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CHRISTIAN CURRICULAR EMPHASES AND ACADEMIC  
RIGOR IN FINE ARTS: A MIXED METHODS STUDY

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A Thesis  
Presented to  
the Faculty of  
The Southern Baptist Theological Seminary

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In Partial Fulfillment  
of the Requirements for the Degree  
Doctor of Education

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by  
Kyle Lee Varner  
May 2022

**APPROVAL SHEET**

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RIGOR IN FINE ARTS: A MIXED METHODS STUDY

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To Amanda, my wife, my love, my trusted friend, mother of our children, and pursuer of Christ, I could not have accomplished this work without you.

To my children, Graham, Eden, Piper, and Luke: All of you have shown me love, grace, and patience. Thank you for always checking on my progress and making sure that I never forgot to take time to play.

## TABLE OF CONTENTS

	Page
LIST OF ABBREVIATIONS.....	viii
LIST OF TABLES.....	x
LIST OF FIGURES.....	xii
PREFACE.....	xiii
Chapter	
1. RESEARCH CONCERN.....	1
Introduction to the Research Problem.....	2
Presentation of the Research Problem.....	3
Status of Christian Education.....	5
Christian Curricular Emphasis.....	6
Fine Arts Curricular Emphases.....	7
Academic Rigor within the Fine Arts.....	8
Research Purpose.....	11
Research Population.....	12
Membership of Council Schools.....	12
Candidate Schools.....	14
Research Questions.....	15
Delimitations of Research.....	15
Terminology.....	16
Methodological Design.....	17
Research Assumptions.....	19
Procedural Overview.....	19
Conclusion.....	20

Chapter	Page
2. PRECEDENT LITERATURE .....	21
Foundations of Christian Fine Arts Education.....	21
Overview of Mixed Methods .....	25
Qualitative Literature Review .....	25
Curriculum Theory .....	25
Curriculum Analysis.....	31
Christian Schools and Curriculum.....	34
Christian Curricular Emphases in Fine Arts.....	38
Academic Rigor and Christian Faith .....	40
Quantitative Literature Review .....	42
Academic Rigor.....	42
Biblical Literacy and Academic Rigor .....	44
Advanced Placement .....	44
Fine Arts Courses and Advanced Placement.....	47
Similar Studies Using Mixed Methods .....	48
Research Hypothesis .....	50
3. METHODOLOGY .....	52
Purpose Statement.....	53
Research Question Synopsis .....	53
Research Design Overview .....	53
Coding Criteria.....	54
Population .....	55
Sample and Delimitations .....	55
Limitations of Generalization .....	55
Research Method and Instrumentation.....	56
Ethics Committee Process.....	56

Chapter	Page
Research Procedures .....	56
Qualitative Procedures.....	57
Quantitative Procedures.....	58
Data Transformation and Mixing .....	58
4. ANALYSIS OF FINDINGS .....	60
Compilation Protocols.....	60
Quantitative Data.....	61
Qualitative Data.....	65
Demographic and Sample Data.....	69
Covariate Data .....	71
Independent Variable Data .....	73
Findings and Displays .....	76
Research Question 1 .....	76
Research Question 2 .....	78
Research Question 3 .....	84
Research Question 4 .....	88
Summary of Testing of Assumptions .....	90
MANOVA Results.....	91
MANCOVA Results.....	100
Evaluation of Research Design .....	110
Strengths of the Research Design .....	110
Weaknesses of the Research Design.....	111
Summary of Analysis.....	112

Chapter	Page
5. CONCLUSIONS .....	114
Research Purpose .....	114
Research Questions .....	115
Research Implications .....	116
Christian Curricular Emphasis among CESA Schools Fine Arts Programs.....	116
Fine Arts Rigor among CESA Schools .....	117
The Relationship between Christian Curricular Emphasis and Fine Arts Rigor.....	119
Research Applications.....	120
Research Limitations.....	1211
Contributions of Research to the Precedent Literature .....	1222
Recommendations for Practice .....	122
Further Research .....	1233
Author's Reflection .....	1234
 Appendix	
A. RESEARCH PROCEDURES WORKSHEET.....	126
B. CESA SCHOOL DATA .....	131
C. IFL DATA: A REPRODUCITON OF BADLEY'S PARAPDIGMS .....	145
D. COLLEGE BOARD FINE ARTS AP COURSES.....	148
E. LIST OF TOP UNIVERSITIES .....	149
BIBLIOGRAPHY.....	1655

## LIST OF ABBREVIATIONS

AP <sub>avail</sub>	Advanced Placement Courses in Fine Arts Available at CESA Schools
BandIFL	Band Course Descriptions with Integration of Faith and Learning Language
CESA	Council on Educational Standards and Accountability
ChorusIFL	Chorus Course Descriptions with Integration of Faith and Learning Language
DanceIFL	Dance Course Descriptions with Integration of Faith and Learning Language
IFL	Integration of Faith and Learning
MANOVA	Multivariate Analysis of Variance
MANCOVA	Multivariate Analysis of Variance with Covariates
MIFA	Median Family Income for all ZIP codes Bordering a CESA School
MIFZ	Median Family Income for the ZIP Code of a CESA School
NAEA	The National Art Education Association
NAME	National Association for Music Education
NVivo	NVivo 12 from QSR Corporation
OrchIFL	Orchestra Course Descriptions with Integration of Faith and Learning Language
SAT	Scholastic Achievement Test
SAT <sub>med</sub>	Median Score of SAT
SPSS	Statistical Package for the Social Sciences
TheatreIFL	Theatre Course Descriptions with Integration of Faith and Learning Language
PSPR	Personality and Social Psychology Review

TopUniv	Top 50 Colleges and Universities Based on Aggregated Rankings Combined with Top Christian, Visual Arts, and Performing Arts Colleges and Universities
VAIFL	Visual Arts Course Descriptions with Integration of Faith and Learning Language

## LIST OF TABLES

Table	Page
1. List of abbreviations for each variable .....	69
2. Case summaries for the dependent variables.....	71
3. Case summaries for covariates .....	72
4. Case summaries of the independent variables.....	74
5. Overview of statistical analysis .....	75
6. Fine arts offerings and graduation track options .....	78
7. BandIFL data .....	80
8. ChorusIFL data .....	80
9. OrchIFL data.....	81
10. VAIFL data.....	81
11. DanceIFL data .....	82
12. TheatreIFL data .....	83
13. Bible data.....	83
14. Descriptive statistics for dependent variables and covariates.....	85
15. Comparison of CESA schools alongside national mean aata.....	86
16. Comparison of SAT scores to AP <sub>avail</sub> , FA <sub>avail</sub> , and GradTrack.....	87
17. Between-subjects factors .....	88
18. Tests of between-subjects effects .....	89
19. MANOVA between-subjects factors.....	92
20. Multivariate tests .....	94
21. MANOVA tests of between-subjects effects.....	97

22. MANCOVA Test <sup>a</sup> .....	100
23. MANCOVA test of between-subjects effects.....	106
A1. Research procedures chart .....	1266
B1. List of CESA schools included in the study .....	13131
B2. CESA school tuition as percentage of median family income of school ZIP code.....	1322
B3. CESA school ZIP codes and bordering ZIP codes .....	1344
C1. Word frequency count of Badley’s IFL paradigm publications reproduced from Horner’s 2016 thesis .....	1455
D1. Fine arts area AP course offerings .....	1488
E1. US News top university rankings.....	1499
E2. Times Higher Ed top university rankings .....	1522
E3. QS world university rankings.....	1555
E4. Academic ranking of world universities rankings.....	1588
E5. EDsmart top Christian universities .....	16060
E6. Collegefactual Top 25 visual arts universities .....	1622
E7. Collegefactual to 25 theatre universities .....	1633
E8. Collegefactual to 25 music universities .....	1644

## LIST OF FIGURES

Figure	Page
1. CESA schools by ZIP code.....	70

## PREFACE

This project originally stemmed from my work in fine arts and my love for creating rigorous curriculum within the classes I had taught. Additionally, my love and passion for theology and its impact on education deeply influenced this work.

This work would not have been accomplished without the support of the following people. They have my thanks and gratitude for the known and unknown ways in which they supported me. To my advisor, Jeffrey Horner, for his encouragement in my research topic, which was a humble extension to his previous work, and for coffee in metro-Atlanta; to Jim Estep, for his conversations over the phone and enthusiastic guidance in establishing project details; to John David Trentham, for his comforting advise, support, and tireless effort on behalf of the SBTS EdD program. To my friends and church leaders, Inman Houston, Radu Coliba, and Logan Ferrell, who believed in me and were a source of constant encouragement; for the fellowship, logistics, support, and good humor of my cohort friends, Rob Fultz, John Harris, Bruno Sanchez, Michael Small, Chad Vitarelli, and Lindsey Wilkerson. To my family, Ann Rhoden, Arnold and Debbie Whitson, Jill and Ben Stanley, Bill and Janet Blonshine, Jimmy and Jo Ellen Kunzweiler, and Bernd Saur, for their unyielding loyalty, encouragement, positivity, prayer, and support. Finally, to my beloved Amanda, for unmeasurable support of my writing time, sacrificing your own time to allow me to write, and teaching our children.

Kyle L. Varner

Lawrenceville, Georgia

May 2022

## CHAPTER 1

### RESEARCH CONCERN

In the 1980s, Charles Malik, famed diplomat and Christian thinker, said the following of the Christian intellectual's task: "The problem is not only to win souls but to save minds. If you win the whole world and lose the mind of the world, you will soon discover you have not won the world. Indeed, it may turn out that you have actually lost the world."<sup>1</sup> This task of winning the mind is complicated for the evangelical Christian due to the continuing perception that they tend to be less intelligent than their secular counterparts.<sup>2</sup> A study in 2013 in the *Personality and Social Psychology Review* (PSPR) showed a significant negative association between intelligence and religiosity.<sup>3</sup> A rebuttal to this study was published in *Intelligence* in 2016. This newer study has shown that the negative intelligence-religiosity link declined over time, partly due to education.<sup>4</sup> However, in 2019, a meta-analysis supporting the conclusions of the previous 2013 study was published in the PSPR.<sup>5</sup> Therefore, the battle for the intelligence of the evangelical mind continues, and a negative intellectual perception remains. This situation places a

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<sup>1</sup> Charles Malik, *The Two Tasks* (Westchester, IL: Crossway Books, 1980), 32.

<sup>2</sup> James S. Spiegel, "Dumb Sheep," *Touchstone: A Journal of Mere Christianity*, May/June 2015, <http://www.touchstonemag.com/archives/article.php?id=28-03-020-v>.

<sup>3</sup> Miron Zuckerman, Jordan Silberman, and Judith A. Hall, "The Relation Between Intelligence and Religiosity: A Meta-Analysis and Some Proposed Explanations," *Personality & Social Psychology Review* 17, no. 4 (November 2013): 325–54, <http://dx.doi.org/10.1177/1088868313497266>.

<sup>4</sup> Gregory D. Webster and Ryan D. Duffy, "Losing Faith in the Intelligence–Religiosity Link: New Evidence for a Decline Effect, Spatial Dependence, and Mediation by Education and Life Quality," *Intelligence* 55 (March 2016): 15–27, <http://dx.doi.org/10.1016/j.intell.2016.01.001>.

<sup>5</sup> Miron Zuckerman et al., "The Negative Intelligence–Religiosity Relation: New and Confirming Evidence," *Personality and Social Psychology Bulletin* 46, no. 6 (June 1, 2020): 856–68, <http://dx.doi.org/10.1177/0146167219879122>.

significant challenge for evangelical Christian primary and secondary schools that strive to present as academically rigorous institutions.

### **Introduction to the Research Problem**

When considering what an academically rigorous curriculum looks like for Christian education, little consensus has been reached. Rose stated, “Colloquially, rigor is understood to be a measure of how tough a class is.”<sup>6</sup> Rigor is also simulated through heavy workloads with short turnaround times, insufficient instructional help, few high stakes tests with minimal formative assessment, and testing on content only vaguely covered.<sup>7</sup> Thus, rigor involves learning. Campbell and Dortch defined rigor as “teaching practices and coursework that challenges learners to sustain a deep connection to the subject matter and to think in increasingly complex ways.”<sup>8</sup> Bowman and Culver defined rigor as instructional practices that “challenge students to think and articulate their thinking in more complex ways that recognize multiple perspectives.”<sup>9</sup> Similarly, Draeger referred to rigor as “actively learning of meaningful content with high-order thinking at the appropriate level of expectation.”<sup>10</sup>

As discussed by Arthur K. Ellis and in connection with rigor is the curriculum that can be prescribed and/or descriptive.<sup>11</sup> Hilda Taba summed the prescribed curriculum

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<sup>6</sup> Tyler M. Rose, “Getting Rigor Right,” *American Journal of Pharmaceutical Education* 84, no. 5 (May 2020): 524, <http://dx.doi.org/10.5688/ajpe7906>.

<sup>7</sup> Rose, “Getting Rigor Right,” 524.

<sup>8</sup> Corbin M. Campbell and Deniece Dortch, “Reconsidering Academic Rigor: Posing and Supporting Rigorous Course Practices at Two Research Institutions,” *Teachers College Record* 120, no. 5 (April 2018): 5.

<sup>9</sup> Nicholas A. Bowman and K. C. Culver, “Promoting Equity and Student Learning: Rigor in Undergraduate Academic Experiences,” *New Directions for Higher Education* 2018, no. 181 (Spring 2018): 47, <http://dx.doi.org/10.1002/he.20270>.

<sup>10</sup> John Draeger et al., “The Anatomy of Academic Rigor: The Story of One Institutional Journey,” *Innovative Higher Education* 38 (August 1, 2013), <http://dx.doi.org/10.1007/s10755-012-9246-8>.

<sup>11</sup> Arthur K. Ellis, *Exemplars of Curriculum Theory*, 1st ed. (New York: Routledge, 2014), 313.

as “a plan for learning,” and Glen Hass provided a succinct definition of the descriptive curriculum: “The set of actual experiences and perceptions of the experiences that each individual learner has of his or her program of education.”<sup>12</sup> Like rigor, curriculum can be difficult to firmly nail down. Donald Cay described curriculum as “the master plan devised by educators and other adults in a community, state, or nation that will best serve their needs, and as they see it, the needs of their children.”<sup>13</sup> Abeles, Hoffer, and Klotman, stated, “There are many ways to perceive or define curriculum.”<sup>14</sup> He continued, “Trained evaluator or administrators view the curriculum as an area of ongoing activities that are actually occurring in the classroom, rather than thinking of it as a static, established course of study.”<sup>15</sup>

Christians have undertaken the task of schooling with great care. Many factors must be considered, namely maintaining their commitment to faithfulness and biblical truth while equipping students for academic success in the twenty-first century. This chapter explores the background regarding Christian education, academic rigor, and fine arts. Then, the focus is given to the research problem and presentation of the research questions.

### **Presentation of the Research Problem**

Private Christian schools have sought to distinguish from schools in the private and public sector with which they compete. Christian schools, when compared to competitors (high-performing public and secular private schools), demonstrate the unique quality of integrating Christian faith into the life of the school. However, identifying as

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<sup>12</sup> Quoted in Ellis, *Exemplars of Curriculum Theory*, 1st ed., 325.

<sup>13</sup> Donald F. Cay, *Curriculum Design for Learning*, 1st ed. (Bobbs-Merrill, 1966), 1.

<sup>14</sup> Harold F. Abeles, Charles R. Hoffer, and Robert H. Klotman, *Foundations of Music Education*, 2nd ed. (New York: Toronto: Cengage Learning, 1994), 2<sup>nd</sup> ed., 271.

<sup>15</sup> Abeles, Hoffer, and Klotman, *Foundations of Music Education*, 271.

evangelical Christian schools can develop the perception of a less academically rigorous learning environment than elite secular private schools and high-performing public schools, as shown on page 1 of this study.<sup>16</sup>

Additionally, many private Christian schools have limited resources to invest in the fine arts, which may result in smaller, less rigorous fine arts courses. This finding is shown by Kenneth Elpus.<sup>17</sup> Elpus found, “In private high schools, there were fewer opportunities for students to study the arts. Only 63 percent of all private high schools offered any arts instruction. While 37 percent of private schools offered no arts courses.”<sup>18</sup> This finding is contrasted with his public-school findings: “Among all public high schools, 88 percent offered at least one arts course in any discipline. While 12 percent of public high schools offered no arts instruction.”<sup>19</sup>

Academic rigor is determined, at least partly, by a median performance on the SAT, the availability of AP courses within the curriculum, and student admissions to highly rated colleges and universities. The College Board noted this standard in assessing school academic rigor in their pursuit to provide colleges with measurements of students’ academic abilities.<sup>20</sup> Based on this trend, Christian school leaders seeking to be academically rigorous may model their curriculums after rigorous local, state, and national curricula. These rigorous curricula are detailed in “A Nation at Risk.”<sup>21</sup>

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<sup>16</sup> This finding is evidenced in the works of James S. Spiegel, Miron Zuckerman, Jordan Silberman, and Judith A. Hall.

<sup>17</sup> Kenneth Elpus, *Arts Education as a Pathway to College: College Admittance, Selectivity, and Completion by Arts and Non-Arts Students* (Washington: National Endowment for the Arts, 2014).

<sup>18</sup> Elpus, *Arts Education in U.S. High Schools*, 15.

<sup>19</sup> Elpus, *Arts Education in U.S. High Schools*, 14.

<sup>20</sup> College Board, *A Brief History of the Advanced Placement Program* (New York: College Entrance Examination Board, 2003), [https://www.oakparkusd.org/cms/lib/CA01000794/Centricity/Domain/295/APUSH/AP\\_History\\_history.pdf](https://www.oakparkusd.org/cms/lib/CA01000794/Centricity/Domain/295/APUSH/AP_History_history.pdf).

<sup>21</sup> A National Commission on Excellence in Education, “A Nation at Risk: The Imperative for Educational Reform,” *The Elementary School Journal* 84, no. 2 (November 1983), <http://dx.doi.org/10.1086/461348>.

Therefore, much of the coursework in Christian schools is focused on the Core Four classes: English, mathematics, science, and social studies/history. Jeffrey Horner studied these Core Four courses in his doctoral thesis, “Christian Curricular Emphases and Academic Rigor.”<sup>22</sup> This study, which served as a companion to Horner’s work, examined fine arts courses and how they contributed to a school’s rigor regarding median SAT scores, AP course offerings, and acceptance to highly rated colleges and universities. The goal was to examine the frequency of IFL language in fine arts course and program descriptions.

The Council for Educational Standards and Accountability (CESA) was founded in 2012 by a select group of schools with leaders who sought to distinguish themselves by emphasizing academic rigor and Christian faith, as reflected in the Nicene Creed. Since its formation in 2012, CESA has established a robust set of five standards, through which other schools may obtain membership. With accreditation, CESA members’ schools obtain a distinct identity as academically rigorous and distinctly Christian. In examining CESA school’s fine arts programs and courses for data gathering and comparison, I sought to identify the correlation of distinctly Christian education and fine arts academic rigor. Therefore, the qualitative data collected from CESA member schools should reflect academic and philosophical priorities consistent with a Christian faith and quality fine arts education.

### **Status of Christian Education**

Defining “Christian education” is important to this study as the term can have various meanings in different contexts. Generically, the term can refer to schools that hold Christianity as a central focus or foundation. For some, Christian education is used

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<sup>22</sup> Jeffrey Michael Horner, “Christian Curricular Emphases and Academic Rigor: A Mixed Methods Study” (EdD thesis, The Southern Baptist Theological Seminary, 2016), <https://repository-sbts-edu.ezproxy.sbts.edu/handle/10392/5248>.

to refer to Sunday school programs and a church’s Bible study curriculum. Still, others define Christian education as referring to K to 12 schools that operate within a Christian framework or worldview.

The term Christian school was further defined in the aftermath of World War II, with the rulings issued in the cases *McCullum v. Board of Education School Dist. No. 71, Champaign County*, *Engel v. Vitale*, and *Abington School District v. Schempp*.<sup>23</sup> These cases made it necessary for those seeking Christian schooling to do so outside the realm of public education. The rulings in these cases resulted in establishing numerous private Christian schools. These schools may be described as Christian day schools to distinguish from the popular bordering schools of the mid-20<sup>th</sup> century. As bordering schools became fewer, the “day school” was dropped in favor of the simplified term, “Christian school.”<sup>24</sup> In addition to the growth seen in Christian K to 12 education, there is documented growth at the secondary level. From 2003 to 2015, the Council for Christian Colleges and Universities recorded an 18 percent growth rate in first-time enrollment for full-time students.<sup>25</sup>

### **Christian Curricular Emphasis**

Christian curricular emphasis is a key factor that distinguishes Christian education from its secular private and public counterparts—often referred to as the integration of faith and learning (IFL). The idea and practice of integrating Christianity into the curricula of a school is the topic of much debate. For example, Kenneth Badley provided deeper clarification on IFL in his dissertation, “Integration and The Integration

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<sup>23</sup> Oyez, “Oyez,” accessed February 9, 2020, <https://www.oyez.org/>.

<sup>24</sup> Werner C. Graendorf, *Introduction to Biblical Christian Education* (Chicago: Moody Pub, 1981), 322.

<sup>25</sup> Farran Powell and Briana Boyington, “Why Enrollment is Rising at Large Christian Colleges,” *US News & World Report*, December 6, 2017, <https://www.usnews.com/education/best-colleges/articles/2017-12-06/why-enrollment-is-rising-at-large-christian-colleges>.

of Faith and Learning,” where he described seven IFL paradigms.<sup>26</sup> Horner elaborated on rearticulating IFL terms in his article, “Why We Should Discard the Integration of Faith and Learning: Rearticulating the Mission of the Christian Scholar.” Horner concluded that Badley’s paradigms of IFL could adequately explain a Christian curricular emphasis. In considering these findings, I used Badley’s terminology as a tool to measure the fine arts course descriptions to determine the degree of Christian curricular emphasis in CESA schools.<sup>27</sup>

### **Fine Arts Curricular Emphases**

The arts have long been a part of education within civilized society. From the time of the Greeks, music was an essential part of a student’s education as it could engage emotions. Plato said the following of musical instruction: “Musical training is a more potent instrument than any other because rhythm and harmony find their way into the inward places of the soul, on which they mightily fasten, imparting grace, and making the soul of him who is rightly educated graceful, or of him who is ill-educated ungraceful.”<sup>28</sup> Since 1907, the National Association for Music Education has labored to see that every student has access to a rigorous music program. Likewise, The National Art Education Association has sought to advance a rigorous visual arts education.<sup>29</sup>

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<sup>26</sup> Kenneth R. Badley’s paradigm descriptions appear in his published works: “‘Integration’ and ‘The Integration of Faith and Learning,’” (PhD diss., University of British Columbia, 1986), 64-77; Kenneth R. Badley, “The Faith/Learning Integration Movement in Christian Higher Education: Slogan or Substance?” *Journal of Research on Christian Education* 3, no. 1 (Spring 1994): 24-25, <http://dx.doi.org/10.1177%2F205699710901300103>; Kenneth R. Badley, “Clarifying ‘Faith-Learning Integration’: Essentially Contested Concepts and the Concept-Conception Distinction,” *Journal of Education & Christian Belief* 13, no. 1 (Spring 2009): 7-17, <http://dx.doi.org/10.1080/10656219409484798>.

<sup>27</sup> Badley, “‘Integration’ and ‘The Integration of Faith and Learning,’” 64-77; Badley, “The Faith/Learning Integration,” 24-25; Badley, “Clarifying ‘Faith-Learning Integration,’” 7-17.

<sup>28</sup> Michael J. Anthony and Warren S. Benson, *Exploring the History & Philosophy of Christian Education: Principles for the 21st Century* (Grand Rapids, MI: Kregel, 2003), 52-54.

<sup>29</sup> NafME, “NAfME History and Leadership,” *NafME Blog*, accessed February 9, 2020, <https://nafme.org/about/>.

Fine arts are regarded as beneficial, yet time and money are factors in its effective implementation. Empirical evidence has shown the intrinsic value of fine arts participation. In contrast, there is little empirical evidence of its benefit to K to 12 education. A study done in 2019 by Kisida and Bowen, in partnership with the Houston Education Research Consortium, showed a 13 percent improvement in writing scores, as well as social and emotional improvements.<sup>30</sup> This increase is attributed to a substantial increase in arts education experiences. Based on this historic understanding of fine art's importance and recent empirical evidence of its academic benefits, I endeavored to consider the influence of fine arts on the academic rigor of CESA schools. Additionally, I examined the level to which IFL was used in fine arts courses at CESA schools.

### **Academic Rigor within the Fine Arts**

For this study, rigor within the fine arts was measured within the standards established in the *National Standards for Arts Education (NSAE)*.<sup>31</sup> NAME in conjunction with NAEA created these standards to represent a fine arts curriculum designed to develop intuition, reasoning, imagination, and dexterity into creative forms of inspiration through visual arts, band, chorus, and orchestra. The National Standards for the Arts details seven areas:

1. Understanding human experiences both past and present
2. Learning to adapt to different ways of thinking and expression
3. Learning artistic modes of problem-solving
4. Understanding the influence fine arts has across curricula

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<sup>30</sup> Brian Kisida and Daniel H. Bowen, "New Evidence of the Benefits of Arts Education," *Brookings*, February 12, 2019, <https://www.brookings.edu/blog/brown-center-chalkboard/2019/02/12/new-evidence-of-the-benefits-of-arts-education/>.

<sup>31</sup> Consortium of National Arts Education Associations, *National Standards for Arts Education: What Every Young American Should Know and Be Able to Do in the Arts* (Reston, VA: The National Association for Music Education, 1994), 7.

5. Decision making in a situation where there is no standard answer
6. Nonverbal communication and analysis
7. Communicating thoughts and feelings<sup>32</sup>

The standards are further developed in the *NSAE: What Every Young American Should Know and Be Able to do in the Arts*.

The standards laid out in the *NSAE* were developed by the American Alliance for Theatre and Education, the National Association for Music Education, the NAEA, and the National Dance Association. These disciplines are defined within the *NSAE* as “(1) creative works and the process of producing them, and (2) the whole body of work in the art forms that make up the entire human intellectual and cultural heritage.”<sup>33</sup> The national standards are silent regarding a biblical worldview, and they do not seek to align the arts with the Word of God or Holy Spirit. One should note that although the *NSAE* do not have a biblical worldview, they are not opposed to it. There is ample room to approach the *NSAE* with biblical wisdom or what John David Trentham calls the principle of inverse consistency. The *NSAE* outlines technique, technical aspects of dance, theatre, music, and art (e.g., lighting, anatomy, tone color shape, and mediums). The standards also cover historical aspects of the arts and how to interpret the arts.<sup>34</sup>

These seven areas are applicable to students in Christian schools and secular schools. However, biblical connections can be drawn from the work laid out in the *NSAE*. The first area entails understanding human experiences both past and present correlates to the larger biblical narrative: God created man in His image and His commissioning of Adam, and Eve to be fruitful and multiply. This area also has connections to Hebrews, “By faith, we understand that the universe was created by the word of God so that what is

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<sup>32</sup> A Consortium of National Arts Education Associations, *National Standards*, 7.

<sup>33</sup> A Consortium of National Arts Education Associations, *National Standards*, 54.

<sup>34</sup> A Consortium of National Arts Education Associations, *National Standards*, 54–83.

seen was not made out of things that are visible” (Heb 11:3).<sup>35</sup> In this first area, one may see that the believer is to be in the world and not of it, as well as to go and make disciples.

The second area entails learning to adapt to different ways of thinking and expression connects well with what it means to be a missionary and love people from various backgrounds and traditions. This area is aligned with the second commandment to love one’s neighbor and is testified by the words in the Gospel of John: “A new commandment I give to you, that you love one another: just as I have loved you, you also are to love one another” (John 13:34).

The third and fifth areas entail learning artistic models of problem-solving and decision making in situations where there is no standard answer; these areas are connected to the stories of David, his harp playing to calm Saul, and the time victory was won through the power of prayer and music. At the forefront is the story of Paul singing hymns and praying to the point that the doors were opened, and the chains were unfastened (Acts 16:25-26).

The fourth area entails understanding the influence of fine arts across curricula; this area is connected to the deeply spiritual uses of the fine arts throughout scripture. One example is the artistic creation of the Ark of the Covenant, Temple of Solomon, robes of the priests, and veil separating the holy of holies. God weaves beauty throughout His creations, culminating in glorifying our resurrected bodies; God offers beauty to our ashes (Isa 61:1-3). The sixth and seventh areas entail nonverbal communication and communicating thoughts and feelings. These areas find clear parallels in worship and prayer. There are also key parallels with visual arts, even in iconography from the Middle Ages. Theologian John of Damascus wrote, “I have not many books nor time for study, and I go into a church, the common refuge of souls, my mind wearied with conflicting

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<sup>35</sup> Unless otherwise noted, all Scripture quotations come from the English Standard Version.

thoughts. I see before me a beautiful picture and the sight refreshes me and induces me to glorify God.”<sup>36</sup> He continued, “The representations of the saints are not our gods, but books which lie open and are ventilated in churches in order to remind us of God and lead us to worship him.”<sup>37</sup>

### **Research Purpose**

Private Christian school leaders have sought to distinguish the school from schools in the private and public sector with which they compete. In seeking differentiation, they maintain curricula largely like that of public schools, as outlined by Ronald Reagan’s National Commission on Excellence in Education, *A Nation at Risk*.<sup>38</sup> In seeking to distinguish themselves better, a group of other private Christian schools formed the CESA. Leaders of these schools emphasized rigor and Christian faith, as reflected in the Nicene Creed.

Since its formation in 2012, CESA has established a robust set of five standards through which additional schools may obtain membership. The standards are Mission Clarity, Effective Governance, Institutional Viability, Academic and Programmatic Distinction, and a Sense of Coherent Christian Community.<sup>39</sup> With accreditation by CESA, member schools obtain a distinct identity as academically rigorous and distinctly Christian educational institutions.

Moreover, just as private Christian schools sought distinction from secular education yet maintained similar curricula, so to have fine arts courses. However, with a

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<sup>36</sup> St John of Damascus, “Writings,” in *The Fathers of the Church*, vol. 37, trans. Frederic H. Chase Jr. (Washington, DC: Catholic University of America Press, 1958), 153-160.

<sup>37</sup> St John of Damascus, “Writings,” 153-160.

<sup>38</sup> National Commission on Excellence in Education, *A Nation at Risk*, 1.

<sup>39</sup> Council on Educational Standards and Accountability, *CESA Institutional Review* (Kennesaw, GA: CESA Schools, 2019). <https://www.cesaschools.org/wp-content/uploads/cesa-standards.pdf>.

distinct purpose for education rooted in the Nicene Creed and the five standards mentioned above, CESA schools' fine arts programs and course offerings should represent a fine arts curriculum that is both rigorous and distinctly Christian. In using CESA schools for data gathering and comparison, I sought to identify the correlation between distinctly Christian fine arts education and academic rigor within those course offerings and programs. Therefore, the qualitative data collected from CESA member schools should reflect academic and philosophical priorities consistent with the Christian faith.

