Theatre as an intervention for empathy development among undergraduate students

Jonathan Stewart

Follow this and additional works at: https://commons.lib.jmu.edu/diss201019

Part of the Art Education Commons, Business Commons, Higher Education Commons, Higher Education Administration Commons, Leadership Studies Commons, and the Theatre and Performance Studies Commons

Recommended Citation
https://commons.lib.jmu.edu/diss201019/222
Theatre as an Intervention for Empathy Development among Undergraduate Students

Jonathan Stewart

A dissertation submitted to the Graduate Faculty of

JAMES MADISON UNIVERSITY

In

Partial Fulfillment of the Requirements

for the degree of

Doctor of Philosophy

School of Strategic Leadership Studies

December 2019

FACULTY COMMITTEE:

Committee Chair: Ben Selznick

Committee Members/ Readers:

Karen Ford

David Stringham
# Table of Contents

List of Tables ........................................................................................................ iv
List of Figures .......................................................................................................... v
Abstract .................................................................................................................. vi

## CHAPTER 1. INTRODUCTION ............................................................................. 1

- Definitions and Usage: Empathy and Empathetic Development ................... 3
  - Low Empathy .................................................................................................. 6
  - Empathy and Leadership ................................................................................ 7

- Interventions for Empathy Development .......................................................... 8
  - Theatre as an Intervention ............................................................................. 10

- Purpose and Rationale ....................................................................................... 13
  - Purpose .......................................................................................................... 13
  - Rationale ...................................................................................................... 13

- Research Questions ............................................................................................ 15

## CHAPTER 2. LITERATURE REVIEW .................................................................. 17

- Theoretical Framework ....................................................................................... 17
  - Developing Mature Interpersonal Relationships ........................................... 18
  - Authentic Leadership ...................................................................................... 20

- Literature Review ............................................................................................... 22
  - Confidence .................................................................................................. 22
  - Affective Identity ......................................................................................... 24
  - Communal Identity ...................................................................................... 26
  - Empathy ...................................................................................................... 29

- Theatre Interventions .......................................................................................... 32

## CHAPTER 3. METHODOLOGY ........................................................................... 36

- Participants ........................................................................................................ 37

- Instrumentation .................................................................................................. 39
  - Confidence .................................................................................................. 40
  - Affective Identity ......................................................................................... 41
  - Communal Identity ...................................................................................... 41
  - Empathy ...................................................................................................... 41

- Theatre Engagement .......................................................................................... 42

- Analysis ............................................................................................................. 44

- Limitations ........................................................................................................ 45
**CHAPTER 4. RESULTS**

- Data and Assumptions.................................................................................. 47
- The Model........................................................................................................ 48
  - Evaluating Model Quality........................................................................... 50
- Post-Hoc Analyses.......................................................................................... 52
- Conclusion......................................................................................................... 53

**CHAPTER 5. DISCUSSION**

- Discussion of Findings.................................................................................. 54
  - Theatre Engagement and Empathy................................................................. 54
  - Communal Identity and Empathy................................................................. 56
  - Communal Identity and Theatre Engagement............................................. 57
  - Affective Identity and Communal Identity................................................ 58
  - Confidence and Affective Identity............................................................... 58
- Implications....................................................................................................... 59
  - Parents and Students................................................................................... 60
  - Theatre Programs and Faculty..................................................................... 61
  - Business Programs and Faculty.................................................................. 64
  - Leaders in Higher Education...................................................................... 66
  - Leadership Theory and Training................................................................. 68
  - Business Owners and Leaders.................................................................... 70
- Leading an Empathy Change: An Organizational Perspective..................... 71
  - Future Research........................................................................................... 76
- Conclusion........................................................................................................ 79

**Appendix A**

- Questions by Construct for Identity and Empathy Questionnaire............... 80

**Appendix B**

- Courses Used in Theatre Engagement Subscale........................................... 82

**Appendix C**

- Output from LISREL 10.2............................................................................. 83

**References**.................................................................................................... 90
## List of Tables

