study must be considered. By affiliation with The John F. Kennedy Center for the Performing Arts' Partners in Education national network, participating respondents are predisposed to support the principles of arts integration. This posture would likely include some knowledge of arts integration strategies which would classify participants as having at least a minimal foundation of understanding, though varying levels of personal confidence in practice. Comparison to a control group not involved in the professional development experiences offered was not included within the present study's design.

Equally, as the present study occurred during the 2020-2021 worldwide outbreak of COVID-19, the training's non-traditional method of delivery must be noted. Annual convenings are historically held in person on or near the campus of The John F. Kennedy Center for the Performing Arts in Washington, D.C. Professional development and informational sessions are designed around large and small group instruction models, encouraging interpersonal interaction

and exchange. The training examined in the present study was delivered virtually in accordance with Centers for Disease Control and Prevention (CDC) suggested protocols, national and international travel restrictions, and local mandates specific to the Washington, D.C. area at the time. Though the training curriculum remained intact in comparison to years past, the remote transmission and lack of direct social contact must be recognized as potentially influencing the experience for participants and trainers alike.

### **Implications for Professional Practice**

Teacher trainers are tasked with educating educators and improving instructional skills. The expectation of arts integration specialists and practitioners is to instruct teachers how to teach in a different way. Successful arts integration training will result in participants with an understanding of the theory and principles of arts integration, belief in the holistic impact of arts integration strategies, knowledge of experiential practice, and the self-efficacy needed for implementation (Whole Schools Initiative - Arts Education, 2020). Findings of the present study clearly support the success of the professional development session examined in conveying a basic understanding of arts integration principles and self-efficacy in developing arts-integrated lessons. However, as a significant deficiency regarding plans for implementation exists; the training administered must be considered both incomplete and ineffective. One participating teacher expressed challenges with future application:

“This is so different from how we are originally taught to teach. We would need to have a trained practitioner with us to put it into practice properly. Experts would need to be brought in to help us make this happen.”

Another teacher concurred, adding “I’m confident that I could teach this way, but not yet and not without the guidance of someone more experienced.” An additional participant compared arts

integration to “a new language” requiring the guidance of “someone who is fluent to help incorporate this into a [classroom] setting.”

Though arts integration strategies were successfully understood, responses reflected a distinct lack of intention to implement. If the intent of arts integration training is, indeed, to equip teachers with alternate proven instructional methods, the disconnect between the number of teachers receiving arts integration training and those eventually practicing arts-integrated instructional strategies in classroom settings must be addressed. Ultimately, education minus utilization is ineffectual. In accordance with the work of Saraniero et al. (2014) and Hipp and Dowell (2019), follow-up mentorship elements appear to be a necessary component of professional development arts integration training models. Buck and Snook (2020) concur, denoting the absence of a subject matter expert in post-training environments as highly influential on the success and/or failure of pedagogy introductions. Boice et al. (2021) further promote the influence of ongoing coaching based on the direct request of 90% of study participants interviewed post-experience. Arts integration practitioners and trainers would benefit by recognizing the inherent value of post-training in-service coaching and the incorporation of continuing mentorship into training models and processes.

### **Recommendations for Future Research**

More than 43% of elementary-aged students in United States public schools are currently labeled via traditional assessments as struggling (Americans for the Arts, 2020). Seventy-eight percent of school administrators and classroom teachers report improved academic scores and engagement resulting from arts integration practices among not only struggling students but all learners involved (The Kennedy Center, n.d.). The positive impact of arts-integrated instruction on student achievement, correspondingly, is sufficiently documented by well-respected

authorities in both the arts and academic sectors such as the Consortium of National Arts Education Associations, the Arts Education Partnership, the National Endowment for the Arts, and the National Education Association (The Kennedy Center, n.d.). The impact of arts integration within various settings utilizing mixed, qualitative, and quantitative frameworks is expressed in research (NEA, n.d.). Gaps in literature, however, confirm a dearth of study on the design and effectiveness of prerequisite arts integration teacher training (Atli et al., 2016; Velthuis et al., 2014).

