INSTRUCTOR PERCEPTIONS OF EXTRACURRICULAR AND CO-CURRICULAR ACTIVITIES ON DEVELOPING 21ST CENTURY SOFT SKILLS IN STUDENTS

BRAD YODER

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The undersigned, approved by the Department Chair of Graduate Studies in Education, have examined a dissertation entitled:

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Presented by Brad Yoder a candidate for the degree of Doctor of Education and hereby certify that in their opinion it is worthy of acceptance.

Dr. Michael Arnold, Advisor/Chair
Professor of Graduate Studies, Southwest Baptist University

Dr. Pam Hedgpeth, Committee Member
Southwest Baptist University

Dr. Jim Kern, Committee Member

INSTRUCTOR PERCEPTIONS OF EXTRACURRICULAR AND CO-CURRICULAR ACTIVITIES ON DEVELOPING 21ST CENTURY SOFT SKILLS IN STUDENTS

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By

Brad Yoder, B.S., M.S., Ed.Spec.

Dr. Michael Arnold, Dissertation Advisor

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ABSTRACT

Extracurricular and co-curricular activities have long been recognized as valuable areas of learning beyond the traditional classroom setting for high school students. Traditional areas of benefit such as academic achievement, attendance, and character development have been well-researched. However, the soft skills needed by students for success in the 21st century workforce are becoming increasingly coveted by employers and colleges alike. Through a state-wide survey, this study examined the perception of Missouri coaches and directors of both extracurricular and co-curricular activities on the intentional instruction of soft skills to high school students during activities. Specifically, this study analyzed the instruction of the 4Cs – communication, collaboration, critical thinking, and creativity – as defined by The Partnership for 21st Century Learning (Battelle for Kids) during co-curricular activities of instrumental music, vocal music, and speech and drama, and extracurricular activities of baseball, basketball, football, soccer, softball, and volleyball. Responses from coaches and directors indicated greater intention from co-curricular directors in the instruction of each of the soft skills. Furthermore, experienced coaches and directors and head coaches and directors consistently perceived to intentionally instruct soft skills more than new and assistant coaches and directors. Results of this study add to existing research showing the benefits of extracurricular and co-curricular activities in high schools.

CHAPTER ONE

INTRODUCTION

Students today are living in an educational world with increased technology and personalized learning opportunities. With the increase of technology, students are spending less time in social activities and more time engaged with technology. This prevalence of technology can potentially isolate students and decrease the emotional and social growth that is needed for the 21st century work environment (Dean, 2017; Schutte & Loi, 2014).

In addition, contemporary high school students are encouraged to create career paths as early as middle school and focus educationally on the essential skills that will allow them to achieve specific educational goals (Henriksen, Mishra, & Fisser, 2016). Thus, schools are becoming increasingly adept at developing curriculum and instruction that is focused and efficient at educating students toward specific academic and career goals. In addition, school leaders are constantly feeling the pressures from colleges and future employers to produce graduates that are college and career ready (Levin-Goldberg, 2012). Compounding these pressures are the constant demands from students and parents to develop students that are technologically literate, skillful, and adept (Filsinger, 2012).

Yet, as secondary schools continue to educate for the future, both employers and colleges are beginning to notice that common interpersonal skills are not as common as they once were amongst graduates (Dean, 2017; Kivunja, 2015). While students have grown in technical skills, they have not grown equally in interpersonal skills. Thus, students, parents, school leaders, and communities look for the appropriate balance when creating educational opportunities for students to meet a lifetime of success (Chute, 2012;

Robles, 2012). As a result, 21st Century Learning has become a popular topic between high schools, colleges, and employers. Whereas colleges and employers have their needs and demands, high schools struggle to produce the results to meet all needs – including the needs of their students (Bassiouni & Hackley, 2014; Dean, 2017; Schutte & Loi, 2014).

However, schools are more than walls and computer screens. Schools across the country spend extensive resources to ensure that students have opportunities in areas outside of the daily curriculum. Students are encouraged to take part in various activities both during and outside of the school day to help them be more adaptable to the world they will discover after graduation (Knifesend & Graham, 2012). These activities are designed to teach many of the intangibles such as work ethic, character development, commitment, loyalty, and other skills that are valuable to the growth of the individual as well as society (Covay & Carbonaro, 2010; Moore, 2016). Consequently, ample research around the impacts of sports and the arts exists; especially when in correlation with educationally important topics such as grades, attendance, and character development (Moore, 2016). As a result, extracurricular and co-curricular activities are places where students learn in alternative educational environments. Furthermore, team sports such as basketball, baseball, and football and co-curricular activities allow students to develop skills for the 21st century work environment (Hancock, Hyjer Dyk, & Jones, 2012; Hayes, 2014). Yet, because of the relatively new demands of the 21st century work environment, little research exists as to the impact of extracurricular and co-curricular activities on the needed 21st century skills – especially the "soft" skills that struggle to be intentionally taught within already crowded school curriculums. These soft skills involve

skills that are beyond the basic academic content taught in most curriculums and include the emotional and social competencies needed to navigate future complex work environments and life in general. For the purposes of this study, these skills include critical thinking, creativity and innovation, collaboration, and communication (Scott, 2015).

Theoretical Framework

Preparing students for the future has always been an essential task of educators and society in general. Educators have long valued teaching more than just basic curriculum in order prepare well-rounded students for a lifetime of success. William Glasser in the 1960's recognized that psychological problems are truly relationship problems and that all people are creative if they are allowed to use their own talents (Glasser, 1998; Goguen, 2017).

By the 1990's, emotional intelligence, established by the work of Daniel Goleman, began to frame other ingredients beyond IQ that enhance personal growth and lead to a life of success within an increasingly crowded and competitive society (1997). Goleman expressed that emotional intelligence can help individuals be more resilient, increase one's ability to accurately recognize emotions both within self and others, and improve relationships in order to achieve desired, positive outcomes. Furthermore, Goleman identified four key components to emotional intelligence as follows: self-awareness, the ability to recognize personal emotions; self-management, the ability to control disruptive impulses; empathy, the ability to understand the emotions of others; and relationship skills, the ability to build rapport and have effective relationships (Goleman, 2015). Consequently, those that demonstrate emotional intelligence behaviors

are integral in creating teams that function well together in order to reach the highest degrees of performance (Goleman, 2015; Goren, 2018). Emotional intelligence as a concept was quickly embraced by both business and education. Furthermore, educators developed the idea of "social and emotional learning" (SEL) and several states made SEL a curricular requirement for students establishing that students need emotional learning along with math and language (Mocanu & Sterian, 2013; Weissberg & Cascarino, 2013). Consequently, emotional intelligence skills are considered the base components of soft skill development (NSSA, 2015).

Out of these roots, The Partnership for 21st Century Learning (P21) (Battelle for Kids) began in 2002 as a collaborative effort between school leaders, the business community, and other policy makers. Initially co-founders Ken Kay and Diny Golder-Dardis, worked with companies such as Apple Computers, Inc., AOL Time Warner, Microsoft Corporation, U.S. Department of Education, National Education Association and other key stakeholders to develop an understanding of the needs of future students and employers. As a result, P21 created the leading framework that identifies the key skills that all students need to reach a lifetime of success in an ever-changing world of technology and globalization (Scott, 2015).

The framework consists of four main elements: Key Subjects and Content Knowledge; Learning and Innovation Skills; Information Media and Technology Skills; and Life and Career Skills. Consequently, the P21 framework incorporates key soft skills that will be needed for success in the 21st century. Within the Learning and Innovation skills lie the 4C's – creativity and innovation, collaboration, communication, and critical thinking. Furthermore, the P21 framework is built around the need for the following key

life skills – flexibility and adaptability, initiative and self-direction, social and cross-cultural skills, productivity and accountability, and leadership and responsibility. As a result, 21st century soft skills are specifically identified and defined in the P21 framework areas of the 4C's and life skills (Scott, 2015).

The review of literature for soft skills will be based around the theoretical framework from The Partnership for 21st Century Learning (Battelle for Kids). Furthermore, with P21 gaining its origins from the work of Glasser as well as Goleman's theory of emotional intelligence, the review of literature will be specifically involved around the "4C's" element of the framework – critical thinking, creativity, collaboration, and communication. Thus, the researcher will evaluate the impact on 21st century soft skills through the lens of the P21 framework and specifically the 4C's and life skills elements.

Problem Statement

The modern student must develop skills for current, as well as future, technology and must be prepared to meet the needs of a competitive, global market of tomorrow (Campbell Jr. & Kresyman, 2015; Connell, Gough, McDonnell, & Burgess, 2014). This emphasis on science, technology, engineering and mathematics can potentially isolate students and hamper the emotional and social growth that is needed for the 21st century work environment (Dean, 2017; Schutte & Loi, 2014). Consequently, today's educational leaders are forced to make conscious efforts to develop soft skills in students. Since school leaders often struggle to incorporate the intentional teaching of these skills in curriculum, students can potentially graduate with the knowledge they need to succeed, but without the social and emotional skills needed to ensure a lifetime of success.

Extracurricular and co-curricular activities are often touted as places where students can learn outside the four walls of the classroom or away from a computer screen. Furthermore, extracurricular team activities like basketball, baseball, football, soccer, softball, and volleyball and co-curricular activities such as band, choir, and drama require students to utilize the social and emotional skills sought in the 21st century work environment (Hancock et al., 2012; Hayes, 2014). However, research is yet to analyze how group activities intentionally teach these soft skills to students. Furthermore, researchers are yet to investigate if extracurricular or co-curricular group activities are more intentional in attempting to develop students with better soft skills. Therefore, the purpose of this study is to determine the impact of extracurricular and co-curricular group activities on developing 21st century soft skills in high school students.

Rationale for Study

Developing 21st century learning skills within students is important to education because they have the duty to prepare all students to meet their maximum potential for a lifetime of success. Furthermore, higher education institutes require that graduates enter college with the skills to not only succeed academically but also socially. Also, colleges want students with the intangibles such as work ethic, determination, and other essential life skills so students will have the skills to graduate. Likewise, students entering the workforce, either directly from high school or from colleges and universities, will need to be prepared to be successful (Connell et al., 2014). At one time, GPA and work experience were two of the most important assets to future employers; however, these two areas have become some of the least important to recruiters as the jobs are in need of people with soft skills (Jones, Baldi, Phillips, & Waikar, 2016). Skills such as

collaboration, communication, creativity, and critical thinking skills are increasingly essential to workplace success regardless of the specific field a student enters (Scott, 2015).

High schools have already begun to prepare students for success in college and careers through increased technology and personalized learning opportunities. However, this shift in emphasis to student technology use may have unintended consequences on student development of certain social skills such as interpersonal communication, collaborative teamwork, situational awareness, and other skills that were once tacitly gained by students in more traditional classrooms. As a result of the demands from colleges and career professionals, high schools are attempting to find the means to intentionally develop these soft skills in their students (Kivunja, 2015; Scott, 2015). This study will investigate if coaches and directors of extracurricular and co-curricular activities, positions which are already prevalent in most of the nation's high schools, are intentionally teaching these skills. If so, school leaders and counselors can continue to place importance and support for these areas. If not, school leaders and coaches may choose to utilize these existing activities to strategically develop these programs for intentionally developing these skills within students. Thus, the purpose of this quantitative study was to compare the perception of instructors of extracurricular activities and instructors of co-curricular activities to determine the perceptual impact of extracurricular and co-curricular activities on developing 21st century soft skills.

Research Questions and Hypothesis

This study focused on specific group extracurricular activities and group co-curricular activities in the high school setting. Research focused around the following

primary research questions with additional sub questions used to gain more detailed information:

Research Question 1: What is the difference in perceptions towards intentional instruction of the 4C's of 21st century soft skills between instructors of extracurricular activities and instructors of co-curricular activities?

a. What is the difference in perceptions towards intentional instruction of the 21st century soft skill of **communication** between instructors of extracurricular activities and instructors of co-curricular activities?
b. What is the difference in perceptions towards intentional instruction of the 21st century soft skill of **collaboration** between instructors of extracurricular activities and instructors of co-curricular activities?
c. What is the difference in perception towards intentional instruction of the 21st century soft skill of **creativity** between instructors of extracurricular activities and instructors of co-curricular activities?
d. What is the difference in perception towards intentional instruction of the 21st century soft skill of **critical thinking** between instructors of extracurricular activities and instructors of co-curricular activities?

Research Question 2: What are the differences in perception towards intentional instruction of the 4 C's of 21st Century soft skills between female and male instructors of activities?

a. What is the difference in perceptions towards intentional instruction of the 21st century soft skill of **communication** between female and male instructors of activities?

b. What is the difference in perceptions towards intentional instruction of the 21st century soft skill of **collaboration** between female and male instructors of activities?
c. What is the difference in perception towards intentional instruction of the 21st century soft skill of **creativity** between female and male instructors of activities?
d. What is the difference in perception towards intentional instruction of the 21st century soft skill of **critical thinking** between female and male instructors of activities?

Research Question 3: What are the differences in perception towards intentional instruction of the 4C's of 21st Century soft skills between instructors with less than five years of experience and those with five or more years of experience?

a. What is the difference in perceptions towards intentional instruction of the 21st century soft skill of **communication** between instructors with less than five years of experience and those with five or more years of experience?
b. What is the difference in perceptions towards intentional instruction of the 21st century soft skill of **collaboration** between instructors with less than five years of experience and those with five or more years of experience?
c. What is the difference in perception towards intentional instruction of the 21st century soft skill of **creativity** between instructors with less than five years of experience and those with five or more years of experience?

d. What is the difference in perception towards intentional instruction of the 21st century soft skill of **critical thinking** between instructors with less than five years of experience and those with five or more years of experience?

Research Question 4: What are the differences in perception towards intentional instruction of the 4C's of 21st century soft skills between head coaches/directors and assistant coaches/directors of activities?

a. What is the difference in perceptions towards intentional instruction of the 21st century soft skill of **communication** between head coaches/directors and assistant coaches/directors of activities?
b. What is the difference in perceptions towards intentional instruction of the 21st century soft skill of **collaboration** between head coaches/directors and assistant coaches/directors of activities?
c. What is the difference in perception towards intentional instruction of the 21st century soft skill of **creativity** between head coaches/directors and assistant coaches/directors of activities?
d. What is the difference in perception towards intentional instruction of the 21st century soft skill of **critical thinking** between head coaches/directors and assistant coaches/directors of activities?

The researcher makes the following hypotheses:

$H1_0$: There is no statistically significant difference in perceptions towards intentional instruction of the 4C's of 21st century soft skills between instructors of extracurricular activities and instructors of co-curricular activities.

H1a$_0$: There is no statistically significant difference in perceptions towards intentional instruction of the 21st century soft skill of **communication** between instructors of extracurricular activities and instructors of co-curricular activities.

H1b$_0$: There is no statistically significant difference in perceptions towards intentional instruction of the 21st century soft skill of **collaboration** between instructors of extracurricular activities and instructors of co-curricular activities.

H1c$_0$: There is no statistically significant difference in perception towards intentional instruction of the 21st century soft skill of **creativity** between instructors of extracurricular activities and instructors of co-curricular activities.

H1d$_0$: There is no statistically significant difference in perception towards intentional instruction of the 21st century soft skill of **critical thinking** between instructors of extracurricular activities and instructors of co-curricular activities.

H2$_0$: There is no statistically significant differences in perception towards intentional instruction of the 4C's of 21st century soft skills between female and male instructors of activities.

H2a$_0$: There is no statistically significant difference in perceptions towards intentional instruction of the 21st century soft skill of **communication** between female and male instructors of activities.

H2b$_0$: There is no statistically significant difference in perceptions towards intentional instruction of the 21st century soft skill of **collaboration** between female and male instructors of activities.

H2c₀: There is no statistically significant difference in perception towards intentional instruction of the 21st century soft skill of **creativity** between female and male instructors of activities.

H2d₀: There is no statistically significant difference in perception towards intentional instruction of the 21st century soft skill of **critical thinking** between female and male instructors of activities.

H3₀: There are no statistically significant differences in perception towards intentional instruction of the 4C's of 21st century soft skills between instructors with less than five years of experience and those with five or more years of experience.

H3a₀: There is no statistically significant difference in perceptions towards intentional instruction of the 21st century soft skill of **communication** between instructors with less than five years of experience and those with five or more years of experience.

H3b₀: There is no statistically significant difference in perceptions towards intentional instruction of the 21st century soft skill of **collaboration** between instructors with less than five years of experience and those with five or more years of experience.

H3c₀: There is no statistically significant difference in perception towards intentional instruction of the 21st century soft skill of **creativity** between instructors with less than five years of experience and those with five or more years of experience.

H3d₀: There is no statistically significant difference in perception towards intentional instruction of the 21st century soft skill of **critical thinking** between

instructors with less than five years of experience and those with five or more years of experience.

$H4_0$: There are no statistically significant differences in perception towards intentional instruction of the 4C's of 21st century soft skills between head coaches/directors and assistant coaches/directors of activities.

$H4a_0$: There is no statistically significant difference in perceptions towards intentional instruction of the 21st century soft skill of **communication** between head coaches/directors and assistant coaches/directors of activities.

$H4b_0$: There is no statistically significant difference in perceptions towards intentional instruction of the 21st century soft skill of **collaboration** between head coaches/directors and assistant coaches/directors of activities.

$H4c_0$: There is no statistically significant difference in perception towards intentional instruction of the 21st century soft skill of **creativity** between head coaches/directors and assistant coaches/directors of activities.

$H4d_0$: There is no statistically significant difference in perception towards intentional instruction of the 21st century soft skill of **critical thinking** between head coaches/directors and assistant coaches/directors of activities.

Limitations, Delimitations and Assumptions

The following limitations, delimitations and assumptions of this study have been identified and are listed in this section:

Limitations:

1. The number of survey responses completed compared to the amount of surveys requested.

2. The number of extracurricular activities in place at the individual sites where surveys are collected.
3. The number of co-curricular activities in place at the individual sites where surveys are collected.
4. The coaching and teaching styles of instructors at the individual sites where surveys are collected.

Delimitations:

1. Only active coaches and directors from high schools that were members of Missouri State High School Activities Association (MSHSAA) were used in this study.
2. Data between the school years of 2017-2018 and 2018-2019 were used.
3. Only skills from the P21 theoretical framework and specifically the 4C's were used in this study.

Assumptions:

1. It is assumed that those participating in this survey were honest and thorough in their answers.
2. It is assumed that all those participating in the survey we currently instructing as assigned through MSHSAA.
3. It is assumed that this study of rural and suburban public schools is generalizable to the entire state and similar regions throughout the country.

Design Control

A quantitative design method was used to collect data. In this study, a survey was used to address the research question of whether extracurricular and co-curricular

activities impact the development of 21st century soft skills in students. The researcher surveyed high school coaches and directors throughout public schools in the state of Missouri. The questions were evaluated on a Likert-scale by instructors – coaches and directors – to show their answers in relationship to their perceptions of how activities impacted the development of soft skills within students.

Also, data from the MSHSAA were collected and used to ensure that schools offered both extracurricular and co-curricular activities in an attempt to gather information from like practitioners. Furthermore, overall data from instructors of these high schools in Missouri were used to see if instructors of both extracurricular and co-curricular activities intentionally attempted to impact students' soft skill development.