### **Research Population**

I used a census of “Membership of Council” and “Candidate” schools as of February 2020. Course descriptions of CESA members and candidate schools constituted the population for this study.

### **Membership of Council Schools**

The membership of council schools included the following:

1. Brentwood Academy (Brentwood, TN)
2. Charlotte Christian School (Charlotte, NC)
3. Christian Academy of Knoxville (Knoxville, TN)
4. Cincinnati Hills Christian Academy (Cincinnati, OH)
5. Faith Lutheran Middle School and High School (Las Vegas, NV)
6. Fellowship Christian School (Roswell, GA)
7. First Presbyterian Day School (Macon, GA)
8. Grace Community School (Tyler, TX)
9. Greater Atlanta Christian School (Norcross, GA)
10. Hill Country Christian School (Austin, TX)
11. Houston Christian High School (Houston, TX)

12. King's Ridge Christian School (Alpharetta, GA)
13. Legacy Christian Academy (Frisco, TX)
14. Life Christian Academy (Tacoma, WA)
15. Little Rock Christian Academy (Little Rock, AR)
16. Lipscomb Academy (Nashville, TN)
17. Mount Paran Christian School (Kennesaw, GA)
18. Mount Pisgah Christian School (John's Creek, GA)
19. Norfolk Christian Schools (Norfolk, VA)
20. Prestonwood Christian Academy (Plano, TX)
21. Regents School of Austin (Austin, TX)
22. Savannah Christian Preparatory School (Savannah, GA)
23. Stillwater Christian School (Kalispell, MT)
24. The Brook Hill School (Bullard, TX)
25. The First Academy (Orlando, FL)
26. The Woodlands Christian Academy (The Woodlands, TX)
27. Valor Christian School (Highlands Ranch, CO)
28. Village Christian Schools (Los Angeles, CA)
29. Wesleyan Christian Academy (High Point, NC)
30. Wesleyan School (Norcross, GA)
31. Westminster Schools of Augusta (Augusta, GA)
32. Westminster Christian Academy (St. Louis, MO)
33. Westminster Christian Academy (Huntsville, AL)
34. Wheaton Academy (West Chicago, IL)
35. Whitefield Academy (Mableton, GA)

## **Candidate Schools**

The candidate schools included the following:

1. Ben Lippen School (Columbia, SC)
2. Capistrano Valley Christian Schools (San Juan Capistrano, CA)
3. Christian Heritage School (Trumbull, CT)
4. Cuyahoga Valley Christian Academy (Cuyahoga Falls, OH)
5. Cypress Christian Schools (Houston, TX)
6. Dallas Christian School (Mesquite, TX)
7. Des Moines Christian School (Urbandale, IA)
8. Fort Bend Christian Academy (Sugar Land, TX)
9. Fort Worth Christian School (North Richland Hills, TX)
10. Gaston Christian School (Gastonia, NC)
11. Gilbert Christian Schools (Gilbert, AZ)
12. Grand Rapids Christian School (Grand Rapids, MI)
13. Kansas City Christian School (Prairie Village, KS)
14. Kigali International Community School (Kigali, Rwanda)
15. Loudonville Christian Schools (Loudonville, NY)
16. Lutheran High School (Parker, CO)
17. Monte Vista Christian School (Watsonville, CA)
18. Oaks Christian School (Westlake Village, CA)
19. Redlands Christian School (Redlands, CA)
20. Resurrection Christian School (Loveland, CO)
21. Santa Fe Christian Schools (Solana Beach, CA)
22. Santiago Christian Schools (Santiago, Dominican Republic)
23. Second Baptist School (Houston, TX)
24. Timothy Christian Schools (Elmhurst, IL)
25. Tree of Life Christian Schools (Columbus, OH)

26. Vail Christian High School (Vail, CO)
27. Westminster Academy (Fort Lauderdale, FL)
28. Westminster Christian Academy (Watkinsville, GA)
29. Whittier Christian High School (La Habra, CA)

### **Research Questions**

1. What fine arts courses are offered and/or required at CESA schools and are there special honors for students who pursue a fine arts graduation track?
2. How are Christian curricular emphases expressed as it relates to the presence of Bible courses, Chapel, and the integration of faith and learning language in the fine arts curricula?
3. How rigorous are CESA fine arts/music programs as reflected by annual school reports, transcript data, and surveys in conjunction with SAT scores, AP courses offered in the fine arts, and top-ranking college and university acceptances at Top 50 World University Rankings universities?
4. What is the relationship between the presence of a Christian curricular emphasis in fine arts courses and overall academic rigor at CESA schools?

### **Delimitations of Research**

This study was limited to secondary grade fine arts programs and course offerings at CESA member schools, Members of Council, and candidate schools as of January 2021.<sup>40</sup> This study constituted a census of all fine arts programs and courses offered at CESA schools with secondary grade fine arts programs (also known as upper school). For this study, secondary grades or upper school fine arts included 9th through 12th grades.

The research population consisted of publicly available documents; published course descriptions for fine arts courses, clubs, and organizations; school profiles from every CESA member school that had provided a list of AP courses; and median SAT and

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<sup>40</sup> Council for Educational Standards and Accountability, "The Application Process," 2022, accessed January 19, 2021, [https://www.cesaschools.org/index.php?option=com\\_content&view=article&id=40:applying-to-cesa&catid=20:site-content&Itemid=133](https://www.cesaschools.org/index.php?option=com_content&view=article&id=40:applying-to-cesa&catid=20:site-content&Itemid=133).

ACT scores. I also examined the presence or lack of Bible, Chapel, or Christian studies courses at CESA schools. Lastly, I examined the tuition data for every CESA member school.

### **Terminology**

*Academic rigor.* A secondary school's academic program is linked to the number of AP courses available, median SAT scores, and acceptance to top-ranked colleges and universities.

*ACT.* The test is conducted six times a year by the American College Testing company.

*AP.* The advanced placement program is conducted by the College Board,<sup>41</sup> which is a division of the Educational Testing Service.

*CESA.* The Council on Educational Standards and Accountability was founded in 2008 to provide an organization with high standards for Christian schools.

*Christian curricular emphases.* This term attempts to capture the integration of faith and learning by highlighting the presence within Christian school official curriculum of items of significance for understanding learning from a Christian viewpoint based on course offerings.

*Christian school.* This school professes, as part of its mission statement or purpose, faith in the orthodox, classic Christian doctrines, as demonstrated through history.

*College Board.* The division of Educational Testing Services is dedicated to distinguishing high achieving high school students well-prepared for college learning.<sup>42</sup>

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<sup>41</sup> College Board, *A Brief History*, 1.

<sup>42</sup> College Board, *A Brief History*, 1.

*Core Four.* The four main areas of academic study pursued in virtually every American school include English, math, social studies, and science.

*Curriculum.* This is a course of study for school purposes over time.

*IFL.* This acronym means the integration of faith and learning. This term links together Christian faith and academic learning.

*SAT.* The Scholastic Admissions (sometimes, Aptitude) Test administered since 1901 by the College Board.<sup>43</sup> This test originally sought to identify highly qualified high school students for colleges and universities.

*Secondary education.* American school grades that include Grades 9, 10, 11, and 12.

*Top-ranked college or university.* US colleges and universities ranked in the top 50 in 1 of 4 different rankings systems for either US or world universities. Also, for this study, an aggregate list of top-ranked Christian and fine arts colleges and universities was incorporated into the list of top-ranked colleges or universities.

*World university rankings.* A measure by one of several organizations that entails attempting to rank top universities around the world. This study only considered US universities.

### **Methodological Design**

This research project was a descriptive mixed-methods study. The qualitative research consisted of a content analysis to determine the presence of Christian curricular emphasis within fine arts courses. In performing the content analysis, all publicly published information, including school reports, course descriptions, published program accomplishments, accolades, and performances, was examined. The qualitative research also consisted of content analysis to determine the rigor of fine arts course offerings. The

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<sup>43</sup> College Board, *A Brief History*, 1.

qualitative research underwent convergent data transformation. The quantitative research was used to assess academic rigor from CESA school profile data about SAT, AP courses, and recent college acceptances. Additionally, quantitative data were collected and assessed in specific regard to fine arts awards and honors. Qualitative and quantitative data were collected concurrently in this study.

After collection, the data were quantized by performing a data transformation process on the qualitative data. Following quantization of the qualitative data, Christian curricular emphases data, fine arts rigor data, and academic rigor data were analyzed. The goal was to assess the relationship between Christian curricular emphases in fine arts content areas, median SAT scores, percentage of AP fine arts courses offered, and acceptance into highly ranked colleges.

The degree to which Christian fine arts curricular emphases might correlate to CESA schools' academic priorities was the basis of this research problem. Direct analysis of CESA school's published course descriptions for visual art, band, chorus, orchestra, music theory, and general music comprised the qualitative stage. Course descriptions also revealed if CESA schools had offered Bible or Christian theology courses. Course descriptions were examined for word frequency using terms specified by Kenneth Badley's five paradigms of faith learning integration.<sup>44</sup> Horner used this same method in a similar study involving CESA schools' Core Four courses (English, mathematics, science, and social studies).

The quantitative portion of this study established a baseline for determining the fine arts academic rigor by assessing the fine arts credit requirements, courses offered, and the percentage of the student population participating in fine arts courses. All quantitative data were gathered through publicly available sources. These findings were

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<sup>44</sup> Badley, "'Integration' and 'The Integration of Faith and Learning,'" 64-77; Badley, "The Faith/Learning Integration," 24-25; Badley, "Clarifying 'Faith-Learning Integration,'" 7-17.

analyzed using quantitative data to examine the correlation between fine arts academic rigor and Christian curricula.

### **Research Assumptions**

1. All information accessible to the public electronically (email, websites, etc.) was considered public data.
2. Public data were accurate, reflecting the desired intention of the institution responsible for publishing the data.
3. Public data were accurate.
4. Special permissions were unrequired for anonymous analysis of data for research.
5. The National Standards for Arts Education had accurately described a rigorous fine arts curriculum.
6. IFL characterizations done by Badley were accurate.<sup>45</sup>

### **Procedural Overview**

This study was designed to resemble Horner's thesis, "Christian Curricular Emphases and Academic Rigor: A Mixed Methods Study."<sup>46</sup> I collected SAT, fine arts AP course (AP Art and Design, AP Art History, and AP Music Theory), fine arts credit requirements, fine arts participation, and college admissions information from the most recent published data on all CESA schools. Data collection was based on the delimitations of this study. Next, I gathered all fine arts course descriptions for band, chorus, orchestra, visual arts, theatre, and dance courses. I then used NVivo 12 to analyze the course descriptions for IFL language. The gathered data were aggregated to determine the presence of IFL language within fine arts course descriptions and to show how fine arts students compared to the average SAT scores and college admissions outcomes.

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<sup>45</sup> Badley, "'Integration' and 'The Integration of Faith and Learning,'" 64-77; Badley, "The Faith/Learning Integration," 24-25; Badley, "Clarifying 'Faith-Learning Integration,'" 7-17.

<sup>46</sup> Horner, "Christian Curricular," 1.

## Conclusion

CESA school leaders have sought to distinguish their schools as both academically rigorous and intentionally Christian. In examining this convergence of academic rigor and the integration of faith and learning, CESA schools were an appropriate population for study. Additionally, I focused on fine arts academic rigor and IFL. First, I identified CESA members and candidate schools to conduct a census of their fine arts course's academic rigor. Additionally, I conducted a census of their Christian curricular emphases using Badley's paradigms.<sup>47</sup> By examining IFL and fine arts academic rigor, I sought to identify the correlation between fine arts academic rigor and a distinctly Christ-centered curriculum.

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<sup>47</sup> Badley, "'Integration' and 'The Integration of Faith and Learning,'" 64-77; Badley, "The Faith/Learning Integration," 24-25; Badley, "Clarifying 'Faith-Learning Integration,'" 7-17.

## CHAPTER 2

### PRECEDENT LITERATURE

Christian curricular emphasis and academic rigor are fields that vary in content and focus. When considering the academic rigor within fine arts, in addition to Christian curricular emphasis and academic rigor, the fields vary even more. The literature about these three fields represents a mere sample of the myriad books, articles, studies, and other published works available. However, this review of literature examines the major strains of thought in these three fields, both evenhandedly and robustly. This chapter addresses the biblical-theological foundations of education

#### **Foundations of Christian Fine Arts Education**

One should examine the biblical and theological foundations that underpin Christian Education in fine arts before examining the variables of this study. First, one should articulate that Christian education, as Christian fine arts education should be rooted in biblical truth and authority. Robert W. Pazmiño wrote, “Scripture is the essential source for understanding distinctively Christian elements in education.”<sup>1</sup> Similarly, when discussing what makes education Christian, James Estep wrote, “If education is to be Christian, it must be theologically informed on a variety of levels.”<sup>2</sup> In present modernity, it can be easy to lose one’s biblical foundations based on fine arts education. Speaking about music in worship, Daniel Block reflected, “In evangelicals’ recent fascination with

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<sup>1</sup> Robert W. Pazmiño, *Foundational Issues in Christian Education: An Introduction in Evangelical Perspective* (Ada, MI: Baker Academic, 2008), 267.

<sup>2</sup> James R. Estep, "What Makes Education Christian?," in *A Theology for Christian Education*, ed. James R. Estep, Michael Anthony, and Greg Allison (Nashville: B&H Academic, 2008), 26.

ancient practices and perspectives, we often observe a tendency to accept early worship forms as authoritative but a decreasing attention to the scriptural theology of worship.”<sup>3</sup> Block stated that the challenge was to ensure that the underlying principles of worship would remain biblically rooted.<sup>4</sup> Block discussed forms of music in a worship setting, but the principle of artistic and musical alignment to the Bible could be applied to Christian fine arts education.

In *Introduction to Biblical Christian Education*, Werner C. Graendorf wrote, “The education we are discussing [Biblical Christian education] finds its orientation in God and looks to His Word for an understanding of its meaning and place.”<sup>5</sup> With the biblical text as the Christian educators’ authoritative Word, Myung Whan Kim pointed out the didactic use of the fine arts, specifically discussing musical drama: “It was God himself who commanded Moses to teach the Israelites the musical drama as follows: ‘Now write down for yourselves this song and teach it to the Israelites and have them sing it, so that it may be a witness for me against them’ (Deut. 31:19).”<sup>6</sup> Kim stated that the content of the song was more than a song, having multiple characters in which the plot would use spoken dialogue with the song.<sup>7</sup> Speaking to the vocational nature of the arts, Gene Edward Veith wrote, “We think of people being called to the ministry or to the mission field, but the Reformation stressed that even secular occupations can be true, God-given callings, suitable for the service of God and our neighbor.”<sup>8</sup> Going further,

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<sup>3</sup> Daniel I. Block, *For the Glory of God: Recovering a Biblical Theology of Worship* (Ada, MI: Baker Academic, 2014), 21.

<sup>4</sup> Block, *Glory of God*, 21.

<sup>5</sup> Werner C. Graendorf, *Introduction to Biblical Christian Education* (Chicago: Moody Pub, 1981), 322.

<sup>6</sup> Myung Whan Kim, “The Parables and Miracles of Jesus Christ: A Musical Drama” (PhD dis., Southern Baptist Theological Seminary, 2010), 4.

<sup>7</sup> Kim, “Parables and Miracles,” 4.

<sup>8</sup> Gene Edward Veith, *State of the Arts: From Bezalel to Mapplethorpe* (Wheaton, IL: Crossway, 1991), 107.

Veith reflected on Exodus 36:2: “All who wanted to help make the Tabernacle, ‘whose heart stirred him up to do the work,’” did so because the Lord has “put ability” in their minds. He stated, “Artistic talent is not to be thought of as some innate human ability, nor as the accomplishment of an individual genius, but as a gift from God.”<sup>9</sup>

The fine arts are recognized as important; Charles R. Hoffer argued the case for music education: “A fundamental point is clear: *Music is important in people’s lives*. The point may be obvious, but it is essential. If music were not important to people, then the teaching and learning of music would not be important. Music education would have no reason for being.”<sup>10</sup> Though Hoffer only discussed musical education, the same could reasonably be applied to the fine arts as a whole. Graendorf reinforced these points by stating, “There must be recognition that the divine imperative for Christian education has a solid, pragmatic base in *the nature of the educational process itself*.”<sup>11</sup>

The points discussed above constitute a basic biblical theological and didactic foundation that underpins the fine arts education. This foundation is displayed throughout the Bible, from the moment God created the heavens and the earth, declaring them “good,” from the making of man in God’s image, declaring it “very good.” The foundation continued to the garden, the Ark, the Temple, and into Revelation and the golden city, New Jerusalem, where God would dwell with His people. The story of God is replete with examples of the arts used for worship and instruction. The specific points discussed here and throughout this chapter constitute the foundation and reasoning for examining Christian schools’ fine arts programs and course offerings.

Pazmiño made several important observations in *Foundational Issues in Christian Education*, notably that “Christians are subject to a confusing plurality of

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<sup>9</sup> Veith, *State of the Arts*, 107.

<sup>10</sup> Charles Hoffer, *Introduction to Music Education*, 4th ed. (Long Grove, IL: Waveland Press, 2017), 20.

<sup>11</sup> Graendorf, *Biblical Christian Education*, 19–20.

educational theories,” and “Christian educators, must carefully examine the biblical foundations for Christian education. Scripture is the essential source for understanding distinctively Christian elements in education.”<sup>12</sup> He suggested that the models or approaches that educators have should guide their practices. Pazmiño continued, “The challenge for Christians is to examine their models for education, to make them explicit, and to undergird them with biblical foundations.”<sup>13</sup> Pazmiño noted the Old Testament’s educational practices, which supported this study’s purpose in examining Christian education: “The Old Testament provides a wide variety of historical and communal settings in which to explore the nature of teaching and learning within the faith community.”<sup>14</sup> He noted, “Prophets, priests and Levites, wise persons or sages, scribes and rabbis” all acted as educational agents.<sup>15</sup> Likewise, Graendorf wrote, “Hebrew origins of Christian education have been amply chronicled by William Barclay and Lewis Joseph Sherrill. Certain dominant threads make up the fabric of the rise of teaching in Hebrew history. And Hebrew history, we need not be reminded, is largely Bible history.”<sup>16</sup> As Pazmiño suggested and Graendorf supported that education would entail a theological undertaking. This theological undertaking that is teaching and learning can reasonably be applied through fine arts education. William Temple wrote, “To worship is to quicken the conscience by the holiness of God, to feed the mind with the truth of God, to purge the imagination by the beauty of God, to open the heart to the love of God, to devote the will to the purpose of God.”<sup>17</sup>

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<sup>12</sup> Pazmiño, *Foundational Issues*, 2205.

<sup>13</sup> Pazmiño, *Foundational Issues*, 2478.

<sup>14</sup> Pazmiño, *Foundational Issues*, 276.

<sup>15</sup> Pazmiño, *Foundational Issues*, 2205.

<sup>16</sup> Graendorf, *Introduction to Biblical Christian Education*, 26.

<sup>17</sup> William Temple, *The Hope of a New World* (Whitefish, MT: Kessinger Publishing, LLC, 2007), 30.

## **Overview of Mixed Methods**

This mixed-methods study examined the relationship between Christian curricular emphases and academic rigor through the fine arts, as represented by the published texts (and interviews) of member schools of the CESA. There has been much research and study in Christian curricular emphasis, academic rigor, and fine arts. One should account for how this past research had shaped this present study in its construction, methodological approach, and establishment of independent and dependent variables.

## **Qualitative Literature Review**

This study was a mixed-methods study. This portion of the literature review focuses on the qualitative portions involved in the foundational literature. This section examines studies on the curriculum in general, then examining curriculum pertaining to the fine arts. The section then turns toward Christian curriculum and its use at Christian schools. This section also considers integrating faith and learning, as well as Christian curricular emphasis, taking special notice to any nuances that may relate to the fine arts curriculum at Christian schools. Lastly, this section examines recent doctoral studies on IFL and the fine arts, giving special significance to Jeffrey Michael Horner's work on "Christian Curricular Emphasis and Academic Rigor." This document served as parent study to the current research.

## **Curriculum Theory**

This section of the study focuses on curriculum, both in general and specific to the fine arts. One should note that the field of curriculum is nuanced and varied, especially when considering areas outside of the Core Four, namely fine arts. The primary concern and focus for this study was the published curriculum or official curriculum. Posner examined the five concurrent curricula (official, operational, hidden, null, and extra) while detailing and contrasting the Tyler rationale and Johnson model. He

admitted that experts in the field of curriculum had fundamental disagreements. Posner presented three solutions:

1. Disregard the experts and do what makes sense.
2. Pick one curriculum authority.
3. Use all the experts' curriculum ideas if they work.<sup>18</sup>

Posner acknowledged the three options but then presented a fourth option termed reflective eclecticism. Reflective eclecticism is the understanding of the various curriculum alternatives while understanding the various assumptions and issues behind each alternative.<sup>19</sup> In further defining the curriculum, Posner detailed six common concepts of curriculum: “scope and sequence,” “syllabus,” “content outline,” “textbooks,” “course of study,” and “planned experiences.”

In *State of the Arts*, Gene Edward Veith Jr. wrote the following of the arts: “In fine arts, aesthetics and meaning are expressed in their most intense and purposeful way. Fine art demands close attention.”<sup>20</sup> Veith was not specifically speaking about the curriculum, but his point regarding attention to detail within the fine arts could reasonably be applied as an effective attitude with which to approach fine arts curriculum. Harold F. Abeles, Charles R. Hoffer, and Robert H. Klotman wrote the following in *Foundations of Music Education*: “Some educators think that what is taught in a course is of the utmost importance, while others think that it hardly matters; what is important to them is the process.”<sup>21</sup> Unsurprisingly, Abeles, Hoffer, and Klotman differed significantly from Posner, mostly due to the text's focus on music education, though much content could reasonably be applied to other areas of fine arts. Similarly, Abeles, Hoffer,

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<sup>18</sup> George J. Posner, *Analyzing the Curriculum* (New York: McGraw-Hill Humanities/Social Sciences/Languages, 1971), 4.

<sup>19</sup> Posner, *Analyzing the Curriculum*, 4.

<sup>20</sup> Veith, *State of the Arts*, 37–38.

<sup>21</sup> Abeles, Hoffer, and Klotman, *Foundations of Music Education*, 271.

and Klotman focused on an operational curriculum that was learner-focused and primarily concerned with art classes that were both performing and academic. Abeles, Hoffer, and Klotman offered several guidelines in selecting curriculum. It should be “educational” (skills or attitudes exclusive to the course), “valid” (teach only valid fine arts concepts acceptable within the field), “fundamental” (basic ideas over factual minutiae), “representative” (fine arts is vast and broad, much needs to be covered), “contemporary” (the fine arts are current and must cover more than the classics), “relevant” (what is taught must relate the students), and “learnable” (it is useless to teach something beyond the student’s abilities).<sup>22</sup>

Abeles, Hoffer, and Klotman presented three basic curriculum models: liner/control model, consensus model, and dialogue/freedom model. The linear/control mode is based on realism/empiricism, where “the essential task of teaching is to enable students to perform precisely delineated responses.”<sup>23</sup> Of note in this model is using pretesting and post-testing for evaluations. Moving from empiricism is the pragmatic consensus model. In this model, the teacher acts as a guide to the students as they gain knowledge and skills through group activities. Finally, the dialogue/freedom mode is rooted in naturalism. There is minimal control over student outcomes, and evaluations rest with the student.<sup>24</sup>

Overall, Posner examined the curriculum in a way key to this study, namely examining course descriptions as representations of the curriculum. Posner also spent much time building his case for his curriculum theory, “reflective eclecticism.” This approach helps to examine the content of the school curriculum with discretion, considering those beneficial practices and approaches but assessing others that may be

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<sup>22</sup> Abeles, Hoffer, and Klotman, *Foundations of Music Education*, 278–80.

<sup>23</sup> Abeles, Hoffer, and Klotman, *Foundations of Music Education*, 275.

<sup>24</sup> Abeles, Hoffer, and Klotman, *Foundations of Music Education*, 275.

inaccurate or limited in the fine arts. The view of fine arts curriculum discussed by Abeles, Hoffer, and Klotman is essential as it not only lays out its three models for curriculum, helpfully defining them by the philosophical position that underpins their motivations (empiricism, pragmatism, and naturalism), but it also discusses how the curriculum is under the control and influence of the “decision-making power” (i.e., the State, school district, administration, etc.).<sup>25</sup> This pivotal observation work when discussing school programs that are in addition to the Core Four academic areas. Posner and Abeles, Hoffer, and Klotman discussed multiple approaches to the curriculum helpful in grouping evaluating curricular styles. One should note that Abeles, Hoffer, and Klotman did not refer to Posner or Eisner; however, the Abeles, Hoffer, and Klotman suggested Eisner’s *The Role of Discipline-based Art Education in America’s schools* as supplementary reading.<sup>26</sup>

Posner addressed the Tyler rationale based on the work of Ralph Tyler.<sup>27</sup> This curriculum model is focused on four questions:

1. What educational purposes should the school seek to attain?
2. What educational experiences can be provided that are likely to attain these purposes?
3. How can these experiences be effectively organized?
4. How can we determine whether these purposes are being attained?

In addition to the Tyler rationale, the Johnson model is explored. Johnson defined the curriculum as “a structured series of intended learning outcomes.” One should note that Johnson distinguished between the curriculum and instruction. The curriculum is what is to be taught, and the instruction is how it is taught. These understandings of curriculum and instruction have much interplay with rigor explored

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<sup>25</sup> Abeles, Hoffer, and Klotman, *Foundations of Music Education*, 272.

<sup>26</sup> Abeles, Hoffer, and Klotman, *Foundations of Music Education*, 299.

<sup>27</sup> Posner, *Analyzing the Curriculum*, 4.

before, as defined by Draeger as “actively learning of meaningful content with high-order thinking at the appropriate level of expectation.”<sup>28</sup> The Johnson model has four main components: (1) goal setting, (2) curriculum selection and structuring, (3) instructional planning, and (4) technical rationality.<sup>29</sup> The Tyler rationale and the Johnson model are compatible with each other. Both approaches create a foundation for establishing a curriculum focused on the person of Christ, the Bible, and the work of the Holy Spirit in the believer.<sup>30</sup>

In 2007, Stanley Hauerwas wrote *The State of the University*; he said, “All education, whether acknowledged or not, is moral formation.”<sup>31</sup> This comment related to what Abeles, Hoffer, and Klotman argued, that the decision making, regarding curriculum, could come from those in power over the organization. They wrote, “The responsibility for education in American society lies with the community, which receives its mandate from the state.”<sup>32</sup> Likewise, Posner commented the following about curriculum: “In reality, no curriculum decision can be completely technical, completely value-free, since it inevitably concerns an intervention in people’s lives.”<sup>33</sup> He continued, “A decision to teach certain content, to approach a topic in a certain way, or to have certain teachers teach certain students using certain methods is more than a technical matter.”<sup>34</sup> Elliot Eisner defined forms of the curriculum as explicit, implicit, and null

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<sup>28</sup> John Draeger et al., “The Anatomy of Academic Rigor: The Story of One Institutional Journey,” *Innovative Higher Education* 38 (August 1, 2013), <http://dx.doi.org/10.1007/s10755-012-9246-8>.

<sup>29</sup> Posner, *Analyzing the Curriculum*, 19.

<sup>30</sup> Estep, “Education Christian,” 21–22.

<sup>31</sup> Stanley Hauerwas, *The State of the University: Academic Knowledges and the Knowledge of God* (Malden, MA: Wiley-Blackwell, 2007), 46.

<sup>32</sup> Abeles, Hoffer, and Klotman, *Foundations of Music Education*, 274.

<sup>33</sup> Posner, *Analyzing the Curriculum*, 15.

<sup>34</sup> Posner, *Analyzing the Curriculum*, 15.

curriculum.<sup>35</sup> Posner discussed the null curriculum as “[consisting] of those subject matters *not* taught, and any consideration of it must focus on *why* these subjects are ignored.”<sup>36</sup> The null curriculum is itself a paradox. It exists because it is left out of the curriculum. Maria Harris wrote, “This is the curriculum that exists because it does not exist: it is what is left out.”<sup>37</sup> The nature of the null curriculum makes it difficult to examine. Despite this thought, Eisner wrote, “In thinking about curriculum development or curriculum reform we should think about the explicit curriculum, the implicit curriculum, and also the null curriculum.”<sup>38</sup> The null curriculum was not analyzed in this study.

The hidden curriculum is like the null curriculum. Posner wrote, “The *hidden curriculum* is not generally acknowledged by school officials but may have deeper and more durable impact on students than either the official or the operational curriculum.”<sup>39</sup> The hidden curriculum encompasses the institutional norms and values not openly stated or acknowledged. The significance of the hidden curriculum is of particular interest to this study. Eisner wrote, “Although the arts in American schools are *theoretically* among the so-called core subjects, and although school districts and indeed the federal government identify them as such, there is a huge ambivalence about their position in the curriculum.” He continues, “The same privilege of place is generally assigned to other subject areas . . . The arts are regarded as nice but not necessary.”<sup>40</sup> Eisner, is setting out

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<sup>35</sup> Elliot W. Eisner, *The Educational Imagination: On the Design and Evaluation of School Programs*, 3rd ed. (New York: Macmillan, 1994).

<sup>36</sup> Posner, *Analyzing the Curriculum*, 12.

<sup>37</sup> Maria Harris, *Fashion Me a People: Curriculum in the Church*, 1st ed. (Louisville, KY: Westminster John Knox Press, 1989).

<sup>38</sup> Elliot W. Eisner, *The Arts and the Creation of Mind* (New Haven, CT: Yale University Press, 2002), 1908.

<sup>39</sup> Posner, *Analyzing the Curriculum*, 11–12.

<sup>40</sup> Eisner, *The Arts and the Creation of Mind*, 37.

to dispel the notion that the fine arts are somehow academic, or as he puts it, “to dispel the idea that the arts are somehow intellectually undemanding, emotive rather than reflective operations done with the hand somehow unattached to the head.”<sup>41</sup> He continued that for creating something regarded as aesthetically valuable, it must take a mind that speaks to one’s imagination and emotions.<sup>42</sup> This finding is supported in Scripture with passages regarding knowledge, wisdom, and the heart. Isaiah illustrates the foundation of wisdom and the counsel to understand it comes from God (Isa 11:2). Colossians speaks of wisdom and knowledge, with a warning: “See to it that no one takes you captive by philosophy and empty deceit, according to human tradition, according to the elemental spirits of the world, and not according to Christ” (Col 2:8). What is taught in schools, the level, and depth to which it is taught are of the utmost importance. There is a need to articulate a Christian emphasis within fine arts education as part of the official curriculum. The next section will examine the literature surrounding fine arts education.