The American Institutes for Research (AIR) is an internationally known research and evaluation organization focused on the behavioral and social sciences (American Institutes for Research, n.d.). With a mission to increase the effectiveness of education at all levels, AIR directed Ludwig et al. (2016) in a study of the Wolf Trap Foundation for the Performing Arts' Institute for Early Learning Through the Arts professional development training program. The program is established on the premise that arts integration, defined by the Foundation as the incorporation of dance, drama, and music into traditional classroom instruction, can assist students in mastering all subjects. Training sessions are made accessible to early childhood teachers in Fairfax County, Virginia (American Institutes for Research, n.d.). Ludwig et al.'s (2016) results revealed a significant positive impact on participating teachers while suggesting additional research exploring how educators can be adequately trained to change instructional practices (Ludwig et al., 2016). The need for up-to-date research examining the design of arts integration training, specifically, was cited in corroboration with the position of the National Endowment for the Arts (Ludwig et al., 2016).

Wan et al. (2018), also under direction of the American Institutes for Research, compared findings from 88 studies on the success of arts education training interventions with Pre-

Kindergarten through Grade 12 teachers in a report commissioned by The Wallace Foundation. Findings reported further investigation was needed using randomized, controlled trial study designs, along with the inclusion of participant tracking to allow for attrition. Attention to the provision of detailed analyses and report appendices was additionally proposed (Wan et al., 2018). Final recommendations stressed the need for more rigorous and current research providing stronger evidence for arts integration activities and corresponding teacher training (Wan et al., 2018).

In concurrence with Ludwig et al. (2016), Wan et al. (2018), and the present study's findings, supplementary research is recommended. With self-efficacy clearly increased post-training, further investigation into the impediments of learned strategy implementation would be beneficial. Additionally, research including a larger sample size and designed to incorporate the benefit of a control group would allow for increased validity. A qualitative or mixed methods study with formal interview of participants would be equally valuable for richness of data.

### **Conclusion**

Challenges faced by educators continue to increase whether pertaining to mandated adequate yearly progress, levels of student learning style diversity, or restrictions on manner of delivery as experienced during the international 2020-2021 COVID-19 pandemic. As these trials continue to evolve so must methods of teaching if student success is to be ensured (The Kennedy Center, n.d.).

The findings achieved in the present study would appear to endorse arts integration as a proven methodology capable of reaching all ages and abilities by producing gains through evidence-based best practices (The Kennedy Center, n.d.). Successful implementation of arts integration practices, however, is reliant upon adequate teacher training constructed to not only

inform but equip educators appropriately. Discordance remains between the number of teachers who participate in arts integration professional development and those utilizing associated instructional strategies (Americans for the Arts, 2020). Further research focusing upon the design, delivery, and duration of arts integration training processes will serve to address barriers in usage while substantiating and promoting assertions of the practice for the ultimate benefit of educators and students.

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## Appendix A

### Adult Consent Form



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### ADULT CONSENT FORM

#### **PROJECT TITLE:**

Getting StARTed: The Impact of Training on Teacher Self-Efficacy and Implementation of Arts Integration Strategies

#### **INVESTIGATORS:**

Principal Investigator – Dr. Sarah Yates, Southeastern University Faculty

Co-Investigator – Sharon Reid-Kane, Ruth Eckerd Hall and Southeastern University doctoral student

**PURPOSE:** The purpose of this quantitative study will be to measure the impact of training on perceptions of self-efficacy and implementation of arts integration strategies by teachers participating in The John F. Kennedy Center for the Performing Arts' professional learning programs.

**PROCEDURES:** Participation is 100% VOLUNTARY! Participants will be asked to complete a survey via hard-copy, email, or Zoom/phone delivery. For participants consenting in the absence of a written signature (oral agreement), completion of the research exercise will confirm consent. Survey and/or interview questions may be skipped or left unanswered, and participation may end per the participant's preference at any time during the duration of the study.

(\*) see attached survey

**RISKS OF PARTICIPATION:** N/A – The probability and magnitude of harm or discomfort anticipated in the proposed research is not greater, in and of itself, than those ordinarily encountered in daily life or during the performance of routine physical or psychological examinations or tests.

**BENEFITS OF PARTICIPATION:** 1. Recognition for participation by network leadership.

**CONFIDENTIALITY:** Co-Investigator has professional experience as an arts educator and integration specialist for 15+ years, is a current doctoral student, and is trained and certified through the Collaborative Institutional Training Initiative (CITI). Personal identifiers (name) will be coded and kept secured and locked within an executive office at Ruth Eckerd Hall. Study results will be available to the Principal Investigator, Co-Investigator, and SEU leadership as appropriate. Records will be secured for 5 yrs., then destroyed (shredded).