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 1</td>
<td>Demographic Data</td>
<td>39</td>
</tr>
<tr>
<td>Table 2</td>
<td>Descriptive Statistics for the Obtained Sample (n=156)</td>
<td>44</td>
</tr>
<tr>
<td>Table 3</td>
<td>Correlation Matrix and Descriptive Statistics for Empathy Data</td>
<td>48</td>
</tr>
<tr>
<td>Table 4</td>
<td>Correlation Residuals of Hypothesized Model</td>
<td>51</td>
</tr>
<tr>
<td>Table 5</td>
<td>$\chi^2$ and Difference Test for Saturated and Hypothesized Models</td>
<td>52</td>
</tr>
</tbody>
</table>
# List of Figures

<table>
<thead>
<tr>
<th>Figure 1</th>
<th>Hypothesized model for Empathy Development with Theatre Perceptions as a Mediator</th>
<th>37</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 2</td>
<td>Hypothesized model for empathy development including standardized path coefficients</td>
<td>49</td>
</tr>
</tbody>
</table>
Abstract

Empathy is the ability feel into, or put oneself in the place of another. It is the ability to walk in someone else’s shoes. Studies have shown that this ability is decreasing among today’s college students and on the rise as a desired trait for today’s leaders. This dilemma provides an interesting opportunity to explore how institutions of higher education can help develop the leaders of tomorrow by increasing empathy among students. Specifically, this research explores theatre as an intervention for empathy development among college students.

Theatre, as a program of study, is unique within the college experience in that students have a greater opportunity to develop mature interpersonal relationships and authentic leadership via the collaborative, interpersonal, and often self-reflective nature of the coursework. Theatre students regularly engage with other students, faculty, and audience members and use self-reflection in the exploration, creation, and presentation of their art. This study uses the development of mature interpersonal relationships and authentic leadership as a theoretical framework to show how confidence, affective identity, communal identity, and theatre as a collaborative art form can help develop empathy among college students. Structural equation modeling is employed to examine an empathy development path model, with theatre engagement as a mediating variable.

Results indicated that the hypothesized model is a plausible representation of theory and, for the given sample, empathy was positively associated with a nearly one-third standard deviation for every standard deviation increase in theatre engagement. The implications of this research and future research opportunities presented are many and varied. Researchers, parents, students, educators in theatre and business programs,
business leaders, and administrators in institutions of higher education can all benefit from the results and any future studies stemming from it.
CHAPTER 1. INTRODUCTION

Higher education has an empathy problem. Recent studies show a significant and concerning decrease in empathy, and the appreciation of empathy, among college students (Brown, Sautter, Littvay, Sautter, & Bearnes, 2010; Holt & Marques, 2012; Konrath, O’Brien, & Hsing, 2011). A meta-analysis by Konrath et al. (2011) found a 48% reduction in student’s empathetic concern scores, and a 34% decrease in perspective taking between 1979 and 2009, with a large portion of the drop happening between 2000 and 2009. They suggest changes in culture and technology, including the creation of social media, as a leading cause for this relatively sudden change.

Konrath et al. (2011) believe the lack of empathy and increase of individualistic thinking could be stemming from lives filled with a constant barrage of negative news coverage and increased pressure to succeed. There is little room for empathy when people are closed off due to fear and in constant competition with one another. Additionally, social media has allowed for less face-to-face interactions, and the rise of self-centered content, like reality television, has provided fewer empathetic role models for children and adults alike.

College students, and youth in general, are anecdotally referred to as idealistic (Coles, 1993; Russel, 1980). College affects students in many ways that could be perceived as creating idealism. We know, for example, that college students gain greater psychological well-being, become more tolerant of difference among people, develop commitments to humanitarian values and human connectedness, decrease materialism, and increase their principled moral reasoning skills throughout their college careers.
(Mayhew, Rockenbach, Bowman, Seifert, & Wolniak, 2016). While empathy may be tied to some of these positive changes, including tolerance of differences and commitments to humanitarian values, it is concerning to consider the decrease.