Definition of Key Terms

In order to have a better understanding of this study, key terms are defined as follows:

21st Century Learning. The skills, knowledge and expertise students must know and master to be successful in both work and life. It is a mix of content knowledge, specific skills, and literacy. For the purpose to this study, the definition correlates with the research done by P21 (Scott, 2015).

Extracurricular Activities. Group interscholastic sports that are funded by schools in which students participate at their own will. For the purposes of this study, these activities include baseball, basketball, football, soccer, softball, and volleyball. In addition, these activities must be school sanctioned through the MSHSAA (MSHSAA Official Handbook, 2018-19).

Co-Curricular Activities. The group interscholastic activities that are funded by the school in which student participate both at will and may take for school credit during the school day (MSHSAA Official Handbook, 2018-19). For the purposes of this study, these activities are instrumental music, speech and debate, and vocal music.

Missouri State High School Activities Association (MSHSAA). The governing body for high school activities throughout the state of Missouri. Approximately 580 high schools are members of MSHSAA. The association governs by-laws created by the membership which regulates student eligibility and activity standards (MSHSAA Official Handbook, 2018-19).

Soft Skills. Skills that are beyond the basic academic content taught in most curriculums and include the emotional and social competencies needed to navigate future complex work environments and life in general. For the purposes of this study, these skills include critical thinking, creativity and innovation, collaboration, and communication. Once again, for the purpose to this study, the definition correlates with the research done by P21 (Scott, 2015).

Summary

This chapter contained an overview of the need for 21st century soft skills to be developed within high school students as society turns more toward personalized learning and dependence on technology. Furthermore, the chapter explored the idea that existing extracurricular and co-curricular group activities may have the capacity to build these skills within high school students. However, little research has been done in this area to determine if these activities have an impact on these skills. In addition, the theoretical framework provided by The Partnership for 21st Century Learning (Battelle for Kids)

was explained and the key components of the 4C's and life skills were identified as the key indicators for soft skills. This study intended to determine the impact of extracurricular and co-curricular activities on developing 21st century soft skills in high school students.

Chapter Two of this paper will review current literature surrounding the impact of activities on 21st century soft skills. This literature review will be organized thematically and initially explores the body of literature highlighting the impacts on education, extracurricular and co-curricular activities. Next, current research regarding 21st century soft skills in relation to P21's 4C's and life skills elements will be presented. Chapter Three will include research methods for identifying high performing school districts and the techniques used to determine the impact that the extracurricular and co-curricular activities have on developing soft skills within participating students. The results will be analyzed to conclude the accuracy of the research hypothesis in Chapter Four. Additionally, research findings will be fully analyzed, discussed, and presented. Chapter Five will conclude with the summary and implications of the research as well as present recommendations for further research related to this topic.

CHAPTER TWO

REVIEW OF LITERATURE

Introduction

The following review is an investigation of the current literature surrounding the topic of extracurricular and co-curricular activities and 21st century soft skills. The review will initially investigate how both extracurricular and co-curricular activities affect high school students. The majority of research to this point has been conducted around how extracurricular and co-curricular activities have impacted student grades and academics, how extracurricular and co-curricular activities have influenced student attendance, and how extracurricular and co-curricular activities influences personal growth and character development. Next, the review will include current literature surrounding 21st century learning skills and specifically the soft skills needed for students to be successful in the future. The review of literature for soft skills will be based around the theoretical framework from The Partnership for 21st Century Learning (Battelle for Kids) (P21). Furthermore, with P21 gaining its origins from the work of Glasser as well as Goleman's theory of emotional intelligence, the review of literature will be specifically involved around the 4C's element of the framework – critical thinking, creativity, collaboration, and communication. As a result of this review of literature, in conjunction with the subsequent research project and data, the study will seek to determine if extracurricular and co-curricular activities have an impact on developing 21st century soft skills.

The Effects of Activities on Academics

Modern research on academic impact from extracurricular activities began with a watershed longitudinal study done by the United States Department of Education's High

School and Beyond. The initial baseline surveys were issued in 1980 with additional surveys in 1982, 1984, 1986, and 1992. Researcher Herbert Marsh (1992), used the survey results and concluded that extracurricular activities had a positive impact on academic outcomes such as self-concept, time spent on homework, being on an academic track, enrollment in advanced classes, and grade point average. As a result of this study, it was found that participation in sports was beneficial across all outcomes. Marsh (1992) continued that all extracurricular activities were associated with positive outcomes both socioemotional and academically. However, extracurricular and co-curricular activities have evolved over the past 25 years; still, new research points to similar findings (Bradley, Keane, & Crawford, 2013). Filsinger (2012) examined the impacts of extracurricular involvement at the high school level in relationship to academic achievement. Nearly 8,000 students were studied and the researcher found that varsity athletic participation had a significant effect on performance on standardized tests. Likewise, Dearman (2017) found that there is a positive correlation between time spent in extracurricular participation and GPA and ACT scores whether the activities were competitive or non-competitive extracurricular activities.

Schools are investigating decreasing funds for extracurricular and co-curricular activities in schools. However, researchers have found that there is a positive relationship between student academic achievement and participation in extracurricular activities. Students that participate in extracurricular activities have slightly higher grade point averages, SAT scores, and success on other standardized tests (Craft, 2012). Furthermore, a direct correlation exists between the percentage of participation in organized activities and academic self-concept. Consequently, the developmental

benefits of extracurricular involvement are related to higher grades, motivation, and completion rates (Abruzzo, K., Lenis, C., Romero, Y., Maser, K., & Morote, E. S., 2016; Fredricks, 2012). Fredricks (2012) found 80% of children and youth participated in extracurricular activities and that as the number of hours increased in extracurricular activity the more students' sense of well-being increased; likewise, the academic performance increased compared to those students that did not participate in organized extracurricular activities. However, Fredricks (2012) also noted at high levels of participation, ranging between 5-7 activities or more than 14 hours, a student's academic well-being actually declined. Furthermore, a study explored examination results from secondary school children and their relation to participation in school extracurricular activities (Bradley et al., 2013). Researchers showed a significant academic benefit from students participating in a school sports team compared to students not participating in a competitive sports team (Abruzzo et al., 2016; Bradley et al., 2013).

Schools struggle to fund extracurricular programming but cutting programming can be a misguided policy decision. Instead of cutting programming, schools should encourage greater student involvement in extracurricular activities. In fact, extracurricular and co-curricular programing actually helped schools meet No Child Left Behind requirements and participation in extracurricular activities had both short- and long-term benefits (Fredricks, 2012; Gilbert, 2016). Schellenburg and Mankarious (2012) evaluated musically trained versus non-musically trained children for IQ and Test of Emotional Comprehension and discovered that both scores were significantly higher in musically trained students. Likewise, activity involvement can improve students' ability to follow instructions and stay on task which will in turn result in higher academic

achievement. As with any skill, students benefit academically from being able to develop these non-cognitive skills. Thus, schools and communities should look to create and enhance high quality extracurricular programs for students (Covay & Carbonaro, 2010; Eisman, Stoddard, Bauermeister, Caldwell, & Zimmerman, 2017; Moore, 2016).

The Effects of Activities on Attendance and Engagement

Knifesend and Graham (2012) used a longitudinal study to examine the relationship between extracurricular and co-curricular activities and the effects they have on both academics and a student well-being. Students from grade 8 through grade 12 were selected from diverse backgrounds. Students answered questionnaires and were asked additional questions by the researchers; the results revealed that adolescents that were involved in at least two activities had the greatest sense of belonging at school. This optimal number of activities was also suggested as a key factor to prevent students from dropping out of school early. According to Knifesend and Graham (2012), maintaining an optimal number of activities for participants allows students to create positive relationships with others, induce a sense of belonging in school, and ultimately keep students at and engaged with their educational environment.

Although participation in extracurricular activities are but one aspect of school and the school atmosphere, these organized activities can provide a wide range of learning and give increased interaction between adults and students (Covay & Carbonaro, 2010; Metsapelto & Pulkkinen, 2014). These interactions can be leveraged into overall well-being and learning outcomes of adolescents. It is important to note that early involvement in extracurricular activities is important because many activities such as sports and music require advanced skill that needs to be developed at a relatively slow

pace. Thus, middle school and even earlier is an important time to introduce and engage students to these activities and to begin the transfer of learning (Fredricks & Simpkins, 2013; Metsapelto & Pulkkinen, 2014).

The Effects of Activities on Personal Growth and Character Development

Covey and Carbonaro (2010) used data from a longitudinal study to look at participation in extracurricular and co-curricular activities for students in relationship to socioeconomic status. Data were taken nation-wide from a sample of over 21,000 students from elementary age and beyond. The results of the study discovered participation in extracurricular activities helped improve many non-cognitive skills including working well in groups, task persistence, independence, and dealing with authority figures. Extracurricular and co-curricular activities were specifically noted as practices where skills such as cooperation and teamwork could be practiced and developed. Music and dance, along with sports were activities that were found to have the most impact on non-cognitive skills. This study suggested that involvement in extracurricular and co-curricular activities gave students the avenues to practice these important skills and facilitate learning that can be used in the classroom. In general, youth participation in activities – including performing arts – can predict several positive outcomes including improved grades, increased self-esteem, and leadership qualities (Barber, Abbott, Bloomfield Neira, & Eccles, 2014; McCabe, Modecki, & Barber, 2016).

Additionally, research conducted by Hayes (2014) stated students themselves believe their involvement in extracurricular activities not only enhance skills but also are relatable to other areas of their lives including home, work, and school. Hayes (2014) used student surveys from three categories – academic, psychological, and behavioral –

to determine if extracurricular activities enhanced trends for these skills. Although research from 682 surveys was somewhat narrow in scope, data showed that extracurricular and co-curricular activities enhanced students in the following skills: communication, leadership, teamwork, interpersonal, compliance with rules, goal setting, focus of control, problem solving, time management, self-confidence, and self-concept. Participants in the survey also agreed these areas were not only useful in activities but also useful in their lives outside of school (Hayes, 2014).

Leadership is another area of personal growth and character development where researchers have evaluated the impact of extracurricular activities. Researchers Hancock et al. (2012) evaluated student involvement in extracurricular and co-curricular activities to assess if supportive adults in these areas had an effect on developing leadership skills in adolescents. Students grades 9 through grade 12 were included in the study and were randomly selected to voluntarily take a 74 question survey. The researchers found students who were engaged in extracurricular activities had increased opportunities to develop leadership skills because of constant, positive interaction from supportive adults. Thus, youth benefited from more involvement in extracurricular activities with both male and female students having a positive perception of their leadership skills. Interestingly, females were found to have a slightly higher perception of their leadership skill development through extracurricular activities. Hancock et al. (2012) suggest that educational leaders should incorporate more extracurricular activity involvement to improve student leadership skills. Furthermore, involvement in activities is one unique way to protect against risky behaviors such as substance abuse and binge drinking

(McCabe et al., 2016) and participation may be especially beneficial for adolescents of urban areas compared to those living in higher resource areas (Eisman et al., 2017).

Learning environments are essential in creating effective extracurricular opportunities for high school students and are most effective when coaches, parents, and school administrators work together. Personal growth and character development are most effective for students when supportive relationships are developed from coaches that communicate well, offer guidance, and are caring. Secondly, youth extracurricular environments are effective when they are intentionally structured to not only acquire physical opportunities, but also acquire logic and social skills. Lastly, personal development of individual students is compounded when integrated with support from family, school, and community (Camire, 2014; Martin, 2015). As a result, students involved in extracurricular and co-curricular activities are likely to not only do well in school, but also do well in life and achieve positive lifetime outcomes (McCabe et al., 2016; Miyamoto, Huerta, & Kubacka, 2015).

As seen in the previous section, research demonstrates that real, long established benefits exist for students that participate in extracurricular and co-curricular activities. Academics, attendance, student engagement, and character development are all positively affected by students being involved in extracurricular and co-curricular activities (Marsh, 1992). However, the 21st century requires more preparation for students to be prepared for any ever-changing workforce and specifically in areas beyond the traditional, core benefits associated with basic classroom education. Thus, the next section investigates how extracurricular and co-curricular activity impacts 21st century skill development in high school aged students.

21st Century Soft Skill Development

Interpersonal relationships are constantly being influenced by the use of technology and mobile devices for communication. Furthermore, electronic communication has become the preferred mode and has replaced traditional interactions. Thus, individual communication and interpersonal relationship skills are becoming a major issue facing the workforce today (Bassiouni & Hackley, 2014; Connell et al., 2014). Consequently, Chambers (2013) indicated that although individuals are often promoted based on their technical skills, these skills are only part of the requirement for supervisory level positions. To compound the problem, college graduates feel confident in their communication abilities, but employers report that their skills are falling short in the workplace (Stewart, Wall, & Marciniec, 2016). In a survey of senior executives in the United States, 44% of respondents replied that soft skills such as communication, critical thinking, creativity, and collaboration are lacking by current graduates (Griffin, Cangelosi, McMurtrey, & Lyons, 2017). Furthermore, Gore found employers are looking for people who are globally literate and strong communicators in order to do business in the modern world (2013). Thus, addressing these deficiencies will give students a competitive advantage in the job market (Griffin et al., 2017). Today, soft skills are a requirement for employees to be effective and to have an opportunity to eventually supervise and lead. Whereas researchers have found that employees themselves feel that soft skills are simply inherent to individuals and not teachable, the education curriculum at many colleges and universities are purposely addressing soft skills in order to better prepare their graduates. Thus, this change in curriculum to teach soft skills is confirmation of the belief that soft skill are teachable skills in individuals. Given this

recognition of soft skills, it is likely that training and education will continue to be an active area in both education and the workplace in the future (Kyllonen, 2013; Marques, 2013). Interestingly, many universities are using research finding on soft skills to promote the value of attending a brick and mortar college setting as opposed to using online institutions. Brick and mortar institutes claim their ability to improve soft skill development completely outshines their online competitors (Jones et al., 2016).

Communication Skills

Ironically, "a quirk of the communication revolution is that the proliferation of quick ways to communicate has potentially made us worse communicators" (Jones et al., 2016, p. 422). P21 framework aligns communication skills with theories that emphasize the effective use of oral, written, and nonverbal skills for various purposes. Overall, the P21 model is intended to improve the communication skills of K-12 students for the needs of the 21st century workforce (Gilbert, 2016; Stewart et al., 2016). Thus a shift is underway for schools to teach more practical communication skills outside of conventional classroom settings (Dilley, Fishlock, & Plucker, 2015).

In research conducted by Lim, Lee, Yap, and Ling (2016), researchers found that employees are not possessing the employability and personal skills such as interpersonal communication for employability. Furthermore, the researchers discovered that employers value communication skills, along with analytical and time management skills, more than any others. Even in the information technology industry, effective teamwork and communication skills are cited as major needs for individuals. Furthermore, training in interpersonal communication skills is essential to ensure that employees possess these skills, to be valuable in the 21st century workforce (Chute, 2012).

The skill to communicate is an integral talent for all workers to possess and language is the root of all communication. Furthermore, management in today's workforce spends the majority time communicating and understanding others emotions. Thus, all forms of communication -- interpersonal, verbal, written, listening -- are key for the 21st century employee to be an effective communicator. Thus, success of a workforce is partially dependent on the interpersonal communication skills of the employees. As a result, employers not only look for employees with strong interpersonal skills but also avoid employees that do not maintain such skills (Campbell Jr. & Kresyman, 2015; Kahlon, 2013; Pattillo, 2013).

Likewise, relationships determine the quality of an individual's life and meaningful relationships are only possible through communication. Communication skills include both verbal and non-verbal messages, listening, and response (Mizrak, Gurbuz, Belli, Kurudirek, & Bayraktaroglu, 2017). Accordingly, studies show that most communication skills are learnable and teachable (Charchenko, 2013; Jones, Rush, Elmore, & White, 2014; Mizrak et al., 2017). Thus, communication is considered a crucial factor in allowing individuals the ability to adapt to their environments because satisfaction within a social environment is mostly and directly related to one's communication skills (Devito, 2012; Ozturk, Ozbey, & Camliyer, 2015).

In addition, communication skills are amplified in the team setting. In a team setting, where two or more individuals work interdependently and act together in order to reach predetermined, common goals, communication skills help to build a synergy that improves overall effectiveness. Businesses and organizations value employees that are open to communication, can express themselves, are able to find solutions to problems,

and can work as a team. Employees that can effectively communicate within a team setting are more valuable than individuals that are independent, isolated, and act alone (Mizrak et al., 2017; Stewart et al., 2016).

Researchers have found that communication skills of students participating in sports related activities are higher than students who did not. Specific talents such as communication skills are learned in an organized sports environment and can be used in other life-long needs (Jones & Lavelle, 2009). Likewise, Lindsey (2012) states that communication skills are used and enhanced by students and evident in almost 80% of university students participating in sports facilities and other activity programs within the campus. Researchers Yuksel and Tepekoylu (2010) found that communication skills of high school students who are in sports on school teams as an extracurricular activity are higher than ones that did not compete. Consequently, sports related games and specifically team sports will essentially improve communication skills by having students thinking about how to communicate based on self-discovery, personal characteristics, varied aspects related to the activity, practice and game situations, finding joint solutions to problematic situations, and making use of various activities to reach a common goal (Ozturk et al., 2015).

Interestingly, nonverbal communication is an essential component of overall communication. In that regard, nonverbal communication not only a component but a way to enhance the effect of verbal communication. Moreover, touch communication and body contact are important aspects of nonverbal communication making them important elements of effective communication (Devito, 2012). Thus, extracurricular and co-curricular activities provide environments where tactile touch is often experienced.

Because same team players or group performers frequently and purposefully experience touch communication to motivate, share sadness, express happiness, and share messages when winning, losing, or coping with mistakes, overall communication skills are enhanced through the participation in extracurricular and co-curricular activities (Ozturk et al., 2015).

However, not all evidence is clear on communication skill development from extracurricular activities when evaluated according to gender. In a study by Mizrak et al. (2017), researchers reported that males have a higher level of communication skills than female and they hypothesized that this may be in part a result of female children preferring to play alone. Transversely, researchers Ustun, Ersoy, and Berk (2017) found that females had slightly better behavioral communication skills than males even though there was no significant difference between communication skills of students according to the department of education. Furthermore, Ozturk et al. (2015) concluded that all students, whether boys or girls, could be equally affected by sports in terms of communication skills.

Creativity and Innovation

The 21st century is the era that recognizes the importance of soft skills and the way they evolve throughout the lifetime of an individual. Plus, education is beginning to understand the role it plays in developing soft skills by creating new educational opportunities, training, and methods of intervention and assessment (Kyllonen, 2013). P21 recognizes this importance and places creativity as one of the four key soft skill areas that need to be developed in students in order to create an effective workforce in the 21st century. In order for students to be college and career ready in a world where almost all

information can be quickly accessed on a smartphone, students will need the ability to innovate and produce new ideas in the workplace, the playing field, and at home (Irina, 2016; Plucker, Kauffman, & Beghetto, 2015). Furthermore, Plucker et al. (2015) established the widely accepted definition of creativity for learning in the 21st century as "the interaction among aptitude process, and environment by which an individual or group produces a perceptible product that is both novel and useful as defined within a social context" (p. 90).