**RESEARCH STUDY PARTICIPATION:** By completion of this survey, I agree to participate and understand that I am not entitled to any compensation.

## Appendix B

### Survey



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#### **SURVEY:**

Assigned Number: \_\_\_\_\_

**Please respond regarding your mindset PRIOR to arts integration training at The John F. Kennedy Center for the Performing Arts' "Partners in Education" convening.**

#### **1. BEFORE TRAINING: I understood arts integration.**

1 = Strongly disagree

2 = Disagree

3 = Uncertain

4 = Agree

5 = Strongly agree

#### **2. BEFORE TRAINING: I was able to utilize ready-made arts integrated lessons in my classroom.**

1 = Strongly disagree

2 = Disagree

3 = Uncertain

4 = Agree

5 = Strongly agree

**3. BEFORE TRAINING: I was confident in my ability to develop arts integrated lessons in my content area.**

1 = Strongly disagree

2 = Disagree

3 = Uncertain

4 = Agree

5 = Strongly agree

**4. BEFORE TRAINING: I was confident in my ability to develop genre-specific (dance, drama, music, visual arts) arts integrated lessons in my content area.**

1 = Strongly disagree

2 = Disagree

3 = Uncertain

4 = Agree

5 = Strongly agree

**5. BEFORE TRAINING: I was confident in my ability to assist others in utilizing arts integration techniques.**

1 = Strongly disagree

2 = Disagree

3 = Uncertain

4 = Agree

5 = Strongly agree

**6. BEFORE TRAINING: I planned to implement learned arts integration strategies.**

1 = Strongly disagree

2 = Disagree

3 = Uncertain

4 = Agree

5 = Strongly agree

**7. BEFORE TRAINING: I am confident in my ability to implement the arts integration strategies of The John F. Kennedy Center for the Performing Arts' professional learning programs.**

1 = Strongly disagree

2 = Disagree

3 = Uncertain

4 = Agree

5 = Strongly agree

**8. BEFORE TRAINING: I have the following years of teaching experience...**

1 = 0-2 years

2 = 3-5 years

3 = 6-8 years

4 = 9-11 years

5 = 12 or more years

**Please respond regarding your mindset UPON COMPLETION of arts integration training at The John F. Kennedy Center for the Performing Arts' "Partners in Education" convening.**

**1. UPON COMPLETION OF TRAINING: I understand arts integration.**

1 = Strongly disagree

2 = Disagree

3 = Uncertain

4 = Agree

5 = Strongly agree

**2. UPON COMPLETION OF TRAINING: I am able to utilize ready-made arts integrated lessons in my classroom.**

1 = Strongly disagree

2 = Disagree

3 = Uncertain

4 = Agree

5 = Strongly agree

**3. UPON COMPLETION OF TRAINING: I am confident in my ability to develop arts integrated lessons in my content area.**

1 = Strongly disagree

2 = Disagree

3 = Uncertain

4 = Agree

5 = Strongly agree

**4. UPON COMPLETION OF TRAINING: I am confident in my ability to develop genre-specific (dance, drama, music, visual arts) arts integrated lessons in my content area.**

1 = Strongly disagree

2 = Disagree

3 = Uncertain

4 = Agree

5 = Strongly agree

**5. UPON COMPLETION OF TRAINING: I am confident in my ability to assist others in utilizing arts integration techniques.**

1 = Strongly disagree

2 = Disagree

3 = Uncertain

4 = Agree

5 = Strongly agree

**6. UPON COMPLETION OF TRAINING: I plan to implement learned arts integration strategies.**

1 = Strongly disagree

2 = Disagree

3 = Uncertain

4 = Agree

5 = Strongly agree

**7. UPON COMPLETION OF TRAINING: I am confident in my ability to implement the arts integration strategies of The John F. Kennedy Center for the Performing Arts' professional learning programs.**

1 = Strongly disagree

2 = Disagree

3 = Uncertain

4 = Agree

5 = Strongly agree

**What types of continuing education and resources would you like to have available?**

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