An example from my own teaching in this area occurred when a group of students claimed “we don’t need empathy” during an ethical reasoning workshop when working through an ethical dilemma (2018). The students claimed they did not need to understand how someone else might feel about a particular outcome as long as the outcome was logical. My concern in this moment was not just that this group of students ranked empathy the least necessary component of good ethical reasoning skills, but that they refused to use it all together. They argued that having empathy for others when making ethical decisions was a bad idea. They argued that another person’s perspective does not matter. In doing so, they took a scenario built to be complicated and made it a simple numbers game.

The suggested causes for the decrease in student empathy are not student centric. Grühn, Diehl, Lumley, and Labouvie-Vief (2008) found that empathy levels are constant across cohorts of age groups. Therefore, if empathy has decreased in our idealistic student populations, we know it has also decreased with the general population. Evidence of the decrease in empathy exists in the United States when considering the emergence of negative partisanship in our national politics. It is becoming increasingly clear that people vote in certain ways because of how much they hate an opposing side, rather than how much they like the views of their own reported political party (Sobato, 2017). While college students might develop slight gains in tolerance for difference, it is clear that those gains are not translating to our national politics.
Institutions of higher education are well positioned to address the decrease in empathy in both the student and general population. They have distributed organizational structures that can allow for decision making and change to occur from multiple places. Empathy in current students can be addressed by implementing inventions. The general population can be addressed through increased access to education that includes said interventions. Interventions or change can be brought on by multiple stakeholders including individual faculty, departments, divisions, leaders, alumni groups, students, and outside entities.

Educators and leaders in post-secondary institutions have a responsibility to address this empathy problem by finding ways to increase empathy and empathetic leadership skills among students. Leading change can be difficult. Individuals across institutions will need to work together to develop a sense of urgency around this problem of decreasing empathy and buy-in on how to fix it. In this first chapter, I will discuss how empathy develops and identify why theatre programs are an ideal area within higher education to use as an intervention for empathy development.

**Definitions and Usage: Empathy and Empathetic Development**

The English usage of ‘empathy’ comes from two sources. The first is from the Greek root *pathos*, which is emotion, often a pitiful one. We have multiple emotion-based words deriving from the pathos suffix, pathy, including: sympathy, which is to feel the same emotions as another; apathy, a lack of emotion; and empathy, which is enter into, sense, or know the emotions of another. Empathy and sympathy are terms that are often confused and used synonymously. Howe (2013) writes, “sympathy is me oriented; empathy is you oriented” (p. 12). This is an easy way to distinguish between the two by
remembering that while feeling sympathy is a personal knowing of another’s pain, empathy “is a sense of knowing the other’s mind without their state of mind being the same as ours” (p. 12).

The second source is a direct translation of the German word *einfühlung*, which means “feeling into” (MerriamWebster.com; Howe, 2013; McLaren, 2013). From these roots, a common definition of empathy has emerged as the ability to put oneself in the place of another, or to walk in someone else’s shoes. Empathy is the lens through which we navigate social interactions. By entering into, sensing, or knowing the emotions of others, we are better able to respond to one another’s needs from moment to moment. We also use empathy in our understanding of aesthetics. We might ‘feel into’ a work of art in order to gain understanding of what the artist was feeling at the time of creation or wants us to feel in our experience. We may also feel into the beauty of nature when appreciating a sunset or a spectacular view.

From our earliest moments of childhood, it is our ability to feel into and take on the perspective of another that help to develop the self. Early in life, the self is an indirect observation that develops out of association with some social or communal group. Through playing and interaction, we begin to adopt our communal group’s attitudes and beliefs (Mead, 1935). By age three or four, most children develop ‘Theory of Mind’, which psychologists describe as the ability to recognize the minds of others. As children begin to realize that others have their own thoughts, feelings, and intentions, they get better at managing social interactions, interpreting behavior, and regulating their feelings (Howe, 2013).
Theory of Mind and empathy are closely related. The ability to understand that others have unique minds of their own is the first step in being able to understand what others are thinking and feeling. That said, simply recognizing that another person has their own mind does not necessarily mean that a child will attempt to empathize. Empathy develops in early childhood when we recognize that others are empathizing with us. Having our own feelings recognized, understood, or validated is a positive experience that warrants repetition. Receiving empathy from others allows us to recognize the benefits, and thus become better empathizers ourselves (Howe, 2013).