### **Curriculum Analysis**

This section of the literature review investigates the literature surrounding the fine arts in education. In 2012, Richard A. Baker Jr. examined the effects that high-stakes testing had on eighth grade students enrolled in fine arts classes. The study examined fine arts offerings and the equity of class time made available for students who scored below the desired level on high-stakes testing. The nation-wide desire to raise student achievement in language arts and mathematics in the form of standardized test scores was shown to deny students fine arts instruction in favor of remediation.<sup>43</sup> The use of fine arts

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<sup>41</sup> Eisner, *The Arts and the Creation of Mind*, 38.

<sup>42</sup> Eisner, *The Arts and the Creation of Mind*, 42.

<sup>43</sup> Richard A. Baker, “The Effects of High-Stakes Testing Policy on Arts Education,” *Arts Education Policy Review* 113, no. 1 (January 2012): 17–25, <http://dx.doi.org/10.1080/10632913.2012.626384>.

class time for remediation in the Core Four contributes to a hidden curriculum that de-emphasizes those courses that students must leave. The effect is that students in schools that utilize this strategy impact the curricular content of public fine arts courses.

Jeffrey Horner examined the effect that high-stakes testing has on curricular content in his 2016 doctoral thesis. He suggested that the pressure placed on schools to achieve desired levels on high-stakes testing puts a school with a Christian curricular emphasis in a position to offer a more comprehensive education—one unbound by the needs of high-stakes testing.<sup>44</sup> To contrast this perceived boon, Mark Pike pointed out, “It is perhaps easier for Christian schools to explain why they teach children about the Christian worldview than to articulate what they should teach about competing ideologies and worldviews.”<sup>45</sup> Pike goes on to quote the *Times Educational Supplement*, “Figures show that of 40 evangelical Christian schools inspected, 17 (42.5 per cent) were failing in their duty to ‘assist pupils to acquire an appreciation of and respect for their own and other cultures in a way that promotes tolerance and harmony.’”<sup>46</sup> Of course, each school’s aim and goals for their curriculum would need to be explored further as would the figures that generated the study Pike references but his article makes the point that there is a need for Christian schools to examine their curriculum emphasis. This is precisely the point arrived at by Horner in his work on Christian curricular emphasis, “[Pike’s] assertion that ‘many in society fail to appreciate and understand the sort of education [students at Christian schools] are receiving,’<sup>47</sup> reveals a need for Christian schools to provide some

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<sup>44</sup> Jeffrey Michael Horner, “Christian Curricular Emphases and Academic Rigor: A Mixed Methods Study” (EdD thesis, The Southern Baptist Theological Seminary, 2016), 30, <https://repository-sbts-edu.ezproxy.sbts.edu/handle/10392/5248>.

<sup>45</sup> Mark A Pike, “Citizenship Education and Faith Schools: What Should Children in Christian Schools Understand and Appreciate about a Liberal and Secular Society?,” *Journal of Education & Christian Belief* 9, no. 1 (2005): 36, <http://dx.doi.org/10.1177%2F205699710500900105>.

<sup>46</sup> Pike, “Citizenship Education,” 36.

<sup>47</sup> Pike, “Citizenship Education,” 42.

sort of explanation of what it is that their educational emphases impart to students.”<sup>48</sup>

This need to express clearly the educational emphases of Christian education contributed to this study.

Eisner put the following words to the educational emphasis of the arts: “The arts have an important role to play in refining our sensory system and cultivating our imaginative abilities. Indeed, the arts provide a kind of permission to pursue qualitative experience in a particularly focused way and to engage in the constructive exploration of what the imaginative process may engender.”<sup>49</sup> Begbie regarded the role of the fine arts in a position to God and His creation when reflecting on Peter Williams’ analysis of J. S. Bach’s *Goldberg Variations*.<sup>50</sup> Begbie wrote, “The matter he brings to the surface is the interplay between two types of beauty: on the one hand, the beauty... in the nature of things, and the other the beauty human beings make.”<sup>51</sup> He continued, “Put more theologically, there is the beauty directly given to the world by God, and that which we are invited to fashion as God’s creatures,”<sup>52</sup> as fine arts act as a vehicle to address various cultures and worldviews within the scope of Christian education. To this end, Veith wrote, “Properly considered, the arts are inestimable gifts of God. They can enrich our lives. They have a spiritual dimension and can enhance our relationship to God and our neighbors.”<sup>53</sup> This statement brings to the forefront a need for Christian schools to examine their fine arts curriculum and what is being imparted to students.

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<sup>48</sup> Horner, “Christian Curricular,” 31.

<sup>49</sup> Eisner, *The Arts and the Creation of Mind*, 109.

<sup>50</sup> Peter F. Williams, *Bach: The Goldberg Variations* (Cambridge, MA: Cambridge University Press, 2001), 1.

<sup>51</sup> Jeremy S. Begbie and Steven R. Guthrie, *Resonant Witness: Conversations Between Music and Theology* (Grand Rapids: Wm. B. Eerdmans Publishing, 2011), 83.

<sup>52</sup> Begbie and Guthrie, *Resonant Witness*, 83.

<sup>53</sup> Veith, *State of the Arts*, 20.

Curriculum review is of great importance in the fine arts due to its aesthetic nature and its seemingly counter-Christian influence, notably within the visual arts. Abeles, Hoffer, and Klotman wrote, “Some educators think that what is taught in a course is of the utmost importance, while others think it hardly matters; what is important is the process.”<sup>54</sup> This finding is certainly a dichotomy within the arts curriculum. The fine arts curriculum must involve teaching skills and techniques combined with a knowledge of art and music history. Additionally, the fine arts curriculum must place importance on the performance and creation of art and music, dance, and theatre. Finally, all aspects of the fine arts curriculum must work together to generate an understanding and appreciation of the aesthetic experience inherent in artistic expression.

### **Christian Schools and Curriculum**

Graendorf painted a vivid picture of Christian education: “As one stands on the Mount of Beatitudes in Palestinian Galilee, there is a nostalgic sense of educational history. For there, overlooking the Sea of Galilee, is the traditional site of Jesus’ teaching as recorded in Matthew.”<sup>55</sup> He continued, “Here the master teacher carried on the ministry we now term ‘Christian Education.’”<sup>56</sup> Throughout the biblical text, the theme of God teaching His people can be found with its current manifestation in the Great Commission, “Go therefore and make disciples . . . teaching them” (Matt 28:19-20). Estep wrote, “Christian education must be more than simply using existing approaches to education in the service of the church and ministry”<sup>57</sup> The conclusion is that Christian education is more than just content and methods. The authors concluded, “Christian

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<sup>54</sup> Abeles, Hoffer, and Klotman, *Foundations of Music Education*, 271.

<sup>55</sup> Graendorf, *Biblical Christian Education*, 18.

<sup>56</sup> Graendorf, *Biblical Christian Education*, 18.

<sup>57</sup> James R. Estep, "Introduction," in *A Theology for Christian Education*, ed. James R. Estep, Michael Anthony, and Greg Allison (Nashville: B&H Academic, 2008), 1.

education is a multifaceted discipline, with theology at its center, informing every aspect of the ministry.”<sup>58</sup> However, Horner pointed out, “Christian curricular emphases, found at Christian schools, may not be consistently enacted by teachers.”<sup>59</sup>

Of interest, especially when regarding the fine arts, is Harro Van Brummelen’s *Steppingstones to Curriculum: A Biblical Path*. Brummelen discussed neutral values systems and how such systems were an impossibility when teaching the curriculum.<sup>60</sup> This finding had considerable value to this study and its examination of the fine arts disciplines. One should note that Van Brummelen discussed the operational curriculum. I sought to examine the official curriculum through the Christian curricular emphasis described in the course descriptions. Brummelen might be applicable in assessing the factors that could contribute to creating the official curriculum and how it would translate into the operational curriculum. This view is important because private Christian schools have a limited number of resources that leaders must allocate to various areas. Some school leaders may choose to limit fine arts course offerings based on available resources, which may affect the scope of the official curriculum and the operational curriculum. I sought to examine the Christian curricular emphases on those fine arts courses and organizations both required and offered at CESA schools.

Jeremy S. Begbie wrote *Theology, Music and Time* and discussed how music can enrich and advance theology and extend one’s wisdom about God. He explored how rhythm, meter, resolution, anticipation, improvisation, and so on could open central themes of the Christian faith, namely creation, salvation, eschatology, ecclesiology, and

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<sup>58</sup> James R. Estep, "Conclusion: The Christian Educator and Theology," in *A Theology for Christian Education*, ed. James R. Estep, Michael Anthony, and Greg Allison (Nashville: B&H Academic, 2008), 302.

<sup>59</sup> Horner, “Christian Curricular,” 34.

<sup>60</sup> Harro Van Brummelen, *Steppingstones to Curriculum: A Biblical Path*, 2nd ed. (Colorado Springs: Purposeful Design Publications, 2002), 3.

so on.<sup>61</sup> Speaking to the curricular emphasis of music, Begbie concluded, “We have found that examining the temporality of music has elicited conceptual tools—ways of thinking, models, frameworks, metaphors—for exploring, clarifying, and re-conceiving the dynamics of God’s world and his ways with the world.”<sup>62</sup> The visual arts have similar effects in enriching and advancing theology and the believer’s wisdom about God.

William A. Dyrness, a professor at Wheaton College, pointed out that people live in a culture dominated by the visual: “We live in a generation that raised on a steady diet of the visual.”<sup>63</sup> This domination of the visual in Western culture can be troubling, but Dyrness stated, “That the world is laden with symbolic potential that reflects God’s purposes and his presence.”<sup>64</sup> Veith wrote, “The arts have a solid foundation in Scripture and are part of a living tradition in the Christian church.”<sup>65</sup> Veith discussed how the Christian can rightly value art for its aesthetic and beauty, but that in the contemporary culture, they had come to view art indifferently.<sup>66</sup> Veith stated, “The art world has turned art into something esoteric, an arcane mystery that demands initiation rather than enjoyment. The artistic establishment seems more interested in excluding rather than educating, preferring to shock . . . rather than creating works that might enrich their lives.”<sup>67</sup> Veith warned that art should never be turned into an object of worship, alluding to the brazen serpent made by Moses. The serpent served as a symbol of God’s law and gospel, a glimpse of Christ on the cross, healing those who looked upon it in faith.

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<sup>61</sup> Jeremy S. Begbie, *Theology, Music and Time*, Illustrated ed. (Cambridge, MA: Cambridge University Press, 2000).

<sup>62</sup> Begbie, *Theology*, 271.

<sup>63</sup> William A. Dyrness, *Visual Faith (Engaging Culture): Art, Theology, and Worship in Dialogue* (Ada, MI: Baker Academic, 2001), 87.

<sup>64</sup> Dyrness, *Visual Faith*, 87.

<sup>65</sup> Veith, *State of the Arts*, 221.

<sup>66</sup> Veith, *State of the Arts*, 222.

<sup>67</sup> Veith, *State of the Arts*, 222.

However, over time, the Israelites began to worship it, burning incense to it, as recorded in 2 Kings. Veith urged Christians to “assert their heritage in all of its vigor and vitality . . . reclaiming art for themselves.”<sup>68</sup>

G. Tyler Fisher discussed the central focus that the arts should have in education: “Music and Art should be central to the thinking of those teaching from a classical perspective since they understand that true wisdom brings abstract principles into practical usefulness.”<sup>69</sup> He continued, “The fine arts must be part of any education effort that hopes to transform and reform culture over time.”<sup>70</sup> Designers of the curriculum for the fine arts within Christian schools must seek to reclaim the beauty distorted by the fall.

Fisher focused on classical education, but the spirit of his proclamation could be applied to non-classical Christian schools as well, especially when considering the position arts and music were given in the Bible. Fisher elaborated on this idea: “The fine arts must be part of any educational effort that hopes to transform and reform culture over time. Remember, in Israel at Jericho the choir went first. Our culture needs good stories, but it needs—just as desperately—good music and good art.”<sup>71</sup> Even Christian schools should seek to mirror their secular counterparts by including in the fine arts curriculum, an understanding that there is good music and art.

The fine arts have, for much of modernity, been regulated to the subjective. However, the biblical narrative shows that God alone names what is good, and this includes His creation, such as His art. John Mason Hodges wrote, “This is what music is for. More than simply a means of distraction from the hard aspects of life—like a sort of

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<sup>68</sup> Veith, *State of the Arts*, 222.

<sup>69</sup> Gene Edward Veith and Karen Mulder, *Teaching Beauty: A Vision for Music and Art in Christian Education*, ed. G. Tyler Fischer (Baltimore, MD: Square Halo Books, 2016), 11.

<sup>70</sup> Veith and Mulder, *Teaching Beauty*, 11.

<sup>71</sup> Veith and Mulder, *Teaching Beauty*, 11.

emotional drug used to deaden us or entertain us while we rest—music has the ability to outline something of the actual experience of living.”<sup>72</sup> This key observation speaks to the purpose and need of fine arts education within private Christian schools. Hodges continued, “Music education then has the ability to remind us of the relation of this matter and spirit, shaping our souls to love the beauty of harmony.”<sup>73</sup> This observation strongly connects aspects of people’s spiritual formation to the *NSAE* mentioned earlier. Similarly, Begbie examined the aesthetic and beauty of the fine arts with theological bearing, “Our primary orientation, of course, will not be to an experience of the beautiful, nor to an aesthetic, but to the quite specific God attested in Scripture—the gracious, reconciling, self-revealing God of Jesus Christ.”<sup>74</sup>

Hodges and Begbie made strong connections between the fine arts and Jesus Christ. These connections, in turn, correspond to the fine arts academic standards outlined in the *NSAE*. When applied through principles of biblical wisdom, namely Trentham’s inverse constancy principle, the connections between fine arts education, a school’s curriculum, and the need to integrate the fine arts to faith and learning had become clear and served as the focus of this study.

### **Christian Curricular Emphases in Fine Arts**

Christian curricular emphasis is an umbrella term used by Horner in “Christian Curricular Emphasis and Academic Rigor.” The term is used to emphasize Christian principles and understandings with their interplay and influence on the curriculum.<sup>75</sup> The term was used for this study, with the addition of fine arts as a qualifier. The term was

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<sup>72</sup> Veith and Mulder, *Teaching Beauty*, 51.

<sup>73</sup> Veith and Mulder, *Teaching Beauty*, 51.

<sup>74</sup> Begbie and Guthrie, *Resonant Witness*, 84.

<sup>75</sup> Horner, “Christian Curricular,” 46.

used to convey the influence and connectedness of Christian principles and the significance they play in the fine arts curriculum.

Fine arts education with a distinctly Christian curricular emphasis should be focused on the person of Jesus Christ. In a broader sense, the teaching and learning within fine arts must be intertwined with the revealed Word of God.<sup>76</sup> Veith wrote, “Christian education can find its purpose, content, and method only in the nature of Christianity (theology).”<sup>77</sup> The Christian curricular emphasis within the fine arts finds its authority in the biblical record. Within the Bible, the fine arts are used, such as the Ark of the Covenant, the Menorah of the Tabernacle, calls to prayer and worship, and in the Psalms.<sup>78</sup>

However, the biblical foundation of Christian fine arts education need not stifle art with legalistic self-piety. Veith wrote, “The Bible does not permit us to take art so seriously; it liberates art to be itself.”<sup>79</sup> He supported this argument by examining the artistic practices of pagan cultures. Their art and music are deeply tied to the culture and ritual function that is rarely evaluated aesthetically. Jaeger wrote, “It was Christians who finally taught men to appraise poetry by a purely aesthetic standard . . . which enabled them to reject most of the moral and religious teaching of the classical poets as false and ungodly while accepting the formal elements in their work as instructive and aesthetically

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<sup>76</sup> Graendorf, *Biblical Christian Education*, 14.

<sup>77</sup> Paul Herman Vieth, *The Church and Christian Education* (St. Louis: Pub. for the Cooperative publishing association by the Bethany press, 1895).

<sup>78</sup> Veith and Mulder, *Teaching Beauty*, 143.

<sup>79</sup> Veith, *State of the Arts*, 228.

delightful.”<sup>80</sup> Veith clarified, “We are freed to appreciate the beauty of a work of art, even though we may reject the overt concepts that the art expresses.”<sup>81</sup>

Fine arts with a Christian curricular emphasis also empower the Holy Spirit, who indwells the believer.<sup>82</sup> This belief is best described in the following passage: “But the Helper, the Holy Spirit, whom the Father will send in my name, he will teach you all things” (John 14:26). As a distinguished Christian educator, Zuck wrote, “The Holy Spirit, working through the Word of God, is the spiritual dynamic for Christian living. If the Holy Spirit is not at work through the teacher and through the written Word of God, then Christian education [is] . . . ineffective and little different from secular teaching.”<sup>83</sup> What makes Christian fine arts education distinctively Christian is its foundation and focus on Christ, the Word of God, and the Holy Spirit working through the Word of God and the believer.

### **Academic Rigor and Christian Faith**

Academic rigor and Christian curricular emphasis in the fine arts reflect many varied expressions within the school curriculum. Studies and texts that discuss the didactic nature of the fine arts, the aesthetic nature of the arts, and how the fine arts courses implement faith and learning into the official curriculum are examined, which concludes the qualitative portion of this literature review.

Christian school staff seek to emphasize a unique aspect of the academic program, Christian curricular emphasis, often seen as taking from the school’s academic

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<sup>80</sup> Werner Jaeger, *Paideia: The Ideals of Greek Culture Volume I: Archaic Greece: The Mind of Athens*, trans. Gilbert Highet, 2nd edition (New York: Oxford University Press, U.S.A., 1986), xxvii–xxviii.

<sup>81</sup> Veith, *State of the Arts*, 229.

<sup>82</sup> Graendorf, *Introduction to Biblical Christian Education*, 15.

<sup>83</sup> Roy B. Zuck, *Spiritual Power in Your Teaching*, Rev. ed. (Chicago: Moody Press, 1980),

rigor. Additionally, taking the finite resources of these generally private Christian schools to invest in rigorous fine arts programs raises questions about the overall rigor at such institutions. In his 2009 study on excellence in Christian schooling, Charles Justin observed that biblical schools had differing priorities when compared to their secular counterparts. He challenged the definition of what “educational excellence” should mean.

Justins argued that Christian schools must look toward biblical values and priorities before turning to the values present in the western marketplace. He elaborated, “There are those who would argue that a competitive schooling environment where some succeed and others fail is a good preparation for the harsh realities of life beyond school and that students ought to be given an honest appraisal of their abilities and performance.”<sup>84</sup> He later observed, “This approach appears to be problematic, however, for those involved in Christian schooling, as it runs counter to many biblical principles including service, servanthood, community, grace, mercy, and support for students who are vulnerable and marginalized.”<sup>85</sup> Justins’ work applies when considering academic rigor in a Christian setting, especially when considering fine arts education that is deeply personal while being highly competitive when considering post-secondary education. Justins offered a sobering observation when considering what Christian academic rigor might look like: “It is my view that the attitude adopted by Christian schools to the language of educational excellence will be a significant factor in determining whether they will maintain their commitment to gospel values.”<sup>86</sup> He boldly stated that the Christian voice is not influential enough to fight against the deeply rooted culture of excellence, superiority, and competition. He wrote, “Christian schools may need to be

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<sup>84</sup> Charles Justins, “Christian Schooling and Educational Excellence: An Australian Perspective,” *Journal of Education & Christian Belief* 13, no. 1 (2009): 49.

<sup>85</sup> Justins, “Christian Schooling,” 50.

<sup>86</sup> Justins, “Christian Schooling,” 62.

content to celebrate gospel values and thus resist the values of the marketplace.”<sup>87</sup> This study was not focused on the reinvesting of the language of excellence, but it was important when examining the academic rigor within Christian schools based on measuring biblical values, such as IFL language, which this study is focused on.

### **Quantitative Literature Review**

This section of the literature review examines relevant studies of general academic rigor. This section also includes literature about AP courses, university admission, and SAT scores while considering mediating variables, such as income. Additionally, fine arts accolades, such as performance ratings, visual art awards, and enrolment numbers, are examined.

### **Academic Rigor**

This section of the literature review examines fine arts AP courses, the role fine arts play in acceptance rates to selective colleges and universities, and how the fine arts impact student’s SAT scores. These independent variables are measured against the qualitative data. Therefore, the variables are examined independently from the Christian curricular emphasis in fine arts.

Kenneth Elpus study examined, “the value and positive impact of arts education on the college attainment of students in the United States.”<sup>88</sup> The study was described as “quasi-experimental” in its comparison of arts and non-arts students. In comparing several variables, Elpus drew samples from the U.S. Department of Education’s Educational Longitudinal Study from 2002, a national longitudinal study of secondary students from the National Center for Education Statistics, and the Institute for Education and Sciences. Elpus concluded that arts students were “served well” by their

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<sup>87</sup> Justins, "Christian Schooling," 62.

<sup>88</sup> Elpus, *Arts Education in U.S. High Schools*, 2.

fine arts studies and that arts students were more likely to participate in college admission and attainment. Elpus also concluded, “That in no outcome investigated were arts students significantly disadvantaged compared to their non-arts peers.”<sup>89</sup>

In 2013, the College Board published *The Development of an Index of Academic Rigor for College Readiness*. This study conducted an academic rigor index (ARI) based on student responses to an SAT questionnaire. The students were asked to provide the course history of classes taken from 8 to 12 grades, only focusing on the Core Four course areas. Finally, the study sought to validate the index by looking at academic outcomes through high school and college.<sup>90</sup> The higher the ARI the greater the enrollment into selective colleges and universities. Though this study did not directly include the fine arts into its ARI, there was a measurable correlation between the arts and SAT scores. Sandra S. Ruppert published *Critical Evidence* in 2006, this report showed six major types of benefits linked to study in fine arts:

1. Reading and language skills.
2. Mathematics skills.
3. Thinking skills.
4. Social skills.
5. Motivation to learn.
6. Positive school enrollment.<sup>91</sup>

Ruppert also stated, “Arts participation and SAT scores co-vary—that is, they tend to increase linearly: the more art classes, the higher the scores.”<sup>92</sup> Ruppert continued,

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<sup>89</sup> Elpus, *Arts Education*, 34.

<sup>90</sup> Jeffrey N. Wyatt et al., *The Development of an Index of Academic Rigor for College Readiness* (New York: College Entrance Examination Board, 2011), 2.

<sup>91</sup> Sandra S. Ruppert, *Critical Evidence: How the Arts Benefit Student Achievement* (Washington: National Assembly of State Arts Agencies, 2006), 10.

<sup>92</sup> Ruppert, *Critical Evidence*, 9.

“Notably, students who took four years of arts coursework outperformed their peers who had on half-year or less of arts coursework by 58 points on the verbal portion and 38 points on the math portion of the SAT.”<sup>93</sup> Therefore, this review examines studies of AP courses, specifically fine arts AP offerings, acceptance into selective colleges and universities, SAT scores as indicators of academic rigor, and student participation in fine arts courses throughout their high school careers.

### **Biblical Literacy and Academic Rigor**

Horner utilized the 2007 “Religion, Intact Families, and the Achievement Gap” by William H. Jeynes to establish the correlation between biblical literacy and academic achievement.<sup>94</sup> Likewise, I similarly utilized Jeynes to show a similar connection. He writes, “In mostly Christian, schools, the achievement gap between white and minority students, as well as between children of high- and low-socioeconomic status, is considerably smaller than in public schools.”<sup>95</sup> Jeynes pointed out several explanations:

1. Religious work ethic
2. Religious commitment resulting in an internal locus of control
3. Avoidance of undisciplined/harmful behaviors to educational achievement<sup>96</sup>

The result was that this study necessarily examined how fine arts curriculum could reflect high academic standards.

### **Advanced Placement**

In the aftermath of World War II, 1950, it was noticed that a growing gap had occurred between secondary and higher education. Seeing the need for a better educated

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<sup>93</sup> Ruppert, *Critical Evidence*, 9.

<sup>94</sup> Horner, “Christian Curricular,” 57.

<sup>95</sup> William H. Jeynes, “Religion, Intact Families, and the Achievement Gap,” *Interdisciplinary Journal of Research on Religion* 3 (January 2007): 2, <http://www.religjournal.com/pdf/ijrr03003.pdf>.

<sup>96</sup> Jeynes, *Religion*, 15.

American population, two studies were conducted funded by the Ford Foundation.<sup>97</sup> The first study was conducted by three of the most prestigious universities, Harvard, Princeton, and Yale, as well as three of the most elite prep schools: Andover, Exeter, and Lawrenceville. This first study concluded that schools could hire imaginative teachers to encourage students to pursue independent studies and college-level work.<sup>98</sup> The second study was conducted by the Committee on Admission with Advanced Standing. The commission recruited leaders in every discipline to create high school course descriptions and tests that would be rigorous enough at the collegiate level to award those students credit and allow them to enter college with advanced standing. By the mid-1950s, the program was underway, and the College Board was asked to take over the administration of the College Board Advanced Placement Program (AP).<sup>99</sup>

The College Board draws the comparison to college preparedness and taking AP courses, stating the following on their site: “Research consistently shows that AP students are better prepared for college than students who don’t take AP. They’re more likely to enroll and stay in college, do well in their classes, and graduate in four years.”<sup>100</sup> A periodical published in 2005 had shown how AP courses could serve as predictors of college success. The findings have shown that merely taking an AP course is not a good indicator of success, rather “taking the official AP test and scoring well on it . . . is the second-best predictor (behind high school GPA) of students’ second-year college grades.”<sup>101</sup> This periodical had shown that the University of California had given a 1-

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<sup>97</sup> College Board, *A Brief History*, 1.

<sup>98</sup> College Board, *Brief History*, 1.

<sup>99</sup> College Board, *Brief History*, 1.

<sup>100</sup> College Board, “What Is AP? – AP Students,” accessed September 18, 2020, <https://apstudents.collegeboard.org/what-is-ap>.

<sup>101</sup> “AP Courses as Predictors of College Success,” *Recruitment & Retention in Higher Education* 19, no. 2 (February 2005): 5.

point boost (for a total of 5 points) to students who had scored an “A” on the AP exam while a student who had earned an “A” in a non-AP course only received 4 points total. Contrasting this finding, Kristin Klopfenstein and M. Kathleen Thomas reported the following in a Texas study: “Having an AP course on a transcript had little power to predict a student’s college GPA or likelihood of first-year persistence, after taking high school GPA, parental affluence and education, high school instruction quality, and SAT scores into account.” The result was that the Texas study did not distinguish between the students who had scored well in the AP courses and those who had merely attended the class.<sup>102</sup>

There are primarily two tests used to aid in the college admittance process: the SAT and ACT. In 2013, Mary E. M. McKillip and Anita Rawls studied the academic benefits of AP. The authors found that each AP course subject considered had a “positive relationship with SAT outcomes, such that as AP exam scores increase SAT scores also increase.”<sup>103</sup> They concluded further, “The results of this study suggest that students with higher AP exam scores seem to benefit the most from AP experiences, though this varies depending on the AP subject.”<sup>104</sup> McKillip and Rawls did not study the various AP fine arts courses.

In addition to the SAT, there is the American College Testing assessment that is often given to high school students, commonly called the ACT. In the study, “ACT Test Performance by Advanced Placement Students in Memphis City Schools,” Lun Mo et al. examined “the extent to which taking specific types of AP courses and the number of courses taken predicts the likelihood of passing subject benchmarks and earning a score

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<sup>102</sup> “AP Courses as Predictors of College Success,” 5.

<sup>103</sup> Mary E. M. McKillip and Anita Rawls, “A Closer Examination of the Academic Benefits of AP,” *Journal of Educational Research* 106, no. 4 (July 2013): 316, <http://dx.doi.org/10.1080/00220671.2012.692732>.

<sup>104</sup> McKillip and Rawls, “Closer Examination,” 317.

of 19 on the composite score on the ACT test.”<sup>105</sup> This study showed a correlation between taking AP mathematics and the increased likelihood of passing benchmarks.<sup>106</sup> However, this study did not examine AP fine arts courses.<sup>107</sup> There is a strong correlation between both major standardized tests, the SAT and ACT, and the performance outcomes on the AP exams. These measurements also correlate with success in the university classroom.

### **Fine Arts Courses and Advanced Placement**

The College Board offers numerous AP fine arts courses. Listed on their site are AP Art History, AP Music Theory, AP 2-D Art and Design, AP 3-D Art and Design, and AP Drawing. In conjunction with the AP art classes is a combination study called the AP Art and Design Program: “The AP Art and Design Program includes three different courses: AP 2-D Art and Design, AP 3-D Art and Design, and AP Drawing.”<sup>108</sup> The description continues, “In each course, you’ll investigate materials, processes, and ideas. You’ll make works of art and design by practicing, experimenting, and revising, and you will communicate your ideas about art and design through written and visual expression.”<sup>109</sup>

As shown above, many studies have linked student performance in AP courses to the effects it has on college acceptance and success. Mark A. Graham and Alice Sims-Gunzenhauser wrote the following in “Advanced Placement in Studio Art and Secondary

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<sup>105</sup> Lun Mo et al., “ACT Test Performance by Advanced Placement Students in Memphis City Schools,” *Journal of Educational Research* 104, no. 5 (September 2011): 354, <http://dx.doi.org/10.1080/00220671.2010.486810>.

<sup>106</sup> Mo et al., “ACT Test,” 358.

<sup>107</sup> Mo et al., “ACT Test,” 355.

<sup>108</sup> “CollegeBoard AP,” accessed September 18, 2020, <https://apstudents.collegeboard.org/course-index-page>.

<sup>109</sup> “CollegeBoard AP,” accessed September 18, 2020, <https://apstudents.collegeboard.org/course-index-page>.

Education Policy”: “Because of education reform policy and misconceptions about artistry and artistic assessment, visual art education remains in the margins of high school education.”<sup>110</sup> Graham and Sims concluded, “Its [AP assessment] decontextualized focus on art production, emphasis on individualized learning, and promotion of formalist elements and principles of design – it is evident from the range of work produced by AP students that the program does foster a flowering of divergent responses.” The authors further stated, “Its substantive focus on creating and understanding art for its intrinsic value is a positive influence for the field’s identity and security, and recurring questions about the purposes and content of art education have created lively discussion about its practice.”<sup>111</sup> Robert Syverson noted that there was more to college admission than test performance, though it was an indicator of success.<sup>112</sup> The findings regarding AP courses, their relationship with the fine arts, and other factors that contribute to successful college admissions warrant further examination into the admissions as related to school academic rigor and the fine arts.

### **Similar Studies Using Mixed Methods**

This final section of the literature review considers studies that have been conducted using similar qualitative and quantitative components to this current study. Several of the studies have overlapped with Horner, as mentioned previously. These studies are covered briefly to emphasize studies targeted at the nuances in this study, namely the fine arts components. Of particular interest to this study is Leslie Siskin.<sup>113</sup>

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<sup>110</sup> Mark A. Graham and Alice Sims-Gunzenhauser, “Advanced Placement in Studio Art and Secondary Art Education Policy: Countering the Null Curriculum,” *Arts Education Policy Review* 110, no. 3 (February 1, 2009): 18, <http://dx.doi.org/10.3200/AEPR.110.3.18-24>.