The importance attached to creativity and industry has never been greater and the current economy demands creative people (Levin, 2015). Music is not only popular in youth culture, but it is proven to have a positive impact on developing creativity within students. However, new demands on curriculum, the emphasis on standardized tests, decreasing resources, and a poor approach to music advocacy has caused a global decline in music education. Moreover, the obsessive focus on measured student achievement dominates the current education system and is the biggest obstacle in creating a well-rounded and productive labor force in the future (Arostegui, 2016; Gilbert, 2016; Levin, 2015).

Creativity, alongside technology, is a fundamental component of 21st century education. Creativity continues to be increasingly noted as one of the most important skills for success in the 21st century. Moreover, when developing creativity within students it is important to recognize both what creativity is, as well as where creativity is located. Therefore, creativity must be infused with technology in education and must be considered by teachers, student assessments, and educational policy (Henriksen et al., 2016). Policymakers and education thinkers must carefully consider ways to incorporate

principles of creativity into education standards and policy. Not only should educators interpret new standards and decide how to incorporate principals of creativity into daily structures and practices of their schools, but also instructors need to have the ability to recognize creativity in students and encourage them to think and do things differently (Gilbert, 2016; Guo & Woulfin, 2016).

Furthermore, creativity does not always mean creating amazing works of art, but, instead, being concerned with more in-depth understanding of thing, seeing the world differently, or being able to identify perfectible elements. Creativity can include bringing something new into the world, providing more satisfaction, or creating a more efficient answers, or settling an issue when others see no possible solution. Creativity is the art of expanding possibilities, getting un-stuck, and the ability to think in complex situations (Amabile, 2013; Matei, 2018; Weston, 2008). However, researchers agree that creativity can be taught (Matei, 2018; Rasmussen & Ostergaard, 2016; Weston, 2008; Zakrajsek, Lauer, & Bodey, 2017). Furthermore, with so many policies and standards undergoing change, creativity – along with the other framework pieces including communication, collaboration, and critical thinking – should be incorporated into curriculum designs and teacher assessment and teacher evaluation. One area this is extremely applicable is in the areas of music education (Gilbert, 2016).

Byrge and Hansen (2013) developed a creative platform where pairs of participants solve open tasks that are unrelated to their field or subject. These exercises are designed to facilitate creativity, use all kinds of knowledge in specific situations, and be free of social or cultural restraints. Also, these practices give evidence to a didactic approach to teaching creativity, a creative process model to develop products, and a

training program for new thinking (Byrge & Tang, 2015). Taking the model a step farther, researchers Rasmussen and Ostergaard (2016) from Aalborg University took the platform a step farther and applied the platform to extracurricular activities by developing the Creative Soccer Platform. The program attempts to establish a creative training environment where players are not hampered by mistakes, gain confidence in performing unfamiliar skills, and experience atypical training. Initial results indicate that players not only appreciate the new approach to teaching the game, but also they gained and understanding of why creativity is important in soccer (Rasmussen & Ostergaard, 2016).

Anecdotal evidence exists to support using extracurricular activities to encourage the value of creativity in sports. From Carlos Valderama effortlessly distributing the soccer ball around the pitch, to Pete Maravich's vision and passing prowess on the basketball court, to Doug Flutie's improvisational style of quarterbacking on the football field, creativity is entrenched in the fiber of sports and athletic activity (Bowers, Green, Hemme, & Chalip, 2014; Rasmussen & Ostergaard, 2016). However, researchers have attempted to assess the relative influences of time spent participating in organized sports and informal sports during childhood with respect to the development of creativity. In one study, 99 students completed a comprehensive childhood activities questionnaire and the results of the analysis divulged that hours spent in organized sport settings was negatively related to creativity as an adult; however, time spent in unstructured sport settings was found to be positively related to adult creativity. The findings also revealed the importance of balancing participation between organized and unstructured activity and training. The most creative individuals in the sample were those who spent roughly half of their sport participation time in each setting (Bowers et al., 2014).

Research conducted by (Memmert, Baker, & Bertsch, 2010) studied practice conditions in the development of creativity for athletes in team ball sports. In this study, 72 athletes were selected by trainers as being either one of the three most creative or the three least creative players on their teams. After collecting data on the sport practice and game experiences of the participants, the researchers found that the athletes identified as highly creative only differed significantly from their less creative counterparts in one aspect of their childhood and adolescent sport backgrounds. The creative athletes spent more time participating in unstructured play related to their sport (Memmert et al., 2010). The theoretical claim that there could be a relationship between the sport experience of childhood and the creative potential of the adult is evident; however, individuals who develop creativity used both organized sport and informal sport and had a greater degree of balance between participation in both areas (Bowers et al., 2014; Memmert et al., 2010).

Critical Thinking

The 21st century skills in demand by employers are critical thinking and problem solving. Furthermore, the global market continues to be driven by creativity and innovation dominated by critical thinkers that create products and solutions. Educators have academic responsibility and civic duty to find ways to teach students critical thinking and 21st century skills (Levin-Goldberg, 2012). Although definitions of critical thinking have become more complex over time, The Partnership for 21st Century Learning (Battelle for Kids) notes in its definition that most all descriptions include analytical, reflective, and evaluative skills that are used to gain conclusions and solutions. Furthermore, the aspects of critical thinking need to be integrated into the instruction of

middle schools and high schools and woven into various aspects of the learning environment (Dilley, Kauffman, Kennedy, & Plucker, 2015).

In a qualitative exploratory case-study, Campbell Jr. and Kresyman (2015) examined stakeholder perceptions of the key 21st century skills needed for graduates to be successful in the modern workplace. Interviews were conducted with 14 teachers, 14 employers, and 14 education administrators. Although critical thinking, behind interpersonal skills, was ranked as the second highest skill evident in graduates, the researchers found that critical thinking only received moderate improvement needs and school faculty and administrators were actively seeking steps to integrate the skills into syllabi and pedagogies. Furthermore, teachers, administrators, and employers felt it was important that students master particular fields but also be proficient in practical 21st century skills such as critical thinking.

As the business community continues to leverage human capital, future employees' ability to learn and think critically has become more important than their experience. As workforces become more lean, individual employees are taking on more work with less training and are having to use critical thinking skills to figure out processes instead of relying on others. Thus, companies are searching for employees that are independent, self-motivated, and critical thinkers (Wahl et al., 2012). Critical thinking skills are a significant worker attribute and are important for constantly changing worker environments. Not only are critical thinking skills an attribute for employment, but critical thinking skills were found to be key for workers maintaining success (Wahl et al., 2012; Windsor, Douglas, & Harvey, 2012).

In a research report conducted by ETS to identify the most important competencies for graduates to succeed in the 21st century workforce, over 52 abilities were rated. Next, the data produced 15 key components based on a principal component analysis. Those 15 components were then ranked in importance over all occupations. Problem solving was considered to be the top skill needed with critical thinking considered to be the third highest competency (behind listening and speaking) within problem solving. Furthermore, critical thinking and problem solving was determined to be the second highest of the 15 key components in correlation with wages earned (Burrus, Jackson, Xi, & Steinberg, 2013).

Although deemed to be important, other researches have indicated deficiencies in employees' ability to think critically. In a study by Deloitte and the The Manufactring Institute, over one thousand executives from all 50 states responded to being asked to identify the most serious skill deficiencies in current employees. Inadequate problem solving skills/critical thinking was identified by 52% of the executives as a serious skill deficiency (Deloitte & The Manufacturing Institute, 2011).

Hart Research Associates (2010) conducted a survey of 302 employers for the Association of American Colleges and Universities. The employers interviewed indicated that schools increase their focus on several skills. Specifically, 81% of employers indicated that critical thinking should receive increases importance by schools when preparing students for the workforce. Critical thinking was the second highest skill recommended by employers, behind written/oral communication, in which 89% of employers recommended increased importance.

Critical thinking skills are valuable for nearly all occupations classified by the U.S. Department of Labor. Thus, the emerging workforce must be trained in critical thinking skills if the United States is to remain competitive in the global marketplace. Thus, with the demands placed on education institutes by future employers and workplaces, it is fortunate that critical thinking skills can be taught and trained at any age (Matei, 2018). Furthermore, critical thinking skills do more than just create better employees. Critical thinking skills also help develop social awareness allowing students to become better citizens and gain increased personal value by creating an understanding of self-accomplishment as people. Critical thinking skills further develop a spirit of justice and equity, unbiased attitudes, and symbolic thinking to analyze personal abstract feelings such as love, joy, respect, admiration, happiness, and gratitude as well as their negative counterparts of hate, envy sadness, resentment, contempt, and despair (Matei, 2018).

Collaboration

Collaboration is a learned skill needed by students for success in the 21st century workplace and one that is very attainable for students to reach lifelong success (Jones, 2015). Collaboration is continually mentioned as a key skill for success and the ability to work effectively alongside has become a critically important skill for both careers and success in life. Thus, collaboration is more than a means to an end, it is something that is crucial to enhance within students. The value of collaboration has long been assumed, but recently policy makers have singled out the skill as an important outcome in its own right (Plucker, Kennedy, & Dilley, 2015).

Jacobson-Lundberg (2013) researched students' perceptions on how communication and collaboration were intentionally taught. Whereas communication was considered to be the gateway skill to 21st century skills, students recognized the how the successful skill of collaboration increased their own credibility by being able to people-manage through interpersonal relationships. Furthermore, the researcher found the overarching theme in the study was self-empowerment through soft skills and students felt their collaboration experiences increased confidence, self-efficacy, and credibility (Griffin et al., 2017; Stewart et al., 2016). Student perceptions echo what is found in the workforce as the skill of working in teams ranks as the third most important soft skill for project managers (Wahl et al., 2012).

In the current and future workforce, teamwork remains a key component for success. Working in teams and collaboration is essential for project achievement and can either impede progress or have a profound positive impact on organizational success (Berg, 2012; Wahl et al., 2012). Consequently, educators must continue to teach collaboration. Although students may be social in nature, it will be key for teachers to teach collaboration fluency just as they teach fluency in other areas such as math, foreign language or co-curricular activities (Jones, 2015).

Furthermore, an organization can have a positive impact on both individuals and the entire organization when the culture is based on teamwork, employee trust, and providing feedback on various matters. Individuals are much more productive when their fears are eliminated and mutual trust is and understanding is established amongst employees (Mizrak et al., 2017). Teams are valuable because they have the ability to do tasks that require more than can be achieved by one individual and can be done in a more

successful manner. Thus, it is essential that an organization identify and adopt teamwork and collaboration as an organizational priority (Jones, 2015; Mizrak et al., 2017).

Yet, researchers have discovered that competencies of collaboration skills are lacking in the United States. Although teamwork and collaboration was stood out as one of the top five competencies desired by employers, researchers analyzed the Occupational Informational Network (O*NET) and found a large number of new employees into the workforce were lacking in both communication and teamwork skills. In terms of importance, teamwork was the second highest rated component because it was essential to the other top ranked components of problem solving, fluid intelligence, achievement/innovation, and communication skills; however, teamwork and collaboration was the only top component that did not correlate to higher wages. Furthermore, that deficiency was most prevalent in graduates within the past 2 years. (Burrus et al., 2013). Likewise, in a survey of 302 employers, 71% of them specifically marked that educators should spend more time teaching and nurturing teamwork and collaboration skills (Hart Research Associates, 2010).

Extracurricular and co-curricular activities within educational institutes attract a large number of students from a wide variety of backgrounds and stages of life (Bean, Whitley, & Gould, 2014; Bowers et al., 2014; Charchenko, 2013; Gould, Carson, & Blanton, 2013; Pierce, Blanton, & Gould, 2018). Consequently, collective sports create versatile thinking, peer coordination, and abilities to maneuver constantly changing conditions all will using great mobility. Collective sports and activities within adolescents require the use of both interpersonal and group relationships within an emotionally heightened environment. As a result, collective sports and activities not only

develop imagination, decisiveness, and thinking skills, but also these collective sports and activities develop respect, responsibility, honesty, and transfer of information within team cooperation and the group setting (Charchenko, 2013; English, 2018; Super, Herman, Verkooijen, & Koelen, 2014).

Team sports have an opportunity has an opportunity to mitigate excessive individualism that is creating problems in modern culture. Today, personal ambitions often trump team goals and the success of one individual may be seen as more important than the entire group. Thus, teamwork and collaboration can help remove this over-emphasis by creating a renewed interest in the goals of the team and respect for others. Enhancing the interest in goals, teamwork and collaboration build relationships amongst teammates by forcing individuals to rely on one another, build strong relationships, and sharing experiences to overcome challenges and obstacles (English, 2018).

In a study to examine the perceptions of sport coaches and administrators regarding the 40 standards contained in the National Standards for Sport Coaches, over 40 coaches from junior high, high school, and college-level coaches were asked to evaluate the importance of the standards. The coaches ranked the ability to effectively communicate communication skills to enhance group success as the 4th highest standard. Furthermore, researchers found that the importance of these standards and the importance gained from teaching teamwork and group success was equally valued by both coaches and athletic administrators when compared side by side (Hedlund, Fletcher, & Dahlin, 2018).

Life Skills and Social Learning

As stated earlier in the Theoretical Framework section, the development of the 4 C's of 21st century learning is rooted in Daniel Goleman's work on emotional intelligence and the programming around social and emotional learning (SEL). Emotional Intelligence is the ability to understand and appropriately express emotions in productive and heathy ways (Goleman, 1997; NSSA, 2015). Recently, Roger Weissberg conducted a survey and completed a meta-analysis of 668 evaluation studies and results revealed a strong benefit in achievement test results in students that were exposed to SEL programs. Furthermore, the study revealed the SEL programs made safer schools with misbehavior dropping on an average of 28% and suspension reduction of 44%. Likewise, as attendance rates rose, 63% of students demonstrated significantly more positive behavior (Weissberg & Cascarino, 2013).

Emotional intelligence skills are the foundation for soft skills (NSSA, 2015). Thus, the development of the 4 C's of 21st century learning will also develop the life skills needed to succeed in the 21st century work environment. According to The Partnership for 21st Leadership (P21), life skills such as flexibility and adaptability; initiative and self-direction; social and cross-cultural skills; productivity and accountability; and leadership and responsibility will be required by all graduates to navigate the ever-changing global markets of the future (Scott, 2015). Unfortunately, students complete high school or college and enter the workforce are unable to draw connections between the world they left and work world that they enter. Thus, the intentional teaching of the 4 C's will help create life skills as part of 21st century learning is a step in the right direction for preparing students for the future (Deeds, 2016).

Kivunja (2015) draws from the work of P21 to advocate for students to receive instruction and opportunity to learn these 21st century life skills. The researcher stresses that equipping students with these life skills will not only make them better educated, but also will make students better citizens capable of making greater contributions to commerce and life in general in the modern age of technology. Thus, Robles (2012) states that the teaching of life skills should be seen as an investment in the future of both the individual and society in general. He continues by stating that there is an increased demand for a sense of responsibility, integrity, honesty, and communication in the workplace (Robles, 2012). Interestingly, Balcar (2014) introduces the idea of soft skills and life skills may actually have a compounded advantage for women. Women traditionally have shown a stronger soft skills presence and an increased value for soft skills in the workplace may actually help close the gender wage gap.

Moore (2016) studied the relationship of participation in co-curricular activities and soft skills in two rural schools. The qualitative study sampled a small population and the researcher found high school students perceived that they did develop soft skills through fine arts and academic clubs. Furthermore, a majority of the students claimed that participation in co-curricular activities would more likely than not help them later in life because of lessons learned. The researcher suggested that results of the study indicate coaches and sponsors can impact the lives of students through the development of skills which in turn build a foundation for a lifetime of success (Moore, 2016).

In other words, effective coaching is more than just winning and losing; instead, coaching and directing consists of improving and mastering several skills and abilities that transfer to enhancing students and athletes to develop physically, mentally, socially,

and emotionally (Coakley, 2015; Gould et al., 2013). Researchers Super et al. (2014) found that sport and activity support over all life prospects of students and especially within vulnerable youth. They further suggest that youth benefit in life prospects from exploring life experiences in a sport atmosphere, examining social relationships and a sense of coherence through activity, and navigating boundaries and developing self-regulation skills through competition.

Extracurricular activities can, consequently, serve as a unique avenue through which to develop positive outcomes around life skills. Researchers have revealed that relationships between involvement in sport and positive outcomes for youth's physical, psychological, cognitive, and social development (Gould et al., 2013; Turnnidge, Cote, & Hancock, 2014; Weiss, Stuntz, Bhalla, Bolter, & Price, 2013). However, a deliberate approach to teaching how to transfer skills learned from sports environments to life is essential. Researchers suggest that sports and activities should first focus on creating positive development of life skills by fostering positive development outcomes within the sport environment in two ways. First, programs should create environments where personal outcomes are directly taught along with sport skill and, next, teach sports skills while providing an environment that focuses on life skills and personal outcomes (Telford, Cunningham, & Abhayaratna, 2012; Vierimaa, Erickson, Cote, & Gilbert, 2012; Weiss et al., 2013). In qualitative interviews with students, coaches, and parents, Weiss et al. (2013) discovered youth were able to transfer life skills learned in golf to other contexts such as school, home, workplace, and social relationships. Skills included meeting and greeting, respect, and managing emotions. Furthermore, the coach helped

enhance these skills by directly linking life skills to sport skills at the end of practices and competitions.

Extracurricular and co-curricular activities can also help athletes and students develop a better sense of self and human possibility and high school sports are considered an environment that should promote life skills and overall positive youth development (English, 2018; Pierce et al., 2018). Research results have revealed coaches teach a diversity of life skills to the young athletes. Coaches report teaching self-confidence and respect, stress and emotional management, punctuality, surpassing expectations. Results indicate that all the coaches stressed the development of life skills in adolescent athletes, and wanted to promote several life skills through various teaching and transfer strategies (Camire, 2014; Trottier & Robitaille, 2014). Moreover, coaches use spontaneous or improvised situations to teach life skills, which did not add to the training time. Gould et al. (2013) came to the same conclusion as results of various studies on teaching life skills in adolescent athletes. Coaches in their study did not interpret teaching life skills as different activity than their general coaching tasks. Instead, coaches reported instilled life skills into their normal coaching practices.

Leadership is an area identified as one of the most important life skills that young athletes should attain and develop (Camire, 2014; Gould, Voelker, & Blanton, 2012). The National Federation of High Schools in the United States state that it is essential to develop student-athlete leaders and to "hone their leadership skills for and realize the privilege and power of their influence in their school, community, and state" (National Federation of High Schools, 2017, para. 1). However, students and athletes need opportunities to develop leadership skills and have an environment to have meaningful

application of these skills (Brown, Roediger, & McDaniel, 2014). Leadership as a life skill is often seen as an area of weakness by both future employers and coaches alike. Teaching leadership as a life skill is evolving into a priority as high school coaches has identified poor leadership as the sixth most cited problem among youth athletes to date (Burrus et al., 2013; Gould et al., 2013).