We continue using empathy to take on the perspectives of others throughout our lives. Our opinions, beliefs, and values are malleable. Gaining a greater understanding of another person or a specific topic can help shape our opinion of that person or topic. Attending a post-secondary institution provides unique opportunities for empathy development for students of all ages. Studies have shown that students increase in moral reasoning, community involvement, cultural awareness and understanding, and acceptance of differences during college. Each area is related or attributed to empathy and the recognition of pluralism at higher stages of student development (Pascarella & Terenzini, 2005).

Konrath et. al (2011) found that empathy was declining in college students by conducting a meta-analysis. They examined data from 72 samples of American college students that responded to the Interpersonal Reactivity Index (IRA), which measures empathy using four subscales: empathetic concern, perspective taking, personal distress, and fantasy. Of these, empathetic concern and perspective taking are more closely related to other conceptualization of empathy and measures of prosocial behavior. The IRA
defines perspective taking as the tendency to spontaneously adopt the psychological point of view of others, and empathetic concern as other oriented feelings of sympathy and concern for unfortunate others (Davis, 1980).

Konrath et. al (2011) showed a significant decrease in students’ empathetic concern and perspective taking from 2000 to 2009. Students became less willing and able to feel into others and show concern for those in unfortunate circumstances. Despite the positive advances students made in institutions of higher education, the United States was graduating consistently less empathetic students. Examining the results of low empathy will help illustrate why the sudden decrease in student empathy is a problem.

**Low Empathy**

Howe (2013) describes multiple reasons, both social and biological, for a lack of empathy. From a social perspective, individuals who are compelled to follow orders in an authoritarian situation or who conform to group expectations may act without empathy, or choose to ignore the empathy they feel. Empathy levels may vary throughout the day depending on mood or when we interact with individuals or groups that are unknown or depersonalized. When we are placed out of comfort zones or in stressful situations, having empathy for others can be difficult. Healthcare professionals can experience empathy fatigue when working all day with individuals in need. They may also experience a decrease in their natural empathy when working with populations that do not show empathy themselves, including psychopaths or violent offenders.

Biological and medical reasons for a lack of empathy include autism, dementia, schizophrenia, psychopathy, borderline personality disorder, and attention deficit hyperactivity disorder. Individuals on the autism spectrum are said to have a ‘positive’
lack of empathy that differs from those who may lack empathy as a result of psychopathy or other personality disorders. Autistic individuals tend to have hypersensitivity to stimulus. This results in their need to find quiet spaces and avoid social interactions, which may keep them from developing empathy in the same way a person without autism might. Children with autism may receive empathy, but may have less ability to practice and recognize it in everyday situations.

Psychopathic and sociopathic behavior is often associated with a lack of empathy, in both the development and result of the conditions. Howe (2013) states, “to become empathetic, children have to be on the receiving end of empathy” (p. 99). It’s not unusual for individuals who have experienced an extreme amount of neglect and mistreatment in their childhood to develop low empathy conditions. In these extreme cases, a lack of empathy is leading to reckless, and potentially violent behavior. When an individual doesn’t have the ability to empathize with others, they may be inclined to do whatever they want with little regard for consequences.

**Empathy and Leadership**

While empathy is dropping among students, it is simultaneously becoming more important within leadership circles (Holt & Marquese, 2012). In fact, a recent Gallup study asked followers what qualities they prefer in leaders and found that the usual and expected qualities like vision, drive, and ambition were absent. Instead, followers preferred their leaders to have “softer” qualities like trust, compassion, and integrity (Giovannoni, 2009). This is an interesting dichotomy between how many theorists typically define leadership and what followers actually want from their leaders. Vision is essential to leadership, but a visionary leader that lacks empathy may be less forgiving,
which can lead their organization into a spiral of negativity (de Vries, 2013). In fact, de Vries (2013) writes, “leaders have such an important effect on other people’s lives that their lack of forgiveness can create a climate where anger, bitterness and animosity prevent a team, an organization, a society, and even a nation from being the best they can be” (p.1).