<sup>111</sup> Graham and Sims-Gunzenhauser, “Advanced Placement,” 22.

<sup>112</sup> Syverson, Steven, “The Role of Standardized Tests in College Admissions: Test-Optional Admissions,” *New Directions for Student Services* 118 (2007), 55, <http://dx.doi.org/10.1002/ss.241>.

<sup>113</sup> Leslie Siskin, “Outside the Core: Accountability in Tested and Untested Subjects,” in *Curriculum Studies Reader*, eds. Martin Carnoy, Richard Elmore, and Leslie Siskin (New York: Routledge, 2009), 92.

Siskin examined testing in music classes. She discussed struggles with testing music, such as how testing might improve how students think about music, but it could have consequences with the performance abilities of students. The issue arises when the fine arts course (i.e., music) must be adjusted so that all students can be tested, which may effectively lower the performance standard. The reality of this adjustment is stated in the words of a concerned music teacher: “The theory behind having the test, those questions – the theory behind the [state] standards, [the district] standards, is great. But the real practical aspect is, I’ve got to get those kids to learn how to play these instruments. If I don’t do that, the band will sound awful; therefore, my job could be on the line.”<sup>114</sup>

Mark David Eckel completed his dissertation in 2009. Eckel compared the practice of faith-learning integration between graduates of secular and Christian institutions.<sup>115</sup> The author concluded, “That Christian university graduates are better prepared in their knowledge and equipping of faith-learning integration. A shift in significance is demonstrated, however, when abilities to do faith-learning integration are identified.”<sup>116</sup> Finally, Kristen Campbell Wilcox and Janet Ives Angelis provided a definition of academic rigor helpful to this current study. The authors distilled school performance into five major themes: “These included: curriculum and academic goals; staff selection, leadership and capacity building; instructional programs, practices, and arrangements; monitoring, compilation, analysis and use of data; and recognition, intervention and adjustments.”<sup>117</sup> Having discussed much of the literature surrounding this research topic, this chapter addresses its research hypotheses.

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<sup>114</sup> Siskin, “Outside the Core,” 92.

<sup>115</sup> Mark David Eckel, “A Comparison of Faith-Learning Integration between Graduates from Christian and Secular Universities in the Christian School Classroom” (PhD diss., Southern Baptist Theological Seminary, 2009), 20.

<sup>116</sup> Eckel, “Comparison of Faith-Learning Integration,” 20.

<sup>117</sup> Kristen Campbell Wilcox and Janet Ives Angelis, *High School Best Practices: Results from Cross-Case Comparisons*, *High School Journal* 94, no. 4 (Summer 2011): 140,

## Research Hypothesis

Chapter 1 presented the need for this research topic. Measuring fine arts academic rigor in Christian schools assesses the work that students and teachers had done in the classrooms in comparison to schools that had no such Christian foundation. This literature review had illuminated various aspects and elements I sought to examine. There were no studies that had clearly and specifically addressed fine arts rigor and Christian curricular emphasis in Christian schools. The study completed by Horner in 2016 represented the closest example and served as a parent study to this one. However, though Horner's work served as a blueprint for this study, Horner did not discuss the fine arts. Following the example of Horner's study, I examined the official statements of faith and learning, as well as the intentionality of integrating them into the fine arts curriculum. I also examined the published course descriptions for the fine arts classes, thus studying the official curriculum.

This literature review had revealed the didactic nature of the fine arts, as well as the depth and rigor they could bring to education by illuminating the aesthetic, facilitating critical thinking, mathematics thinking, reading, language, and so on. Plato wrote, "Musical training is a more potent instrument than any other, because rhythm and harmony find their way into the inward places of the soul on which they mightily fasten, imparting grace, and making the soul of him who is rightly educated grateful."<sup>118</sup> Studies examining academic rigor, as well as recent dissertations, had not examined the official curricular statements of fine arts courses. Additionally, I sought to reveal new information regarding the level of and rigor of fine arts courses in Christian schools, the degree to which they could teach the national standards, and the degree to which the fine arts were aligned with a biblical model of the arts.

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<http://dx.doi.org/10.1353/hsj.2011.0009>.

<sup>118</sup> Plato, *The Republic of Plato* (Clarendon Press, 1881), 401.

Having shown that there is a suitable, if not considerable, gap in the literature for examining the relationship of fine arts academic rigor and Christian curricular emphasis, the following research hypothesis was proposed: Christian schools that emphasize the integration of faith and learning in their course descriptions for fine arts courses are more likely to report higher levels of academic rigor, as measured by median SAT scores, AP course offerings in fine arts, and college acceptances at highly ranked colleges and universities. Additionally, after examining CESA member schools, I examined the correlation between schools with more developed fine arts programs and course offerings, fine arts courses, and programs with a greater frequency of IFL language and those that lacked the fine arts and IFL. It was hypothesized that schools with a greater number of fine arts programs, course offerings, and IFL language associated with those programs and course offerings were more likely to report higher levels of academic rigor, as measured by the criteria above.

## CHAPTER 3

### METHODOLOGY

In 2012, the CESA was formed out of a group of schools where leaders sought to dedicate themselves to a devout Christian faith and academic rigor. As of January 26, 2021, there were 74 total CESA schools. These schools span the width and breadth of the United States, from the eastern coast of Georgia to the Pacific coast of California. CESA also has an international footprint in the Dominican Republic and Rwanda.

This chapter describes and details the methodological approach used in this study. This study was designed to examine the relationship between Christian curricular emphases in the fine arts. It used a content analysis of the official publications and quantitative measurement of the schools self-reported academic measurements.

In 2016, Horner conducted a directed content analysis and applied Badley's paradigms of IFL by examining course descriptions for language drawn from Badley's 1994 articulation of his paradigms and using his language to identify the presence of IFL in CESA school course descriptions.<sup>1</sup> Horner examined the Core Four courses: math, science, language arts, and social studies. I sought to conduct a similar directed content analysis, applying Badley's paradigms by examining course descriptions of fine arts courses and programs and using Badley's language to identify the presence of IFL within CESA fine arts course descriptions and programs.<sup>2</sup> This analysis was used to measure

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<sup>1</sup> Jeffrey Michael Horner, "Christian Curricular Emphases and Academic Rigor: A Mixed Methods Study" (EdD thesis, The Southern Baptist Theological Seminary, 2016), 71, <https://repository-sbts.edu.ezproxy.sbts.edu/handle/10392/5248>.

<sup>2</sup> Kenneth R. Badley's paradigm descriptions appear in his published works: "'Integration' and 'The Integration of Faith and Learning,'" (PhD diss., University of British Columbia, 1986), 64-77; Kenneth R. Badley, "The Faith/Learning Integration Movement in Christian Higher Education: Slogan or Substance?" *Journal of Research on Christian Education* 3, no. 1 (Spring 1994): 24-25, <http://dx.doi.org/10.1177%2F205699710901300103>.; Kenneth R. Badley, "Clarifying 'Faith-Learning

fine arts rigor in terms of fine arts courses offered, AP courses offered in the fine arts, median SAT scores, and the percentage of acceptances to the top fifty universities and colleges.

### **Purpose Statement**

The purpose of this mixed methods study was to determine and describe the relationship between academic rigor and Christian curricular emphasis in fine arts courses among select Christian secondary schools.

### **Research Question Synopsis**

1. What is the nature of fine arts curricular emphasis at CESA schools as reflected by the presence of fine arts/music courses and the frequency and in which they are offered?
2. How rigorous are CESA fine arts/music programs as reflected by annual school reports in conjunction with SAT scores, AP courses offered in the fine arts, and top-ranking college and university acceptances at Top 50 World University Rankings universities?
3. What is the relationship between the presence of a Christian curricular emphasis in fine arts courses and overall academic rigor?

### **Research Design Overview**

I used quantitative and qualitative data; thus, a mixed methods design was employed to bring together all the data with strength. Specifically, this project utilized a convergent design. Creswell and Creswell wrote, “The convergent design is a mixed methods design in which the researcher collects and analyses two separate databases - quantitative and qualitative - and then merges the two databases for the purpose of comparing or combining the results.”<sup>3</sup> Horner also chose to perform his study, which was a

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Integration’: Essentially Contested Concepts and the Concept-Concept Distinction,” *Journal of Education & Christian Belief* 13, no. 1 (Spring 2009): 7-17, <http://dx.doi.org/10.1080/10656219409484798>.

<sup>3</sup> John W. Creswell and Vicki L. Plano Clark, *Designing and Conducting Mixed Methods Research*, 3<sup>rd</sup> ed. (Thousand Oaks, CA: Sage, 2018), 68.

predecessor to this study, using a convergent design.<sup>4</sup> As with his study, I combined or merged the two data points through a process of data transformation. Writing on data transformation, Creswell and Plano Clark stated, “After the initial analysis of the two data sets, the researcher uses procedures to quantify the qualitative findings (e.g., creating a new variable based on the qualitative themes.”<sup>5</sup>

### **Coding Criteria**

The qualitative part of this study consisted of a directed content analysis of the course descriptions for secondary grade band, chorus, orchestra, and visual arts. Using NVivo 12 to search for Badley’s paradigm vocabulary, each course was classified based on the presence and frequency of IFL language in each fine arts discipline (band, chorus, orchestra, visual arts, theatre, and dance) at each CESA school that possessed IFL language as a measure of Christian curricular emphases.<sup>6</sup> The qualitative portion of this study also examined all published graduation requirements for the presence of a Bible, Christian studies, or Chapel requirement. I assigned them a Yes/No designation based on the presence of those offerings, which constituted the independent variables for this study.

The quantitative portion of this study recorded the SAT scores, the percentage of fine arts AP courses offered versus the possible fine arts AP offerings, and the percentage of colleges to which a school’s students were accepted that were ranked in the top fifty. This process was based on a combined listing of college rankings that would include top-ranked secular, Christian, and fine arts universities and colleges.

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<sup>4</sup> Horner, “Christian Curricular,” 71.

<sup>5</sup> Creswell and Plano Clark, *Designing and Conducting*, 75.

<sup>6</sup> Badley, “‘Integration’ and ‘The Integration of Faith and Learning,’” 64-77; Badley, “The Faith/Learning Integration,” 24-25; Badley, “Clarifying ‘Faith-Learning Integration,’” 7-17.

### **Population**

The research population for this study consisted of course descriptions, academic profiles, and other publicly available published content of CESA member schools with secondary fine arts offerings. Because these descriptions and profiles were designed to be viewed by people outside the school, they were presumed accurate reflections of how the school wanted to portray itself.

### **Sample and Delimitations**

This study constituted a census of all CESA schools with secondary grades' fine arts programs or course offerings; therefore, the content for this study was exhaustively sampled. All published content relating to this project's delimitations was analyzed.

For this study, CESA member schools were defined as every institution of CESA with secondary grade fine arts programs and/or course offerings (band, chorus, orchestra, visual arts, theatre, and dance). Only member schools were included that had fine arts programs or course offerings in band, chorus, orchestra, visual arts, theatre, dance, AP music theory, and/or AP visual arts (this course was subdivided into drawing, 2D, and 3D AP courses).

### **Limitations of Generalization**

This study was a census study of all CESA member schools with fine arts offerings because it analyzed the official fine arts program and course descriptions. The findings of this study may not generalize to schools or institutions dedicated to vocational training or strictly non-fine arts related education. This study may also not generalize to institutions that do not seek to integrate faith and learning. This study will generalize to all CESA schools, specifically those with fine arts programs, but may not generalize to schools or institutions that are not CESA members.

### **Research Method and Instrumentation**

This study was a correlational descriptive mixed-methods research design. A directed content analysis constituted the qualitative portion to examine the frequency of IFL language in fine arts course descriptions for secondary grade courses in band, chorus, orchestra, and visual arts. This study's qualitative portion also examined the presence or non-presence of a Bible, Christian studies, or chapel curriculum requirement. The qualitative portion utilized NVivo 12 to analyze the many course descriptions quickly and accurately. The quantitative portion of this study recorded median SAT scores, the presence of fine arts AP course offerings available, and the percentage of top colleges and universities to which the students were admitted.

### **Ethics Committee Process**

This study consisted of an analysis of published documents. The research process did not require any person-to-person interactions. No ethics committee approvals were needed to begin this study because all texts in this population were located and gathered primarily through institutional web pages.

### **Research Procedures**

Due to the mixed-methods nature of this study, I took several steps before to the project to prepare for establishing research procedures. I first conducted a literature review to reveal the lack of information on the relationship between fine arts rigor and Christian curricular emphases. Next, this study recognized the benefit that fine arts education could have on education and examined the deeply theological underpinning education in fine arts can have. Third, to narrow this project, I only examine CESA schools as a study population that claims to be both academic and Christian. I compared these schools to one another based on nationally administered tests, AP course offerings in the fine arts, and top-ranked universities.

## Qualitative Procedures

Collecting, organizing, sorting, and analyzing all CESA schools' fine arts programs and/or course descriptions made up the qualitative portion of this project. The course descriptions consisted of band, chorus, orchestra, visual art, theatre, dance, AP music theory, and AP visual art. I did the following:

1. Visited the websites of every CESA school within the delimitations of the study
2. Collected every course description of every fine arts program and/or course offering, specifically, band, chorus, orchestra, visual art, theatre, dance, AP music theory, and AP visual art
3. Converted every course description into a format readable by the qualitative data analysis application, NVivo 12
4. Conducted a word count for all course descriptions by school and grade level (where applicable)
5. Followed the process laid out in Horner's research by using Badley's categories and language to identify the presence of IFL language in each course description and to exhaustively record coding processes and protocols<sup>7</sup>
6. Identified if the schools had a required Bible or Christian studies curriculum, in addition to other courses offered at the school
7. Identified if the schools had a required Chapel attendance each week to determine if students could participate in worship as musicians
8. Categorized the course descriptions in a Yes/No format for the presence or non-presence of IFL language in every fine arts program or course offering description
9. Categorized the presence or non-presence of Bible or Christian studies curriculum in a Yes/No format
10. Categorized the presence or non-presence of Chapel participation in which students could participate in worship as musicians in a Yes/No format
11. Analyzed the fine arts programs and courses to determine the percentage of programs or courses that display IFL

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<sup>7</sup> Badley, "'Integration' and 'The Integration of Faith and Learning,'" 64-77; Badley, "The Faith/Learning Integration," 24-25; Badley, "Clarifying 'Faith-Learning Integration,'" 7-17.

## **Quantitative Procedures**

The quantitative portion of the study recorded and analyzed the SAT, AP, and college acceptance data reported in the College Profile information all CESA schools with secondary fine arts programs. I did the following:

1. Visited every website of CESA schools within the delimitations of the study
2. Downloaded the academic profile of every CESA school
3. Recorded all SAT median scores (Convert ACT scores where necessary)
4. Recorded tuition for secondary grades
5. Documented and recorded median family income for families with school-age children within the ZIP code of the school
6. Documented and recorded the median family income for families with school-age children within ZIP codes neighboring the school
7. Recorded the number of fine arts AP courses offered at CESA schools in relation to the possible fine arts AP offerings available, according to the College Board's list of AP courses
8. Documented and recorded the rankings of the top fifty national universities as reported by the US News and World Report
9. Documented and recorded the rankings of the top twenty-five Christian universities
10. Documented and recorded the rankings of the top twenty-five performing arts and visual arts universities
11. Recorded an aggregate list of top universities derived from the lists documented previously

## **Data Transformation and Mixing**

After I collected the qualitative data, I prepared those data via quantization for statistical analysis using SPSS statistics software. The analysis was a multivariate analysis of covariance, MANCOVA. I first converted the information about IFL into a percentage that corresponded to the fine arts courses that displayed IFL in each delimited discipline. I then took all school tuition data related to the median family incomes in each school ZIP code and converted those data into a percentage of the school's tuition. Next, I

analyzed the dependent variables and the independent variables through a multivariate analysis of variance with covariates using the SPSS Statistics software.

After the analysis, I sought studies and sources to help explain the relationship between the dependent and independent variables. It should be noted that Horner's study on Christian curricular emphases in the Core Four areas obviated the SPSS software package to perform post hoc tests used in MANCOVA. It might be necessary for this study to use other reporting mechanisms to determine the strongest relationships between the dependent and independent variables.

## CHAPTER 4

### ANALYSIS OF FINDINGS

The purpose of this research was to determine and describe the relationship between fine arts academic rigor and Christian curricular emphases among select private, Christian secondary schools. I completed a content analysis of the official school publications, describing their academic profiles; the fine arts curriculum courses; and activities that met the population delimitation criteria to complete this study and answer the research questions. This study constituted a census, as all school's published documents in the population were analyzed. The resulting data are analyzed in this chapter.

#### **Compilation Protocols**

Before beginning the study, I completed several online training sessions offered by QSR International. These sessions were offered as a part of the NVivo Academy. The course that I completed was NVivo Core Skill (Windows) Online Course. This class was a 14-hour course delivered over several learning sessions. At the end of the course and upon passing the final test, I became a certified digital user for NVivo 12. The course began June 19, 2021 and was completed on June 30, 2021. Additionally, the QSR YouTube channel provides several guides that act as supplements and aids for NVivo users. I used numerous websites and published guides regarding specific applications and techniques of the SPSS program. Due to this mixed-methods analysis being a convergent data transformation model, the compilation protocols are listed according to the quantitative and qualitative natures.

## **Quantitative Data**

There were two sets of data needed for the MANCOVA: the dependent and covariates (or mediating variables). The dependent variables were median SAT scores, percentage of possible fine arts AP courses, and percentage of top-ranked US universities to which students had been admitted. The mediating variables were the school's tuition and percentage of the school's tuition relative to the median family income for the ZIP code in which the school was located and bordering ZIP codes.

**Phase 1 – Population data for quantitative data.** An initial listing of all member institutions of CESA was compiled from the official website of the Council of Educational Standards and Accountability. The list of CESA schools included in this study is found in table B1 in appendix B. From this listing, a spreadsheet was designed to record all pertinent compilation data to enable the reproduction of this study. These data included the school's name and website, the ZIP codes, and all quantitative and qualitative data required to conduct this study. In addition, I created hyperlinks for every school's website within an Excel document to facilitate the consistent collection of the necessary demographic data for each school to conduct the research. Great care and effort were employed to use the most recently available published data from each CESA school, as of the research window of March 1, 2021, to July 31, 2021.

**Phase 2 – Demographical criteria established for quantitative data.** I accessed each school's website to collect published tuition and fees for high school students. When available, I collected the tuition and fees data for each grade level. Additionally, deposits, book fees, recreation fees, participation fees, lab fees, application fees, technology fees, and any other fees were added to the base tuition, if not already done so at the school. The consolidation of fees for schools that itemized their costs was done to compare schools' cost more easily. The next phase included collecting the ZIP

code of the main campus of the school (for schools that had multiple campuses, the ZIP code of the Upper School was used).

After recording the ZIP code of each school, I used a ZIP code lookup service to gather all the ZIP codes bordering the ZIP code of the school.<sup>1</sup> All bordering ZIP codes, including those that crosses borders (e.g., rivers and state lines), were included and compiled in an Excel spreadsheet (See table B4 in appendix B).

Once all the school ZIP codes and those of the bordering ZIP codes were recorded, I gathered the median family income for all collected ZIP codes. I used the same resource used to gather the data on the bordering ZIP codes. This ZIP code-look up service used the most current Census Bureau income statistics and was trusted by notable universities, such as Yale and the Massachusetts Institute of Technology. I then entered every collected ZIP code into the site and recorded the median family income for that ZIP code.

With the data collected for all the median family incomes for every ZIP code, I recorded the median family income for each ZIP code of the school into an Excel spreadsheet, with a column labeled MFIZ (See B2 in appendix B). I also used Excel's spreadsheet functionality to determine the median income of the aggregated ZIP codes (including the school's ZIP code) and entered that information into a column labeled MFIA (See table B3 in appendix B). The second phase of collecting the necessary quantitative data required approximately 140 hours of work.

**Dependent variables.** Every CESA school had a website containing a physical address and tuition rates. Other information needed for the research included AP courses taught, either the mean of middle 50 percent SAT and ACT scores or the median SAT (whichever was reported), and college and university acceptances. I used the course

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<sup>1</sup> "US Income Statistics - Current Census Data for Zip Codes," accessed August 3, 2021, <https://www.incomebyzipcode.com/>.

listings available on the College Board’s website to establish a list of AP courses available for students to take in fine arts areas. There were three fine arts courses available: AP Art and Design Program (included three different courses, AP 2-D Art and Design, AP 3-D Art and Design, and AP Drawing), AP Art History, and AP Music Theory. Once the SAT and ACT scores were collected, academic profiles, annual reports, and school websites were examined for lists of AP fine arts courses taught at each CESA school. In addition to collecting the AP courses, I collected lists of all other fine arts courses offered. All courses on this list fell into six categories: band, chorus, orchestra, visual arts, dance, and theatre.

I recorded the middle 50 percent scores for both the SAT data and the ACT data, whenever the school reported both. If the school reported only once, I converted the ACT scores to SAT and SAT to ACT scores using the concordance tables provided by both the College Board and the ACT company. I recorded scores from every school that reported them and compiled data from the College Board’s archives and other peripheral sources to determine SAT scores broken down by median family income. Table B2 displays the median family income as related to SAT scores.

All CESA school’s websites contained information about college admissions. I created a list of the top fifty colleges and universities from the US News and World Report’s annual college rankings. I also collected lists from the “Times Higher Education World University Rankings,” the “QS World University Rankings,” and the “Academic.”<sup>2</sup> I gathered lists of top-ranking Christian Universities from “EDsmart,” as well as the top visual and performing arts universities from “College Factual”<sup>3</sup> Once the ranked lists

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<sup>2</sup> “Times Higher Education World University Rankings,” accessed March 19, 2021, <https://www.timeshighereducation.com/student/news/us-college-rankings-top-universities-usa>; “QS World University Rankings,” accessed March 19, 2021, <https://www.topuniversities.com/university-rankings/usa-rankings/2021>; “Academic Ranking of World Universities,” accessed March 19, 2021, <https://www.shanghairanking.com/rankings/arwu/2021>.

<sup>3</sup> “Top Christian Universities,” accessed March 19, 2021, <https://www.edsmart.org/>; “College Factual University Rankings,” accessed March 19, 2021, <https://www.collegefactual.com/majors/visual-and-performing-arts/rankings/best-value/>; Kristen Campbell Wilcox and Janet Ives Angelis, *High School*

were gathered, I compiled a list of the mode of the top fifty most listed universities from each ranking system. If the top Christian, fine arts, and performing arts schools were unrepresented on the Top 50 lists I added them to the consolidated list used in this study. Additionally, the rankings for visual arts and performing arts universities were limited to Top 25. All university rankings were compiled into a master list with variable name TopUniv. This variable name is like the variable used in Horner's study. However, the TopUniv variable in this study differs in that it uses an aggregated list of top fifty universities, as well as, top Christian, music, visual arts, and performing arts universities. Top University lists are found in appendix E.

All CESA school college acceptances were scored against this list detailed above. One point was given for each college acceptance from the composite list. Each CESA school was then given a score representing the percentage of recent college acceptances from the composite list. These data composed the basis for which I determined both universities and colleges as top-ranking and, therefore, was subject to the inherent weakness of those ranking systems. There was agreement about the universities at the top of the rankings, even within the realm of fine arts and performing arts. However, there was divergence in the placement of universities within the rankings. Regardless, the rankings allowed for a systematic measure to gauge student admissions to top universities. The first phase of collecting the necessary documents for the study from the school's websites took approximately 220 hours of work.

**Mediating variables.** Tuition data were collected by visiting the admissions and tuition sections for each CESA school's website. I collected data on tuition costs for Grades 9 to 12 and included all additional fees. The highest listed tuition for a high school senior, including fees, was used for this study's data. Some schools listed various

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*Best Practices: Results from Cross-Case Comparisons, High School Journal* 94, no. 4 (Summer 2011): 140, <http://dx.doi.org/10.1353/hsj.2011.0009>.

fees separately, but I evaluated the schools based on all costs associated with attending. Therefore, all fees were added to the base tuition cost. The other grade level tuition costs were collected for completeness and to serve as a resource for future studies.

The school's tuition was analyzed as a percentage of the median family income for the ZIP code in which the school was located. Median family income was compiled through the US Census office's American Fact Finder tool.<sup>4</sup> I then recorded the median family income from all bordering ZIP codes bordering the school's ZIP code. The ZIP codes bordering the school's ZIP code were gathered using [incomebyzipcode.com](https://www.incomebyzipcode.com/).<sup>5</sup> Any errors in data were due to errors within those publicly available databases.

### **Qualitative Data**

This study contained one set of independent variables broken into (seven) sub-categories. The seven categories included the following: the presence of Bible curricula, percentage of IFL language present in band course descriptions, percentage of IFL language present in chorus course descriptions, percentage of IFL language present in orchestra course descriptions, percentage of IFL language present in dance course descriptions, percentage of IFL language present in theatre course descriptions, and the percentage of IFL language present in visual arts course descriptions.

**Independent variables.** The academic data and curricular data were collected in a systematic format. First, each school website was visited. Second, I browsed the sites for academic/college profiles and Grades 9 to 12 course descriptions for the relevant fine arts courses. Third, I saved the data in the proper formatting used by NVivo 12. Fourth, I performed a directed content analysis of the data for IFL terminology according to the

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<sup>4</sup> "American FactFinder," United States Census Bureau, accessed November 17, 2020, <https://data.census.gov/cedsci/deeplinks?url=https%3A%2F%2Ffactfinder.census.gov%2F>.

<sup>5</sup> "Income by ZIP code," accessed November 17, 2020, <https://www.incomebyzipcode.com/>.

findings from Badley's paradigms.<sup>6</sup> Fifth, I used SPSS to conduct the MANCOVA and potential post-hoc analyses of the data. All variable abbreviations, including dependent, independent, and covariate variables used in this analysis, are in table 1.

**Phase 3 – Qualitative data, NVivo 12 phase.** Beginning January 18, 2021, I examined the published documentation of the 72 member schools of CESA to determine which programs met the delimitation criteria. All available academic profiles and course descriptions were gathered and uploaded into the NVivo 12 program. After uploading all the documents, I coded all the course descriptions to the following areas of the fine arts: band, chorus, orchestra, dance, theatre, and visual arts. In gathering the data and through the coding process, I observed that every CESA school had a separate Bible curriculum, as well as regularly scheduled Chapel. This answered part of Research Question 1. All publicly available course descriptions were coded into one of the course areas, constituting a census of all academic course descriptions. Additionally, all publicly available information about fine arts programs, such as band info pages, school dance studio pages, and theatre production announcements, were captured and coded.

After gathering the data, I uploaded Badley's paradigms of integration of faith and learning.<sup>7</sup> I performed a word frequency count of the sections of Badley's work in each document, specifically describing the paradigms of integration of faith and learning.<sup>8</sup> Using the most frequently occurring terms as a guide, I used NVivo 12 to

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<sup>6</sup> Kenneth R. Badley's paradigm descriptions appear in his published works: "'Integration' and 'The Integration of Faith and Learning,'" (PhD diss., University of British Columbia, 1986), 64-77; Kenneth R. Badley, "The Faith/Learning Integration Movement in Christian Higher Education: Slogan or Substance?" *Journal of Research on Christian Education* 3, no. 1 (Spring 1994): 24-25, <http://dx.doi.org/10.1177/02F205699710901300103>; Kenneth R. Badley, "Clarifying 'Faith-Learning Integration': Essentially Contested Concepts and the Concept-Conception Distinction," *Journal of Education & Christian Belief* 13, no. 1 (Spring 2009): 7-17, <http://dx.doi.org/10.1080/10656219409484798>.

<sup>7</sup> Badley, "'Integration' and 'The Integration of Faith and Learning,'" 64-77; Badley, "The Faith/Learning Integration," 24-25; Badley, "Clarifying 'Faith-Learning Integration,'" 7-17.

<sup>8</sup> Badley, "'Integration' and 'The Integration of Faith and Learning,'" 64-77; Badley, "The Faith/Learning Integration," 24-25; Badley, "Clarifying 'Faith-Learning Integration,'" 7-17.

perform a text query of CESA school fine arts course descriptions. The most frequent terms used in Badley’s paradigms appear in table C1 in appendix C. This portion of the study was a reproduction of the same method implemented by Horner.<sup>9</sup> The list of most frequent terms was compared to the one generated in Horner’s study, and they were found functionally the same. Next, I used those words and performed a stemmed text query of the various coded course descriptions. I then reviewed those findings and removed instances that were extraneous, as they related to integration of faith and learning language. For example, “model” and “rearticulate” were commonly found in the course descriptions of band, chorus, and orchestra. However, closer examination showed that those words were used in reference to pedagogical language standard within music instruction and did not pertain to integrating faith and learning. After reviewing the results, the following IFL-related terms were identified as prominent in fine arts’ course descriptions: “Biblical,” “Christian,” “Worldview,” “Faith,” “Christ,” “Glory,” and “Gifts.”

**Quantitating qualitative data.** I then reviewed all instances of those words in relationship to one another and where they appeared in the course descriptions according to fine arts discipline. I performed a manual count of each instance of those words’ appearances within each discipline according to each IFL-related term. If one or more of the IFL-related terms appeared in a course description, I counted that as one appearance of IFL language in CESA schools’ fine arts course descriptions. I then coded all those appearances within a spreadsheet containing all other relevant research data. I used the mean (average) of all the results of the qualitative research as a dividing point. The reasoning behind this decision was due to the mean being more precise than the median.

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<sup>9</sup> Jeffrey Michael Horner, “Christian Curricular Emphases and Academic Rigor: A Mixed Methods Study” (EdD thesis, The Southern Baptist Theological Seminary, 2016), 1, <https://repository-sbts.edu.ezproxy.sbts.edu/handle/10392/5248>.

After establishing the mean for each fine arts areas—Band, Chorus, Orchestra, Visual Arts, Dance, and Theatre—I then used Excel to separate the data into schools when the presence of IFL-language was above the CESA schools’ mean and those below the mean, converting each result into a dichotomous variable. Once the variables were recorded, they were uploaded into the SPSS software for further analysis. This third phase, collecting and coding all CESA school fine arts course data, took approximately one-hundred hours of work.

**Phase 4 – The SPSS phase.** Starting the second week of June 2021, the collected data from the previous three phases were completed and uploaded into SPSS. Following the guidance of David Garson for data analysis found in his book, *GLM Multivariate, MANCOVA, and Canonical Correlation*,<sup>10</sup> and the previous work done by Horner, I determined that the appropriate statistical analysis was a multivariate analysis of variance with covariates (MANCOVA).<sup>11</sup> I then contracted with a private statistical professional to aid in the analysis. I followed the guidance of Garson and my data analyst in confirming whether the data met the assumptions necessary to perform MANCOVA.<sup>12</sup> The process required approximately 160 hours of work.