Summary

In Chapter Two, existing research was presented on the role extracurricular and co-curricular activities play in the development of students. Furthermore, information exists about 21st century soft skills and the perceived need for their development amongst students in the 21st century. Current literature surrounding the effects of extracurricular and co-curricular activities and the impacts they have on academics, attendance, and personal growth was reviewed. Then, a literature review surrounding 21st century learning skills was compiled specifically around communication, critical thinking, creativity, and collaboration, and overall life skills. Whereas a wealth of literature exists about the impacts of extracurricular and co-curricular activities and research on 21st century learning is flourishing, there is limited information in regard to the connection between the two areas. Therefore, there is a need to determine the impact of extracurricular and co-curricular activities on the development of 21st century soft skills of high school students.

In Chapter Three, the study's framework and methodology will be explained. Furthermore, procedures and participants will also be identified as well as outlining the collection of survey data. Chapter Four will then contain the researcher's findings from the study. Finally, Chapter Five will conclude the study with a summary of the project

and its implications on education as well as recommendations for further study in this area.

CHAPTER THREE

METHODOLOGY

Introduction

High schools across the country continue to prepare students for success in college and careers through technology and other personalized learning opportunities. Furthermore, to combat the change in educational pedagogy and the increase of technological isolation, schools continue to look for ways to develop student interpersonal and social skills such as collaboration, critical thinking, creativity, and communication (Dean, 2017). Logically, extracurricular and co-curricular activities are seen as environments where students can learn outside of the classroom and be intentionally instructed on how to develop social and life skills (Gilbert, 2016; Hayes, 2014; Moore, 2016). Yet, researchers have yet to investigate if extracurricular and co-curricular coaches and directors are intentionally attempting to develop soft skills within their players and performers.

The purpose of this quantitative study was to compare the perception of instructors of extracurricular activities and instructors of co-curricular activities to determine the perceptual impact of extracurricular and co-curricular activities on developing 21st century soft skills. The researcher examined Missouri public high schools that participated in both extracurricular and co-curricular activities to determine if instructors perceived that their activities directly and intentionally taught soft skill development within high school students. The researcher compared the perceived impact in the following areas and sub areas:

Research Question 1: What is the difference in perceptions towards intentional instruction of the 4C's of 21st century soft skills between instructors of extracurricular activities and instructors of co-curricular activities?

a. What is the difference in perceptions towards intentional instruction of the 21st century soft skill of communication between instructors of extracurricular activities and instructors of co-curricular activities?
b. What is the difference in perceptions towards intentional instruction of the 21st century soft skill of collaboration between instructors of extracurricular activities and instructors of co-curricular activities?
c. What is the difference in perception towards intentional instruction of the 21st century soft skill of creativity between instructors of extracurricular activities and instructors of co-curricular activities?
d. What is the difference in perception towards intentional instruction of the 21st century soft skill of critical thinking between instructors of extracurricular activities and instructors of co-curricular activities?

Research Question 2: What are the differences in perception towards intentional instruction of the 4C's of 21st century soft skills between female and male instructors of activities?

a. What is the difference in perceptions towards intentional instruction of the 21st century soft skill of communication between female and male instructors of activities?

b. What is the difference in perceptions towards intentional instruction of the 21st century soft skill of collaboration between female and male instructors of activities?
c. What is the difference in perception towards intentional instruction of the 21st century soft skill of creativity between female and male instructors of activities?
d. What is the difference in perception towards intentional instruction of the 21st century soft skill of critical thinking between female and male instructors of activities?

Research Question 3: What are the differences in perception towards intentional instruction of the 4C's of 21st century soft skills between instructors with less than five years of experience and those with five or more years of experience?

a. What is the difference in perceptions towards intentional instruction of the 21st century soft skill of communication between instructors with less than five years of experience and those with five or more years of experience?
b. What is the difference in perceptions towards intentional instruction of the 21st century soft skill of collaboration between instructors with less than five years of experience and those with five or more years of experience?
c. What is the difference in perception towards intentional instruction of the 21st century soft skill of creativity between instructors with less than five years of experience and those with five or more years of experience?
d. What is the difference in perception towards intentional instruction of the 21st century soft skill of critical thinking between instructors with less

than five years of experience and those with five or more years of experience?

Research Question 4: What are the differences in perception towards intentional instruction of the 4C's of 21st century soft skills between head coaches/directors and assistant coaches/directors of activities?

a. What is the difference in perceptions towards intentional instruction of the 21st century soft skill of communication between head coaches/directors and assistant coaches/directors of activities?
b. What is the difference in perceptions towards intentional instruction of the 21st century soft skill of collaboration between head coaches/directors and assistant coaches/directors of activities?
c. What is the difference in perception towards intentional instruction of the 21st century soft skill of creativity between head coaches/directors and assistant coaches/directors of activities?
d. What is the difference in perception towards intentional instruction of the 21st century soft skill of critical thinking between head coaches/directors and assistant coaches/directors of activities?

The researcher made the following hypotheses:

$H_{0.1}$: There is no statistically significant difference in perceptions towards intentional instruction of the 4C's of 21st century soft skills between instructors of extracurricular activities and instructors of co-curricular activities.

$H_{0.1.a}$: There is no statistically significant difference in perceptions towards intentional instruction of the 21st century soft skill of communication between instructors of extracurricular activities and instructors of co-curricular activities.

$H_{0.1.b}$: There is no statistically significant difference in perceptions towards intentional instruction of the 21st century soft skill of collaboration between instructors of extracurricular activities and instructors of co-curricular activities.

$H_{0.1.c}$: There is no statistically significant difference in perception towards intentional instruction of the 21st century soft skill of creativity between instructors of extracurricular activities and instructors of co-curricular activities.

$H_{0.1.d}$: There is no statistically significant difference in perception towards intentional instruction of the 21st century soft skill of critical thinking between instructors of extracurricular activities and instructors of co-curricular activities.

$H_{0.2}$: There are no statistically significant differences in perception towards intentional instruction of the 4C's of 21st century soft skills between female and male instructors of activities.

$H_{0.2.a}$: There is no statistically significant difference in perceptions towards intentional instruction of the 21st century soft skill of communication between female and male instructors of activities.

$H_{0.2.b}$: There is no statistically significant difference in perceptions towards intentional instruction of the 21st century soft skill of collaboration between female and male instructors of activities.

$H_{0.2.c}$: There is no statistically significant difference in perception towards intentional instruction of the 21st century soft skill of creativity between female and male instructors of activities.

$H_{0.2.d}$: There is no statistically significant difference in perception towards intentional instruction of the 21st century soft skill of critical thinking between female and male instructors of activities.

$H_{0.3}$: There are no statistically significant differences in perception towards intentional instruction of the 4C's of 21st century soft skills between instructors with less than five years of experience and those with five or more years of experience.

$H_{0.3.a}$: There is no statistically significant difference in perceptions towards intentional instruction of the 21st century soft skill of communication between instructors with less than five years of experience and those with five or more years of experience.

$H_{0.3.b}$: There is no statistically significant difference in perceptions towards intentional instruction of the 21st century soft skill of collaboration between instructors with less than five years of experience and those with five or more years of experience.

$H_{0.3.c}$: There is no statistically significant difference in perception towards intentional instruction of the 21st century soft skill of creativity between instructors with less than five years of experience and those with five or more years of experience.

$H_{0.3.d}$: There is no statistically significant difference in perception towards intentional instruction of the 21st century soft skill of critical thinking between instructors with less than five years of experience and those with five or more years of experience.

$H_{0.4}$: There are no statistically significant differences in perception towards intentional instruction of the 4C's of 21st century soft skills between head coaches/directors and assistant coaches/directors of activities.

$H_{0.4.a}$: There is no statistically significant difference in perceptions towards intentional instruction of the 21st century soft skill of communication between head coaches/directors and assistant coaches/directors of activities.

$H_{0.4.b}$: There is no statistically significant difference in perceptions towards intentional instruction of the 21st century soft skill of collaboration between head coaches/directors and assistant coaches/directors of activities.

$H_{0.4.c}$: There is no statistically significant difference in perception towards intentional instruction of the 21st century soft skill of creativity between head coaches/directors and assistant coaches/directors of activities.

$H_{0.4.d}$: There is no statistically significant difference in perception towards intentional instruction of the 21st century soft skill of critical thinking between head coaches/directors and assistant coaches/directors of activities.

Participants

The participants in this study include coaches, both head and assistant, of extracurricular activities including baseball, basketball, football, soccer, softball, and volleyball in the state of Missouri; and directors of the co-curricular activities in the state of Missouri which include instrumental music, speech and debate, and vocal music. All public high school activity directors in the state of Missouri were asked for permission to have their coaches and directors survey for the study. The consent document for activity directors to conduct research is located in Appendix A. From this request, 57 schools

agreed to participate in the study. All high school coaches and directors of group interscholastic sports and activities from these agreeing schools were invited to participate in the study; however, all instructors did not respond. Of the 1,417 coaches and directors who were invited, 324 actually completed the study for a 22.8% return. For the purposes of this study, head coaches are defined as the lead coach of the entire extracurricular program and an assistant coach is defined as one who, although may be a lead coach of a single team, also assists the head coach of the entire program. Likewise, for the purposes of this study, head directors are defined as the lead director of the entire co-curricular program and an assistant director is defined as one who, although may be a lead director of a single group, also assists the head director of the entire program.

During this research, all ethical precautions and considerations were taken to ensure that participants were not at risk by the research data being collected. Furthermore, participants did not receive any compensation for taking the survey and their participation was voluntary. A numerical coding method was not required in this study as information was gathered through Question Pro. Question Pro is a password protected and secured system which kept all data from participants safe and confidential.

Procedures

In order to comply with the guidelines set in place by Southwest Baptist University regarding the protection of human participants, a request for review was submitted to the Research Review Board for approval. The request sought permission to survey all high school coaches and directors in the state of Missouri. Upon receiving approval from the Research Review Board, the process of participant recruitment and

data collection began. The informed-consent documents for coaches and directors to conduct research are located in Appendix B.

At the introduction to the survey, coaches and directors were given information about the purpose for the study, voluntary participation, and confidentiality of the information collected through the survey. The utilization of Question Pro allowed quick and automatic dissemination of the survey to participants. All coaches and directors were required to accept the ethical parameters of the survey prior to starting the survey. Likewise, through the email to potential participants, coaches and directors had the opportunity to participate or decline before continuing to the survey. The timeframe for data collection began immediately following approval from the Research Review Board (RRB). Initial request for consent from Activities Directors to survey their coaches was sent on April 5, 2019 and stayed open for responses for one week. Next, surveys were distributed to participants on March 12, 2019. The data collection from participants was a period of approximately one week. Finally, the period for collecting all survey responses was closed on April 19, 2019, when no additional responses were collected.

Selection and Sampling

The researcher collected a valid sample size of participants through a survey that was sent to high school coaches and directors within the state of Missouri. Using the independent samples *t*-test with a power of .8, and alpha of .05 with a medium effect size (Cohen's *d* of .05), the study needed 51 participants in each group (total of 102) using G*Power calculator. A list of email addresses was generated through the school district directory located on the website maintained by the Missouri State High School Activities Association (MSHSAA). If schools did not respond through email or personal visits,

phone calls were made to gather the needed information. Schools were identified that had the unique characteristics needed to satisfy the research questions described above. Although there was not a specific sampling method used, the researcher used historical participation data from MSHSAA to determine the schools with high engagement percentages in both athletics and activities and made extensive efforts to gain input from these individuals.

In addition, a confidentiality statement was included at the beginning of the survey. The statement informed participants that responses would only be used for the purposes of the overall study and the researcher would keep all responses confidential. The collected responses were a well-balanced sampling and provided varying perspectives related to the topic due to using the entire state as the sample population. Furthermore, by inviting coaches and directors from the entire state of Missouri to participate, the large sample size allowed the researcher to make generalizable conclusions from the study. Likewise, using a survey consistent with nationally recognized 21st century teaching and learning standards, results and conclusions are generalizable for other states as well.

Research Setting

All participants in this study are coaches and directors actively instructing in the state of Missouri. The range of this study included Missouri public high schools that engage in both extracurricular and co-curricular activities through MSHSAA parameters. After schools were identified through the data analysis, further research was conducted through the MSHSAA website to identify the coaches and directors of the group extracurricular activities and co-curricular activities. This information was used to send a

survey designed to compile the quantitative data pertaining to the central research questions.

Demographic and qualifying questions for all coaches and directors were asked at the beginning of each survey. These questions included gender, years of experience, activity coached or directed, and level of coach or director. Including the demographic and qualifying questions allowed the researcher to further analyze the data received from the surveys.

Research Design

A quantitative causal-comparative method was used as the research design for this study. This quantitative method of research establishes associations between variables. In a quantitative causal-comparative study, all participants are surveyed only once with a goal of establishing associations between the variables of the study. Thus, the researcher may include a large sample population to ensure that a valid estimate of a relationship between variables can be acquired. In this study, the researcher investigated the relationship between the responses of coaches of extracurricular activities and then from directors of co-curricular activities on the same survey to determine if there was significance at the .05 level. The standard for rejecting the null hypothesis, known as the alpha level, sets the accepted probability level (p-value) for the alpha level at .05. In other words, the researcher may reject the null hypothesis and conclude that the hypothesis is correct only when findings occur by chance less than 5% of the time (Gay, Mills, & Airasian, 2009; Pelham, 2013).

Surveys were distributed to coaches and directors across the state through email addresses located on the MSHSAA website. Surveys were provided to schools

throughout Missouri to identify the perceived impact of extracurricular and co-curricular activities on developing 21st century soft skills within their students. Responses from the schools were collected and the data were analyzed against the central research question as well as each sub question.

Instrumentation

The instrument used to measure the impact in this study was *A Survey for Measuring 21st Century Teaching and Learning: West Virginia 21st Century Teaching and Learning Survey*. The survey for coaches and directors is located in Appendix C. As this survey had been previously used in prior studies, the original researchers and creators had already established high validity and reliability standards for the tool. Through email correspondence with evaluation and research professional and survey creator Dr. Jason Ravitz, Ph.D., the researcher received permission to both use the survey and to revise they survey as needed. The survey was grouped into four categories representing the 4C's – critical thinking skills, collaboration skills, communication skills, and creativity and innovation skills – of 21st century soft skills. Dr. Ravitz provided the published overall reliability runs and reiterated the survey had strong reliability within each set of skills but he did not publish the specific reliability runs (Chronbach's alpha) for each of the 4C's. The survey had a total of 34 questions and required an estimated 5-10 minutes to complete the survey. The survey included definitions for each of the 4C's, a list of related practices, and questions about perceptions. After each definition, the survey asks about frequency of between 5 to 8 practices pertaining to that skill. Response choices to practices pertaining to each skill were 1 'Almost never'; 2 'a few times'; 3 '1-3 times per month'; 4 '1-3 times per week'; and 5 'Almost daily'. In addition to the frequency of

different practices, the survey asked how much coaches or directors perceived having taught and assessed each skill. Response choices for perceived intentional teaching of the skill were 1 'Not really'; 2 'To a minor extent'; 3 'To a moderate extent'; 4 'To a great extent'; and 5 'To a very great extent'. The total possible score for the survey was 170 with the minimum being 34. The range for both the critical thinking skills and collaboration skills was between 9 and 45 while the scores for both communication skills and creativity and innovation skills ranged between 8 and 40.

The survey also contained four open-ended questions; one at the end of each group of questioning around the 4C's. Specifically, questions 14, 24, 33, and 42 asked participants to describe the ways they provide intentional instruction for each of the 4C's. Responses were used to provide a brief qualitative analysis of coach and director perceptions on how they intentionally teach each of the 4C's to their students. Data were analyzed to determine patterns in responses from the study, and meaning constructed by placing key phrases together around patterns or themes (Gay et al., 2009).

This survey was chosen by the researcher based on the research question and sub-questions. The survey was distributed and collected from directors and coaches who were directly responsible engaging students in extracurricular and co-curricular activities. Permission to use *A Survey for Measuring 21st Century Teaching and Learning: West Virginia 21st Century Teaching and Learning Survey* can be found in Appendix C.

Data Analysis

This quantitative study was conducted to identify the perceived impact of extracurricular and co-curricular activities on developing 21st century soft skills in high school students participating in extracurricular and co-curricular activities by using a

survey to determine if coaches of extracurricular activities or directors of co-curricular activities were more intentional in teaching the 4C's of soft skills – critical thinking, collaboration, communication, and creativity. Data were analyzed using an independent samples *t*-test to determine if the null hypothesis would be accepted or rejected. The researcher was looking for differences in the survey data from the coaches of extracurricular activities and the directors of co-curricular activities; therefore, the independent samples *t*-test was selected as the test determined the significance of difference between the means of the two groups for each research question.

The independent samples *t*-test was selected as the statistical treatment, as it determines whether two means differed from one another and how significant the differences (Gay et al., 2009). In order to run the independent *t*-test, the researcher established one independent, categorical variable having two groups with one constant dependent variable. The dependent variables are normally distributed and the variances of the groups are nearly equal. Furthermore, the survey provided qualifying questions regarding gender, years of experience, activity coached or directed, and level of coach or director. These questions allowed the researcher to run *t*-test to compare demographic data including the perception of males versus females, new coaches versus experienced coaches, and head coaches/directors vs assistant coaches/directors. In Chapter Four, the results of this study are provided and the null hypothesis is determined as accepted or rejected.

Summary

The purpose of this study was to identify the perceived impact of extracurricular and co-curricular activities on developing 21st century soft skills -- specifically critical

thinking, collaboration, communication, and creativity -- in high school students by determining if instructors of extracurricular activities or instructors of co-curricular activities were more intentional at teaching critical thinking, collaboration, communication, and creativity. This chapter included the research design, procedures, and participants for completion of this study. Furthermore, the chapter described the methods, tools and instrumentation used to collect data concerning the perceptions of directors and coaches on teaching soft skills to students during their corresponding activities. Chapter Four contains an overview of the results of the study described here in Chapter Three. Finally, Chapter Five will provide a summation of the entire study as well as give recommendations and implications for further study associated with this topic.

CHAPTER FOUR

ANALYSIS OF DATA

Introduction

In Chapter Four, the data collected as described in the previous chapter will be analyzed and address each of the four research questions in relation to the research findings. Previous research suggest that extracurricular and co-curricular activities are places where students can learn outside the four walls of the classroom or away from a computer screen. Furthermore, extracurricular team activities of basketball, baseball, football, soccer, softball, and volleyball and co-curricular activities such as band, choir, and drama require students to utilize the social and emotional skills sought in the 21st century work environment (Hancock et al., 2012; Hayes, 2014). However, very little literature exists to address how instructors of these group activities intentionally teach these soft skills to students. Furthermore, very little literature exists to investigate if coaches and directors of extracurricular or co-curricular group activities are more intentional in attempting to develop students with better soft skills. Therefore, the purpose of this study was to examine the differences of extracurricular and co-curricular group activities on developing 21st century soft skills in high school students.