**Interventions for Empathy Development**

Empathy can continue to develop in adults in a few ways. Empathy develops naturally through everyday events via the storytelling that makes up our daily conversations and engagement. For people with low empathy, intentional empathy training that includes perspective-taking exercises can be used as therapy (Howe, 2013). Beyond direct empathy training and empathy development from everyday experiences, Howe (2013) suggests four additional ways to promote empathy in adults, creating art, reading fiction, writing fiction, and affective role taking.

The creation of art has the potential for multiple empathetic experiences, both from the creator and the potential audience. Howe (2013) states that “the aesthetic experience is one of empathy...in which perception, understanding, meaning and interpretation are changed” (p. 177). When an artist creates, they use empathy to feel into their works in order to express an idea. On the other end, the potential audience for a work of art feels into the creation to get a sense of what the artist is trying to express and to appreciate the aesthetics. The ability to feel into a work of art is particularly important when reading fiction.
The ability to get into a character, particularly from reading plays or first-person narratives, allows readers to experience otherness that may be lacking in their real lives. Mar, Oatley, and Peterson (2009) found that reading fictional narratives increases empathy on a number of tasks. They found that “reading could improve our tendency to ‘get into’ stories, and also understand others (and that) those who are naturally more inclined to feel transported by fiction, may read more and thus become better at understanding others” (p. 422). Empathy can be increased even further when the experience of reading is shared with others (Howe, 2013).

If reading an author’s words allows us to practice empathy, then creating those stories and characters must also require the use of empathy. In fact, Taylor, Hodges, and Kohanyi (2002) found that authors score higher than average on empathy tests than non-authors, especially on tasks involving perspective taking. The exploration of character’s inner worlds requires empathy as authors feel into the characters they create to imagine how to they would react to conflict. Authors may also be feeling into characters that they might not otherwise empathize with in real life. Writing deeply flawed or evil characters requires the use of perspective taking that the average person likely isn’t engaging in. How often do we try to have empathy for violent offenders, imagining them as complex individuals with their own hopes and dreams?

Affective role taking, or putting yourself in someone else’s shoes to imagine how you would feel in any particular situation, is a process employed by actors, novelists, and psychologists as a part of their work. Howe (2013) writes, “there’s a subtle difference between inviting people to imagine how the other person feels in a given situation, and asking people to imagine how they would feel if there were in that situation” (p. 184).
There is an extra step involved in the empathy process when imaging yourself in a particular situation. It is easier to simply feel into a person to gain an understanding of what they are going through, but to actively imagine ourselves in that same situation to think about how we would react can be a difficult process.

Providing college students with opportunities that have been suggested to tap into components of empathy might be a good way to combat the decreases found by Konrath et al. (2011). Each of the empathy promoting activities can be found within or are actively using theatre. Theatre designers create art, everyone involved in producing a production is reading fiction written by a playwright, and actors and dancers engage in affective role taking on a regular basis. In fact, studies have shown that a theatre education has a positive impact on a student’s soft skills and development of emotional intelligence (Ozdemir & Cakmak, 2008).

**Theatre as an Intervention**

One of the greatest strengths of the theatre is that has the potential to employ various artistic mediums in the presentation of a piece. If creating art in general can lead to empathy, then creating theatre is an empathy playground. Like the therapeutic empathy training discussed above, theatre students and audiences practice empathy when engaging with storytelling and role playing (Cummings, 2016). On the stage, actors embody characters through perspective taking, putting themselves into the mindset of an imaginary person, and use empathetic concern to truthfully engage with other players. Audiences, through a willful suspension of disbelief, engage in emotional sharing that allows them to have arousals including fear and concern for characters in distress, or perhaps joy for a character’s success.
Theatre artists have the opportunity to use empathy in a myriad of ways when creating the aesthetics of a production. Designers of scenery, costumes, lights, sound, and projections must all read and analyze the words of playwright or the vision of a director in order to effectively produce a world that works for a given play or piece of choreography. Cummings (2016) writes that “part of the work of empathy is developing an awareness of the scripts that inform our interpretations, pushing us not only to mold stories into familiar narratives but also to experience a sense of finality in our responses to those stories” (p. 193). The design has the ability to pull an audience member deeper within the world of the play. Designers, like a composure, can create a mood for a piece of theatre, but first they have to feel into the story in order to create something that fits the narrative.