The research process was recorded in an Excel spreadsheet and reproduced in table A1 in appendix A. The following section contains the findings from the research study, and table 1 provides the list of abbreviations used in this study for each variable.

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<sup>10</sup> David G. Garson, *GLM Multivariate, MANOVA, and Canonical Correlation* (Asheboro, NC: Statistical Associates Publishers, 2015), 20.

<sup>11</sup> Horner, “Christian Curricular,” 1.

<sup>12</sup> Garson, *GLM Multivariate*, 20.

Table 1. List of abbreviations for each variable

Variable	Abbreviation	Type of Variable
Median Family Income (Area) as percentage of Tuition	MFIA	Covariate
Median Family Income (ZIP code) as percentage of Tuition	MFIZ	Covariate
Tuition of the School	Tuition	Covariate
Mean of middle 50 percent or Median SAT score	SAT	Dependent
Percentage of AP courses offered at the school	AP	Dependent
Percentage of students accepted to Top Universities	TopUniv	Dependent
Band IFL	BandIFL	Independent
Chorus IFL	ChorusIFL	Independent
Orchestra IFL	OrchIFL	Independent
Visual Art IFL	VAIFL	Independent
Theatre IFL	TheatreIFL	Independent
Dance IFL	DanceIFL	Independent

### Demographic and Sample Data

This section includes basic demographic data, such as median family income and academic data of schools. The CESA schools were geographically dispersed, primarily in the continental United States, with two international schools in the Caribbean and Africa.



Figure 1. CESA schools by ZIP code

This study of CESA schools constituted a census, meaning that the data would have been comprehensive for all CESA schools that fit the delimitations of the sample. I examined all Members of Council and Candidate Schools, constituting a census of all schools that fall within the delimitations of the study.

The Phase 1 data provided the basis for the dependent variables. There were five fine arts AP courses available. The data categories were labeled “AP<sub>avail</sub>” for the percentage of AP courses available to be given at a school; “SAT<sub>med</sub>” for the median SAT or ACT score; and “TopUniv” for the percentage of admissions to the top 50 colleges and universities, as well as the top 25 fine arts, performing arts, music, and Christian colleges and universities. An analysis of the CESA schools listed in Chapter 1 revealed that sixty-four schools met the delimitations of the study. Eight schools did not offer secondary-level fine arts courses and were consequently delimited from the study. The percentage of fine arts AP courses offered at CESA schools ranged from 0 percent to 100 percent, for an expected range of 100 percent and a standard deviation of 16. The mean of AP<sub>avail</sub> courses

offered at CESA school had a mean percentage of 41 percent, with a median of 60 percent. The SAT<sub>med</sub> score was 1,266.02, with a low 1124 and a high of 1390, for a range of 266 points and a standard deviation of 61.99. The mean percentage of Top Universities to which CESA students were accepted at 51.22 percent, with a median of 54.23 percent. The percentage of TopUniv ranged from 0 percent to 74 percent for a range of 74, with a standard deviation of 24.25. Statistics appear below in table 2.

Table 2. Case summaries for the dependent variables

		AP (%)	SAT	TopUniv (%)
Total	<i>N</i>	64.00	64.00	59.00
	Mean	41.00	1,266.02	51.22
	Median	60.00	1,270.00	54.23
	Minimum	0.00	1,124.00	0.00
	Maximum	5.00	1,390.00	74.00
	Range	5.00	266.00	74.00
	Std. Deviation	1.62	61.99	24.25

### Covariate Data

The covariate data were collected along three interrelated variables: tuition, median family income by school ZIP, and median family income of bordering ZIP codes. Tuition was collected for sixty-two schools meeting the delimitations of the study. However, two schools operating internationally had been delimited from this portion of the study due to MIFA and MIFZ not being congruent with the data gathering procedures

used in the study. Specifically, the 2 international schools did not offer ZIP code data and, therefore, could not be measured similarly to the other 62 schools.

The median family income of the ZIP code in which the school was located was used to calculate MIFZ, using a formula (MIFZ percent = Tuition/Median Family Income of ZIP Code). The median family income of the ZIP code of the school, plus all bordering ZIP codes, was calculated from the median of all bordering ZIP codes, including the school’s ZIP code. This code was used to calculate the covariate MIFA, using a formula (MIFA percent = Tuition/Median Family Income of all Bordering Zip Codes). These variables are summarized in table 3.

Table 3. Case summaries for covariates

		Tuition (\$)	MIFZ (%)	MIFA (%)
Total	N	62.00	62.00	62.00
	Mean	17,702.00	24.27	24.81
	Median	16,662.00	22.50	23.00
	Minimum	9,320.00	7.00	11.00
	Maximum	37,175.00	72.00	50.00
	Range	27,855.00	65.00	39.00
	Std. Deviation	5,716.04	11.38	8.92

The covariate “tuition” showed a mean of \$17,702 and a median of \$16,662. The minimum was \$9,320, and the maximum was \$37,175, with a range of \$27,855 and a standard deviation of \$5,716. The covariate “MIFZ” showed a mean of 24.27 percent and a median of 22.5 percent. The minimum was 7 percent, and the maximum was 72 percent, for a range of 65 percent and a standard deviation of 11.38. The covariate

“MFIA” showed a mean of 24.81 percent and a median of 23 percent. The minimum was 11 percent, and the maximum was 50 percent, with a range of 39 percent and a standard deviation of 8.92. The case summaries are presented in table 3, above.

### **Independent Variable Data**

The independent variable data were coded, with  $N = 0$  and  $Y = 1$ , based on whether the school’s percentages of IFL language in each fine arts discipline was above or below the CESA mean for that subject. The case summaries appear in table 4. The mean was used rather than the median because it provided a more precise break between the numbers than the median. The mean of Bible courses at CESA schools required for graduation was 3.18 years. Thus, the variable “Bible” represented the dichotomous Y/N of whether the schools’ years of required Bible courses were above or below the mean of 3.18 years, with a median of 1. The standard deviation was 0.496. The mean of band course descriptions containing IFL language was 20 percent, with a median of 0. The standard deviation was 0.403. The mean of chorus course descriptions containing IFL language was 24 percent, with a median of 0. The standard deviation was 0.423. The mean of orchestra course description containing IFL language was 25 percent, with a median of 0. The standard deviation was 0.433. The mean of visual arts course descriptions containing IFL language was 18 percent, with a median of 0. The standard deviation was 0.380. The mean of theatre course descriptions containing IFL language was 18 percent, with a median of 0. The standard deviation was 0.384. The mean of dance course descriptions containing IFL language was 15 percent, with a median of 0. The standard deviation was 0.400.

Table 4. Case summaries of the independent variables

	Bible	BandIFL	ChorusIFL	OrchIFL	VAIFL	TheatreIFL	DanceIFL
<i>N</i>	64.000	60.000	60.000	32.000	63.000	61.000	15.000
Mean	0.563	0.200	0.237	0.250	0.175	0.180	0.200
Median	1.000	0.000	0.000	0.000	0.000	0.000	0.000
Minimum	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Maximum	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Range	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Std. Deviation	0.496	0.403	0.423	0.433	0.380	0.384	0.400

The *N* values in table 4 reveal that all CESA schools that met the delimitations of this study offered Bible courses. The variable “Bible” also included whether a school offered Chapel on a regularly occurring schedule. Therefore, the variable “Bible” showed that 64 CESA school offered Chapel, in addition to offering Bible courses. The *N* value showed that 60 CESA schools offered band courses, 60 offered chorus courses, 32 offered orchestra courses, 63 offered visual arts courses, 61 offered theatre courses, and 15 CESA schools offered dance courses.

Table 5. Overview of statistical analysis

Research Question	Statistical Tools	Data set
Description of Sample	Descriptive Statistics	Geographical location, tuition, information from websites.
Research Question 1	Descriptive statistics, means, standard deviations	Independent variables: FAavail, GradTrack, Band, Chorus, Orchestra, Visual Arts, Theatre, Dance
Research Question 2	Descriptive statistics, means, standard deviations	Independent variables: Bible, BandIFL, ChorusIFL, OrchIFL, VAIFL, TheatreIFL, DanceIFL
Research Question 3	Descriptive statistics, means, standard deviations	Dependent variables: AP <sub>avail</sub> , SAT <sub>med</sub> , TopUniv Covariates: Tuition, MFIZ, MFIA
Research Question 4	MANOVA, MANCOVA, ANOVA; tests of assumptions for MANOVA	Independent variables: Bible, BandIFL, ChorusIFL, OrchIFL, VAIFL, TheatreIFL, DanceIFL Dependent variables: AP <sub>avail</sub> , SAT <sub>med</sub> , TopUniv Covariates: Tuition, MFIZ, MFIA

## **Findings and Displays**

The goal of this research study was to seek the relationship between fine arts rigor and Christian curricular emphases in CESA schools with secondary arts programs (Grades 9 to 12, band, chorus, orchestra, visual arts, dance, and theatre). The first research question sought to know which fine arts courses were offered at CESA schools. The second research question sought to know to what extent Christian curricular emphases were expressed at CESA school regarding their Bible courses, chapel offerings, and through the presence of integrating faith and learning language. Research Question 3 sought to examine how rigorous CESA schools fine arts were regarding their SAT scores, fine arts AP course offerings, and admission to top-ranked colleges and universities. The fourth research question sought to examine the relationship between the presence of Christian curricular emphasis in fine arts courses and overall academic rigor at CESA schools. The overview of statistical analysis performed during this study is in table 5.

### **Research Question 1**

The first research question was the following: What fine arts courses are offered and/or required at CESA schools, and are there special honors for students who pursue a fine arts graduation track? I examined the data gathered during Phase 1 and Phase 3 of this study to answer Research Question 1. All CESA schools provided information via their websites that helped to answer this question. All CESA schools displayed on their sites a link to the school's fine arts page. On these pages, I gathered detailed information on fine arts course offerings and any information regarding special honors or fine arts graduation tracks. Additionally, each school provided school profiles and course description documentations. I downloaded all school profiles, course description documentations, and course offering information into NVivo 12 and an Excel spreadsheet for further analysis.

I exhaustively examined every CESA school fine arts page, school profiles, course descriptions, and graduation information to determine the fine arts course

offerings and presence of a fine arts honors and graduation track. I separated the fine arts content areas into band, chorus, orchestra, visual arts, theatre, and dance. If a school had one or more course offerings in any of the fine arts content areas, I coded it as “1.” If a school did not offer any classes in a fine arts content area, I coded it as “0.”

After coding for fine arts course offerings, I then examined the school fine arts pages, school profiles, and graduation requirements for any indication of a fine art’s graduation track. Schools that offered a fine arts graduation track were coded as “1.” Schools that did not offer a fine art’s graduation track were coded as “0.”

Band courses were offered at 60 CESA schools for a percentage of 93.75 percent and a standard deviation of 0.242. Likewise, chorus courses were offered at 60 CESA schools for a percentage of 93.75 percent and a standard deviation of 0.242. Orchestra courses were offered at 32 CESA schools for a percentage of 50 percent and a standard deviation of 0.500. Visual arts courses were offered at 63 CESA schools for a percentage of 98.43 percent and a standard deviation of 0.124. Dance courses were offered at 15 CESA schools for a percentage of 23.43 percent and a standard deviation of 0.424. Theatre courses were offered at 61 CESA schools for a percentage of 93.75 percent and a standard deviation of 0.211. The analysis of the findings regarding Research Question 1 appears in table 6.

Table 6. Fine arts offerings and graduation track options

	Band	Chorus	Orch.	V.A.	Dance	Theatre	Graduation Track	FA <sub>avail</sub>
<i>N</i>	60.000	60.000	32.000	63.000	15.000	61.000	64.000	64.000
% Offering	93.750	93.750	50.000	98.430	23.430	95.310	34.370	54.680
Median	1.000	1.000	0.000	1.000	0.000	1.000	0.000	5.000
Minimum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Maximum	1.000	1.000	1.000	1.000	1.000	1.000	1.000	6.000
Std. Deviation	0.242	0.242	0.500	0.124	0.424	0.211	0.475	1.031

CESA schools offered fine arts courses in six disciplines. These disciplines included band, chorus, orchestra, visual arts, dance, and theatre. The median number of fine arts courses offered at CESA schools was 5. I recorded the schools that offered the median or above fine arts courses with a  $Y = 1$  and the schools below the median as an  $N = 0$ . All 64 CESA schools offered at least 1 fine arts course. The data revealed that 54.68 percent of CESA schools offered 5 or more fine arts courses. Additionally, 34.37 percent of CESA schools offered a fine arts graduation track, with recognition on graduation diplomas. The analysis of these findings appears in table 6, above.

### Research Question 2

The second research question asked the following: How are Christian curricular emphases expressed as it relates to the presence of Bible courses, Chapel, and the integration of faith and learning language in the fine arts curricula? I exhaustively examined every CESA school's course descriptions for the presence of IFL language to

answer this question. I used the word count content analysis of Ken Badley's paradigms from Horner's work into the presence of IFL in the core academic areas of CESA schools.<sup>13</sup> I focused my word count analysis on seven category words: "Biblical," "Christian," "Worldview," "Faith," "Christ," "Glory," and "Gifts." While performing the word counts, I read every course description to ascertain the context and use of any words that might indicate the presence of IFL. After recording each school's data, I quantitated the qualitative data from the content analysis by coding the presence of any IFL language in a course description as a "1" and the non-presence of IFL language in a course as a "0." The number of courses showing IFL language was divided by the total number of courses offered in that academic area by the course descriptions showing IFL language to achieve a percentage of courses expressing IFL language. The CESA school IFL language presence in band, chorus, orchestra, visual arts, theatre, and dance was collected and recorded into tables presented below (See tables 7 through 12).

The Bible courses and Chapel offerings, specifically being about faith and learning, were handled differently. Because all CESA schools required Bible for graduating students, I collected the number of years required and recorded the findings in table 13. For Chapel, I recorded the presence of Chapel at CESA schools, coding Chapel presence as "1" and Chapel non-presence as "0." The "presence of Chapel" was based on a school holding regularly scheduled Chapel time for its student population. I then calculated the percentage of CESA schools that had Chapel offerings for their students. All CESA schools held regularly scheduled Chapel for their students.

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<sup>13</sup> Badley, "'Integration' and 'The Integration of Faith and Learning,'" 64-77; Badley, "The Faith/Learning Integration," 24-25; Badley, "Clarifying 'Faith-Learning Integration,'" 7-17.

Table 7. BandIFL data

<i>N</i>	Result
N of CESA School w/Fine Arts	64
N of CESA Schools with Band offerings	60
N of CESA Schools w/IFL in Band	12
% of CESA Schools w/IFL in Band	20

**Band.** Sixty CESA schools offered band classes to their students that followed an instrumental music curriculum. After examining all CESA schools' band course descriptions for IFL language, I found that the mean band courses' descriptions containing IFL language were 20 percent or 12 of 60 of courses displaying that language. These data appear in table 7.

Table 8. ChorusIFL data

<i>N</i>	Result
<i>N</i> of CESA School w/Fine Arts	64
<i>N</i> of Chorus offerings	60
<i>N</i> of Chorus Courses w/IFL language	14
% of Chorus offerings w/IFL language	23

**Chorus.** Sixty CESA schools offered chorus classes to their students that followed a vocal music curriculum. After examining all CESA schools' chorus course descriptions for IFL language, I found that the mean chorus courses' descriptions

containing IFL language were 23 percent or 14 of 60 of courses displaying that language. These data appear in table 8.

Table 9. OrchIFL data

<i>N</i>	Result
<i>N</i> of CESA School w/Fine Arts	64
<i>N</i> of Orchestra offerings	32
<i>N</i> of Orchestra w/IFL language	8
% of Orchestra w/IFL language	25

**Orchestra.** Thirty-two CESA schools offered orchestra classes to their students that followed an instrumental music curriculum. After examining all CESA schools' orchestra course descriptions for IFL language, I found that the mean orchestra courses' descriptions containing IFL language were 25 percent or 8 of 32 of courses displaying that language. These data appear in table 9.

Table 10. VAIFL data

<i>N</i>	Result
<i>N</i> of CESA School w/Fine Arts	64
<i>N</i> of Visual Arts offerings	63
<i>N</i> of Visual Arts w/IFL language	11
% of Visual Arts w/IFL language	17

**Visual Arts.** Sixty-three CESA schools offered visual arts classes to their students that followed a visual arts curriculum. After examining all CESA schools' visual arts course descriptions for IFL language, I found that the mean visual arts' course descriptions containing IFL language were 17 percent or 11 of 63 of courses displaying that language. These data appear in table 10.

Table 11. DanceIFL data

<i>N</i>	Result
<i>N</i> of CESA School w/Fine Arts	64
<i>N</i> of Dance offerings	15
<i>N</i> of Dance Orchestra w/IFL language	3
% of Dance Orchestra w/IFL language	20

**Dance.** Fifteen CESA schools offered dance classes to their students that followed a performance arts curriculum. After examining all CESA schools' dance course descriptions for IFL language, I found that the mean dance courses' descriptions containing IFL language were 20 percent or 3 of 15 of courses displaying that language. These data appear in table 11.

Table 12. TheatreIFL data

<i>N</i>	Result
<i>N</i> of CESA School w/Fine Arts	64
<i>N</i> of Theatre offerings	61
<i>N</i> of Theatre courses w/IFL language	11
% of Theatre courses w/IFL language	18

**Theatre.** Sixty-one CESA schools offered theatre classes to their students that followed a performance arts curriculum. After examining all CESA schools' theatre course descriptions for IFL language, I found that the mean theatre courses' descriptions containing IFL language were 18 percent or 11 of 61 of courses displaying that language. These data appear in table 12.

Table 13. Bible data

Bible	Result
Mean Years Required Bible	3.18
Percentage of Bible Courses Required Above the Mean (%)	56.30
<i>N</i> of Bible Courses Required Above Mean	36.00

**Bible and Chapel.** All CESA schools required their students to take Bible or Christian studies courses, following a specified Bible curriculum. There was variation in the number of years that students were required to study the Bible. The length of time required ranged from a low of 1 semester (half a year) to a maximum of 8 semesters (4

years). The median range required was 4 years, and the mean was 3.18 years. An in-depth analysis of the Bible curriculum at CESA schools would yield a more detailed and meaningful measurement of CESA schools' Bible course offerings. I found that 56 percent of CESA schools were above the mean for required years of Bible. Every CESA school required Chapel attendance and offered Chapel on a regularly scheduled basis. These data appear in table 13.

### **Research Question 3**

The third research question asked the following: How rigorous are CESA fine arts/music programs as reflected by annual school reports, transcript data, and surveys in conjunction to SAT scores, AP courses offered in the fine arts, and top-ranking college and university acceptances at Top 50 World University Rankings universities? I examined the data collected in Phases 1 and 2 to answer this question. Most CESA schools provided data on all three measures of academic data, 60 out of 64. Of those schools who did not provide portions of the 3 data points, 3 did not provide data regarding Top University acceptances, and 1 school did not provide data regarding median SATs. I decided that keeping the rest of these four schools' data would enhance those areas of measure. Table 14 is a descriptive statistical analysis of the findings.

Table 14. Descriptive statistics for dependent variables and covariates

	<i>N</i>	Min.	Max.	Mean		Std. Dev.	Skewness	Kurtosis
	Stat	Stat	Stat	Stat	Std. Err.	Stat	Sta.	Stat
AP <sub>avail</sub> (%)	64	0	5	54.68	0.202	1.62	-0.167	-1.549
SAT <sub>med</sub>	63	1,124	1,390	1,266	7.872	61.99	-0.552	-0.186
TopUniv (%)	61	0	74	30.22	3.185	24.25	0.039	-1.344
Tuition (\$)	64	9,320	37,175	17,701.90	723.700	5,716.00	0.747	0.654
MFIZ (%)	62	0	1	50.00	0.064	0.50	0.205	-0.026
MFIA (%)	62	0	1	43.54	0.063	0.50	0.750	0.090
Valid <i>N</i>	60	—	—	—	—	—	—	—

The SAT<sub>med</sub> for CESA schools was 1,266, and the mean percentage was 55 percent of AP<sub>avail</sub> courses, with admission to 30 percent of the TopUniv (including top Christian, performance arts, visual arts, and music universities) in the United States. Though national statistics did not provide data to compare two of the statistics above, SAT<sub>med</sub> could be compared. Table 15 provides a comparison of the national mean scores from 2019 and 2020 to those of CESA schools SAT mean of median scores from 2020, as well as the CESA SAT scores from Horner’s 2015 thesis. The table also shows that CESA schools perform significantly above the national mean, various income brackets, and other comparison groups. The chart further shows that CESA schools have improved SAT scores since Horner’s study in 2015 by 115 points.<sup>14</sup>

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<sup>14</sup> Horner, “Christian Curricular.”

Table 15. Comparison of CESA schools alongside national mean data

Grouping	Mean SAT	Difference for CESA Schools (2020)
National Mean (2019)	1,059	-207
National Mean (2020)	1,051	-215
Income Bracket: Less than \$20k	970	-296
Income Bracket: \$40k-\$60k	1,070	-196
Income Bracket \$100k-\$140k	1,150	-116
Income Bracket: over \$200k	1,230	-36
Independent Schools	1,188	-78
Religious Schools	1,153	-113
CESA Schools (2015)	1,151	-115
CESA Schools (2020)	1,266	—

This study found that regarding SAT scores, CESA schools were academically rigorous. Tables 14 and 15 describe SAT scores in comparison to AP<sub>avail</sub>, TopUniv, Tuition, MFIZ, and MFIA. Table 16 presents statistical data related to how CESA schools perform on the SAT as related to AP<sub>avail</sub>, FA<sub>avail</sub>, GradTrack, and TopUniv.

Table 16. Comparison of SAT scores to AP<sub>avail</sub>, FA<sub>avail</sub>, and GradTrack

Stat.	<i>N</i>	<i>N</i> meeting Stat.	Median	Percentage
CESA schools with SAT <sub>med</sub> , and median AP <sub>avail</sub> or FA <sub>avail</sub>	64	36	1,266	56.25
CESA schools with median AP <sub>avail</sub> and SAT <sub>med</sub>	64	35	3	54.68
CESA schools with median FA <sub>avail</sub> and SAT <sub>med</sub>	64	35	5	54.68
GradTrack	57	22	0	38.59
CESA schools with GradTrack, SAT <sub>med</sub> , TopUniv and median AP <sub>avail</sub> or FA <sub>avail</sub> .	22	8	0	36.36
CESA schools with median TopUniv and AP <sub>avail</sub> or FA <sub>avail</sub>	59	25	32	42.37

CESA schools that met or exceeded the SAT<sub>med</sub> score while also meeting or exceeding the median AP<sub>avail</sub> or FA<sub>avail</sub> were 56 percent or 36 out of 64 schools. CESA schools that met or exceeded the SAT<sub>med</sub> score and AP<sub>avail</sub> were 55 percent. Similarly, schools that met or exceeded the SAT<sub>med</sub> and FA<sub>avail</sub> were 55 percent. Twenty-two CESA schools awarded fine arts honors at graduation based on completing a fine arts graduation track. This statistic was labeled GradTrack. CESA schools with a GradTrack, meeting or exceeding SAT<sub>med</sub>, TopUniv, and AP<sub>avail</sub> or FA<sub>avail</sub>, were 36 percent. Finally, CESA schools with median or above acceptances to TopUniv while also meeting or exceeding AP<sub>avail</sub> or FA<sub>avail</sub> were 42 percent.

#### Research Question 4

The final research question asked the following: What is the relationship between the presence of a Christian curricular emphasis in fine arts courses and overall academic rigor at CESA schools? I performed a multivariate analysis of the information gathered in the previous portions of this study to answer this question. I contracted with a private data analyst trained in conducting multivariate analyses to check my results and ensure that my analysis was accurate. A preliminary test of variance was conducted to control for the effect of family income. The initial analysis of variance (ANOVA) test was performed on SAT<sub>med</sub>, MIFA, and MIFZ. The results are presented in table 17.

Table 17. Between-subjects factors

		Value Label	<i>N</i>
SAT <sub>med</sub>		Missing Value	1
	1	1,000–1,200	10
	2	1,201–1,300	38
	3	1,301–1,400	15
ZIP		Missing Value	2
	1	MIFA	62
	2	MIFZ	62

The data contained in table 17 contain the between-subjects factors independent variables in the ANOVA. It gives the information of the IVs or states that there are two between-subjects independent variables. These variables are SAT<sub>med</sub> and ZIP. It also shows that each variable has three and two levels accordingly. There is 1 missing value for SAT<sub>med</sub> and 2 missing values for ZIP. The results of the ANOVA are in table 18.

Table 18. Tests of between-subjects effects

Source	Type III Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	Sig.
Corrected Model	2,242,199,992.263 <sup>a</sup>	7	320,314,284.609	.386	.909
Intercept	357,661,302,217.921	1	357,661,302,217.921	431.034	.000
SAT <sub>med</sub>	1,811,763,892.660	3	603,921,297.553	.728	.537
ZIP	52,827,602.214	1	52,827,602.214	.064	.801
SAT <sub>med</sub> * ZIP	274,569,159.671	3	91,523,053.224	.110	.954
Error	97,913,409,973.229	118	829,774,660.790	—	—
Total	883,020,443,758.000	126	—	—	—
Corrected Total	100,155,609,965.492	125	—	—	—

Note: *R* Squared = .022 (Adjusted *R* Squared = -.036)

The first column describes each row of the ANOVA summary table. Four rows are of importance for interpretation. SAT<sub>med</sub> corresponds to the between-groups estimate of variance for the main effect of that independent variable. ZIP corresponds to the between-groups estimate of variance for the main effect of that independent variable. SAT<sub>med</sub> \* ZIP corresponds to the between-groups estimate of variance of the interaction effect of the two independent variables. Lastly, the row labeled “Error” corresponds to the within-groups estimate of variance.

The second column (sum of squares column) gives the sum of the square for each of the estimates of variances. It corresponds to the numerator of the variance ratio. Similarly, the third column gives the degree of freedom for each estimate of variance. The degree of freedom for the between-groups estimate of variance is given by the number of levels of the independent variable minus one. The fourth column gives the estimates of variance (the mean squares). Each mean square is calculated by dividing the sum of the square by its degrees of freedom. Also, the fifth column gives the *F* ratios.

They are calculated by dividing the appropriate mean square between-groups by the mean square within-groups.

The final column gives the significance of the  $F$  ratios. These are the  $p$ -values; the null hypothesis is rejected if a  $p$ -value is less than or equal to the level of significance ( $\alpha$ ). Three values of interest include the two main effects and the interaction effect of the two independent variables. Thus, the  $p$ -value of the main effect of SAT<sub>med</sub> is 0.537. Because this  $p$ -value is not less than the  $\alpha$  level, the null hypothesis cannot be rejected, as there was not sufficient evidence to claim a difference between income and the scores. Similarly, there was no statistical significance for the other independent variable (ZIP) and the interaction of the two variables, as their sig-values (0.801, 0.954) are both less than 0.05 ( $\alpha$ ). However, the intercept was found statistically significant, with a sig-value of 0.000, as shown in the table. Finally, the adjusted  $r$  square, as seen at the bottom of table 18, reveals that the -3.60 percent of the variance in family income is attributable to SAT<sub>med</sub> and ZIP. This value low, indicating weak relationships between the factors (IVs) and family income.

### **Summary of Testing of Assumptions**

Before performing the MANCOVA test, several assumptions were met. The dependent variables and covariates were continuous, and the independent variables were categorical. These data met this assumption due to the independent variables being quantitated into dichotomous variables.

The dependent variables were measured in percentages or intervals. The independent variables were coded a Y = 1 and N = 0. The covariates were recorded as dollar amounts or percentages but measured as integers, making them appear

dichotomous. This was a census of CESA schools. Therefore, all findings are “real” and have a true significance of .000, according to Garson.<sup>15</sup>

Having met the assumptions needed for a MANCOVA test, I contracted with an independent data analyst to perform the MANCOVA. The model was a 3x7x2 MANCOVA, with 3 dependent variables ( $AP_{avail}$ ,  $SAT_{med}$ , and  $TopUniv$ ), 7 independent variables (Bible, BandIFL, ChorusIFL, OrchIFL, VAIFL, TheatreIFL, and DanceIFL), and 2 covariates (Tuition and MFIA).

### **MANOVA Results**

I instructed the data analyst to conduct a 3x7 MANOVA, leaving out the covariates. This process was done to assess the strength of the model once the covariates were added to the MANOVA. The results of the MANOVA are displayed in the tables below.

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<sup>15</sup> Garson, *GLM Multivariate*, 20.

Table 19. MANOVA between-subjects factors

	Value Label		<i>N</i>
Bible	Missing Value		6
	1	1–1.5	5
	2	2–2.5	12
	3	3–3.5	8
	4	4	25
BandIFL	Missing Value		4
	0	N	43
	1	Y	9
ChorusIFL	Missing Value		4
	0	N	41
	1	Y	11
OrchIFL	Missing Value		31
	0	N	19
	1	Y	6
VAIFL	Missing Value		1
	0	N	46
	1	Y	9
TheatreIFL	Missing Value		3
	0	N	44
	1	Y	9
DanceIFL	Missing Value		42
	0	N	11
	1	Y	3

Table 19 displays seven between-subjects independent variables (Bible, BandIFL, ChorusIFL, OrchIFL, VAIFL, TheatreIFL, and DanceIFL). The table also shows the levels of the respective independent variables and the number of missing observation values. The following table (Table 20) shows the results of the multivariate analysis.<sup>16</sup> The interaction effect is statistically significant if the  $p$ -value (value in the "Sig. " column) is less than 0.05 (i.e.,  $p < .05$ ). Alternatively, if  $p > .05$ , the interaction effect is not statistically significant.

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<sup>16</sup> The different names given to each row (namely, Pillai's Trace, Wilks' Lambda, Hotelling's Trace, and Roy's Largest Root) are the names of the different multivariate test statistics that can be used to test the statistical significance of the different effects of the independent variables. Each test statistic provides a statistical significance value (i.e.,  $p$  value).