The researcher described the procedures for conducting the study in Chapter Three including the participants and the selection process. Furthermore, a complete description of the research setting involving Missouri public high schools that engage in both extracurricular and co-curricular activities through the Missouri State High School Activities Association was detailed. Also, an outline of the research design and the data treatment was presented. An invitation to participate in the study was initially sent to 488

Activities Directors of public high schools across the state of Missouri. Upon a "yes" response to participate, a link to the survey was then sent to the coaches and directors of basketball, baseball, football, soccer, softball, instrumental music, vocal music, and speech and drama within each participating district. Results for the survey were then uploaded into the IBM Statistical Package for Social Sciences (SPSS) software program for analysis. In addition, descriptive statistics were used to present quantitative, open-ended data in a simple and measurable manner. Data will be presented in this chapter to provide information about the perceived differences between coaches and directors on intentional instruction of soft skills to high school students that participate in their activities. The following research questions were addressed:

Research Question 1: What is the difference in perceptions towards intentional instruction of the 4C's of 21st century soft skills between instructors of extracurricular activities and instructors of co-curricular activities?

a. What is the difference in perceptions towards intentional instruction of the 21st century soft skill of communication between instructors of extracurricular activities and instructors of co-curricular activities?
b. What is the difference in perceptions towards intentional instruction of the 21st century soft skill of collaboration between instructors of extracurricular activities and instructors of co-curricular activities?
c. What is the difference in perception towards intentional instruction of the 21st century soft skill of creativity between instructors of extracurricular activities and instructors of co-curricular activities?

d. What is the difference in perception towards intentional instruction of the 21st century soft skill of critical thinking between instructors of extracurricular activities and instructors of co-curricular activities?

Research Question 2: What are the differences in perception towards intentional instruction of the 4C's of 21st century soft skills between female and male instructors of activities?

a. What is the difference in perceptions towards intentional instruction of the 21st century soft skill of communication between female and male instructors of activities?
b. What is the difference in perceptions towards intentional instruction of the 21st century soft skill of collaboration between female and male instructors of activities?
c. What is the difference in perception towards intentional instruction of the 21st century soft skill of creativity between female and male instructors of activities?
d. What is the difference in perception towards intentional instruction of the 21st century soft skill of critical thinking between female and male instructors of activities?

Research Question 3: What are the differences in perception towards intentional instruction of the 4C's of 21st century soft skills between instructors with less than five years of experience and those with five or more years of experience?

a. What is the difference in perceptions towards intentional instruction of the 21st century soft skill of communication between instructors with less than five years of experience and those with five or more years of experience?
b. What is the difference in perceptions towards intentional instruction of the 21st century soft skill of collaboration between instructors with less than five years of experience and those with five or more years of experience?
c. What is the difference in perception towards intentional instruction of the 21st century soft skill of creativity between instructors with less than five years of experience and those with five or more years of experience?
d. What is the difference in perception towards intentional instruction of the 21st century soft skill of critical thinking between instructors with less than five years of experience and those with five or more years of experience?

Research Question 4: What are the differences in perception towards intentional instruction of the 4C's of 21st century soft skills between head coaches/directors and assistant coaches/directors of activities?

a. What is the difference in perceptions towards intentional instruction of the 21st century soft skill of communication between head coaches/directors and assistant coaches/directors of activities?
b. What is the difference in perceptions towards intentional instruction of the 21st century soft skill of collaboration between head coaches/directors and assistant coaches/directors of activities?

c. What is the difference in perception towards intentional instruction of the 21st century soft skill of creativity between head coaches/directors and assistant coaches/directors of activities?

d. What is the difference in perception towards intentional instruction of the 21st century soft skill of critical thinking between head coaches/directors and assistant coaches/directors of activities?

In an effort to answer the preceding research questions, an investigation of each of the following null hypotheses was conducted:

$H_{0.1}$: There is no statistically significant difference in perceptions towards intentional instruction of the 4C's of 21st century soft skills between instructors of extracurricular activities and instructors of co-curricular activities.

$H_{0.1.a}$: There is no statistically significant difference in perceptions towards intentional instruction of the 21st century soft skill of communication between instructors of extracurricular activities and instructors of co-curricular activities.

$H_{0.1.b}$: There is no statistically significant difference in perceptions towards intentional instruction of the 21st century soft skill of collaboration between instructors of extracurricular activities and instructors of co-curricular activities.

$H_{0.1.c}$: There is no statistically significant difference in perception towards intentional instruction of the 21st century soft skill of creativity between instructors of extracurricular activities and instructors of co-curricular activities.

$H_{0.1.d}$: There is no statistically significant difference in perception towards intentional instruction of the 21st century soft skill of critical thinking between instructors of extracurricular activities and instructors of co-curricular activities.

$H_{0.2}$: There are no statistically significant differences in perception towards intentional instruction of the 4C's of 21st century soft skills between female and male instructors of activities.

$H_{0.2.a}$: There is no statistically significant difference in perceptions towards intentional instruction of the 21st century soft skill of communication between female and male instructors of activities.

$H_{0.2.b}$: There is no statistically significant difference in perceptions towards intentional instruction of the 21st century soft skill of collaboration between female and male instructors of activities.

$H_{0.2.c}$: There is no statistically significant difference in perception towards intentional instruction of the 21st century soft skill of creativity between female and male instructors of activities.

$H_{0.2.d}$: There is no statistically significant difference in perception towards intentional instruction of the 21st century soft skill of critical thinking between female and male instructors of activities.

$H_{0.3}$: There are no statistically significant differences in perception towards intentional instruction of the 4C's of 21st century soft skills between instructors with less than five years of experience and those with five or more years of experience.

$H_{0.3.a}$: There is no statistically significant difference in perceptions towards intentional instruction of the 21st century soft skill of communication between instructors with less than five years of experience and those with five or more years of experience.

$H_{0.3.b}$: There is no statistically significant difference in perceptions towards intentional instruction of the 21st century soft skill of collaboration between instructors with less than five years of experience and those with five or more years of experience.

$H_{0.3.c}$: There is no statistically significant difference in perception towards intentional instruction of the 21st century soft skill of creativity between instructors with less than five years of experience and those with five or more years of experience.

$H_{0.3.d}$: There is no statistically significant difference in perception towards intentional instruction of the 21st century soft skill of critical thinking between instructors with less than five years of experience and those with five or more years of experience.

$H_{0.4}$: There are no statistically significant differences in perception towards intentional instruction of the 4C's of 21st century soft skills between head coaches/directors and assistant coaches/directors of activities.

$H_{0.4.a}$: There is no statistically significant difference in perceptions towards intentional instruction of the 21st century soft skill of communication between head coaches/directors and assistant coaches/directors of activities.

$H_{0.4.b}$: There is no statistically significant difference in perceptions towards intentional instruction of the 21st century soft skill of collaboration between head coaches/directors and assistant coaches/directors of activities.

$H_{0.4.c}$: There is no statistically significant difference in perception towards intentional instruction of the 21st century soft skill of creativity between head coaches/directors and assistant coaches/directors of activities.

$H_{0.4.d}$: There is no statistically significant difference in perception towards intentional instruction of the 21st century soft skill of critical thinking between head coaches/directors and assistant coaches/directors of activities.

The researcher used Question Pro to disseminate the survey (see Appendix A) to coaches and directors in Missouri public high schools where the activity directors had consented to participate in the study. For this study, the researcher chose to not include Missouri high schools that operated as alternative, charter, private, online, or magnet schools. Furthermore, only schools that were members of the Missouri State High School Activities Association were used for this study. Question Pro allowed the researcher to disseminate the survey via electronic email and for the data to be collected automatically and immediately. Originally, the researcher had to gain consent from the individual school districts, through the district's activities director, to survey the individual coaches and directors. Upon consent, the researcher then compiled a list from the consenting schools of the appropriate high school coaches of baseball, basketball, soccer, softball, and volleyball; and the directors of instrumental music, speech and debate, and vocal music. These coaches and directors were then emailed the survey link which provided participation consent, confidentiality information, and directions for the survey.

Quantitative analysis was used to investigate each of the research questions through using an independent samples *t*-test to determine if the null hypothesis would be accepted or rejected. The researcher was looking for differences in the survey data from the coaches of extracurricular activities and the directors of co-curricular activities; therefore, the independent samples *t*-test was selected as the test determined the

significance of difference between the means of the two groups for each research question. Further analysis was done about each survey question grouping of each of the 4C's – communication, collaboration, creativity, and critical thinking – to determine common themes and draw conclusions about way coaches and directors responded to the survey and the methods coaches and directors use to intentionally instruct students around the 4C's. Accordingly, the researcher continued to analyze differences in the survey data from the coaches of extracurricular activities and the directors of co-curricular activities based on gender, years of experience, and head or assistant coach/director.

Data Analysis and Findings

Upon completion of the surveys and at the closure of the survey window, all responses were downloaded from Question Pro to an Excel spreadsheet where data could be cleaned and combined for efficient and effective upload to the IBM Statistical Package for Social Sciences Statistics (SPSS) program for complete analysis. Final results from the survey yielded 324 completed responses from 1,417 invitations, representing coaches and directors from 57 high schools across the state of Missouri. Only completed surveys were analyzed for this study.

When completing the survey, participants were asked four initial questions. The first question asked if the participant was a director/coach of a co-curricular or extracurricular activity. This question allowed the researcher to analyze Research Question 1. The second question asked the survey taker to identify his or her gender which provided the information for the researcher to analyze Research Question 2. The third descriptive question asked the participant to identify if he or she had been coaching

or directing for between one and five years or if he or she had been coaching or directing for six or more years. This question helped the researcher analyze Research Question 3. Finally, Research Question 4 was analyzed using the final descriptive question which asked if the participant was either a head coach or director, or an assistant coach or director.

The researcher recorded the aforementioned descriptive data in each of the first four questions. Then, using the descriptive groupings, each of the data groupings were analyzed accordingly. The independent variables or main effects for the data analysis were questions focused around each of the 4C's – critical thinking (Questions 5-13), collaboration (Questions 15-23), communication (Questions 25-32), and creativity (Questions 34-41).

Co-curricular and Extracurricular Analysis

The first question asked if the participant was a director/coach of a co-curricular or extracurricular activity. This question allowed the researcher to analyze Research Question 1. Based on the co-curricular and extracurricular groups, an independent-samples *t*-test was conducted to analyze Research Question 1: What is the difference in perceptions towards intentional instruction of the 4C's of 21st century soft skills between instructors of extracurricular activities and instructors of co-curricular activities? Group statistics for Research Question 1 are shown in Table 1.

Table 1

Group Statistics for Co-curricular and Extracurricular: Sample Size, Mean, Standard Deviation and Standard Error

Skill	Group	*N*	*M*	*SD*	*SEM*
Communication	Co-curricular	80	26.63	8.922	.998
	Extracurricular	240	23.68	8.004	.517
Collaboration	Co-curricular	79	37.54	6.754	.760
	Extracurricular	240	34.07	7.500	.484
Creativity	Co-curricular	80	30.63	8.343	.933
	Extracurricular	242	24.90	8.434	.542
Critical thinking	Co-curricular	79	34.51	8.444	.950
	Extracurricular	236	29.94	8.803	.573

For the independent-samples *t*-test, statistical significance has been recognized when the *p*-value was 5% or lower. For Research Question 1, responses of co-curricular directors were compared to the responses of extracurricular coaches on each of the 4C's skills. Data for Research Question 1 are shown in Table 2.

Table 2

t-test for Co-curricular and Extracurricular instructors

Skill	t	*df*	Sig.	*M* difference	*SEM* difference	95% CI	
						LL	*UL*
Communication	2.772	318	0.006*	2.950	1.064	0.857	5.043
Collaboration	3.657	317	0.0003*	3.473	0.950	1.605	5.342
Creativity	5.273	320	0.0002*	5.720	1.085	3.586	7.854
Critical thinking	4.030	313	0.00007*	4.566	1.133	2.337	6.795

Note. CI = confidence interval; *LL* = lower limit; *UL* = upper limit.
*$p < .05$, two-tailed

There were 80 co-curricular and 240 extracurricular participants that answered survey questions about intentional instruction involving communication. An independent-samples *t*-test was run to determine if there were statistically significant differences in communication between co-curricular directors and extracurricular coaches. Although there were a few outliers in the data as assessed by inspection of a boxplot, not enough outliers existed to effect the statistical data. Communication scores for each curricular level were normally distributed, as assessed by Shapiro-Wilk's test ($p > .05$), and there was homogeneity of variances, as assessed by Levene's test for equality of variances. Therefore, the instruction of communication skills was more intentional for co-curricular directors ($M = 26.63$, $SD = 8.922$) than extracurricular coaches ($M = 23.68$, $SD = 8.004$), by a statistically significant difference of 2.950 (95% *CI*, 0.857 to 5.043), $t\ (318) = 2.772$, $p < .001$. A small to medium effect size existed with the Cohen's $d = (23.68 - 26.63) / 8.48 = 0.35$. Thus, the null hypothesis ($H_{0.1.a}$) was rejected.

There were 79 co-curricular and 240 extracurricular participants that answered survey questions about intentional instruction involving collaboration. An independent-samples *t*-test was run to determine if there were differences in collaboration between co-curricular directors and extracurricular coaches. Although there were a few outliers in the data as assessed by inspection of a boxplot, not enough outliers existed to effect the statistical data. Collaboration scores for each curricular level were normally distributed, as assessed by Shapiro-Wilk's test ($p > .05$), and there was homogeneity of variances, as assessed by Levene's test for equality of variances. Therefore, the instruction of collaboration was more intentional for co-curricular directors ($M = 37.54$, $SD = 6.754$) than extracurricular coaches ($M = 34.07$, $SD = 7.500$), by a statistically significant difference of 3.473 (95% *CI*, 1.605 to 5.342), $t(317) = 3.657$, $p < .001$. A medium effect size existed with the Cohen's $d = (34.07 - 37.54) / 7.14 = 0.49$. Thus, the null hypothesis ($H_{0.1.b}$) was rejected.

There were 80 co-curricular and 242 extracurricular participants that answered survey questions about intentional instruction involving creativity. An independent-samples *t*-test was run to determine if there were differences in creativity between co-curricular directors and extracurricular coaches. There were no outliers in the data, as assessed by inspection of a boxplot. Creativity scores for each curricular level were normally distributed, as assessed by Shapiro-Wilk's test ($p > .05$), and there was homogeneity of variances, as assessed by Levene's test for equality of variances. Therefore, the instruction of creativity was more intentional for co-curricular directors ($M = 30.63$, $SD = 8.343$) than extracurricular coaches ($M = 24.90$, $SD = 8.434$), by a statistically significant difference of 5.720 (95% *CI*, 3.506 to 7.854), $t(320) =$

5.273, p <.001. A medium to high effect size existed with the Cohen's d = (24.9 - 30.63)/ 8.39 = 0.68. Thus, the null hypothesis ($H_{0.1.c}$) was rejected.

There were 79 co-curricular and 236 extracurricular participants that answered survey questions about intentional instruction involving critical thinking. An independent-samples *t*-test was run to determine if there were differences in critical thinking between co-curricular directors and extracurricular coaches. Although there were a few outliers in the data as assessed by inspection of a boxplot, not enough outliers existed to effect the statistical data. Critical thinking scores for each curricular level were normally distributed, as assessed by Shapiro-Wilk's test (p > .05), and there was homogeneity of variances, as assessed by Levene's test for equality of variances. Therefore, the instruction of critical thinking was more intentional for co-curricular directors (M = 34.51, SD = 8.444) than extracurricular coaches (M = 29.94, SD = 8.803), by a statistically significant difference of 4.566 (95% CI, 2.337 to 6.795), t (313) = 4.030, p < .001. A medium effect size existed with the Cohen's d = (29.94 - 34.51)/ 8.63 = 0.53. Thus, the null hypothesis ($H_{0.1.d}$) was rejected.

Gender Analysis

The second question asked the survey taker to identify his or her gender, which provided the information for the researcher to analyze Research Question 2. Based on the male and female gender group responses, an independent-samples *t*-test was conducted to analyze Research Question 2: What are the differences in perception towards intentional instruction of the 4C's of 21st century soft skills between female and male instructors of activities. Group statistics for Research Question 2 are in Table 3.

Table 3

Group Statistics for Gender: Sample Size, Mean, Standard Deviation and Standard Error

Skill	Group	*N*	*M*	*SD*	*SEM*
Communication	Male	201	25.33	7.866	.555
	Female	118	22.97	8.833	.813
Collaboration	Male	201	35.19	7.113	.502
	Female	117	34.58	8.002	.740
Creativity	Male	201	26.71	8.406	.593
	Female	120	25.67	9.344	.853
Critical thinking	Male	197	32.28	8.230	.586
	Female	117	29.10	9.726	.899

For Research Question 2, responses of male coaches and directors were compared to the responses of female coaches and directors on each of the 4C's skills. Data for Research Question 2 are shown in Table 4.

Table 4

t-test for Gender

						95% CI	
Skill	t	*df*	Sig.	*M* difference	*SEM* difference	*LL*	*UL*
Communication	2.391	223	0.018*	2.354	0.984	0.414	4.294
Collaboration	0.707	316	0.480	0.613	0.867	-1.092	2.318
Creativity	1.028	319	0.305	1.040	1.011	-0.950	3.030
Critical thinking	2.964	212	0.003*	3.182	1.073	1.066	5.206

Note. CI = confidence interval; *LL* = lower limit; *UL* = upper limit.
*$p < .05$, two-tailed

There were 201 male and 118 female participants that answered survey questions about intentional instruction involving communication. An independent-samples *t*-test was run to determine if there were differences in communication between male and female coaches and directors. There were no outliers in the data, as assessed by inspection of a boxplot. Communication scores for each gender were normally distributed, as assessed by Shapiro-Wilk's test ($p > .05$). However, the homogeneity of variances was not assumed as assessed by Levene's test for equality of variances but the test was still used because the independent-samples *t*-test is fairly robust to deviations from normality. Therefore, the instruction of communication skills was more intentional for male directors and coaches (M =25.33 , SD = 7.866) than female directors and coaches (M = 22.97, SD = 8.833), by a statistically significant difference of 2.354 (95% *CI*, 0.414 to 4.294), $t(223) = 2.391$, $p < .001$. A small effect size existed with the Cohen's $d = (22.97 - 25.33) / 8.36 = 0.28$. Thus, the null hypothesis ($H_{0.2.a}$) was rejected.

There were 201 male and 117 female participants that answered survey questions about intentional instruction involving collaboration. An independent-samples *t*-test was run to determine if there were differences in collaboration between male and female coaches and directors. There were no outliers in the data, as assessed by inspection of a boxplot. Collaboration scores for each gender were normally distributed, as assessed by Shapiro-Wilk's test ($p > .05$), and there was homogeneity of variances, as assessed by Levene's test for equality of variances. With a significance level set at $p < .05$ the results indicated a *p*-value less than .305 when comparing the responses for both male and female coaches/directors; therefore, no statistically significant difference existed between the two groups. Thus, the null hypothesis ($H_{0.2.b}$) was accepted.