The director of a production uses this same aesthetic empathy in order to bring their vision to life. The visual experience in the blocking of a scene and the pace of the performance both require a subtle emotional understanding. Theatrical performances have a rhythm, and like music, it happens in beats. The tempo of a production can be changed in literal ways like the pace of an actor's speaking or more figurative ways like the distance between two characters on stage to create dramatic tension. Collaborating effectively with designers will also help shape the ‘feel’ of a performance (Bloom, 2001).

Empathy developed and practiced via reading and writing fiction is not limited to short stories or novels. Playwrights are also diving into the inner workings of their characters in order to know, and subsequently write, how they will react in a given situation. Additionally, a play begs to be seen and analyzed in groups. Actors, directors, dramaturgs, designers, and audiences tease out what is not made apparent on the page.
We are not always directly given a character’s motivation; a good playwright gives us opportunities to discover those motivations for ourselves.

The question, “what’s my motivation,” is clichéd when spoken aloud on stage, but holds a great deal of importance. Asking that question of ourselves is a practice in self-awareness, but discovering a character’s motivation within a play is a practice in empathy. Good actors, like an author of a book, have the opportunity to create a character’s inner world for themselves through affective role taking. Moore (2016) described actor training as a “veritable empathy boot camp” (p.3). In this way, acting can provide a unique opportunity and space for students to develop empathy. The better they understand how every character within a play is feeling in relation to themselves, the better suited they are to react meaningfully and authentically. In addition to the benefits of practicing affective role taking, an actor in front of a live audience has the opportunity, or responsibility, to feel into the crowd and adjust their performance as needed.

Theatre is a powerful tool that uses every method of developing empathy in adults to create a shared experience. That shared experience is in itself another opportunity for empathy development for the audience. That practice can go even further if an audience member engages in conversations about the play after they exit the theatre. If isolation due to social media is causing a decrease in empathy and increase in narcissism among students, than perhaps bringing more students together to play and examine the human condition through theatre could have the opposite effect. Pulitzer Prize-winning playwright Ayad Akhtar reiterates this belief when he writes, “in a world increasingly lost to virtuality and unreality, the theater points to an antidote” (p. 4). Examining the potential of this antidote is the goal of this research.
Purpose and Rationale

Purpose

The purpose of this study is to examine the effect of theatre on the development of empathy in college students. My hope is to add to the theatre and development literature by exploring the potential benefits of engaging students with theatre in a college setting. This research, and any future studies stemming from this research, will be beneficial for multiple stakeholders including theatre educators, academic and student affairs professionals, students, institutions in general, and businesses seeking to hire graduates.

Rationale

While there are a few notable examples to the contrary, the vast majority of business and political leaders obtained a degree from an institution of higher education (Hanbury, 2016; Hunt, 2015). College graduates are the future leaders of our society. As society moves forward and becomes more interconnected, the need for empathy among our citizens and leaders will become greater. Empathy is important to continuation of a democratic and ethical society in that it can help citizens within that society understand and respect the differences of others. Theatre programs are uniquely positioned within institutions of higher learning to be a hub through which empathy and authentic leadership skills are developed (Miller, 2018; Pataki & Mackenzie, 2012; Weischer, Weibler, & Petersen, 2013). This research may help theatre practitioners be intentional about empathy development within their own units and allow them to find new ways to engage their practice throughout an institution.
Theatre programs can have an integral role within higher education through their potential to promote empathetic development. All too often college theatre educators exist within their own bubbles. These bubbles can be defined as physical spaces, like grand performing arts centers that have popped up on many college campuses, or bubbles set by the great amount of time spent in the creation of a product for a paying audience. It is my opinion that a theatre program with a beautiful space, talented students and faculty, and successful productions is not unique. A theatre program that reaches out across the institution to find new ways to serve a broader population of students through interdisciplinary connections and empathy development would be.