Table 20. Multivariate tests

Effect		Value	<i>F</i>	Hypothesis <i>df</i>	Error <i>df</i>	Sig.
Intercept	Pillai's Trace	.997	2,568.860 <sup>b</sup>	3.000	20.000	.000
	Wilks' Lambda	.003	2,568.860 <sup>b</sup>	3.000	20.000	.000
	Hotelling's Trace	385.329	2,568.860 <sup>b</sup>	3.000	20.000	.000
	Roy's Largest Root	385.329	2,568.860 <sup>b</sup>	3.000	20.000	.000
Bible	Pillai's Trace	.636	1.481	12.000	66.000	.154
	Wilks' Lambda	.459	1.518	12.000	53.207	.147
	Hotelling's Trace	.980	1.524	12.000	56.000	.143
	Roy's Largest Root	.733	4.031 <sup>c</sup>	4.000	22.000	.013
BandIFL	Pillai's Trace	.455	2.063	6.000	42.000	.078
	Wilks' Lambda	.583	2.066 <sup>b</sup>	6.000	40.000	.079
	Hotelling's Trace	.651	2.061	6.000	38.000	.081
	Roy's Largest Root	.527	3.692 <sup>c</sup>	3.000	21.000	.028
ChorusIFL	Pillai's Trace	.378	1.634	6.000	42.000	.162
	Wilks' Lambda	.644	1.639 <sup>b</sup>	6.000	40.000	.162
	Hotelling's Trace	.517	1.637	6.000	38.000	.164
	Roy's Largest Root	.436	3.055 <sup>c</sup>	3.000	21.000	.051

Table 20 *continued*

Effect		Value	<i>F</i>	Hypothesis <i>df</i>	Error <i>df</i>	Sig.
OrchestraIFL	Pillai's Trace	.368	1.581	6.000	42.000	.177
	Wilks' Lambda	.644	1.642 <sup>b</sup>	6.000	40.000	.161
	Hotelling's Trace	.534	1.691	6.000	38.000	.150
	Roy's Largest Root	.495	3.468 <sup>c</sup>	3.000	21.000	.034
DanceIFL	Pillai's Trace	.340	1.432	6.000	42.000	.225
	Wilks' Lambda	.669	1.481 <sup>b</sup>	6.000	40.000	.209
	Hotelling's Trace	.480	1.520	6.000	38.000	.198
	Roy's Largest Root	.449	3.146 <sup>c</sup>	3.000	21.000	.047
TheatreIFL	Pillai's Trace	.390	1.698	6.000	42.000	.145
	Wilks' Lambda	.614	1.839 <sup>b</sup>	6.000	40.000	.116
	Hotelling's Trace	.620	1.964	6.000	38.000	.095
	Roy's Largest Root	.607	4.252 <sup>c</sup>	3.000	21.000	.017
Bible*BandIFL	Pillai's Trace	.067	.477 <sup>b</sup>	3.000	20.000	.702
	Wilks' Lambda	.933	.477 <sup>b</sup>	3.000	20.000	.702
	Hotelling's Trace	.071	.477 <sup>b</sup>	3.000	20.000	.702
	Roy's Largest Root	.071	.477 <sup>b</sup>	3.000	20.000	.702
Bible*Chorus.IFL	Pillai's Trace	.507	2.377	6.000	42.000	.046
	Wilks' Lambda	.536	2.438 <sup>b</sup>	6.000	40.000	.042
	Hotelling's Trace	.785	2.486	6.000	38.000	.040
	Roy's Largest Root	.664	4.648 <sup>c</sup>	3.000	21.000	.012

Table 20 *continued*

Effect		Value	<i>F</i>	Hypothesis <i>df</i>	Error <i>df</i>	Sig.
Bible*OrchIFL	Pillai's Trace	.472	1.369	9.000	66.000	.220
	Wilks' Lambda	.567	1.424	9.000	48.825	.204
	Hotelling's Trace	.695	1.442	9.000	56.000	.193
	Roy's Largest Root	.580	4.254 <sup>c</sup>	3.000	22.000	.016
	Pillai's Trace	.237	.940	6.000	42.000	.477
Bible*DanceIFL	Wilks' Lambda	.775	.906 <sup>b</sup>	6.000	40.000	.500
	Hotelling's Trace	.275	.872	6.000	38.000	.525
	Roy's Largest Root	.200	1.398 <sup>c</sup>	3.000	21.000	.271
	Pillai's Trace	.219	1.869 <sup>b</sup>	3.000	20.000	.167
	Wilks' Lambda	.781	1.869 <sup>b</sup>	3.000	20.000	.167
BandIFL*Chorus.IFL	Hotelling's Trace	.280	1.869 <sup>b</sup>	3.000	20.000	.167
	Roy's Largest Root	.280	1.869 <sup>b</sup>	3.000	20.000	.167
	Pillai's Trace	.098	.723 <sup>b</sup>	3.000	20.000	.550
	Wilks' Lambda	.902	.723 <sup>b</sup>	3.000	20.000	.550
	Hotelling's Trace	.108	.723 <sup>b</sup>	3.000	20.000	.550
OrchIFL*DanceIFL	Roy's Largest Root	.108	.723 <sup>b</sup>	3.000	20.000	.550

From the table above, a significant effect is shown in the *p*-value of Bible Graduation Req. = 0.013 (i.e., Roy's Largest Root), which means that there is a statistically significant effect. Other areas with a significant effect in the *p*-value are Band

IFL, Orchestra IFL, Dance IFL, and Theatre IFL; with  $p$  values of 0.028, 0.034, 0.047, and 0.017, respectively. Similarly, significant interaction effects were found between Bible \* Chorus IFL and Bible \* Orchestra. In the first interaction, all the multivariate statistics (namely, Pillai's Trace, Wilks' Lambda, Hotelling's Trace, and Roy's Largest Root) had statistically significant  $p$  values. However, only Roy's Largest Root was found significant in the second interaction effect. Table 21 displays the MANOVA tests of between-subjects ( $AP_{avail}$ ,  $SAT_{med}$ , and TopUniv).

Table 21. MANOVA tests of between-subjects effects

Source	Dependent Variable	Type III Sum of Squares	$df$	Mean Square	$F$	Sig.
Bible	$AP_{avail}$	9.752	4	2.438	1.307	.298
	TopUniv	4,824.431	4	1,206.108	2.120	.113
	$SAT_{med}$	11,442.501	4	2,860.625	.829	.521
BandIFL	$AP_{avail}$	11.267	2	5.633	3.019	.069
	TopUniv	809.322	2	404.661	.711	.502
	$SAT_{med}$	9,845.172	2	4,922.586	1.427	.261
ChorusIFL	$AP_{avail}$	13.294	2	6.647	3.562	.046
	TopUniv	458.818	2	229.409	.403	.673
	$SAT_{med}$	3,321.253	2	1,660.627	.481	.624
OrchIFL	$AP_{avail}$	9.496	2	4.748	2.545	.101
	TopUniv	917.256	2	458.628	.806	.459
	$SAT_{med}$	6,097.388	2	3,048.694	.884	.427

Table 21 *continued*

Source	Dependent Variable	Type III Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	Sig.
DanceIFL	AP <sub>avail</sub>	9.959	2	4.979	2.669	.092
	TopUniv	815.086	2	407.543	.716	.500
	SAT <sub>med</sub>	1,914.040	2	957.020	.277	.760
TheatreIFL	AP <sub>avail</sub>	4.293	2	2.147	1.151	.335
	TopUniv	161.635	2	80.818	.142	.868
	SAT <sub>med</sub>	29,445.907	2	14,722.954	4.269	.027
Bible* BandIFL	AP <sub>avail</sub>	.563	1	.563	.302	.588
	TopUniv	342.026	1	342.026	.601	.446
	SAT <sub>med</sub>	105.931	1	105.931	.031	.862
Bible* ChorusIFL	AP <sub>avail</sub>	18.303	2	9.151	4.905	.017
	TopUniv	1,404.188	2	702.094	1.234	.311
	SAT <sub>med</sub>	8,348.890	2	4,174.445	1.210	.317
Bible* OrchIFL	AP <sub>avail</sub>	10.038	3	3.346	1.793	.178
	TopUniv	2,676.460	3	892.153	1.568	.225
	SAT <sub>med</sub>	2,407.773	3	802.591	.233	.873
Bible* DanceIFL	AP <sub>avail</sub>	3.650	2	1.825	.978	.392
	TopUniv	1,447.246	2	723.623	1.272	.300
	SAT <sub>med</sub>	2,949.500	2	1,474.750	.428	.657
BandIFL*Ch orusIFL	AP <sub>avail</sub>	2.246	1	2.246	1.203	.284
	TopUniv	221.763	1	221.763	.390	.539
	SAT <sub>med</sub>	12,758.211	1	12,758.211	3.699	.067

Table 21 *continued*

Source	Dependent Variable	Type III Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	Sig.
OrchIFL* DanceIFL	AP <sub>avail</sub>	2.264	1	2.264	1.214	.283
	TopUniv	953.511	1	953.511	1.676	.209
	SAT <sub>med</sub>	178.565	1	178.565	.052	.822
Bible* BandIFL	AP <sub>avail</sub>	2,676.460	3	892.153	1.568	.225
	TopUniv	2,407.773	3	802.591	.233	.873
	SAT <sub>med</sub>	3.650	2	1.825	.978	.392
Bible* ChorusIFL	AP <sub>avail</sub>	1,447.246	2	723.623	1.272	.300
	TopUniv	2,949.500	2	1,474.750	.428	.657
	SAT <sub>med</sub>	2.246	1	2.246	1.203	.284

a. *R Squared* = .718 (Adjusted *R squared* = .294)

b. *R Squared* = .630 (Adjusted *R Squared* = .075)

c. *R Squared* = .617 (Adjusted *R Squared* = .043)

Table 21 (above) measures how the dependent variables differ from the independent variables. ChorusIFL has a statistically significant effect on AP<sub>avail</sub>, with a sig-value of 0.046. TheatreIFL has a significant effect on SAT<sub>med</sub>, with a sig-value of 0.027. Similarly, the interaction of Bible and ChorusIFL shows a statistically significant effect with AP<sub>avail</sub>; the sig-value equals 0.017. Lastly, the last three rows, “a. *R Squared* = .718 (Adjusted *R Squared* = .294),” “b. *R Squared* = .630 (Adjusted *R Squared* = .075),” and “c. *R Squared* = .617 (Adjusted *R Squared* = .043),” are the corresponding adjusted *r squared* that shows the amount of the variation in the independent variable attributed to the dependent variable. Consequently, 29.4 percent of the variance in the AP<sub>avail</sub> is attributable to the IVs. Moreover, 7.5 percent variation in TopUniv is attributed

to the independent variables. Only 4.3 percent of the variance in  $SAT_{med}$  is attributable to the independent variables.

### MANCOVA Results

After examining the findings of the MANOVA, the covariates were added to the model to perform the MANCOVA test. When the covariates of MFIA, MIFZ, and Tuition were added, the effects showed a range of statistical changes. These data are presented in table 22 (below).

Table 22. MANCOVA test<sup>a</sup>

Effect		Value	<i>F</i>	Hypothesis <i>df</i>	Error <i>df</i>	Sig.
Intercept	Pillai's Trace	.948	102.999 <sup>b</sup>	3.000	17.000	.000
	Wilks' Lambda	.052	102.999 <sup>b</sup>	3.000	17.000	.000
	Hotelling's Trace	18.176	102.999 <sup>b</sup>	3.000	17.000	.000
	Roy's Largest Root	18.176	102.999 <sup>b</sup>	3.000	17.000	.000
MIFA	Pillai's Trace	.271	2.106 <sup>b</sup>	3.000	17.000	.137
	Wilks' Lambda	.729	2.106 <sup>b</sup>	3.000	17.000	.137
	Hotelling's Trace	.372	2.106 <sup>b</sup>	3.000	17.000	.137
	Roy's Largest Root	.372	2.106 <sup>b</sup>	3.000	17.000	.137

Table 22 continued

Effect		Value	<i>F</i>	Hypothesis <i>df</i>	Error <i>df</i>	Sig.
MIFZ	Pillai's Trace	.307	2.508 <sup>b</sup>	3.000	17.000	.094
	Wilks' Lambda	.693	2.508 <sup>b</sup>	3.000	17.000	.094
	Hotelling's Trace	.443	2.508 <sup>b</sup>	3.000	17.000	.094
	Roy's Largest Root	.443	2.508 <sup>b</sup>	3.000	17.000	.094
Tuition	Pillai's Trace	.312	2.574 <sup>b</sup>	3.000	17.000	.088
	Wilks' Lambda	.688	2.574 <sup>b</sup>	3.000	17.000	.088
	Hotelling's Trace	.454	2.574 <sup>b</sup>	3.000	17.000	.088
	Roy's Largest Root	.454	2.574 <sup>b</sup>	3.000	17.000	.088
BandIFL	Pillai's Trace	.485	1.920	6.000	36.000	.104
	Wilks' Lambda	.573	1.818 <sup>b</sup>	6.000	34.000	.125
	Hotelling's Trace	.644	1.716	6.000	32.000	.149
	Roy's Largest Root	.371	2.225 <sup>c</sup>	3.000	18.000	.120

Table 22 continued

Effect		Value	<i>F</i>	Hypothesis <i>df</i>	Error <i>df</i>	Sig.
ChorusIFL	Pillai's Trace	.562	2.346	6.000	36.000	.051
	Wilks' Lambda	.482	2.497 <sup>b</sup>	6.000	34.000	.041
	Hotelling's Trace	.984	2.625	6.000	32.000	.035
	Roy's Largest Root	.881	5.285 <sup>c</sup>	3.000	18.000	.009
OrchIFL	Pillai's Trace	.314	1.118	6.000	36.000	.372
	Wilks' Lambda	.702	1.099 <sup>b</sup>	6.000	34.000	.383
	Hotelling's Trace	.403	1.076	6.000	32.000	.398
	Roy's Largest Root	.338	2.027 <sup>c</sup>	3.000	18.000	.146
VAIFL	Pillai's Trace	.000	. <sup>b</sup>	.000	.000	.
	Wilks' Lambda	1.000	. <sup>b</sup>	.000	18.000	.
	Hotelling's Trace	.000	. <sup>b</sup>	.000	2.000	.
	Roy's Largest Root	.000	.000 <sup>b</sup>	3.000	16.000	1.000

Table 22 continued

Effect		Value	<i>F</i>	Hypothesis <i>df</i>	Error <i>df</i>	Sig.
DanceIFL	Pillai's Trace	.457	1.776	6.000	36.000	.132
	Wilks' Lambda	.568	1.852 <sup>b</sup>	6.000	34.000	.118
	Hotelling's Trace	.716	1.911	6.000	32.000	.109
	Roy's Largest Root	.649	3.893 <sup>c</sup>	3.000	18.000	.026
TheatreIFL	Pillai's Trace	.437	1.680	6.000	36.000	.154
	Wilks' Lambda	.573	1.822 <sup>b</sup>	6.000	34.000	.124
	Hotelling's Trace	.729	1.943	6.000	32.000	.104
	Roy's Largest Root	.704	4.223 <sup>c</sup>	3.000	18.000	.020
Bible	Pillai's Trace	.590	1.163	12.000	57.000	.331
	Wilks' Lambda	.468	1.252	12.000	45.269	.279
	Hotelling's Trace	1.012	1.321	12.000	47.000	.239
	Roy's Largest Root	.876	4.163 <sup>c</sup>	4.000	19.000	.014

Table 22 continued

Effect		Value	<i>F</i>	Hypothesis <i>df</i>	Error <i>df</i>	Sig.
BandIFL * ChorusIFL	Pillai's Trace	.370	3.333 <sup>b</sup>	3.000	17.000	.044
	Wilks' Lambda	.630	3.333 <sup>b</sup>	3.000	17.000	.044
	Hotelling's Trace	.588	3.333 <sup>b</sup>	3.000	17.000	.044
	Roy's Largest Root	.588	3.333 <sup>b</sup>	3.000	17.000	.044
BandIFL * Bible	Pillai's Trace	.203	1.441 <sup>b</sup>	3.000	17.000	.266
	Wilks' Lambda	.797	1.441 <sup>b</sup>	3.000	17.000	.266
	Hotelling's Trace	.254	1.441 <sup>b</sup>	3.000	17.000	.266
	Roy's Largest Root	.254	1.441 <sup>b</sup>	3.000	17.000	.266
ChorusIFL * Bible	Pillai's Trace	.579	2.443	6.000	36.000	.044
	Wilks' Lambda	.449	2.793 <sup>b</sup>	6.000	34.000	.026
	Hotelling's Trace	1.168	3.113	6.000	32.000	.016
	Roy's Largest Root	1.113	6.676 <sup>c</sup>	3.000	18.000	.003

Table 22 continued

Effect		Value	<i>F</i>	Hypothesis <i>df</i>	Error <i>df</i>	Sig.
OrchIFL*DanceIFL	Pillai's Trace	.106	.673 <sup>b</sup>	3.000	17.000	.580
	Wilks' Lambda	.894	.673 <sup>b</sup>	3.000	17.000	.580
	Hotelling's Trace	.119	.673 <sup>b</sup>	3.000	17.000	.580
	Roy's Largest Root	.119	.673 <sup>b</sup>	3.000	17.000	.580
OrchIFL * Bible	Pillai's Trace	.513	1.307	9.000	57.000	.254
	Wilks' Lambda	.527	1.389	9.000	41.524	.224
	Hotelling's Trace	.822	1.430	9.000	47.000	.203
	Roy's Largest Root	.716	4.538 <sup>c</sup>	3.000	19.000	.015
DanceIFL * Bible	Pillai's Trace	.277	.963	6.000	36.000	.464
	Wilks' Lambda	.727	.978 <sup>b</sup>	6.000	34.000	.455
	Hotelling's Trace	.369	.985	6.000	32.000	.452
	Roy's Largest Root	.354	2.125 <sup>c</sup>	3.000	18.000	.133

<sup>b</sup> Exact statistic

<sup>c</sup> Statistic is an upper bound on *F* that yields a lower bound on the significance level.

From the table above, a significant effect is shown in the  $p$  value of Bible = 0.014 (i.e., Roy's Largest Root), which shows a statistically significant effect. Other areas with a significant effect in the  $p$  value are ChorusIFL, with Wilks' Lambda = .041, Hotelling's Trace = .035, and Roy's Largest Root = .009. DanceIFL and Theatre IFL had  $p$  values of .026 and 0.20, respectively. Similarly, significant interaction effects were found between Bible \* ChorusIFL and Bible \* OrchIFL. In the first interaction, all the multivariate statistics (namely, Pillai's Trace, Wilks' Lambda, Hotelling's Trace, and Roy's Largest Root) had statistically significant  $p$  values. However, only Roy's Largest Root was found significant in the second interaction effect. Lastly, BandIFL \* ChorusIFL showed a significant interaction effect of .044 in all multivariate statistics. Table 23 below displays the MANCOVA tests of between-subjects ( $AP_{avail}$ ,  $SAT_{med}$ , and TopUniv).

Table 23. MANCOVA test of between-subjects effects

Source	Dependent Variable	Type III Sum of Squares	$df$	Mean Square	$F$	Sig.
Corrected Model	$AP_{avail}$	106.661 <sup>a</sup>	36	2.963	1.455	.194
	TopUniv	23,262.068 <sup>b</sup>	36	646.169	1.161	.373
	$SAT_{med}$	137,449.640 <sup>c</sup>	36	3,818.046	1.193	.349
Intercept	$AP_{avail}$	4.704	1	4.704	2.310	.145
	TopUniv	326.576	1	326.576	.587	.453
	$SAT_{med}$	942,173.864	1	942,173.864	294.287	.000
MIFA	$AP_{avail}$	1.898	1	1.898	.932	.346
	TopUniv	24.405	1	24.405	.044	.836
	$SAT_{med}$	13,943.103	1	13,943.103	4.355	.051

Table 23 continued

Source	Dependent Variable	Type III Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	Sig.
MIFZ	AP <sub>avail</sub>	1.364	1	1.364	.670	.423
	TopUniv	470.122	1	470.122	.845	.370
	SAT <sub>med</sub>	10,502.035	1	10,502.035	3.280	.086
Tuition	AP <sub>avail</sub>	.842	1	.842	.413	.528
	TopUniv	1,563.153	1	1,563.153	2.809	.110
	SAT <sub>med</sub>	2,728.228	1	2,728.228	.852	.368
BandIFL	AP <sub>avail</sub>	9.180	2	4.590	2.254	.132
	TopUniv	88.293	2	44.147	.079	.924
	SAT <sub>med</sub>	17,255.223	2	8,627.612	2.695	.093
ChorusIFL	AP <sub>avail</sub>	13.963	2	6.981	3.428	.054
	TopUniv	1,003.525	2	501.763	.902	.423
	SAT <sub>med</sub>	5,154.406	2	2,577.203	.805	.462
OrchIFL	AP <sub>avail</sub>	6.084	2	3.042	1.494	.250
	TopUniv	509.524	2	254.762	.458	.639
	SAT <sub>med</sub>	3,723.052	2	1,861.526	.581	.569
DanceIFL	AP <sub>avail</sub>	8.768	2	4.384	2.152	.144
	TopUniv	571.606	2	285.803	.514	.606
	SAT <sub>med</sub>	6,213.582	2	3,106.791	.970	.397
TheatreIFL	AP <sub>avail</sub>	1.762	2	.881	.433	.655
	TopUniv	831.522	2	415.761	.747	.487
	SAT <sub>med</sub>	28,611.976	2	14,305.988	4.468	.026

Table 23 continued

Source	Dependent Variable	Type III Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	Sig.
Bible	AP <sub>avail</sub>	10.465	4	2.616	1.285	.311
	TopUniv	1,217.528	4	304.382	.547	.703
	SAT <sub>med</sub>	13,392.250	4	3,348.062	1.046	.410
BandIFL * ChorusIFL	AP <sub>avail</sub>	2.748	1	2.748	1.349	.260
	TopUniv	356.191	1	356.191	.640	.434
	SAT <sub>med</sub>	15,346.396	1	15,346.396	4.793	.041
BandIFL * Bible	AP <sub>avail</sub>	1.337	1	1.337	.657	.428
	TopUniv	606.133	1	606.133	1.089	.310
	SAT <sub>med</sub>	1,271.609	1	1,271.609	.397	.536
ChorusIFL * Bible	AP <sub>avail</sub>	19.239	2	9.620	4.723	.022
	TopUniv	555.984	2	277.992	.500	.615
	SAT <sub>med</sub>	10,284.009	2	5,142.004	1.606	.227
OrchIFL * DanceIFL	AP <sub>avail</sub>	2.988	1	2.988	1.467	.241
	TopUniv	1.052	1	1.052	.002	.966
	SAT <sub>med</sub>	704.153	1	704.153	.220	.644

Table 23 continued

Source	Dependent Variable	Type III Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	Sig.
OrchIFL * Bible	AP <sub>avail</sub>	9.276	3	3.092	1.518	.242
	TopUniv	2,023.978	3	674.659	1.213	.332
	SAT <sub>med</sub>	1,532.487	3	510.829	.160	.922
DanceIFL * Bible	AP <sub>avail</sub>	3.842	2	1.921	.943	.407
	TopUniv	403.128	2	201.564	.362	.701
	SAT <sub>med</sub>	4,342.800	2	2,171.400	.678	.519

<sup>a</sup>. *R Squared* = 0.734 (Adjusted *R Squared* = 0.229)

<sup>b</sup>. *R Squared* = 0.688 (Adjusted *R Squared* = 0.096)

<sup>c</sup>. *R Squared* = 0.693 (Adjusted *R Squared* = 0.112)

Table 22 (above) measures how the dependent variables, independent variables, and covariates interact. TheatreIFL has a statistically significant effect on SAT<sub>med</sub>, with a sig-value of 0.026. BandIFL \* ChorusIFL has a significant effect on SAT<sub>med</sub>, with a sig-value of 0.041. Similarly, the interaction of ChorusIFL \* Bible also showed a statistically significant effect with AP<sub>avail</sub>, with a sig-value of 0.022. Lastly, the last three rows, “a. *R Squared* = .734 (Adjusted *R Squared* = .229),” “b. *R Squared* = .688 (Adjusted *R Squared* = 0.096),” and “c. *R Squared* = .693 (Adjusted *R Squared* = 0.112),” were the corresponding adjusted *r squared* that showed the amount of the variation in the independent variable attributed to the dependent variable. Consequently, 22.9 percent of the variance in the AP<sub>avail</sub> was attributable to the IVs. Moreover, 9.6 percent variation in TopUniv was attributed to the independent variables, and 11.2 percent of the variance in SAT<sub>med</sub> was attributable to the independent variables. The inclusion of the covariates to

control for MFIA and MFIZ increased the effect of interactions regarding TopUniv and SAT<sub>med</sub>.

### **Evaluation of Research Design**

This section details an evaluation of the strengths and weaknesses of this research design. The following sections allow for my open assessment of the strong and weak aspects of the design that emerged through the research project. Overall, I was pleased with the design, data gathering process, and data processing due to much of it being molded after the work of Horner.<sup>17</sup>

#### **Strengths of the Research Design**

The strength of the research design was in the ease of gathering the needed data and the accessibility of analysis tools and Internet resources. All schools had published academic profiles, tuition and fees, and curriculum guides for internal and external viewing. Census data, ZIP codes, and median family income were also easily accessible, making the analysis process relatively smooth. Additionally, the availability of data analysis programs, such as NVivo and SPSS, as well as numerous Internet-based guides and tutorials, enabled me to learn quickly how to use these tools. I used these tools to do the requisite data analysis and create data tables, charts, and graphs. Finally, the availability and ease of contracting with data analysis professionals through digital communication tools were a great benefit. An additional strength of the research design was its relationship to Horner's study completed in 2016.<sup>18</sup> Basing this project on that of Horner's work allowed me to implement his suggestions on how to mitigate weaknesses within the design.

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<sup>17</sup> Horner, "Christian Curricular."

<sup>18</sup> Horner, "Christian Curricular."

An area that was adjusted was the ranking of top universities. In this study, I chose to account for Christian colleges, universities, and top universities that had specialized in the various fine arts areas. I also accounted for Chapel offerings at CESA schools within the Bible statistic. I found that all CESA schools had offered a regularly occurring and mandatory Chapel program. A final strength of the research design was its use of complex statistical data analysis. The goal of this complex data analysis was to mitigate Type I errors when examining the complex relationships associated with fine arts rigor and Christian curricular emphases.

### **Weaknesses of the Research Design**

The most challenging weakness of the research design was the complexity and inherent learning curve involved with the statistical analysis in the study. Though the data needed for this study were readily available, the increased number of CESA schools since 2016 had doubled. Thus, it took a significant amount of time to collect, organize, and code the data. The complexity of the statistical portions of this study led to hours of additional reading and research during the data gathering and analysis process. Ultimately, I decided to enlist the services of a professional data analyst to help with the tests and interpretations.

Another weakness of the research design came to light while coding the various fine arts course descriptions. Though there was merit to the presence of IFL language as an indicator of faith and learning, it could never fully account for the effect the educator and administrators had when implementing faith and learning into the curriculum. As an added complication, schools updated their course descriptions often and, in many cases, annually. It could be true that a program displaying no IFL language might display IFL language the following year. On this same line of thought, much depends on the seriousness of the school and the educator who authors the course descriptions.

Finally, the fine arts, in general, are a difficult area in which to tie meaningful academic connections in statistical analysis. The fine arts only offer five AP classes, and nearly all CESA schools require a single credit of study, which may be replaced by another elective course. There were many examples and antidotal accounts of the benefits that fine arts could have on the brain, but I sought statistical representation of how fine arts could influence CESA schools.

### **Summary of Analysis**

Regarding Research Question 1, the research revealed that CESA schools had offered fine arts courses in 6 disciplines (band, chorus, orchestra, visual arts, dance, and theatre). The median number of fine arts courses offered at CESA schools was 5. All 64 CESA schools offered at least 1 fine arts course. The data revealed that 54.68 percent of CESA schools had offered 5 or more fine arts courses. Additionally, 34.37 percent of CESA schools had offered a fine arts graduation track, with recognition on graduation diplomas.

Regarding Research Question 2, the research revealed that CESA schools had required a mean of 3.18 years of Bible from secondary students. Regularly scheduled chapel services were a part of each school's routine. Band courses were offered at 60 schools, and 20 percent showed IFL in their course descriptions. Chorus courses were offered at 60 schools, and 23 percent showed IFL in their course descriptions. Orchestra courses were offered at 32 schools, and 25 percent showed IFL in their course descriptions. Visual arts courses were offered at 63 schools, and 17 percent showed IFL in their course descriptions. Dance courses were offered at 15 schools, and 20 percent showed IFL in their course descriptions. Theatre courses were offered at 61 schools, and 18 percent showed IFL in their course descriptions.

Regarding Research Question 3, the research revealed that CESA schools were academically rigorous, with a mean SAT of 1266, an average of 55 percent of all fine arts

AP courses offered, and admission to an average of 30 percent of the top universities (including top fine arts and Christian universities) in the United States. The research also revealed that CESA schools had a mean tuition of \$17,701.91, representing 23 percent of median family income by ZIP code, and 23 percent of the median family income for the ZIP code of their areas.

Regarding Research Question 4, the research revealed significant interactions in the MANCOVA test between the IFL language variables. Significant interactions occurred in  $SAT_{med}$  from interactions with TheatreIFL and the interactions between BandIFL and ChorusIFL. The research also revealed significant interactions as related to  $AP_{avail}$  and ChorusIFL \* Bible. The proportion of variance changed for  $AP_{avail}$ , decreasing from 29.4 percent to 22.9 percent when the covariates were added. TopUniv increased from 7.5 percent to 9.6 percent.  $SAT_{med}$  increased from 4.3 percent to 11.2 percent. In all three cases, the changes shown in the MANCOVA were moderate to strong associations because of controlling for the covariates.

In considering the totality of this research project, the findings revealed that fine arts' academic rigor, the presence of integrating faith and learning language, and the relationship between Christian curricular emphasis in the fine arts constituted many complex relationships with rigor measurements and IFL language among CESA schools.

## CHAPTER 5

### CONCLUSIONS

This study was designed to examine the relationship between fine arts' rigor and Christian curricular emphases in secondary education. It was designed as a companion study to Horner's similar work done in 2016.<sup>1</sup> Like Horner's work with the Core Four academics, this study was an innovative descriptive study to fill a void in the research base as related to a descriptive analysis of fine arts' rigor and presence of IFL language in fine arts programs. The study occurred among a selective group of private Christian schools and provided a basis for future research in private Christian secondary fine arts education.

#### **Research Purpose**

Private Christian school leaders have sought to distinguish themselves from schools in the private and public sector with which they compete. In seeking differentiation, they have maintained curricula largely like that of public schools outlined by Ronald Reagan's National Commission on Excellence in Education, *A Nation at Risk*. In seeking to distinguish themselves as a group of other private Christian schools, they formed the CESA. These school leaders emphasized rigor and a Christian faith, as reflected in the Nicene Creed.

Since its formation in 2012, CESA has established a robust set of five standards through which additional schools may obtain membership. The standards are

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<sup>1</sup> Jeffrey Michael Horner, "Christian Curricular Emphases and Academic Rigor: A Mixed Methods Study" (EdD thesis, The Southern Baptist Theological Seminary, 2016), 1, <https://repository-sbts.edu.ezproxy.sbts.edu/handle/10392/5248>.

Mission Clarity, Effective Governance, Institutional Viability, Academic and Programmatic Distinction, and a Sense of Coherent Christian Community. With accreditation by CESA, member schools obtain a distinct identity as academically rigorous and distinctly Christian educational institutions.