There were 201 male and 120 female participants that answered survey questions about intentional instruction involving creativity. An independent-samples *t*-test was run to determine if there were differences in creativity instruction between male and female directors and coaches. There were no outliers in the data, as assessed by inspection of a boxplot. Creativity scores for each gender were normally distributed, as assessed by Shapiro-Wilk's test ($p > .05$), and there was homogeneity of variances, as assessed by Levene's test for equality of variances. With a significance level set at $p < .05$ the results indicated a *p*-value less than .480 when comparing the responses for both male and female coaches/directors; therefore, no statistically significant difference existed between the groups. Thus, the null hypothesis ($H_{0.2.c}$) was accepted.

There were 197 male and 117 female participants that answered survey questions about intentional instruction involving critical thinking. An independent-samples *t*-test was run to determine if there were differences in critical thinking between male and female directors and coaches. There were no outliers in the data, as assessed by inspection of a boxplot. Critical thinking scores for each curricular level were normally distributed, as assessed by Shapiro-Wilk's test ($p > .05$). However, the homogeneity of variances was not assumed as assessed by Levene's test for equality of variances but the test was still used because the independent-samples *t*-test is fairly robust to deviations from normality. The instruction of critical thinking was more intentional for male directors and coaches ($M = 32.28$, $SD = 8.230$) than female directors and coaches ($M = 29.10$, $SD = 9.726$), by a statistically significant difference of 3.182 (95% *CI*, 1.066 to 5.206), $t\ (212) = 2.964$, $p < .001$. A small to medium effect size existed with the Cohen's $d = (29.1 - 32.28) / 9.01 = 0.35$. Thus, the null hypothesis ($H_{0.2.d}$) was rejected.

Years of Experience Analysis

The third descriptive survey question asked the participant to identify if he or she had been instructing for less than five years or for six or more years. These responses provided the information for the researcher to analyze Research Question 3. Based on the years of experience group responses, an independent-samples *t*-test was conducted to analyze Research Question 3: What are the differences in perception towards intentional instruction of the 4C's of 21st century soft skills between instructors with less than five years of experience and those with five or more years of experience? Group statistics for Research Question 3 are shown in Table 5.

Table 5

Group Statistics for Years of Experience: Sample Size, Mean, Standard Deviation and Standard Error

Skill	Group	*N*	*M*	*SD*	*SEM*
Communication	0-5 years	94	22.46	8.016	.827
	6+ years	226	25.23	8.337	.555
Collaboration	0-5 years	96	33.75	7.458	.761
	6+ years	223	35.44	7.426	.497
Creativity	0-5 years	94	24.78	8.588	.886
	6+ years	228	26.96	8.764	.580
Critical thinking	0-5 years	96	29.21	9.068	.926
	6+ years	219	31.91	8.755	.592

For Research Question 3, responses on each of the 4C's skills were collected from coaches and directors with less than five years of experience were compared to the

responses of coaches and directors with five or more years of experience. Data for Research Question 3 are shown in Table 6.

Table 6

t-test for Years of Experience between 0-5 years to 6 or more Years of Experience

Skill	t	*df*	Sig.	*M* difference	*SEM* difference	95% CI	
						LL	*UL*
Communication	-2.736	318	0.007*	-2.768	1.012	-4.759	-0.777
Collaboration	-1.861	317	0.064	-1.689	0.908	-3.475	0.096
Creativity	-2.049	320	0.041*	-2.188	1.068	-4.289	0.087
Critical thinking	-2.492	313	0.013*	-2.700	1.083	-4.832	-0.569

Note. CI = confidence interval; *LL* = lower limit; *UL* = upper limit.
*$p < .05$, two-tailed

There were 94 participants with less than five years of experience and 226 participants with five or more years of experience that answered survey questions about intentional instruction involving communication. An independent-samples *t*-test was run to determine if there were differences in communication between instructors with less than five years of experience and those with five or more years of experience. There were no outliers in the data, as assessed by inspection of a boxplot. Communication scores for each gender were normally distributed, as assessed by Shapiro-Wilk's test ($p > .05$), and there was homogeneity of variances, as assessed by Levene's test for equality of variances. The instruction of communication skills was more intentional for directors and coaches with five or more years of experience (M =25.23 , SD = 8.337) than directors and coaches with less than five years of experience (M=22.46, SD = 8.016), by a statistically significant difference of -2.768 (95% CI, -4.759 to - 0.777), t (318)=2.736,

p <.001. A small effect size existed with the Cohen's d = (25.23 - 22.46)/8.18 = 0.34. Thus, the null hypothesis ($H_{0.3.a}$) was rejected.

There were 96 participants with less than five years of experience and 223 participants with five or more years of experience that answered survey questions about intentional instruction involving communication. An independent-samples *t*-test was run to determine if there were differences in collaboration between male and female coaches and directors. There were no outliers in the data, as assessed by inspection of a boxplot. Collaboration scores for each gender were normally distributed, as assessed by Shapiro-Wilk's test ($p > .05$), and there was homogeneity of variances, as assessed by Levene's test for equality of variances. With a significance level set at $p < .05$ the results indicated a *p*-value less than .064 when comparing the responses of directors and coaches with five or more years of experience with directors and coaches with less than five years of experience; therefore, no statistically significant difference existed between the two groups. Thus, the null hypothesis ($H_{0.3.b}$) was accepted.

There were 94 participants with less than five years of experience and 228 participants with five or more years of experience that answered survey questions about intentional instruction involving creativity instruction. An independent-samples *t*-test was run to determine if there were differences in creativity instruction between instructors with less than five years of experience and those with five or more years of experience. There were no outliers in the data, as assessed by inspection of a boxplot. Communication scores for each group were normally distributed, as assessed by Shapiro-Wilk's test ($p > .05$), and there was homogeneity of variances, as assessed by Levene's test for equality of variances. The instruction of creativity skills was more intentional for

directors and coaches with five or more years of experience (M =26.96 , SD = 8.764) than directors and coaches with less than five years of experience (M=24.78, SD =8.588), by a statistically significant difference of -2.188 (95% CI, -4.289 to -0.087), t (320)=-2.049, $p < .001$. A small effect size existed with the Cohen's d = (26.96 - 24.78)/8.68 = 0.25. Thus, the null hypothesis ($H_{0.3.c}$) was rejected.

There were 96 participants with less than five years of experience and 219 participants with five or more years of experience that answered survey questions about intentional instruction involving instruction of critical thinking. An independent-samples t-test was run to determine if there were differences in critical thinking instruction between instructors with less than five years of experience and those with five or more years of experience. There were no outliers in the data as assessed by inspection of a boxplot. Communication scores for each group were normally distributed, as assessed by Shapiro-Wilk's test ($p > .05$), and there was homogeneity of variances, as assessed by Levene's test for equality of variances. The instruction of critical thinking skills was more intentional for directors and coaches with five or more years of experience (M =31.91 , SD = 8.755) than directors and coaches with less than five years of experience (M=29.21, SD=9.068), by a statistically significant difference of -2.700 (95% CI, -4.832 to -0.569), t (313)=-2.492, $p < .001$. A small effect size existed with the Cohen's d = (31.91 - 29.21)/8.9 = 0.30. Thus, the null hypothesis ($H_{0.3.d}$) was rejected.

Head and Assistant Analysis

The last descriptive survey question asked the participants to identify if they were a head coach/director or an assistant coach/director. These responses provided the information for the researcher to analyze Research Question 4. Based on the responses,

an independent-samples *t*-test was conducted to analyze Research Question 4: What are the differences in perception towards intentional instruction of the 4C's of 21st century soft skills between head coaches/directors and assistant coaches/directors of activities? Group statistics for Research Question 4 are shown in Table 7.

Table 7

Group Statistics for Head Coaches/Directors and Assistant Coaches/Directors: Sample Size, Mean, Standard Deviation and Standard Error

Skill	Group	*N*	*M*	*SD*	*SEM*
Communication	Head	191	25.21	8.520	.617
	Assistant	129	23.23	7.920	.697
Collaboration	Head	188	35.72	7.604	.555
	Assistant	131	33.79	7.135	.623
Creativity	Head	191	26.83	8.700	.630
	Assistant	131	25.60	8.819	.771
Critical thinking	Head	187	31.63	8.978	.657
	Assistant	128	30.30	8.820	.780

For Research Question 4, responses on each of the 4C's skills were collected from head coaches and directors and compared to the responses of assistant coaches/directors. Data for Research Question 4 are shown in Table 8.

Table 8

t-test for Head Coaches/Directors and Assistant Coaches/Directors

Skill	t	*df*	*p*	*M* difference	*SEM* difference	95% CI *LL*	95% CI *UL*
Communication	2.094	318	0.037*	1.977	0.944	0.119	3.834
Collaboration	2.286	317	0.023*	1.930	0.844	0.269	3.590
Creativity	1.241	320	0.215	1.232	0.992	-0.721	3.184
Critical thinking	1.299	313	0.195	1.329	1.023	-0.683	3.341

Note. CI = confidence interval; *LL* = lower limit; *UL* = upper limit.
*$p < .05$, two-tailed

There were 191 head coaches/directors and 129 assistant coaches/directors that answered survey questions about intentional instruction involving communication. An independent-samples *t*-test was run to determine if there were differences in communication between head coaches/directors and assistant coaches/directors. There were no outliers in the data, as assessed by inspection of a boxplot. Communication scores for each gender were normally distributed, as assessed by Shapiro-Wilk's test ($p > .05$), and there was homogeneity of variances, as assessed by Levene's test for equality of variances. The instruction of communication skills was more intentional for head coaches/directors (M =25.21 , SD = 8.520) than assistant coaches/directors (M=23.23, SD=7.920), by a statistically significant difference of 1.977 (95% *CI*, 0.119 to 3.834), $t(318) = 2.094$, $p < .001$. A small effect size existed with the Cohen's $d = (23.23 - 25.21) / 8.23 = 0.24$. Thus, the null hypothesis ($H_{0.4.a}$) was rejected.

There were 188 head coaches/directors and 131 assistant coaches/directors that answered survey questions about intentional instruction involving collaboration. An

independent-samples *t*-test was run to determine if there were differences in collaboration between head and assistant coaches and directors. Although there were a few outliers in the data as assessed by inspection of a boxplot, not enough outliers existed to effect the statistical data. Collaboration scores for each gender were normally distributed, as assessed by Shapiro-Wilk's test ($p > .05$), and there was homogeneity of variances, as assessed by Levene's test for equality of variances. The instruction of collaboration skills was more intentional for head directors and coaches (M =35.72 , SD = 7.604) than assistant directors and coaches (M=33.79, SD=7.135), by a statistically significant difference of 1.930 (95% *CI*, 0.119 to 3.834), t (318)=2.286, $p < .001$. A small effect size existed with the Cohen's d = (33.79 - 35.72)/ 7.37 = 0.26. Thus, the null hypothesis ($H_{0.4.b}$) was rejected.

There were 191 head coaches/directors and 131 assistant coaches/directors that answered survey questions about intentional instruction of creativity. An independent-samples *t*-test was run to determine if there were differences in creativity instruction between head coaches/directors and assistant coaches/directors. There were no outliers in the data, as assessed by inspection of a boxplot. Creativity instruction scores for each group were normally distributed, as assessed by Shapiro-Wilk's test ($p > .05$), and there was homogeneity of variances, as assessed by Levene's test for equality of variances. With a significance level set at $p < .05$ the results indicated a p-value of < .215 when comparing the responses of head and assistant directors/coaches; therefore, no statistically significant difference existed between the two groups. Thus, the null hypothesis ($H_{0.4.c}$) was accepted.

There were 187 head coaches/directors and 128 assistant coaches/directors that answered survey questions about intentional instruction involving critical thinking. An independent-samples *t*-test was run to determine if there were differences in creativity thinking instruction between head coaches/directors and assistant coaches/directors. There were no outliers in the data, as assessed by inspection of a boxplot. Critical thinking scores for each group were normally distributed, as assessed by Shapiro-Wilk's test ($p > .05$), and there was homogeneity of variances, as assessed by Levene's test for equality of variances. With a significance level set at $p < .05$ the results indicated a *p*-value less than .195 when comparing the responses of head directors/coaches with assistant directors/coaches; therefore, no statistically significant difference existed between the two groups. Thus, the null hypothesis ($H_{0.4.d}$) was accepted.

Open-Ended Questions

The survey also included four open-ended questions. Specifically, the question at the end of each subset of questions asked participants to give insight into how specifically they provide intentional instruction for each of the soft skills identified by the 4C's – communication, collaboration, creativity, and critical thinking. A modest qualitative analysis was performed by reading the responses from the participants to determine themes and groupings. This qualitative analysis was conducted to find categorical data and grouped by common themes.

To better understand the responses around the soft skill of critical thinking, the open-ended question at the end of the section asked survey takers to describe the ways they provide intentional instruction for critical thinking to their team or group. There were 114 responses to the question and several themes emerged from the comments.

These common themes when analyzing participant response included: application of instruction; reacting to changing situations; analysis of performance; problem-solving scenarios; self-reflection; and "why" analysis of action. The most prominent responses that emerged from the open-ended responses surrounding critical thinking were problem-solving scenarios and analysis of performance. Both coaches/directors of co-curricular and extracurricular activities used problem solving scenarios to develop critical thinking skills in students through site reading exercises, new case studies, practicing unknown game situations, and having students react to scenarios. Likewise, both coaches/directors of co-curricular and extracurricular activities used performance analysis to develop critical thinking skills in students through breakdown of game film, opponent game film, performance rating evaluation, scouting reports, and statistical data inquiry.

For further insight regarding intentional instruction of communication skills, an open-ended question at the end of the section asked coaches and directors to describe the ways they provide intentional instruction for collaboration to their team or group. There were 101 responses to the question and several themes emerged from the comments. These common themes when analyzing participant responses included: team building activities, teammate-teammate feedback and evaluation, group drills and practice, goal setting, and rewards for group success. From these common themes, three areas of emphasis were most popular amongst coaches and directors. First, goal setting was often relayed as one of the most effective ways to encourage collaboration amongst students. Instructors reported that through daily goals, team or group goals, and practice activities that force students to work together to achieve common success, they could effectively teach collaboration skills. Next, teammate-teammate evaluation and feedback regarding

performance forced students to develop collaboration skills. Finally, in practice and rehearsal the use of groupings – instrument groupings, part groupings, or position groupings – were constant practices that encouraged collaboration amongst high school students.

In order to better understand the responses involving intentional instruction of communication skills, the open-ended question at the end of the section asked coaches and directors to describe the ways they provide intentional instruction for communication to their team or group. There were 87 responses to the question and again several themes emerged from the comments. These common themes when analyzing participant response included: preparing verbal presentations, teaching how to communicate with peers, instructing how to communicate with adults, non-verbal communication; vocabulary development, and instructing how to communicate in high-stress, performance situations. Amongst the co-curricular directors, preparing verbal presentations was most common as most speech and debate teachers see that as primary goal of their activity. Furthermore, both band and choir instructors shared that presentation of music is a form of communication and trains students how to present in front of others. Interestingly, both extracurricular and co-curricular instructors agreed that teaching how to understand non-verbal communication is a key strategy for instruction. Part of communication is being able to observe and listen and they teach these skills through such activities as eye contact, cues, body language, facial expression, and signs. Also, both groups noted that the performance nature of their target groups -- whether on the field, court, or stage -- teaches students the skill of communicating in

high-stress situations. Lastly, both coaches and directors stated the value of teaching students how to conduct adult communication without parental guidance.

Finally, the open-ended question at the end of the section on creativity helped clarify the responses of coaches and directors by asking them to describe the ways they provide intentional instruction for creativity to their team or group. There were 65 responses to the question and again several themes emerged from the comments. These common themes when analyzing participant response included: interpretation of music, characters, and scenes; problem solving through scenarios; allowing participants to "play"; improvisational skill development; and individual expression. Among these common themes, two areas were most prominent. The idea of interpretation of music, characters, scenes, and actions was a top way to provide instruction of creativity – especially from co-curricular directors. Many directors reported that creativity is at the heart of their instruction that they instruct individuals to use personal expression and personal strengths to achieve same task differently even within a group setting. The other prominent way for both coaches and directors to intentionally teach creativity was through the encouragement of improvisational skills. Many coaches of extracurricular activities noted that things rarely happen as planned and through practice and performance students are taught the necessity to develop creative improvisational skills within the boundaries and rules of the sport. Likewise, several band directors described how improvisational skills are at the heart of jazz music and this activity is an ideal way to encourage and teach creativity amongst high school students.

Summary

Chapter Four delivered the analysis and findings of the study. Completed survey results from the 324 respondents were gathered and used to quantitatively analyze and answer the four main research questions plus sub questions. Analysis of data revealed statistically significant differences in responses between the perceptions towards intentional instruction of the 4C's of 21st century soft skills between instructors of extracurricular activities and instructors of co-curricular activities, between female and male coaches, between instructors with less than five years of experience and those with five or more years of experience, and between head coaches/directors and assistant/directors of activities. The researcher further analyzed each primary research question surrounding each of the 4C's to find where statistical significance occurred. Independent sample *t*-tests were used to determine whether to reject each of the null hypotheses. In addition, open-ended questions were analyzed to identify common themes amongst respondents and to provide further insight into the quantitate responses surrounding the research questions. Several of the sub question null hypothesis in each of Research Questions 1, 2, 3, and 4 were rejected due to statistically significant differences found in the data analysis and, with all four sub questions being rejected in Research Question 1, the null hypothesis for Research Question 1 was rejected. Chapter Five will provide a summary and conclusions from the research study. Furthermore, Chapter Five will present an overview of the research and suggest recommendations for future study in the area of extracurricular and co-curricular activities and 21st century soft skill development.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

Introduction

The purpose of this study was to compare the perception of instructors of extracurricular activities and instructors of co-curricular activities to determine the perceptual impact of extracurricular activities and co-curricular activities on developing 21st century soft skills. High schools have a duty to develop the skills within students that will prepare them for future success. Although GPA and classroom performance remain important, recruiters for students entering both college and the workforce are continually seeking people with soft skills (Jones, et al., 2016). As a result of these demands, high schools continually look for the ways to intentionally develop soft skills in their students (Kivunja, 2015; Scott, 2015). Understanding the value of developing these skills will help schools prepare all students to their maximum potential for a lifetime of success.

As supported in the review of literature, research validates the importance of extracurricular and co-curricular skills in enhancing student growth academically, in attendance, and in developing personal, character growth. Furthermore, research shows the value in developing the 4C's – creativity, communication, collaboration, and critical thinking – within students. However, while extracurricular and co-curricular activities are in the unique position to be able to provide critical soft skills to students, little research has been conducted to determine if instructors are intentionally teaching these

skills. In this study, data were analyzed to determine whether coaches and directors of extracurricular and co-curricular activities were actively attempting to instruct these skills to their high school students. This quantitative study was conducted in an attempt to gain knowledge for the education field on whether to claim sports and activities as places where valuable softs skills, so coveted by colleges and the workforce, are taught to students.