Moreover, just as private Christian schools sought distinction from secular education yet maintained similar curricula, so to have fine arts courses. However, CESA school's fine arts programs and course offerings should represent a fine arts curriculum both rigorous and distinctly Christian based on a distinct purpose for education rooted in the Nicene Creed and the five standards mentioned above. In using CESA schools for data gathering and comparison, I sought to identify the correlation between distinctly Christian fine arts education and academic rigor within those course offerings and programs. Therefore, the qualitative data collected from CESA member schools should reflect academic and philosophical priorities consistent with the Christian faith.

### **Research Questions**

I sought to examine the interaction of fine arts rigor and Christian curricular emphasis. The research purpose was guided by the following four questions:

1. What fine arts courses are offered and/or required at CESA schools and are there special honors for students who pursue a fine arts graduation track?
2. How are Christian curricular emphases expressed as it relates to the presence of Bible courses, Chapel, and the integration of faith and learning language in the fine arts curricula?
3. How rigorous are CESA fine arts/music programs as reflected by annual school reports, transcript data, and surveys in conjunction with SAT scores, AP courses offered in the fine arts, and top-ranking college and university acceptances at Top 50 World University Rankings universities?
4. What is the relationship between the presence of a Christian curricular emphasis in fine arts courses and overall academic rigor at CESA schools?

## Research Implications

The implications of this study are listed in this section. I shall group them according to the research question. The implications include the following:

1. All CESA schools require students to take coursework in Bible necessary for graduation.
2. All CESA schools hold regularly scheduled chapel services for the student body.
3. CESA schools have a limited amount of Christian curricular emphases in terms of IFL language in their fine arts course descriptions.
4. Most CESA schools offer a selection of fine arts courses like their private and public counterparts.
5. CESA schools are academically rigorous when comparing their mean SAT scores to all other comparable groups.
6. CESA schools' fine arts rigor in terms of percentage of AP courses offered and admission to top universities is not comparable to other groups of schools due to the lack of records being kept on those measurements of fine arts rigor.
7. The relationship between the presence of Christian curricular emphases, the presence of IFL, and fine arts rigor is complex. There are positive and negative interactions depending on the type of interaction with relation to the independent variables.
8. The presence of TheatreIFL courses above the CESA mean tends to correlate positively with SATmed with medium to strong effect.
9. The presence of Bible courses above the CESA mean correlates positively with higher SAT measurements and Top Univ when interacting with ChorusIFL.
10. The interaction between BandIFL and ChorusIFL correlates positively with SATmed with medium to strong effect.

### Christian Curricular Emphasis among CESA Schools Fine Arts Programs

**Research implication 1: All CESA schools require students to take coursework in Bible necessary for graduation.** The mean number of years required for the Bible was more than three. This finding was expected based on the review of the literature and Horner's previous study.<sup>2</sup>

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<sup>2</sup> Horner, "Christian Curricular," 1.

**Research implication 2: All CESA schools hold regularly scheduled chapel services for the student body.** I examined every school's website, parent/student handbook, curriculum guides, and other related peripheral information easily accessible through the web within the delimitations of this study. I was surprised to discover that every CESA school had held regular chapel services that, in large part, involved local community members and churches. Additionally, many schools had held special senior-led chapel services and encouraged students to be involved in leading worship.

**Research implication 3: CESA schools have a limited amount of Christian curricular emphases in terms of IFL language in their fine arts course descriptions.** The amount of IFL language present in fine arts' course descriptions ranged from a low of 17 percent in visual arts to a high of 25 percent in orchestra. This finding was expected. I anticipated CESA schools' fine arts programs would be competitive with their public-school counterparts. Therefore, I expected them to use language specific to their disciplines and expound on their success through performances, showcases, competitions, and more.

### **Fine Arts Rigor among CESA Schools**

**Research implication 4: The majority of CESA schools offer a selection of fine arts courses like their private and public counterparts.** Six fine arts courses standard for schools to offer include band, chorus, orchestra, visual arts, dance, and theatre. This study found that the mean number of fine arts courses offered at CESA schools was five. This finding was unexpected because private schools could have a limited number of resources, and student populations might be smaller than their public-school counterparts. I was surprised to see the number of CESA schools that had offered dance and orchestra courses, 15 and 32, respectively.

**Research implication 5: CESA schools are academically rigorous when comparing their mean SAT scores to all other comparable groups.** CESA schools demonstrated high SAT<sub>med</sub> scores of 1266 compared to the national averages of other Christian schools and independent schools, as well as the expected scores from national averages for various income bands (See table 15 in chapter 4). I was surprised to find that insufficient evidence to claim a difference between income and the scores based on the MANOVA. Therefore, the null hypothesis could not be rejected as there was insufficient evidence to claim that a difference between income and the scores. However, 56 percent of CESA schools that met or exceeded AP<sub>avail</sub> or FA<sub>avail</sub> also met or exceeded the SAT<sub>med</sub> score. Finally, 36 percent of CESA schools with a fine arts graduation track, met or exceeded SAT<sub>med</sub>, TopUniv. Consequently, these findings indicated that even though the null hypothesis could not be rejected as it relates to income, CESA school's fine arts programs would be rigorous when considering SAT<sub>med</sub>, AP<sub>avail</sub>, and TopUniv.

**Research implication 6: CESA schools' fine arts rigor in terms of percentage of AP courses offered and admission to top universities is incomparable to other groups of schools due to the lack of records being kept on those measurements of fine arts rigor.** CESA schools displayed a large percentage of fine arts AP course offerings when considering descriptive statistics, with a mean score of 55 percent of possible AP courses offered. CESA schools also demonstrated a large percentage of TopUniv admissions when considering descriptive statistics, with a mean score of 30.2 percent of top universities admitting CESA schools' students. After performing the MANOVA, there was a 7.5 percent interaction with TopUniv. When accounting for the covariates, this percentage increased to a 9.6 percent interaction with TopUniv. The TopUniv category was expanded from Horner's study to include top Christian, fine arts, and performing arts universities. One should also account for CESA

school students who had chosen not to apply to top universities or might have sought future endeavors outside of higher education.

### **The Relationship between Christian Curricular Emphasis and Fine Arts Rigor**

**Research implication 7: The relationship between the presence of Christian curricular emphases, the presence of IFL, and fine arts rigor is complex.** There are positive and negative interactions depending on the types with relation to the independent variables. Certain combinations of IFL language and course descriptions show higher academic rigor scores than the CESA mean, and other combinations show lower academic rigor scores. For example, every school showing TheatreIFL scored above the  $SAT_{med}$ . DanceIFL despite displaying a negative interaction with  $SAT_{med}$ , except when combined with TheatreIFL. Similarly, ChorusIFL shows a strong positive effect on  $AP_{avail}$  by itself and when paired with Bible but displays negatively when coupled with other variables. Therefore, the research suggests that the interactions between dependent variables and independent variables reflect a complex relationship between these important components, namely Christian curricular emphases and fine arts rigor.

**Research implication 8: The presence of TheatreIFL courses above the CESA mean tends to correlate positively with  $SAT_{med}$  with medium to strong effect.** Of the interactions with strong effects, one included TheatreIFL. When examining the data, every time TheatreIFL had an interaction with another variable, it had a positive impact on  $SAT_{med}$ . Also, except for one case, every occurrence of TheatreIFL was accompanied by  $FA_{avail}$  at or above the CESA school median. Therefore, one implication of this finding is that TheatreIFL, taken in isolation, may enhance overall academic rigor. Another implication is that when TheatreIFL occurs above the CESA median, there is a high positive interaction with  $FA_{avail}$  and that those fine arts courses show IFL language in the course descriptions.

**Research implication 9: The presence of Bible courses above the CESA mean correlate positively with higher SAT measurements and TopUniv when interacting with ChorusIFL.** In the MANCOVA data, ChorusIFL showed a significant interaction with AP<sub>avail</sub> when considered with Bible. However, the interaction becomes stronger when the covariates are not considered. This finding implies that CESA schools with FIL language in chorus course descriptions and above the mean Bible credits for graduation have offered more fine arts AP courses.

**Research implication 10: The interaction between BandIFL and ChorusIFL correlates positively with SAT<sub>med</sub> with medium to strong effect.** The MANCOVA data shows a significant and positive interaction between occurrences of BandIFL above the mean in conjunction with ChorusIFL above the mean as related to SAT<sub>med</sub>. This finding implies that CESA schools with IFL language in band and chorus courses are more likely to have higher SAT performances.

### **Research Applications**

The purpose of this study was to examine the presence of Christian curricular emphases, fine arts rigor, and their relationship among CESA schools. With the research design as a guide, I could gather and examine the data

First, CESA schools could use this study's findings as a guide to assess the current state of fine arts programs and course offerings within in their current contexts. This study's findings could be used as a catalyst to aid CESA schools, who fare well in measures of academic rigor, but display low percentages in terms of IFL language. Second, this study might be of interest to non-CESA schools who seek levels of academic rigor and fine arts course offerings represented by the CESA schools detailed in this study. Specifically, ChorusIFL and Band IFL correlate positively with SAT scores. This study might serve as a catalyst to schools that do not offer Chorus or Band to look at their fine arts offerings and provide courses in these areas. It might also serve as a guide to

help integrate faith and learning in courses that are already established but need greater Christian emphasis. Lastly, this study might serve Christian fine arts content writers to produce future articles, texts, or training programs on how to create Christian fine arts courses and or texts. There is a need for a theology of Christian fine arts education and this study might provide some support in this area of need.

### **Research Limitations**

In addition to the limitations in Chapter 3, this study had the following limitations. First, there would be a highly limited generalization to non-CESA schools due to this study being a census of all CESA schools. Further research on other groupings of Christian schools might yield correlations like this study. Second, this research did not attempt to make statements about the operational curriculum taught within those classrooms due to the focus on IFL language displayed in the course descriptions of fine arts courses. Rather, this study's focus was on the official curriculum stated within the course descriptions for CESA schools' fine arts courses. Third, I did not study aspects of Christian curricular emphasis within the hidden or extra curriculum, such as school mission trips, Christian leadership development, Bible studies, and discipleship programs. I examined the frequency of Chapel programs in conjunction with Bible courses at CESA schools. Fourth, I did not examine the presence of IFL language in the Core Four academic programs, foreign language programs, or technology education/CTAE programs. The findings of this study were limited to Bible, band, chorus, orchestra, visual arts, theatre, and dance courses at CESA schools. The findings of this study should not be generalized beyond those areas. Finally, the findings of this study were determined by the dichotomization of the presence of IFL language based on the mean of the reported IFL language in the course descriptions. Had the research design allowed for broader descriptions of IFL language, then analysis might have produced

more nuance in its findings. Therefore, this study was limited by the nature of the independent variables, with little nuance.

### **Contributions of Research to the Precedent Literature**

This research attempted to fill a void in the existing literature by analyzing how several well-studied subjects (curriculum, IFL, and academic rigor in fine arts) had interacted. Before this study, Jeffrey Horner completed his doctoral thesis on the Core Four academic areas.<sup>3</sup> Horner did not examine fine arts. Additionally, no discovered empirical studies had assessed the correlation between fine arts rigor and the presence of IFL language in course descriptions at any grouping of schools, Christian or secular. Therefore, this study was a groundbreaking descriptive analysis of Christian curricular emphases and fine arts rigor.

### **Recommendations for Practice**

Christian schools with secondary school fine arts programs interested in a rigorous program that also expresses the integration of faith and learning should review their course descriptions for IFL language. Specifically, this language should strive to include statements of faith and learning with the words, “Biblical,” “Christian,” “Perspective,” “Worldview,” “Bible,” “Faith,” “Christ,” “Jesus,” “Glory,” and “Gifts.” These words should be closely aligned with the curriculum of the fine arts course and its relationship with the schools’ Christian commitment. This research indicates that including IFL language within the fine arts has a correlation with higher levels of academic rigor, especially when considering band, chorus, and theatre courses. Additionally, CESA schools and other similar schools should examine the number of

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<sup>3</sup> Horner, “Christian Curricular,” 1.

years they have required students to take Bible courses because it is an indicator for some measures of academic rigor.

### **Further Research**

This section contains recommendations for other research that may be done around Christian curricular emphases and fine arts rigor in Christian schools. This study was based on the work done by Horner.<sup>4</sup> He made several recommendations for additional studies for further research. This section represents a small selection of related studies specific to the fine arts nature of this study.

First, using a similar design and method, future researchers can examine Christian curricular emphases within the operational, hidden, and extracurricular offerings among CESA schools. Second, using a similar design and method as in this research, a future researcher can study Christian curricular emphases within fine arts course texts, method books, and performance materials. Third, using a similar design and method, a researcher can explore musical repertoire, visual art pieces, theatre scripts, and dance performances used in the classroom for Christian emphases and their alignment toward the Christian mission and vision. Fourth, using a similar design and method, a researcher can study the music aspects of school chapel programs, considering the content and context of worship lyrics and their presence of IFL and Christian emphasis. Fifth, a study can be conducted on the various Bible courses, considering the content of their curriculum for language or mention of the fine arts. The researcher can consider how such an approach may be utilized for God's glory and how the nature of artistic expression stems from the character and nature of God. This study may lean heavily on

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<sup>4</sup> Horner, "Christian Curricular," 1.

the works of Veith,<sup>5</sup> Begbie and Guthrie,<sup>6</sup> Dyrness,<sup>7</sup> and Schaeffer. Finally, a researcher can examine the musical rigor of band, chorus, and orchestra programs and CESA schools by comparing them to state standards of performance relative to honor ensembles. This study may draw comparisons between musical rigor in select private school music programs and their public-school counterparts.

### **Author's Reflection**

To conclude this research project, this section contains a brief reflection on the research experience. This project was both encouraging and challenging to me as an educator and musician. Three observations were particularly encouraging.

First, I was impressed and pleased to see that CESA schools offer a variety of fine arts course offerings across most of their member schools. This is even more impressive knowing the financial and enrollment constraints with which private Christian schools must operate. It is comforting to know that private school students at CESA accredited institutions are receiving fine arts opportunities that are comparable to their public-school counterparts. Second, I was impressed by the significant Bible requirements at CESA schools. Most CESA schools required 3 or more years of Bible or Christian studies classes to graduate. This speaks favorably of CESA school's commitment to nurture faith, as well as academic excellence. Finally, it was encouraging to see CESA more than double its membership. This growth is evidence that there are many Christian schools across the country and internationally that seek academic rigor, programmatic excellence, and Christian discipleship.

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<sup>5</sup> Gene Edward Veith and Karen Mulder, *Teaching Beauty: A Vision for Music and Art in Christian Education*, ed. G. Tyler Fischer (Baltimore, MD: Square Halo Books, 2016), 11.

<sup>6</sup> Jeremy S. Begbie and Steven R. Guthrie, *Resonant Witness: Conversations Between Music and Theology* (Grand Rapids: Wm. B. Eerdmans Publishing, 2011), 83.

<sup>7</sup> William A. Dyrness, *Visual Faith (Engaging Culture): Art, Theology, and Worship in Dialogue* (Ada, MI: Baker Academic, 2001), 87.

In reflecting on the encouraging aspects of this project it is natural to also consider the various points that were challenging. There were two aspects of this project that stretched me as an educator, musician, and researcher.

First, the scope and sample size of this project presented logistical and organizational challenges that I had not previously dealt with. To handle data, I learned a great deal about Excel, SPSS, and NVivo. I had never previously worked with these programs. The learning curve was easier for some than others, but this project would have been significantly more challenging without these useful and practical programs. The large number of schools combined with the many areas of study in the fine arts yielded vast amounts of data that need to be organized, analyzed, compiled, filtered, and interpreted. These tasks took much of my time and focus. The second challenge was simply running the statistics, namely, the MANCOVA test. This took a lot of extra research and study. As stated previously in the study, I ended up working with a professional data analyst to ensure I handled the information correctly.

In closing, I was encouraged by this project. Its challenges helped me grow as an educator and researcher. I hope to continue developing my work on IFL in fine arts in the form of journal publications or articles on the subject. It is my earnest prayer that future researchers will build on the work done in this study for the betterment of Christian fine arts education and ultimately to the glory of God.

APPENDIX A  
RESEARCH PROCEDURES WORKSHEET

Table A1. Research procedures chart

Step	1	2	3	4
Action	Gather CESA school names from website.	Record School ZIP codes	Collect tuition and fees data from school websites.	Locate and collect CESA schools' academic profiles.
Website Required?	Yes	Yes	Yes	Yes
Program Required?	Web Browser	Web Browser	Web Browser	Web Browser
Web Address	<a href="https://www.cesachools.org/schools/">https://www.cesachools.org/schools/</a>	To determine ZIP code and Median Family Income: <a href="https://www.incomebyzipcode.com/">https://www.incomebyzipcode.com/</a>	Varies based on school and website extensions.	Varies based on school and website extensions.
Follow-Up Action	Create a folder for each CESA school and add them to an Excel spreadsheet.	Use the school Zip code to determine the bordering zip codes along with Median Family Income. Record all data in an Excel spreadsheet.	Record school maximum tuition for 12 <sup>th</sup> a grade student. Cost is inclusive of all likely cost and fees.	Download lasts available academic profile as a PDF and save to school file.
Follow-Up Action	Copy web address to Excel spreadsheet as a link.	Organize Zip codes in an Excel spreadsheet.		Create spreadsheet of median SAT for each CESA school in delimited population.
Follow-Up Action	Create major category sections for each variable	—		Convert ACT to SAT scores using Concordance tables
Follow-Up Action	Create additional spreadsheet data as needed.	—		If no academic profile is available, use the latest published standardized test scores available.

Table A1 *continued*

<i>Step</i>	5	6	7	8
<i>Action</i>	Navigate to course descriptions for 9-12 grade fine arts courses.	Navigate to AP Central for the fine arts AP course offerings. <a href="https://apcentral.collegeboard.org/courses">https://apcentral.collegeboard.org/courses</a>	Calculate percentage of AP course offerings per fine arts area per school.	Navigate to College Rankings
<i>Website Required?</i>	Yes	Yes	No	Yes
<i>Program Required?</i>	Web Browser	Web Browser	Excel Spreadsheet	Web Browser
<i>Web Address</i>	Varies	<a href="https://apcentral.collegeboard.org/courses">https://apcentral.collegeboard.org/courses</a>	No	See below
<i>Follow-Up Action</i>	Copy and paste course description for Band courses into a Word doc.	Determine AP Fine Arts Course offerings: Music Theory (Course is typically taught by the Band, Chorus, or Orchestra teacher)	Determine percentage of AP course offerings per CESA school.	Collect the most recent data for top US 50 universities <a href="https://www.usnews.com/best-colleges/rankings/national-universities">https://www.usnews.com/best-colleges/rankings/national-universities</a>
<i>Follow-Up Action</i>	Copy and paste course description for Chorus courses into a Word doc.	“	“	Collect the most recent data for top US 50 universities <a href="https://www.timeshighereducation.com/world-university-rankings/2021/world-ranking#!/page/0/length/25/locations/US/sort_by/rank/sort_order/asc/cols/stats">https://www.timeshighereducation.com/world-university-rankings/2021/world-ranking#!/page/0/length/25/locations/US/sort_by/rank/sort_order/asc/cols/stats</a>
<i>Follow-Up Action</i>	Copy and paste course description for Orchestra courses into a Word doc.	“	“	Collect the most recent data for top US 50 universities <a href="https://www.topuniversities.com/university-rankings-articles/top-50-under-50-next-50-under-50/qs-top-50-under-50-2021">https://www.topuniversities.com/university-rankings-articles/top-50-under-50-next-50-under-50/qs-top-50-under-50-2021</a>

Table A1 *continued*

<i>Step</i>	5	6	7	8
<i>Follow-Up Action</i>	Copy and paste course description for Visual Arts courses into a Word doc.	Determine AP Fine Arts Course offerings: Art and Design Program (Subdivided into 3D Art and Design, 2D Art and Design, and Drawing), Art History	Determine percentage of AP course offerings per CESA school. (For this study the Art and Design Program subdivisions will be counted as individual courses)	Collect the most recent data for top US 25 Music Universities <a href="https://www.collegefactual.com/majors/visual-and-performing-arts/music/rankings/most-popular/">https://www.collegefactual.com/majors/visual-and-performing-arts/music/rankings/most-popular/</a>
<i>Follow-Up Action</i>	Copy and paste course description for Theatre courses into a Word doc.	N/A	N/A	Collect the most recent data for top 25 Visual Arts Universities <a href="https://www.collegefactual.com/majors/visual-and-performing-arts/rankings/top-ranked/">https://www.collegefactual.com/majors/visual-and-performing-arts/rankings/top-ranked/</a>
<i>Follow-Up Action</i>	Copy and paste course description for Dance courses into a Word doc.	N/A	N/A	Collect the most recent data for top 25 Theatre/Performing Arts universities <a href="https://www.collegefactual.com/majors/visual-and-performing-arts/drama-and-theater-arts/rankings/top-ranked/">https://www.collegefactual.com/majors/visual-and-performing-arts/drama-and-theater-arts/rankings/top-ranked/</a>
<i>Follow-Up Action</i>				Collect the most recent data for top 50 Christian universities <a href="https://www.edsmart.org/best-christian-colleges/">https://www.edsmart.org/best-christian-colleges/</a>

Table A1 *continued*

<i>Step</i>	9	10	11
<i>Action</i>	Calculate percentage of Top Colleges and Universities in each CESA School's Academic Profile	Establish criteria words for IFL presence and non-presence in course descriptions	Determine the presence of Bible or Christian Studies curricula in CESA Schools
<i>Website Required?</i>	No	No	Yes
<i>Program Required?</i>	Record percentage of Top Colleges and Universities represented in each CESA schools' academic profile	Include IFL language from Badley's three works regarding integration of faith and learning.	Web Browser
<i>Web Address</i>		Use Horner's list of Badley's IFL language.	Varies
<i>Follow-Up Action</i>			Record Yes/No Yes = 1 No = 0
<i>Follow-Up Action</i>			Determine mean of CESA School IFL presence
<i>Follow-Up Action</i>	—	—	Record whether each school's Bible curriculum is above or below the CESA mean
<i>Follow-Up Action</i>	—	—	Record Yes/No; Yes = 1 No = 0

Table A1 *continued*

<i>Step</i>	12	13	14
<i>Action</i>	Determine the presence of IFL language in all Fine Arts subject courses	Calculate IFL language presence and score	Run MANCOVA on all variables
<i>Website Required?</i>	No	No	No
<i>Program Required?</i>	Content Analysis software	Excel Spreadsheet	Statistical Software
<i>Web Address</i>	No	No	No
<i>Follow-Up Action</i>	Record IFL presence or non-presence in all 9-12 CESA School Fine Arts courses (Band, Chorus, Orchestra, Visual Arts, Theatre, and Dance)	Record whether each fine arts curriculum's IFL language presence is above or below CESA mean	Examine MANCOVA output for relationships between variables
<i>Follow-Up Action</i>	—	Record Yes/No; Yes = 1 No = 0	—

APPENDIX B  
CESA SCHOOL DATA

Table B1. List of CESA schools included in the study

Full Members	Provisional Members
Brentwood Academy	Ben Lippen School
Charlotte Christian School	Capistrano Valley Christian Schools
Christian Academy of Knoxville	Christian Heritage School
Cincinnati Hills Christian Academy	Cuyahoga Valley Christian Academy
Faith Lutheran Middle School and High School	Cypress Christian Schools
Fellowship Christian School	Dallas Christian School
First Presbyterian Day School	Des Moines Christian School
Grace Community School	Fort Bend Christian Academy
Greater Atlanta Christian School	Fort Worth Christian School
Hill Country Christian School	Gaston Christian School
Houston Christian High School	Gilbert Christian Schools
King's Ridge Christian School	Grand Rapids Christian School
Legacy Christian Academy	Kansas City Christian School
Life Christian Academy	Kigali International Community School
Little Rock Christian Academy	Loudonville Christian Schools
Lipscomb Academy	Lutheran High School
Mount Paran Christian School	Monte Vista Christian School
Mount Pisgah Christian School	Oaks Christian School
Norfolk Christian Schools	Redlands Christian School
Prestonwood Christian Academy	Resurrection Christian School
Regents School of Austin	Santa Fe Christian Schools
Savannah Christian Preparatory School	Santiago Christian Schools
Stillwater Christian School	Second Baptist School
The Brook Hill School	Timothy Christian Schools
The First Academy	Tree of Life Christian Schools
The Woodlands Christian Academy	Vail Christian High School
Valor Christian School	Waterloo School
Village Christian Schools	Westminster Academy
Wesleyan Christian Academy	Westminster Christian Academy
Wesleyan School	Whittier Christian High School

Table B2. CESA school tuition as percentage of median family income of school ZIP code

<b>CESA Schools</b>	<b>Tuition (\$)</b>	<b>Median Family Income of School ZIP (\$)</b>	<b>Tuition as a % of MFIZ</b>
<i>Full Members</i>			
Brentwood Academy	27,930	139,932	20
Charlotte Christian School	22,255	98,449	23
Christian Academy of Knoxville	14,975	61,948	24
Cincinnati Hills Christian Academy	18,500	85,988	22
Faith Lutheran Middle School and High School	13,400	58,608	23
Fellowship Christian School	19,188	161,697	12
First Presbyterian Day School	16,290	62,509	26
Grace Community School	13,860	47,543	29
Greater Atlanta Christian School	25,300	44,986	56
Hill Country Christian School	16,598	102,130	16
Houston Christian High School	27,324	64,810	42
King's Ridge Christian School	22,600	119,859	19
Legacy Christian Academy	20,340	117,707	17
Life Christian Academy	14,789	54,043	27
Little Rock Christian Academy	12,972	96,692	13
Lipscomb Academy	18,010	87,292	21
Mount Paran Christian School	20,929	92,805	23
Mount Pisgah Christian School	22,750	113,422	20
Norfolk Christian Schools	15,472	50,415	31
Prestonwood Christian Academy	24,671	112,930	22
Regents School of Austin	19,648	51,053	38
Savannah Christian Preparatory School	12,650	46,711	27
Stillwater Christian School	9,320	55,482	17
The Brook Hill School	15,985	69,628	23
The First Academy	19,880	27,530	72
The Woodlands Christian Academy	28,750	87,311	33
Valor Christian School	21,110	128,994	16
Village Christian Schools	16,359	57,145	29
Wesleyan Christian Academy	12,975	42,708	30
Wesleyan School	26,500	64,349	41
Westminster Schools of Augusta	16,725	52,247	32
Westminster Christian Academy	19,600	111,815	18
Westminster Christian Academy	11,850	68,490	17
Wheaton Academy	18,480	85,185	22
Whitefield Academy	26,000	83,934	31

Table B2 *continued*

<b>CESA Schools</b>	<b>Tuition (\$)</b>	<b>Median Family Income of School ZIP (\$)</b>	<b>Tuition as a % of MFIZ</b>
<i>Provisional Members</i>			
Ben Lippen School	15,000	30,922	49
Capistrano Valley Christian Schools	18,150	94,429	19
Christian Heritage School	20,190	122,494	16
Cuyahoga Valley Christian Academy	11,900	71,609	17
Cypress Christian Schools	18,990	57,370	33
Dallas Christian School	16,000	54,440	29
Des Moines Christian School	10,600	145,777	7
Fort Bend Christian Academy	21,000	92,327	23
Fort Worth Christian School	19,185	59,140	32
Gaston Christian School	9,665	68,890	14
Gilbert Christian Schools	13,175	96,539	14
Grand Rapids Christian School	10,760	82,982	13
Kansas City Christian School	10,962	100,841	11
Kigali International Community School	22,400	23,899	94
Loudonville Christian Schools	13,224	103,946	13
Lutheran High School	12,650	115,031	11
Monte Vista Christian School	15,850	66,991	24
Oaks Christian School	37,175	117,566	32
Redlands Christian School	12,595	78,484	16
Resurrection Christian School	10,117	69,455	15
Santa Fe Christian Schools	22,640	106,934	21
Santiago Christian Schools	9,687	777	1247
Second Baptist School	24,600	62,644	39
Timothy Christian Schools	11,750	117,258	10
Tree of Life Christian Schools	9,350	38,264	24
Vail Christian High School	25,200	77,480	33
Waterloo School	14,885	75,233	20
Westminster Academy	17,355	64,792	27
Westminster Christian Academy	10,250	81,800	13
Whittier Christian High School	15,200	83,629	18

Table B3. CESA school ZIP codes and bordering ZIP codes

School ZIP	37027	MFIZ	28270	MFIZ	37923	MFIZ
Bordering ZIP	37211	56,748	28105	78,620	37909	46,561
Bordering ZIP	37013	59,015	28211	90,057	37919	63,009
Bordering ZIP	37027	139,932	28212	33,781	37921	48,481
Bordering ZIP	37067	109,187	28226	96,487	37922	109,065
Bordering ZIP	37069	134,891	28227	59,438	37923	61,948
Bordering ZIP	37135	126,175	28270	98,449	37931	81,011
Bordering ZIP	37215	127,203	28277	100,158	37932	87,532
Bordering ZIP	37220	119,803				
Mean		109,119		69,624		71,087
Median		122,989		90,057		63,009
<i>School ZIP</i>	<i>45249</i>	<i>MFIZ</i>	<i>89117</i>	<i>MFIZ</i>	<i>30075</i>	<i>MFIZ</i>
Bordering ZIP	45040	104,758	89107	44,234	30004	170,968
Bordering ZIP	45140	94,188	89117	58,608	30062	127,076
Bordering ZIP	45241	81,117	89135	94,821	30066	118,497
Bordering ZIP	45242	104,231	89145	59,549	30068	153,957
Bordering ZIP	45249	85,988	89146	48,210	30075	161,697
Bordering ZIP			89147	58,964	30076	112,758
Bordering ZIP					30188	100,390
Bordering ZIP					30350	111,577
Mean		94,056		60,731		132,115
Median		94,188		58,786		122,787

Table B3 *continued*

<i>School ZIP</i>	<i>31210</i>	<i>MFIZ</i>	<i>75701</i>	<i>MFIZ</i>	<i>30093</i>	<i>MFIZ</i>
Bordering ZIP	31029	53,498	75701	47,543	30044	62,958
Bordering ZIP	31032	60,559	75702	37,345	30047	74,521
Bordering ZIP	31046	53,935	75703	62,544	30071	52,672
Bordering ZIP	31204	34,407	75707	74,077	30084	68,938
Bordering ZIP	31206	28,735	75709	62,682	30093	44,986
Bordering ZIP	31210	62,509			30096	57,801
Bordering ZIP	31211	35,661			30340	48,793
Bordering ZIP	31220	64,754				
Mean		49,257		56,838		58,667
Median		53,717		62,544		57,801
<i>School ZIP</i>	<i>78750</i>	<i>MFIZ</i>	<i>77043</i>	<i>MFIZ</i>	<i>30004</i>	<i>MFIZ</i>
Bordering ZIP	78613	104,308	77024	123,274	30004	119,859
Bordering ZIP	78717	112,590	77041	87,489	30005	128,578
Bordering ZIP	78726	77,384	77043	64,810	30009	105,890
Bordering ZIP	78727	80,758	77055	55,591	30022	113,422
Bordering ZIP	78729	80,742	77079	91,375	30040	101,181
Bordering ZIP	78730	124,063	77080	48,547	30075	124,329
Bordering ZIP	78731	94,851	77084	64,133	30076	84,846
Bordering ZIP	78750	102,130			30115	101,626
Bordering ZIP	78759	85,555			30188	81,282
Mean		95,820		76,460		106,779
Median		94,851		64,810		105,890

Table B3 *continued*

<i>School ZIP</i>	<i>75034</i>	<i>MFIZ</i>	<i>98405</i>	<i>MFIZ</i>	<i>72223</i>	<i>MFIZ</i>
Bordering ZIP	75024	102,524	98405	54,043	72106	59,085
Bordering ZIP	75034	117,707	98465	55,588	72118	44,928
Bordering ZIP	75035	134,636	98403	63,507	72122	67,188
Bordering ZIP	75056	89,252	98402	54,579	72135	70,893
Bordering ZIP	75065	75,266	98406	82,111	72210	54,989
Bordering ZIP	75068	104,692	98409	53,328	72211	64,168
Bordering ZIP	75078	151,066			72212	103,255
Bordering ZIP					72213	61,898
					72223	96,692
					72227	73,500
Mean		110,735		60,526		69,660
Median		104,692		55,084		67,188
<i>School ZIP</i>	<i>37204</i>	<i>MFIZ</i>	<i>30152</i>	<i>MFIZ</i>	<i>30093</i>	<i>MFIZ</i>
Bordering ZIP	37203	57,330	30060	48,506	30022	113,422
Bordering ZIP	37204	87,292	30062	102,269	30005	128,578
Bordering ZIP	37210	36,283	30064	93,413	30004	119,859
Bordering ZIP	37211	56,748	30101	91,786	30097	113,314
Bordering ZIP	37212	63,586	30127	79,993	30350	68,476
Bordering ZIP	37215	127,203	30144	70,574	30092	64,349
Bordering ZIP	37220	119,803	30152	92,805	30076	84,846
Bordering ZIP					30009	105,890
Mean		78,321		82,764		99,842
Median		63,586		91,786		109,602

Table B3 *continued*

<i>School ZIP</i>	<i>31210</i>	<i>MFIZ</i>	<i>75093</i>	<i>MFIZ</i>	<i>78753</i>	<i>MFIZ</i>
Bordering ZIP	23503	53,963	75007	86,648	78660	88,204
Bordering ZIP	23504	28,945	75010	85,946	78727	80,758
Bordering ZIP	23505	50,415	75023	90,193	78728	57,590
Bordering ZIP	23508	56,753	75024	102,524	78752	48,454
Bordering ZIP	23509	53,363	75056	89,252	78753	51,053
Bordering ZIP	23511	61,016	75075	80,603	78754	72,752
Bordering ZIP	23513	49,311	75093	112,930	78758	55,074
Bordering ZIP	23518	59,299	75252	63,053		
Bordering ZIP	23551	-1, omitted	75287	52,150		
Mean		45,469		84,811		64,841
Median		53,963		86,648		57,590
<i>School ZIP</i>	<i>31408</i>	<i>MFIZ</i>	<i>59901</i>	<i>MFIZ</i>	<i>75757</i>	<i>MFIZ</i>
Bordering ZIP	31322	82,477	59901	55,482	75703	62,544
Bordering ZIP	31405	49,749	59911	62,420	75757	69,628
Bordering ZIP	31407	80,960	59912	52,275	75759	-1, omitted
Bordering ZIP	31408	46,711	59920	54,950	75762	71,725
Bordering ZIP	31415	27,409	59922	66,526	75763	58,551
Bordering ZIP			59925	53,365	75766	46,892
Bordering ZIP			59932	77,258	75789	56,036
Bordering ZIP			59937	63,030	75791	74,886
Mean		57,461		60,663		62,895
Median		49,749		58,951		62,544

Table B3 *continued*

<i>School ZIP</i>	32805	<i>MFIZ</i>	77384	<i>MFIZ</i>	80126	<i>MFIZ</i>
Bordering ZIP	32801	57,266	77302	77,215	80112	94,875
Bordering ZIP	32804	79,707	77304	64,516	80122	103,078
Bordering ZIP	32805	27,530	77316	103,875	80124	110,754
Bordering ZIP	32806	65,987	77354	89,489	80125	132,905
Bordering ZIP	32808	36,913	77381	117,661	80126	128,994
Bordering ZIP	32811	38,768	77382	138,281	80129	118,318
Bordering ZIP	32839	39,993	77384	87,311	80130	125,959
Bordering ZIP			77385	95,126		
Mean		49,452		96,684		116,412
Median		39,993		92,308		118,318
<i>School ZIP</i>	91352	<i>MFIZ</i>	27262	<i>MFIZ</i>	30092	<i>MFIZ</i>
Bordering ZIP	91040	86,594	27260	28,385	30022	113,422
Bordering ZIP	91042	64,532	27262	42,708	30071	52,672
Bordering ZIP	91331	63,807	27265	61,193	30092	64,349
Bordering ZIP	91342	74,050	27360	46,415	30096	57,801
Bordering ZIP	91352	57,145			30097	113,314
Bordering ZIP	91402	45,796			30350	68,476
Bordering ZIP	91504	83,994			30360	73,000
Bordering ZIP	91505	87,138				
Bordering ZIP	91605	50,623				
Mean		68,187		44,675		77,576
Median		64,532		44,562		68,476

Table B3 *continued*

<i>School ZIP</i>	<i>30909</i>	<i>MFIZ</i>	<i>63017</i>	<i>MFIZ</i>	<i>35806</i>	<i>MFIZ</i>
Bordering ZIP	30813	77,253	60317	111,815	35749	91,496
Bordering ZIP	30904	34,013	63005	163,068	35757	91,765
Bordering ZIP	30905	52,422	63011	103,247	35758	91,900
Bordering ZIP	30906	37,536	63131	171,831	35805	25,511
Bordering ZIP	30907	69,289	63146	70,692	35806	68,490
Bordering ZIP	30909	52,247	63147	107,419	35808	90,104
Bordering ZIP			63303	79,633	35810	37,488
Bordering ZIP			63304	99,691	35816	25,451
Bordering ZIP					35896	-1, omitted
Mean		53,793		113,425		70,965
Median		52,335		105,333		90,104
<i>School ZIP</i>	<i>60185</i>	<i>MFIZ</i>	<i>30126</i>	<i>MFIZ</i>	<i>29203</i>	<i>MFIZ</i>
Bordering ZIP	60103	109,323	30080	72,066	29016	89,083
Bordering ZIP	60134	124,103	30082	76,327	29063	79,249
Bordering ZIP	60174	90,703	30106	55,924	29147	-1, omitted
Bordering ZIP	60184	133,977	30126	83,934	29180	36,304
Bordering ZIP	60185	85,185	30168	47,788	29201	31,160
Bordering ZIP	60188	85,686	30318	52,245	29203	30,922
Bordering ZIP	60189	102,894	30331	48,347	29204	42,826
Bordering ZIP	60190	115,870	30336	-1, omitted	29210	41,345
Bordering ZIP	60510	94,934			29212	69,030
Bordering ZIP	60555	88,008			29223	50,258
Mean		103,068		62,376		52,242
Median		98,914		55,924		42,826

Table B3 *continued*

<i>School ZIP</i>	92675	<i>MFIZ</i>	06611	<i>MFIZ</i>	44224	<i>MFIZ</i>
Bordering ZIP	92055	49,441	06468	118,669	44221	54,822
Bordering ZIP	92624	98,689	06484	97,131	44223	67,966
Bordering ZIP	92629	99,838	06606	58,538	44224	71,609
Bordering ZIP	92673	151,007	06610	45,478	44236	131,956
Bordering ZIP	92675	94,429	06611	122,494	44240	46,268
Bordering ZIP	92677	108,252	06612	157,617	44241	65,816
Bordering ZIP	92679	175,027	06614	87,077	44262	64,966
Bordering ZIP	92691	117,517	06825	112,907	44264	87,188
Bordering ZIP	92692	117,828			44278	76,069
Bordering ZIP	92694	166,015				
Mean		117,804		99,989		74,073
Median		117,517		105,019		67,966
<i>School ZIP</i>	77065	<i>MFIZ</i>	75150	<i>MFIZ</i>	50323	<i>MFIZ</i>
Bordering ZIP	77040	59,453	75043	63,331	50111	86,220
Bordering ZIP	77041	87,489	75149	50,607	50263	100,060
Bordering ZIP	77064	71,754	75150	54,440	50322	70,325
Bordering ZIP	77065	57,370	75182	136,118	50323	145,777
Bordering ZIP	77070	66,569	75228	42,243	50325	104,554
Bordering ZIP	77095	92,225				
Bordering ZIP	77429	107,033				
Mean		77,413		69,348		101,387
Median		71,754		54,440		100,060

Table B3 *continued*

<i>School ZIP</i>	77478	<i>MFIZ</i>	76180	<i>MFIZ</i>	28056	<i>MFIZ</i>
Bordering ZIP	77099	40,802	76053	55,711	28056	68,890
Bordering ZIP	77459	112,368	76054	100,988	28101	86,458
Bordering ZIP	77477	59,910	76117	49,353	29710	70,345
Bordering ZIP	77478	92,327	76118	69,848	28012	71,338
Bordering ZIP	77479	140,394	76148	72,572	28032	69,444
Bordering ZIP	77498	80,748	76180	59,140	28054	45,856
Bordering ZIP			76182	91,998	28164	61,454
Bordering ZIP					28034	48,132
Bordering ZIP					28052	39,426
					28120	61,680
					28098	54,093
Mean		87,758		71,373		61,556
Median		86,538		69,848		61,680
<i>School ZIP</i>	85296	<i>MFIZ</i>	49506	<i>MFIZ</i>	66208	<i>MFIZ</i>
Bordering ZIP	85212	101,788	49503	47,844	64112	75,017
Bordering ZIP	85233	88,092	49505	52,893	64113	138,220
Bordering ZIP	85234	85,692	49506	82,982	64114	65,833
Bordering ZIP	85295	97,472	49507	41,089	66202	60,440
Bordering ZIP	96539	96,539	49508	57,404	66204	58,768
Bordering ZIP			49512	53,017	66205	86,985
Bordering ZIP			49525	70,666	66206	148,224
Bordering ZIP			49546	72,283	66207	99,457
Bordering ZIP					66208	100,841
					66212	64,364
Mean		93,917		59,772		89,815
Median		96,539		55,211		81,001

Table B3 *continued*

<i>School ZIP</i>	<i>12211</i>	<i>MFIZ</i>	<i>80134</i>	<i>MFIZ</i>	<i>95076</i>	<i>MFIZ</i>
Bordering ZIP	12110	81,963	80016	123,820	93907	82,520
Bordering ZIP	12189	52,594	80107	106,506	95003	103,982
Bordering ZIP	12204	57,953	80108	142,096	95004	110,741
Bordering ZIP	12205	75,514	80112	94,875	95012	61,373
Bordering ZIP	12206	36,396	80116	113,026	95019	47,025
Bordering ZIP	12210	40,966	80124	110,754	95020	102,741
Bordering ZIP	12211	103,946	80134	115,031	95033	177,000
Bordering ZIP			80138	121,716	95037	125,057
Bordering ZIP					95039	49,556
					95045	88,804
					95076	66,991
Mean		64,190		115,978		92,345
Median		57,953		114,029		88,804
<i>School ZIP</i>	<i>91362</i>	<i>MFIZ</i>	<i>92373</i>	<i>MFIZ</i>	<i>80538</i>	<i>MFIZ</i>
Bordering ZIP	91301	124,012	92223	80,148	80512	61,757
Bordering ZIP	91360	100,246	92320	56,051	80515	76,012
Bordering ZIP	91361	119,303	92324	54,435	80525	73,289
Bordering ZIP	91362	117,566	92354	57,855	80526	67,289
Bordering ZIP	91377	132,578	92373	78,484	80528	103,938
Bordering ZIP	93021	107,363	92374	71,245	80534	101,863
Bordering ZIP	93065	101,102	92399	69,745	80537	72,120
Bordering ZIP			92555	87,338	80538	69,455
Bordering ZIP					80550	96,907
Mean		114,596		69,413		80,292
Median		117,566		69,745		73,289

Table B3 *continued*

<i>School ZIP</i>	92075	<i>MFIZ</i>	77057	<i>MFIZ</i>	60126	<i>MFIZ</i>
Bordering ZIP	92007	111,901	77024	123,274	60101	67,525
Bordering ZIP	92014	155,531	77036	30,952	60106	64,700
Bordering ZIP	92024	116,616	77056	108,359	60126	117,258
Bordering ZIP	92067	174,107	77057	62,644	60131	64,128
Bordering ZIP	92075	106,934	77063	46,324	60154	86,623
Bordering ZIP	92091	155,789	77081	33,502	60162	57,643
Bordering ZIP	92130	155,452			60163	64,399
Bordering ZIP					60164	61,109
Bordering ZIP					60181	75,730
					60523	101,250
Mean		139,476		67,509		76,037
Median		155,452		54,484		66,113
<i>School ZIP</i>	43224	<i>MFIZ</i>	81632	<i>MFIZ</i>	78704	<i>MFIZ</i>
Bordering ZIP	43202	55,687	81620	79,688	78701	122,182
Bordering ZIP	43211	26,724	81631	101,620	78702	65,689
Bordering ZIP	43214	72,569	81632	77,480	78703	108,548
Bordering ZIP	43219	37,316	81645	90,521	78704	75,233
Bordering ZIP	43224	38,264	81655	-1, omitted	78735	98,906
Bordering ZIP	43229	45,166			78741	45,835
Bordering ZIP	43230	83,084			78744	52,345
Bordering ZIP	43231	49,865			78745	64,626
Bordering ZIP					78746	151,801
Mean		51,084		87,327		87,241
Median		47,516		85,105		87,070

Table B3 *continued*

<i>School ZIP</i>	<i>33308</i>	<i>MFIZ</i>	<i>30677</i>	<i>MFIZ</i>	<i>90631</i>	<i>MFIZ</i>
Bordering ZIP	33060	44,647	30605	37,063	90603	103,535
Bordering ZIP	33062	64,812	30606	51,615	90604	74,944
Bordering ZIP	33305	74,095	30619	56,615	90605	78,297
Bordering ZIP	33306	71,357	30621	102,083	90631	83,629
Bordering ZIP	33308	64,792	30622	66,868	90638	95,723
Bordering ZIP	33334	52,303	30642	58,504	91745	85,975
Bordering ZIP			30650	66,163	91748	74,438
Bordering ZIP			30666	65,089	92821	91,531
Bordering ZIP			30667	66,250	92833	82,465
			30669	31,864	92835	113,345
			30677	81,800		
Mean		62,001		62,174		88,388
Median		64,802		65,089		84,802

## APPENDIX C

### IFL DATA: A REPRODUCITON OF BADLEY'S PARADIGMS

Table C1. Word frequency count of Badley's IFL paradigm publications reproduced from Horner's 2016 thesis

Word	Length	Count	Weighted Percentage(%)	Similar Words
integrative	11	93	1.94	integral, integrate, integrated, integrating, integration, integrative
christians	10	34	0.71	christian, christianity, christians
creation	8	30	0.63	creation, creational, creations
learning	8	30	0.63	learning
faith	5	29	0.61	faith
integratio	10	29	0.61	integratio
proposal	8	27	0.56	proposal, proposals, propose, proposed
element	7	22	0.46	element, elements
scholarship	11	22	0.46	scholarship
fusion	6	19	0.40	fusion
incorporation	13	18	0.38	incorporate, incorporated, incorporation
educators	9	17	0.36	education, educational, educators,educators'
language	8	17	0.36	language, languages
redemption	10	17	0.36	redemption
scholar	7	15	0.31	scholar, scholarly, scholars
usuall	6	15	0.31	usuall, usually
curriculu	9	14	0.29	curriculu
fusio	5	14	0.29	fusio
examples	8	13	0.27	example, examples
might	5	13	0.27	might
points	6	13	0.27	point, pointing, points
correlation	11	12	0.25	correlation, correlations, correlative
creating	8	12	0.25	create, created, creates, creating
curriculum	10	12	0.25	curriculum
model	5	12	0.25	model, models
condition	9	11	0.23	condition, conditions
denta	5	11	0.23	denta
science	7	11	0.23	scienc, science
involves	8	10	0.21	involv, involve, involved, involves
correlatio	10	9	0.19	correlatio
healt	5	9	0.19	healt
illustrate	10	9	0.19	illustrate, illustrates
incorporatio	12	9	0.19	incorporatio

Table C1 *continued*

Word	Length	Count	Weighted Percentage(%)	Similar Words
logica	6	9	0.19	logica
second	6	9	0.19	second
student	7	9	0.19	student, students
teacher	7	9	0.19	teacher, teachers
relate	6	8	0.17	relat, relate
appendix	8	8	0.17	appendix
dialogical	10	8	0.17	dialogical
follow	6	8	0.17	follow, following, follows
means	5	8	0.17	meaning, means
number	6	8	0.17	number
paradigm	8	8	0.17	paradigm, paradigms
purpose	7	8	0.17	purpose, purposes
simila	6	8	0.17	simila
another	7	7	0.15	another
correlativ	10	7	0.15	correlativ
course	6	7	0.15	course, courses
differen	8	7	0.15	differen
includ	6	7	0.15	includ, includes, including
important	9	7	0.15	importance, important
academic	8	6	0.13	academic, academics
activity	8	6	0.13	activities, activity
attempt	7	6	0.13	attempt, attempts
become	6	6	0.13	become, becomes, becoming
cours	5	6	0.13	cours
degree	6	6	0.13	degree, degrees
dialogica	9	6	0.13	dialogica
entir	5	6	0.13	entir, entire, entirely
joined	6	6	0.13	joine, joined, joining
knowledge	9	6	0.13	knowledge
possible	8	6	0.13	possibilities, possibl, possible, possibly
questio	7	6	0.13	questio
whether	7	6	0.13	whether
actions	7	5	0.10	actions
areas	5	5	0.10	areas
biolog	6	5	0.10	biolog, biological, biology
characteristics	15	5	0.10	characteristic, characteristics
colleges	8	5	0.10	college, colleges
discipline	10	5	0.10	disciplin, discipline
discusse	8	5	0.10	discusse, discusses, discussion
educatio	8	5	0.10	educatio
ethic	5	5	0.10	ethic, ethical, ethics
fallen	6	5	0.10	fallen, fallenness
first	5	5	0.10	first
followin	8	5	0.10	followin
forms	5	5	0.10	forms
histor	6	5	0.10	histor, historical

Table C1 *continued*

Word	Length	Count	Weighted Percentage(%)	Similar Words
implie	6	5	0.10	implie, imply
interes	7	5	0.10	interes
literature	10	5	0.10	literatur, literature
noted	5	5	0.10	noted, notes, noting
original	8	5	0.10	original
rearticulating	14	5	0.10	rearticulating
redeem	6	5	0.10	redeem, redeemed, redeeming
remain	6	5	0.10	remain, remains
restoration	11	5	0.10	restoration, restored, restores, restoring
schools	7	5	0.10	school, schools
suggest	7	5	0.10	suggest, suggeste, suggesting, suggestion
tasks	5	5	0.10	tasks
theological	11	5	0.10	theological, theologically
believe	7	4	0.08	believe
biblical	8	4	0.08	biblical, biblically
chapte	6	4	0.08	chapte
christ	6	4	0.08	christ
claim	5	4	0.08	claim, claime, claims
common	6	4	0.08	common
conditio	8	4	0.08	conditio
critique	8	4	0.08	critique, critiques, critiquing

APPENDIX D  
COLLEGE BOARD FINE ARTS AP COURSES

Table D1. Fine arts area AP course offerings

<i>Band/Chorus/Orchestra</i>	<i>Visual Arts</i>
AP Music Theory	AP 2-D Art and Design
—	AP 3-D Art and Design
—	AP Drawing
—	AP Art History

Note: “AP Courses,” AP Central, accessed June 15, 2021,  
<https://apstudents.collegeboard.org/course-index-page>

APPENDIX E  
LIST OF TOP UNIVERSITIES

Table E1. US News top university rankings

Number	School
1	Princeton
2	Harvard
3	Columbia
4	MIT
5	Yale
6	Stanford
7	University of Chicago
8	University of Pennsylvania
9	California Institute of Technology
10	John Hopkins University
11	Northwestern University
12	Duke University
13	Dartmouth College
14	Brown University
15	Vanderbilt University
16	Rice University
17	Washington University in St. Louis
18	Cornell University

Table E1 *continued*

Number	School
19	University of Notre Dame
20	University of California-Los Angeles
21	Emory University
22	University of California-Berkeley
23	Georgetown University
24	University of Michigan-Ann Arbor
25	University of South California
26	Carnegie Mellon University
27	University of Virginia
28	University of North Carolina
29	Wake Forest University
30	New York University
31	Tufts University
32	University of California-Santa Barbara
33	University of Florida
34	University of Rochester
35	Boston College
36	Georgia Institute of Technology
37	University of California-Irvine
38	University of California-San Diego
39	University of California-Davis
40	William and Mary
41	Tulane University

Table E1 *continued*

Number	School
42	Boston University
43	Brandeis University
44	Case Western Reserve University
45	University of Texas at Austin
46	University of Wisconsin-Madison
47	University of Georgia
48	University of Illinois-Urbana-Champaign
49	Lehigh University
50	Northeastern University

Table E2. Times Higher Ed top university rankings

Number	School
1	Harvard
2	MIT
3	Yale University
4	Stanford University
5	Brown University
6	Duke University
7	California Institute of Technology
8	Princeton University
9	Cornell University
10	Northwestern University
11	John Hopkins University
12	Dartmouth College
13	University of Pennsylvania
14	The University of Chicago
15	Columbia University
16	Rice University
17	Vanderbilt University
18	Washington University – St. Louis
19	University of Southern California
20	Carnegie Mellon University
21	Amherst College
22	Williams College

Table E2 *continued*

Number	School
23	University of Michigan – Ann Arbor
24	Emory University
25	Pomona College
26	University of California – Los Angeles
27	New York University
28	University of Notre Dame
29	Wellesley College
30	Swarthmore College
31	Tufts University
32	Georgetown University
33	University of North Carolina-Chapel Hill
34	University of California-Berkeley
35	Claremont McKenna College
36	Carleton College
37	Middlebury College
38	University of California-Davis
39	University of California-San Diego
40	Boston University
41	Haverford College
42	Bowdoin College
43	University of Illinois at Urbana-Champaign
44	Smith College
45	University of Washington-Seattle

Table E2 *continued*

Number	School
46	Wesleyan University
47	Purdue University West Lafayette
48	Case Western Reserve University
49	University of Rochester
50	Colgate University

Table E3. QS world university rankings

Number	School
1	Harvard
2	Stanford University
3	MIT
4	University of California-Berkeley
5	University of California-Los Angeles
6	Yale University
7	Columbia University
8	Princeton University
9	New York University
10	University of Pennsylvania
11	University of Chicago
12	Cornell University
13	Duke University
14	John Hopkins University
15	University of Southern California
16	Northwestern University
17	Carnegie Mellon University
18	University of Michigan-Ann Arbor
19	Brown University
20	Boston University
21	California Institute of Technology
22	Emory University

Table E3 *continued*

Number	School
23	Rice University
24	University of Washington
25	Washington University in St. Louis
26	Georgetown University
27	University of California-San Diego
28	Vanderbilt University
29	University of Texas-Austin
30	University of Illinois at Urbana-Champaign
31	University of Rochester
32	Dartmouth College
33	University of North Carolina-Chapel Hill
34	University of California-Davis
35	Tufts University
36	University of Illinois at Chicago
37	Georgia Institute of Technology
38	Stony Brook University
39	University of Virginia
40	Case Western Reserve University
41	Rutgers University-New Brunswick
42	University of California-Santa Barbara
43	Pennsylvania State University
44	George Washington University
45	University of California-Irvine

Table E3 *continued*

Number	School
46	University of Notre Dame
47	University of Miami
48	Northeastern University
49	Ohio State University
50	University at Buffalo

Table E4. Academic ranking of world universities rankings

Number	School
1	Harvard
2	Stanford University
3	MIT
4	University of California-Berkeley
5	Princeton University
6	Columbia University
7	California Institute of Technology
8	University of Chicago
9	Yale University
10	Cornell University
11	University of California-Los Angeles
12	University of Pennsylvania
13	Joh Hopkins Pennsylvania
14	University of California-San Diego
15	University of Washington
16	University of California-San Francisco
17	Washington University in St. Louis
18	University of Michigan-Ann Arbor
19	New York University
20	University of North Carolina at Chapel Hill
21	University of Wisconsin-Madison
22	Duke University
23	Northwestern University
24	University of Minnesota-Twins Cities
25	University of Texas at Austin
26	Rockefeller University
27	University of Colorado at Boulder
28	The University of Texas Southwestern Medical Center-Dallas
29	University of Illinois at Urbana-Champaign
30	University of Maryland College Park
31	University of California-Santa Barbara
32	University of Southern California
33	Vanderbilt University
34	University of Texas M. D. Anderson Cancer Center
35	University of California-Irvine
36	Purdue University-West Lafayette
37	Boston University
38	Carnegie Mellon University
39	University of Florida

Table E4 *continued*

Number	School
40	University of California-Davis
41	Arizona State University
42	Brown University
43	Case Western Reserve University
44	Emory University
45	Georgia Institute of Technology
46	Icahn School of Medicine at Mount Sinai
47	Indiana University Bloomington
48	Mayo Clinic Alix School of Medicine
49	Michigan State University
50	Pennsylvania State University

Table E5. EDsmart top Christian universities

Number	School
1	Wheaton College
2	Pepperdine University
3	Luther College
4	Messiah College
5	Samford University
6	Baylor University
7	Indiana Wesleyan University
8	Bethel University
9	Point Loma Nazarene University
10	Calvin College
11	Covenant College
12	Azusa Pacific University
13	Houghton College
14	Harding University
15	Taylor University
16	Central College
17	Franciscan University of Steubenville
18	LeTourneau University
19	Biola University
20	Seattle Pacific University
21	Mount Vernon Nazarene University
22	Mississippi College
23	George Fox University
24	Belmont University
25	Bethel College-Indiana
26	Oral Roberts University
27	College of the Ozarks
28	Oklahoma Baptist University
29	Judson University
30	Northwestern College
31	Northwest Nazarene University
32	Columbia International University
33	Northwest University-Washington
34	Northwest Christian University
35	Abilene Christian University

Table E5 *continued*

Number	School
36	The Baptist College of Florida
37	Dallas Baptist University
38	MidAmerica Nazarene University
39	Campbell University
40	Tennessee Wesleyan University
41	Asbury University
42	California Baptist University
43	Palm Beach Atlantic University
44	Carson-Newman University
45	Evangel University
46	Anderson University-South Carolina
47	Liberty University
48	Kuyper College
49	East Texas Baptist University
50	Warner Pacific University

Table E6. Collegefactual top 25 visual arts universities

Number	School
1	University of North Carolina School of the Arts
2	California Institute of the Arts
3	School of the Art Institute of Chicago
4	Maryland Institute College of Art
5	Cornish College of the Arts
6	College for Creative Studies
7	Berklee College of Music
8	Massachusetts College of Art and Design
9	Carnegie Mellon University
10	University of Southern California
11	The University of the Arts
12	The New School
13	Otis College of Art and Design
14	Art Center College of Design
15	Columbia University in the City of New York
16	Rutgers University - New Brunswick
17	Pratt Institute - Main
18	California College of the Arts
19	Emerson College
20	Pacific Northwest College of Art
21	Rhode Island School of Design
22	Kansas City Art Institute
23	New York University
24	Montserrat College of Art
25	Florida State University

Table E7. Collegefactual to 25 theatre universities

Number	School
1	University of North Carolina School of the Arts
2	California Institute of the Arts
3	Loyola Marymount University
4	Florida State University
5	University of Wisconsin - Madison
6	University of California - Los Angeles
7	Pennsylvania State University - University Park
8	University of Florida
9	New York University
10	Chapman University
11	Indiana University - Bloomington
12	University of Minnesota - Twin Cities
13	Ithaca College
14	University of Nebraska - Lincoln
15	Ohio State University - Main Campus
16	University of Notre Dame
17	University of Illinois at Urbana-Champaign
18	University of Cincinnati - Main Campus
19	University of Iowa
20	Northwestern University
21	Illinois State University
22	Carnegie Mellon University
23	University of Nevada - Las Vegas
24	Louisiana State University and Agricultural & Mechanical College
25	California State University - Fullerton

Table E8. Collegefactual to 25 music universities

Number	Result
1	University of Houston
2	Michigan State University
3	Boston University
4	University of Utah
5	The University of Texas at Austin
6	Texas Tech University
7	University of South Carolina - Columbia
8	University of Southern California
9	George Mason University
10	Rutgers University
11	Northwestern University
12	University of Michigan - Ann Arbor
13	University of North Texas
14	Florida State University
15	James Madison University
16	West Chester University of Pennsylvania
17	University of Colorado Boulder
18	Indiana University
19	Louisiana State University and Agricultural & Mechanical College
20	University of Miami
21	Illinois State University
22	Luther College
23	University of New Hampshire
24	Ithaca College
25	Colorado State University - Fort Collins

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## ABSTRACT

### CHRISTIAN CURRICULAR EMPHASES AND ACADEMIC RIGOR IN FINE ARTS: A MIXED METHODS STUDY

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This study explored the relationship between Christian curricular emphases and academic rigor in Christian secondary school's fine arts programs and course offerings. It used convergent data transformation methods to analyze published course and program descriptions in relationship to published academic data. This study correlated these sets of variables while controlling for family income influence on academic performance metrics.

The review of literature presented the foundations of Christian fine arts. It then examined qualitative areas, such as curriculum theory, Christian school curriculum, fine arts curricula emphasis, and academic rigor in fine arts. This study then considered the quantitative literature regarding academic rigor, Bible literacy, and fine arts AP course offerings. Few studies examined Christian curricular emphases, academic rigor, and fine arts together.

The convergent data transformation research design consisted of qualitative and quantitative analysis. This study necessitated a population that demonstrates Christian curricular emphases, academic rigor, and fine arts programs and course offerings. Council on Educational Standards and Accountability schools meet the population needs of this study. The first phase gathered published qualitative curricular data and quantitative academic rigor data. The second phase gathered tuition and family

income data to control for possible income variables. The third phase coded course descriptions for integration of faith and learning language, then transformed into quantitative data for analysis. The fourth and last phase performed a multivariate analysis of variance with covariates on all collected data.

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