Summary of Methods

The researcher used a quantitative approach to research for data collection and analysis. Approval from the Research and Review board was granted in March of 2019. With this approval, the researcher then emailed the Activities Directors of public schools in the state of Missouri to gain permission to survey the coaches within their district. A list of coaches for group sports and directors of co-curricular activities from agreeing schools was then compiled. From this list, the survey was distributed to them and data collection began using Question Pro. The quantitative data was then analyzed using the IBM Statistical Package for Social Sciences (SPSS) software. For analysis, the researcher conducted an independent sample *t*-test for statistical significance and to determine whether to accept or reject the null hypotheses.

All public high school activity directors in the state of Missouri were asked for permission to have their coaches and directors surveyed for the study. From this request, 57 activity directors agreed to have their schools participate in the study. All high school coaches and directors of group interscholastic sports and activities from these agreeing schools were invited to participate in the study; however, all instructors did not respond. Of the 1,417 coaches and directors who were invited, 324 actually completed the study

for a 22.8% return. Each of these responses was used to answer the four research questions and each of the corresponding sub questions.

An initial window of one week was allowed to gain participation responses from the district activities directors throughout the state. At the end of the initial permission week, the survey was the distributed to the coaches and directors of the participating schools and remained open for 10 days. Consent from participants was the initial portion of the survey and participants could opt out of participating at any time. At the end of the 10 day window, the survey was closed and all completed survey responses were collected. No additional time was allotted for further collection.

Summary of Findings

This research was conducted to determine if there was a difference in perception of instructors of extracurricular activities and instructors of co-curricular activities on developing 21st century soft skills within high school students. Although significant amounts of research have been conducted on the positive impacts of extracurricular and co-curricular activities on high school aged students in the areas of academics, attendance and engagement, and character development, little information exists as to the impacts of extracurricular and co-curricular activities on developing soft skills on high school students. As a result of the literature reviewed, the researcher developed four research questions to analyze if directors and/or coaches intentionally taught creativity, communication, collaboration, and critical thinking to their athletes and performers.

After calculation of the final survey results, the researcher rejected one of the four null hypotheses in regards to the overall research questions. There was a statistically significant difference in responses of the perceptions towards intentional instruction of

the 4C's of 21st century soft skills between instructors of extracurricular activities and instructors of co-curricular activities in all four sub categories; thus, research question one was the only research question rejected in its entirety. However, a statistically significant difference was revealed between female and male coaches and directors when teaching soft skills, but only in the sub questions relating to communication and critical thinking. The researcher also examined the difference between instructors with less than five years of experience and those with five or more years of experience and found and statistically significant in the sub questions surrounding communication, creativity, and critical thinking. Finally, between head coaches/directors and assistant/directors of activities, a statistically significant difference was discovered in their perception of intentional instruction of the 4C's of 21st century soft skills but only in the areas of communication and collaboration.

Research Question 1 Conclusions: Co-curricular and Extracurricular

The first research question was as follows: What is the difference in perceptions towards intentional instruction of the 4C's of 21st century soft skills between instructors of extracurricular activities and instructors of co-curricular activities? To understand the difference pertaining to each of the 4C's, the research question contained four sub questions to individually address perceived intentional instruction for creativity, collaboration, communication, and critical thinking. An independent sample *t*-test was run on each sub question to determine if a statistically significant relationship ($p < .05$) was identifiable. Data revealed $p < .001$ for creativity, collaboration, communication, and for critical thinking. Thus, there was a statistically significant difference in responses from co-curricular directors compared to coaches of extracurriculars with the intentional

instructing of soft skills with t (318) = 2.772, p <.001 for communication, t (317) = 3.657, p <.001 for collaboration, t (320) = 5.273, p <.001 for creativity, and t (313) = 4.030, p < .001 for critical thinking.

When analyzing the effect size to determine the strength of the relationship between the groups, creativity indicated the highest effect size with the Cohen's d = .68. Logically and consistent with content area, the intentional instruction of creativity is simply more embedded into co-curricular activities such as music and drama than that of the extracurricular areas of athletics where coaches often script more of the action of the activity. Thus, this finding is consistent with both previous research and understanding or the two groups. Furthermore, both sub groups of critical thinking and collaboration also had medium effect sizes. Again, the instruction critical thinking skills has a greater effect size due to directors spending more time asking students to think critically toward music and scripts compared to coaches that relate players critical thinking skills more as talents or natural reactions to events that are not easily instructed. The explanation of this effect size and these thoughts were mirrored in the open-ended responses from participants. Not surprisingly, although statistically significant, the sub category of communication had the lowest effect size with the Cohen's d = .35. The gap between coaches and directors here is logically smallest as both groups, and all participants as a whole, found intentional instruction of communication skills to be important to group success. However, by the pure nature of the subjects taught co-curricular activities, including the areas of speech and drama, are likely to have higher responses surrounding communication than what might football coaches who require players to wear mouthpieces.

Although the quantitative data showed statistically significant differences between co-curricular directors compared to coaches of extracurriculars, the researcher wanted to know specific ways in which instructors intentionally instructed these soft skills. It is important to note that 65% of coaches and directors of extracurricular and co-curricular activities reported that they try to teach critical thinking skills to a great extent or a very great extent, 80% of coaches and directors of extracurricular and co-curricular activities reported that they try to teach collaboration skills to a great extent or a very great extent, 67% of coaches and directors of extracurricular and co-curricular activities reported that they try to teach communication skills to a great extent or a very great extent, and 45% of coaches and directors of extracurricular and co-curricular activities reported that they try to teach creativity and innovation skills to a great extent or a very great extent. An open-ended, follow up question was asked to identify specific ways in which the soft skills were intentionally instructed to their target group. Common themes were analyzed and upon examination of responses from both extracurricular and co-curricular instructors. Of these responses, the most common themes form coaches and directors included performance activities, performance analysis, and team/group goal setting. Raw statistical data and open-ended responses indicated that both extracurricular coaches and co-curricular coaches place an emphasis on intentional instruction of softs skills to high school students. Based on data produced from the means comparisons from the independent samples *t*-test indicating that there was a statistically significant difference ($p < .05$) in each of the 4C sub questions confirmed that directors of co-curricular activities had a statistically significant difference from coaches of extracurricular coaches

when intentionally instructing soft skills to high school students. These results allowed the researcher to reject the null hypothesis ($H_{0.1}$) for Research Question 1.

As highlighted in the review of literature, Filsinger (2012) and Dearman (2017) both researched and discovered how extracurricular activities have a strong impact on GPA and ACT scores. Likewise, Schellenburg and Mankarious (2012) discovered that musically trained children scored significantly higher on IQ scores and Test of Emotional Comprehension (TEC) than those students that were not musically trained. Thus, the results of this study indicate that extracurricular and co-curricular activities progress students in the previously unexplored areas of soft skill development. As a result, schools must acknowledge the benefits of extracurricular activities, and, as indicated by results of this study, especially co-curricular activities such as band, choir, and drama as essential elements in a student's well-rounded education. However, results also indicate that some instructors placed less emphasis on intentionally instructing soft skills. This lack of emphasis is a concern as well and schools will need to find adequate ways to address instructors' indifference, unwillingness, or ignorance around instruction of soft skills. Schools must provide the future workforce with global skills beyond traditional technical skills (Chambers, 2013; Gore, 2013). Consequently, through such things as improved scheduling, increased compensation, and facility upgrades, school leaders can not only ensure students have an opportunity to participate, but also encourage student involvement and retention in these activities that enhance students' abilities to be college and career ready.

Research Question 2 Conclusions: Gender

The second research question was as follows: What are the differences in perception towards intentional instruction of the 4C's of 21st century soft skills between female and male instructors of activities? To understand the difference pertaining to each of the 4C's, the research question contained four sub questions to individually address perceived intentional instruction for creativity, collaboration, communication, and critical thinking. An independent sample *t*-test was run on each sub question to determine if a statistically significant relationship ($p < .05$) was identifiable. Data revealed $p < .001$ for communication, and critical thinking. Although no statistically significant difference existed for creativity and collaboration, there was statistically significant differences in responses between male coaches and directors and female coaches and directors with the sub categories of intentional instructing of communication, $t(223) = 2.391$, $p < .001$, and critical thinking, $t\ (212) = 2.964$, $p < .001$. When analyzing the effect size to determine the strength of the relationship between the groups, critical thinking indicated a medium effect size with the Cohen's $d = .35$. Critical thinking, with its roots in problem solving and analytical thinking, was an area in which male coaches felt better equipped and more naturally inclined to instruct. Unfortunately, science, mathematics, and technology continue to be male dominated fields and this study indicates that education must intentionally ensure that all instructors receive the skills to narrow the gap between gender stereotypes. Not surprisingly, communication had a small effect size with the Cohen's $d = .28$. As mentioned previously, communication was seen as an essential soft skill be all participants and although a statistically significant difference between male coaches and female coaches existed, it was relatively small in effect size.

Again, raw data shows both male and female coaches and directors report teaching each of the 4C's to students. For collaboration, 81% of both male and female coaches and directors report to teach the soft skill to a great extent or a very great extent. Similarly, 67% of both male and female coaches and directors report to teach the soft skill of communication to a great extent or a very great extent and 65% claim the same for the soft skill of critical thinking. The lowest rate was the teaching of creativity and innovation where 56% of both male and females reported teaching to a great extent or a very great extent. Raw statistical data and open-ended responses indicated that both extracurricular coaches and co-curricular coaches place an emphasis on intentional instruction of softs skills to high school students. Based on data produced from the means comparisons from the independent samples *t*-test indicating that there was a statistically significant difference ($p < .05$) between male coaches and directors and female coaches and directors. Although there was no statistically significant difference in the areas of collaboration and creativity, two of the 4C sub questions, communication and critical thinking, confirmed that male coaches and directors placed a statistically significant difference importance from female coaches and directors when intentionally instructing communication and critical thinking to high school students

By rejecting the null hypothesis in the sub categories of communication and critical thinking, one can recognize that male coaches are more intentional at teaching team members the soft skills of communication and critical thinking. Overall, the P21 framework aligns communication skills with theories that emphasize the effective use of oral, written, and non-verbal skills. These skills are directly aligned to the needs requested from the 21st century workforce (Gilbert, 2016; Stewart et al., 2016).

Likewise, P21 recognizes critical thinking as analytical, reflective, and evaluative skills used to gain conclusions and solutions (Dilley et al., 2015). These two skills are essential skills sought by both colleges and the workforce. Statistically significant results of this study indicate that male coaches and directors are more likely to intentionally instruct these skills. Thus, in application, school administrators must not only leverage this strength in male coaches, but also the must purposefully train all coaches – female, assistants, head, experienced, new – and build all instructors capacity in each of the 4C's and especially in the areas of collaboration and critical thinking. Also, maintaining proper funding and ensuring ample time for such things as film review and performance evaluation will be essential for schools as these are two areas where male coaches are adept at training students how to think critically through analysis.

Research Question 3 Conclusions: Years of Experience

The third research question was as follows: What are the differences in perception towards intentional instruction of the 4C's of 21st century soft skills between instructors with less than five years of experience and those with five or more years of experience? To understand the difference pertaining to each of the 4C's, the research question contained four sub questions to individually address perceived intentional instruction for creativity, collaboration, communication, and critical thinking. An independent sample *t*-test was run on each sub question to determine if a statistically significant relationship ($p < .05$) was identifiable. Data revealed $p < .001$ for communication, creativity, and critical thinking. Only one area was not statistically significant. The difference in creativity was at .064 just slightly above the significant relationship level ($p < .05$). Nonetheless, there was a statistically significant difference in responses with instructors with less than five

years of experience compared to those with five or more years of experience with the latter being more intentional with their instruction of creativity, t (320)=-2.049, p <.001; communication, t (318)=-2.736, p < .001; and critical thinking, t (313)=-2.492, p <.001. Furthermore, the effect size for each of the three statistically significant categories was small with the Cohen's d = .34 for communication, = .30 for critical thinking, and = .25 for creativity indicating that although the results are statistically significant, they may not be as significant as the overall differences in other areas with a higher effect size. Consequently, this small effect size is encouraging in that although a difference exists in the intentional instruction of soft skills between veteran coaches and directors and that of beginning coaching and directors, the gap may be small enough that efforts by educational leaders could quickly overcame the gap benefiting students in a relatively short time frame.

As with the other research questions, raw data again demonstrated that coaches and directors were intentional in their attempts to instruct soft skills regardless of their years of experience. Raw statistical data and open-ended responses indicated that both extracurricular coaches and co-curricular coaches place an emphasis on intentional instruction of softs skills to high school students, but coaches and directors with five or more years of experience were more apt to teach soft skills to a great extent or a very great extent. Based on data produced from the means comparisons from the independent samples t-test indicating, there was a statistically significant difference (p < .05) in three of the four 4C sub questions. For creativity, critical thinking, and communication, data confirmed that instructors with five or more years of experience had a statistically significant difference from instructors with less than five years when intentionally

instructing soft skills to high school students. Although the hypothesis of three of the four sub categories were rejected and the fourth had a close *p* value of .064, the researcher failed to reject the overall null hypothesis ($H_{0.3}$) for Research Question 3.

Undoubtedly, years of experience revealed itself as a key area for soft skill development as nearly all areas of 4C soft skill development showed statistical significance. Often, coaches and directors experience a priority shift as their careers develop. This shift is consistent with previous research showing the need for youth activities – including performing arts – to produce positive outcomes including improved grades, increased self-esteem, and leadership qualities (Barber, Abbott, Bloomfield Neira, & Eccles, 2014; McCabe, Modecki, & Barber, 2016). Whereas many coaches and directors enter the profession chasing winning percentages and high ratings, over time, many leaders search for a more consistent and sustainable purpose to their careers. Results of this study are indicative of that shift. Furthermore, experienced and successful coaches understand that it takes more than technical skills or coaching strategy for players, coaches, and teams to be successful. Therefore, where many new coaches and directors are bogged down with the need for winning and acquisition of technical skills to be a successful coach or director, veteran coaches are more secure with their positions and skill and are much more apt to focus on developing life-long skills such as communication, creativity, and critical thinking than what might a coach in his or her first few years of coaching or directing. These results are consistent with research conducted by Hancock et al. (2012) showing the importance of positive interaction from supportive adults increased opportunities to develop leadership skills. With this knowledge, it is essential that school leaders encourage coaches and directors to keep coaching and

directing. Extra duty positions are becoming increasingly hard to fill. With such heavy time demands of the job relative to low financial stipends, many veteran coaches that are best suited to teach soft skills to students are leaving the profession. Thus, extra duty stipends need to reflect the need for veteran coaches by increasing pay relative to the number of years of coaching and directing experience.

Likewise, as to be seen in Research Question 4, veteran coaches must be encouraged to stay in coaching and directing in order to be mentors to the younger coaches just entering the field. Education leaders should support the mentoring and development of younger coaches through formal and informal professional development of new coaches. Formally, new or younger coaches will benefit from the support, direction, and instruction of the activity director acting as the mission leader and "principal", "coach", or "manager" of the coaches themselves. Through evaluation and feedback, the activities director can educate and train new coaches on soft skill definition and importance, develop practice planning skills that incorporate soft skill development and allow for independent practice, response to student needs, and the ability to lead student discourse. Furthermore, consistent with professional learning community philosophies, providing time where new coaches can meet as a group outside of their specific areas of concentration would be beneficial in developing a culture where coaches and directors learn to be effective instructors of soft skills. Likewise, activity directors need to be the leader in establishing peer observation of effective coaches in the district. With this practice, the activity director must create and effective protocol consisting of pre-conferencing about the soft skill to be taught, the actual observation where the new

coach is intentional about noting the skill being taught, and a final post conference between the mentor and mentee with questions designed to encourage critical thinking.

Research Question 4 Conclusions: Head and Assistant

The final research question was as follows: What are the differences in perception towards intentional instruction of the 4C's of 21st century soft skills between head coaches/directors and assistant coaches/directors of activities? To understand the difference pertaining to each of the 4C's, the research question contained four sub questions to individually address perceived intentional instruction for creativity, collaboration, communication, and critical thinking. An independent sample *t*-test was run on each sub question to determine if a statistically significant relationship ($p < .05$) was identifiable. When comparing the means between head coaches/directors and assistant coaches/directors, data revealed $p < .001$ for communication and collaboration. Although no statistically significant difference existed for creativity and critical thinking, there was statistically significant differences in responses between head coaches and directors and assistant coaches and directors with the intentional instructing of communication, $t\ (318) = 2.094$, $p < .001$, and collaboration, $t\ (318) = 2.286$, $p < .001$.

For collaboration, raw data revealed that 73% of both head and assistant coaches and directors report that students have learned the skill of collaboration to a great extent or a very great extent while in their activity. Likewise, 61% of both head and assistant coaches and directors report students have learned the skill of communication to a great extent or a very great extent. In this area, both head and assistant coaches and directors claim lower success for students learning the other two soft skills with 54% learning critical thinking to a great extent or a very great extent. The lowest rate was the teaching

of creativity and innovation, where 46% of both head and assistant coaches and directors reported students learning creativity to a great extent or a very great extent.

Raw statistical data and open ended-responses indicated that both head and assistant coaches place an emphasis on intentional instruction of softs skills to high school students. Based on data produced from the means comparisons from the independent samples *t*-test indicating there was a statistically significant difference ($p < .05$) between head coaches/directors and assistant coaches/directors. Although there was no statistically significant difference in the areas of critical thinking and creativity, two of the 4C sub questions, communication and collaboration, confirmed that head coaches/directors placed a statistically significant difference in importance from assistant coaches/directors when intentionally instructing collaboration and communication to high school students. Although the hypothesis of two of the four sub categories were rejected, the researcher failed to reject the overall null hypothesis ($H_{0.3}$) for Research Question 3.

Once again, there was a statistically significant difference in perception between the two groups. Specifically, head coaches and directors placed higher importance on the instruction of communication and collaboration than that of assistant coaches and directors. When analyzing the effect size to determine the strength of the relationship between head coaches/directors and assistant coaches/directors, head coaches and directors statistical significance in instructing communication indicated a relatively small effect size with the Cohen's $d = .24$ as did the instruction of collaboration with the Cohen's $d = .26$. Although the effect size is not the highest, these results are consistent with research which identifies teams and teamwork as a way organization achieve more goals than by acting in isolation thus requiring organizations to adopt teamwork and

collaboration as an organizational priority (Jones, 2015; Mizrak et al., 2017). Head coaches and directors, more than assistants, see themselves as leaders of the entire program or organization. Assistants can often become more specialized in a specific aspect of the program – accompanying, position coaching, flags, or other roles specific to an assistant – than concerning themselves with the entire activity or program. Thus, it is not surprising that head coaches and directors would place more emphasis on collaboration than that of assistants. Similarly, communication is amplified in team or group settings and sports related activities are found to improve communication skills (Ozturk et al., 2015; Stewart et al., 2016). Thus, results of this study are consistent with previous research as head coaches and directors, as leaders of the organizational programs, place higher emphasis on communication skills. As a result, activity directors and educational leaders must ensure students receive proper soft skill development from head coaches and directors by encouraging and funding professional development and training for coaches and directors in these areas. As mentioned previously, it will be imperative that school leaders and especially activity directors develop programs and strategies where head coaches actively act as mentors for assistant coaches to not only train them to be future head coaches in their activities, but specifically train them to be intentional instructors of the 4C's and especially in the areas of communication and collaboration. The head coach and assistant coach is another area where effective peer observation can create excellent dialogue amongst colleagues to improve instruction of soft skills. Again, schools must not only ensure that students have the opportunities to participate in these activities, but also actively encourage students to engage in both extracurricular and co-curricular activities.

Professional Implications

Instructors, both coaches and directors, of extracurricular and co-curricular activities in the State of Missouri are intentional in teaching soft skills to high school students. Furthermore, through quantitative data from this study, it is evident and statistically significant that while both extracurricular and co-curricular instructors consciously attempt to teach soft skills, co-curricular directors of band, speech and drama, and vocal music are comparatively more purposeful in teaching soft skills. Moreover, veteran coaches and directors that have six or more years of experience also make a more concerted effort to instruct soft skills. Furthermore, male coaches and directors place statistically significant more emphasis on communication and critical thinking than their female counterparts and, in addition, head coaches place statistically significant more emphasis on communication and collaboration than do assistant coaches.

As the literature review indicates, both college and career readiness is dependent on maintain the soft skills sought by higher education and the workforce. Based on results from this study, activities, especially co-curricular activities, are a viable source of instruction of softs skills for high school students and provide them with performance opportunities that allow for the development of critical thinking, communication, collaboration, and critical thinking. Thus, administrators and policy makers in Missouri public schools should make a concerted effort to maintain and enhance programing and instruction of extracurricular activities. Specifically, according to data from this study, participation and instruction of co-curricular activities of band, speech and drama, and vocal music should be emphasized. Furthermore, data indicates that coaches and directors become more intentional in soft skill instruction as they spend more time in the

profession; therefore, it is important that school districts take the necessary steps to retain and encourage veteran coaches and directors. Likewise, with male coaches and directors making statistically significant efforts for instruction of communication and critical thinking, it will be important for administrative personnel to leverage this strength in male coaches and directors while developing the same instructional skills in all coaches and directors. Through learning techniques such as modeling, shadowing, peer walk-throughs, collaborative analysis of student learning, and critical friends' groups, these skills can be transferred to other coaches and directors and throughout the entire school setting. Finally, head coaches appear more comfortable at teaching soft skills; consequently, it is important that younger, sub-varsity coaches and directors receive the proper professional development in instruction of soft skills as detailed earlier in the research question three conclusions.

The findings of this research will be extremely valuable for education administrators to advance the practice of co-curricular and extracurricular activities. Furthermore, results will help coaches and directors themselves to analyze how they structure their programs, teach skills, and develop student-athletes and performers. Contextually, these results are not only extremely valuable for high school administrators, coaches, directors, and students, but also for parents of students to understand the value of extracurricular and co-curricular activities on the development of their children and to look for purpose in these activities beyond traditional victories. Likewise, these results will be valuable to re-affirm the mission of the Missouri State High School Activities Association as well as like-organizations for each state across the country.

As a result of the conclusions of this research, education administrators must not only provide opportunities for students to participate in co-curricular activities, but also must actively encourage students to take part in these endeavors in order to gain instruction of the required 21st century soft skills. Furthermore, as an organization, it will be important to put practices, procedures, and policies in place that 1) provide the time within school schedules and funding for co-curricular activities, 2) recruit and retain veteran head coaches and directors that place high importance on teaching skills above gratuitous wins, losses, and high ratings, 3) provide training and professional development for coaches and directors on proper ways to instruct communication, collaboration, critical thinking, and creativity, and 4) discover the ways to address the shortage of coaches and directors entering and staying in the profession. Although this study was limited to public schools in the state of Missouri, the results of this study are generalizable to similar states throughout the country. Thus, these professional implications are useful to educational leaders throughout the country.

Recommendations for Future Research

The following recommendations will help to add to the field of research studying 21st century soft skill development and extracurricular activities:

1. Further research should study the comparison between coaches and directors and classroom teachers in the intentional instruction of 21st century soft skills.
2. A replication of this study using instructors of the remaining activities and individual sports, junior high school activities, or youth sports.

3. Future research should be conducted with students to see their perception as to which activities and instructors most effectively teach 21st century soft skills.
4. A replication of this study using private schools, charter schools, and alternative schools would enhance the field of study.
5. Further research should analyze coaching styles and models and how they impact the development of 21st century soft skills in high school student athletes.
6. Further research should determine the most effective professional development and mentoring programs for coaches and directors of 21st century soft skills of high school students participating in extracurricular and co-curricular activities.

Conclusion

The majority of previous research centered around how extracurricular and co-curricular activities have impacted student grades and academics, how extracurricular and co-curricular activities have influenced student attendance, and how extracurricular and co-curricular activities influences personal growth and character development. Furthermore, there is some current literature surrounding 21st century learning skills and specifically the soft skills needed for students to be successful in the future as defined by The Partnership for 21st Century Learning (P21) framework. However, little to no research exists to see if co-curricular and extracurricular activities influence the development of the 21st century soft skills as defined by the P21 framework. This study, by analyzing intentional instruction of the 4C's of the P21 framework by co-curricular

and extracurricular directors and coaches, fills the gap in existing literature regarding these two areas.

Co-curricular and extracurricular activities were found to have a positive impact on developing 21st century soft skills on high school students. In relation, instructors of co-curricular activities such as instrumental music, vocal music, and speech and drama showed higher intention of instruction of critical thinking, communication, collaboration, and creativity – the 4C's of the P21 framework. With current employers craving higher levels of soft skills for students entering the workforce, extracurricular and co-curricular activities provide an environment for schools to train and enhance these soft skills within students. Furthermore, as schools face pressures of increased focus on standardized testing and technology usage, time and training to teach these skills are waning. Thus, the gap between what the future workforce needs and what schools are able to provide continues to widen. The purpose of this study was to see if co-curricular and extracurricular activities influence the development of the 21st century soft skills as defined by the P21 framework. Through quantitative results, this study indicates that extracurricular and especially co-curricular activities can provide the time, place, knowledge, and intention to teach these needed 21st century soft skills in high school students.

Whereas findings from this study provides new insights that will help educational leaders, coaches, directors, and parents make better decisions that will help prepare students for future success, some conclusions of this study are consistent with previous literature in the field and confirm previous conclusions. For example, much like the research of Jones (2015) and Mizrak et al. (2017) results of this study conclude that head

coaches emphasize communication and collaboration just as other organizational leaders. Both identify teams and teamwork as a way to achieve more goals than by acting in isolation. Furthermore, the emphasis from co-curricular directors, head coaches/directors, and experience coaches/directors is in alignment with past research around the benefits of extracurricular activities developing life skills and social learning.

Fortunately, most schools throughout the state provide extracurricular opportunities to their students; however, not all districts place the same level of importance on student involvement in these activities. Likewise, it is interesting to note that co-curricular instructors, those that are allotted dedicated time within the school day, show greater levels of intention when instructing these skills. Thus, more dedicated time for extracurricular activities within the day may increase the capabilities and capacities of coaches of extracurricular activities to match those of co-curricular instructors.

However, time is just a part of the issue when developing soft skills in high school students. Equipping coaches and directors with the knowledge to effectively teach these skills is paramount. Coaches and directors need additional training, professional development, and researched approaches around teaching the development of soft skills within high school students. As a result, additional research in the area of instruction of softs skills must be conducted to make the proper advancements in the teaching of soft skill mastery. Preparing students to meet their maximum potential for a lifetime of success is the essential mission of schools; therefore, it is vital for schools and policy makers to provide proven opportunities beyond the standard classroom setting for students to develop and enhance these needed soft skills.

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Appendix A

A.D. Email Consent

My name is Brad Yoder and I am a doctoral student at Southwest Baptist University. As part of my research, I am asking for approximately 10 minutes of time from your high school coaches and directors to complete an anonymous survey regarding perceptions of extracurricular and co-curricular activities on developing 21st century soft skills in students.

Participation in this study is completely voluntary and anonymous. There are no foreseeable risks associated with this project and this research study has been reviewed by the Southwest Baptist University Research Review Board. However, if your coaches and directors feel uncomfortable answering any questions, they may withdraw from the survey at any point. Thank you very much for your support and understanding of this doctoral endeavor. Thus, I am requesting consent from you to **affirm by responding "YES" to this email by Friday April 12th,** 2019 so that staff from your district may be contacted to complete this survey. If additional approval is needed for coaches or directors to participate in the survey please forward the contact information to me.

Following the conclusion of my research, the completed study will be available for reading via the dissertation abstract or through the SBU Library. I will be happy to field any inquiries you may have and can be contacted at yoderb@osageschools.org. Furthermore, we have contracted with QuestionPro, an independent research firm, to field anonymous survey responses. Please click on this link to view and start the survey: Thank you for your time and confirmation of consent.

Appendix B

Informed Consent to Participate

INSTRUCTOR PERCEPTIONS OF EXTRACURRICULAR AND CO-CURRICULAR ACTIVITIES ON DEVELOPING 21ST CENTURY SOFT SKILLS IN STUDENTS

You are asked to participate in a research study conducted by **Brad Yoder** enrolled in the Educational Doctoral program at Southwest Baptist University. You are invited to participate in this research project because you are currently a coach or director of an extracurricular or co-curricular activity. The purpose of this research project is **to determine the impact of extracurricular and co-curricular group activities on developing 21st century soft skills in high school students.**

Your participation in this research study is voluntary. You may choose not to participate or skip any question that you are not comfortable in answering. If you decide to participate in this research survey, you may withdraw at any time. If you decide not to participate in this study or if you withdraw from participating at any time, you will not be penalized.

The procedure involves completing an online survey that will take approximately **8-10 minutes**. As this is an online survey, participants can complete the survey in the location of his/her choice. Your responses will be confidential and we do not collect identifying information such as your name, email address or IP address.

The questions presented in the survey are focused on your perceived impact of extracurricular or co-curricular activities on developing 21st century soft skills within students. The questions are designed to solicit information about your coaching and instruction toward a **target team or group**. Coaches and directors should answer the survey with this target group in mind, the one you feel your practices are most effective.

Data gathered will be completely confidential. All data is stored in a password protected electronic format. To help protect your confidentiality, the surveys will not contain information that will personally identify you. The results of this study will be used for scholarly purposes only.

If you have any questions or concerns about the research study, please contact Brad Yoder at yoderb@osageschools.org.

The Research Review Board (RRB) for Southwest Baptist University approved this study on April 2, 2019 and you may contact the RRB for questions or concerns regarding this study at rrb@sbuniv.edu.

Clicking on the “I agree” button below indicates that:

- You have read the above information.
- You have voluntarily agree to participate.
- You are at least 18 years of age.
- If you do not wish to participate in the research study, please decline participation by clicking on the “exit survey” button at the top, right hand corner of this page.

Appendix C

Survey Instrument

CONSENT TO PARTICIPATE IN RESEARCH INSTRUCTOR PERCEPTIONS OF EXTRACURRICULAR AND CO-CURRICULAR ACTIVITIES ON DEVELOPING 21ST CENTURY SOFT SKILLS IN STUDENTS

You are asked to participate in a research study conducted by Brad Yoder enrolled in the Doctoral program at Southwest Baptist University. You are invited to participate in this research project because you are currently a coach or director of an extracurricular or co-curricular activity. The purpose of this research project is to **determine the impact of extracurricular and co-curricular group activities on developing 21st century soft skills in high school students.**

Your participation in this research study is voluntary. You may choose not to participate or skip any question that you are not comfortable in answering. If you decide to participate in this research survey, you may withdraw at any time. If you decide not to participate in this study or if you withdraw from participating at any time, you will not be penalized.

The procedure involves completing an online survey that will take **approximately 5-10 minutes.** As this is an online survey, participants can complete the survey in the location of his/her choice. Your responses will be confidential and we do not collect identifying information such as your name, email address or IP address.

The questions presented in the survey are focused on your perceived impact of extracurricular or co-curricular activities on developing 21st century soft skills within students. The questions are designed to solicit information about **your coaching and instruction toward a target team or group.** Coaches and directors should answer the survey with this target group in mind, the one you feel your practices are most effective.

Data gathered will be completely confidential. All data is stored in a password protected electronic format. To help protect your confidentiality, the surveys will not contain information that will personally identify you. The results of this study will be used for scholarly purposes only. If you have any questions or concerns about the research study, please contact Brad Yoder at yoderb@osageschools.org. The Research Review Board (RRB) for Southwest Baptist University approved this study on April 2, 2019 and you may contact the RRB for questions or concerns regarding this study at rrb@sbuniv.edu.

Clicking on the "I agree" button below indicates that:
You have read the above information.
You have voluntarily agree to participate.
You are at least 18 years of age.

If you do not wish to participate in the research study, please decline participation by clicking on the "exit survey" button at the top, right-hand corner of this page.

For your TARGET GROUP, are you a coach/director of a co-curricular or extracurricular activity?

1. Co-curricular Activity (Band, Vocal Music, Orchestra, Speech, Debate, Theatre)
2. Extracurricular Activity (Baseball, Basketball, Football, Soccer, Softball, Volleyball)

Your Gender

1. Male
2. Female

How many total years have you been a coach/director in your activity?

1. 1-5 years
2. 6 or more years

For your TARGET GROUP, are you considered to be the head coach/director, or an assistant coach/director.

1. Head
2. Assistant

Instructions: The rest of this survey asks about your coaching and instruction practices that might support students' learning of the following 21st century skills. Critical Thinking Collaboration Communication Creativity & Innovation For each of the above you will be asked about your general coaching and instruction of these skills, and about a few specific practices you may have used. There are no correct or incorrect answers and all responses will be kept confidential.

CRITICAL THINKING SKILLS refer to students being able to analyze complex problems, investigate questions for which there are no clear-cut answers, evaluate different points of view or sources of information, and draw appropriate conclusions based on evidence and reasoning

1. Here are some examples of practices that may help students learn CRITICAL THINKING SKILLS.
In your teaching of your TARGET GROUP, how often have you asked students to do the following

	Almost never	A few times a semester	1-3 times per month	1-3 times per week	Almost daily
a. Compare information from different sources before completing a task or assignment?	❑	❑	❑	❑	❑
b. Draw their own conclusions based on analysis of numbers, facts, or relevant information?	❑	❑	❑	❑	❑
c. Summarize or create their own interpretation of what they have read or been taught?	❑	❑	❑	❑	❑
d. Analyze competing arguments, perspectives or solutions to a problem?	❑	❑	❑	❑	❑
e. Develop a persuasive argument based on supporting evidence or reasoning?	❑	❑	❑	❑	❑
f. Try to solve complex problems or answer questions that have no single correct solution or answer?	❑	❑	❑	❑	❑

2. To what extent do you agree with these statements about your TARGET GROUP?

	Not really	To a minor extent	To a moderate extent	To a great extent	To a very great extent
a. I have tried to develop students' critical thinking skills	❑	❑	❑	❑	❑
b. Most students have learned critical thinking skills while in my group	❑	❑	❑	❑	❑
c. I have been able to effectively assess students' critical thinking skills	❑	❑	❑	❑	❑

Describe the ways you provide intentional instruction for critical thinking skills to your target group.

COLLABORATION SKILLS refer to students being able to work together to solve problems or answer questions, to work effectively and respectfully in teams to accomplish a common goal and to assume shared responsibility for completing a task.

1. Here are some examples of practices that may help students learn COLLABORATION SKILLS. In your teaching of your TARGET GROUP, how often have you asked students to do the following

	Almost never	A few times a semester	1-3 times per month	1-3 times per week	Almost daily
a. Work in pairs or small groups to complete a task together?	❑	❑	❑	❑	❑
b. Work with other students to set goals and create a plan for their team?	❑	❑	❑	❑	❑
c. Create joint products using contributions from each student?	❑	❑	❑	❑	❑
d. Present their group work to the group, instructor or others?	❑	❑	❑	❑	❑
e. Work as a team to incorporate feedback on group tasks or products?	❑	❑	❑	❑	❑
f. Give feedback to peers or assess other students' work	❑	❑	❑	❑	❑

2. To what extent do you agree with these statements about your TARGET GROUP?

	Not really	To a minor extent	To a moderate extent	To a great extent	To a very great extent
a. I have tried to develop students' collaboration skills	❑	❑	❑	❑	❑
b. Most students have learned collaboration skills while in my group	❑	❑	❑	❑	❑
c. I have been able to effectively assess students' collaboration skills	❑	❑	❑	❑	❑

Describe the ways you provide intentional instruction for collaboration skills to your target group.

COMMUNICATION SKILLS refer to students being able to organize their thoughts, data and findings and share these effectively through a variety of media, as well as orally and in writing.

1. Here are some examples of practices that may help students learn COMMUNICATION SKILLS. In your teaching of your TARGET GROUP, how often have you asked students to do the following

	Almost never	A few times a semester	1-3 times per month	1-3 times per week	Almost daily
a. Structure data for use in written products or oral presentations (e.g., creating charts, tables or graphs)?	❑	❑	❑	❑	❑
b. Convey their ideas using media other than a written paper (e.g., posters, video, blogs, etc.)	❑	❑	❑	❑	❑
c. Prepare and deliver an oral presentation to the instructor or others?	❑	❑	❑	❑	❑
d. Answer questions in front of an audience?	❑	❑	❑	❑	❑
e. Decide how they will present their work or demonstrate their learning?	❑	❑	❑	❑	❑

2. To what extent do you agree with these statements about your TARGET GROUP?

	Not really	To a minor extent	To a moderate extent	To a great extent	To a very great extent
a. I have tried to develop students' communication skills	❑	❑	❑	❑	❑
b. Most students have learned communication skills while in my group	❑	❑	❑	❑	❑
c. I have been able to effectively assess students' communication skills	❑	❑	❑	❑	❑

Describe the ways you provide intentional instruction for communication skills to your target group.

CREATIVITY AND INNOVATION SKILLS refer to students being able to generate and refine solutions to complex problems or tasks based on synthesis, analysis and then combining or presenting what they have learned in new and original ways.

1. Here are some examples of practices that may help students learn CREATIVITY AND INNOVATION SKILLS. In your teaching of your TARGET GROUP, how often have you asked students to do the following

	Almost never	A few times a semester	1-3 times per month	1-3 times per week	Almost daily
a. Use idea creation techniques such as brainstorming or concept mapping?	❑	❑	❑	❑	❑
b. Generate their own ideas about how to confront a problem or question?	❑	❑	❑	❑	❑
c. Test out different ideas and work to improve them?	❑	❑	❑	❑	❑
d. Invent a solution to a complex, open-ended question or problem?	❑	❑	❑	❑	❑
e. Create an original product or performance to express their ideas?	❑	❑	❑	❑	❑

2. To what extent do you agree with these statements about your TARGET GROUP?

	Not really	To a minor extent	To a moderate extent	To a great extent	To a very great extent
a. I have tried to develop students' creativity and innovation skills	❑	❑	❑	❑	❑
b. Most students have learned creativity and innovation skills while in my group	❑	❑	❑	❑	❑
c. I have been able to effectively assess students' creativity and innovation skills	❑	❑	❑	❑	❑

Describe the ways you provide intentional instruction for creativity and innovation skills to your target group.