The lessons and skills learned from the theatre are usable in a variety of contexts. This sentiment is best exemplified in Shakespeare's *As You Like It* when Jaques says, “All the world’s a stage, and all the men and women merely players; they have their exits and their entrances…” (2.7. 145-148). Life, for better or worse, is mostly improvisation and even when we use prepared material in the workplace we often refer to ourselves as putting on a different ‘hat’ to adjust to the specific role we’re being asked to play. Some of the top business schools in the country have recognized this link. Schools including MIT Sloan School of Management, Stanford Graduate School of Business, and the University of Virginia’s Darden School of Business, all have theatre electives or theatre-based leadership courses as a part of their programs (Steen, 2013). These theatre classes help students to develop their emotional intelligence and authenticity through role-playing and exploring text.

With student development as a goal of higher education, educators have an opportunity to be more intentional about the benefits of their process rather than the
product. The goal of a theatre program should not simply be to train students to be good theatre makers, just like the goal of any other particular area of study should not simply be about obtaining a job within that field. This research will help examine the extent to which theatre is essential to higher education and help spark further discussion on how theatre educators can facilitate empathy development throughout the institution.

**Research Questions**

The purpose of this study is to examine a model of empathy development with a focus on the mediating effect of theatre engagement. Structural equation modeling will be used to examine theatre engagement as a mediator between Communal Identity and Empathy Development among college students. By examining the direct paths between the variables, this research can show the strength of association between theatre engagement and empathy within the given sample.

**RQ1**: To what extent does theatre engagement influence empathy among college students?

This will be answered by testing a path model which examines the extent to which theatre engagement mediates relationships between empathy and students’ self-perceived confidence, affective and communal identities.

**RQ2**: Does the proposed path model fit data collected from ungraduated students at a large public university?

This will be answered by examining the correlations and fit indices produced by the data and evaluating the change in chi-square when comparing the model to a simplified, more parsimonious version. Testing a theory-based and falsifiable model for fit will show whether or not the model is a plausible representation of the theory. Achieving fit will
allow this model to be used to examine future data sets and add quantitative evidence of theatre’s effect on empathy to the literature.

In the following chapter I will provide a literature review that examines authentic leadership and the development of mature interpersonal relationships as a theoretical framework for this study. This framework will be the basis for examining the variables used within the path model. Variables are Confidence, Affective Identity, Communal Identity, Theatre Interventions, and Empathy.
CHAPTER 2. LITERATURE REVIEW

Theatre, as a program of study, is unique within the college experience in that students have a greater opportunity to develop mature interpersonal relationships and authentic leadership via the collaborative, interpersonal, and often self-reflective nature of the coursework. Theatre students regularly engage with other students, faculty, and audience members and use self-reflection in the exploration, creation, and presentation of their art. This chapter uses the development of mature interpersonal relationships and authentic leadership as theoretical frameworks to show how confidence, affective identity, communal identity, and theatre as a collaborative art form can help develop empathy among college students.

Theoretical Framework

Empathy is a recurring theme in both student development and leadership literature (Evans, Forney, Guido, Patton, & Renn, 2010; Holt & Marques, 2012; Mortier, Vlerick, & Clays, 2016; Thompson, 2014). Evans et al.’s (2010) *Student Development in College: Theory, Research, and Practice* frames their discussion using Rodgers’ (1990) definition of student development as “the ways that a student grows, progresses, or increases his or her developmental capabilities as a result of enrollment in an institution of higher education” (p. 6). The major student development theories differ in the way they explain the process. Some refer to stages of development, others use vectors to describe change or transitions, and multiple theories look at different external and internal influences on development (Evans et al., 2010).

Despite subtle differences in approach, most developmental theories share a common goal, or hope, that students will develop empathy as a part of their growth. More
specifically, Pascarella and Terenzini (2005) state the commonality among
developmental theories regarding empathy is that “the capacity for empathy is presumed
to lead not only to a better understanding of self and a wider appreciation of the ideas and
rights of others but also to the development of more mature interpersonal relationships
and, ultimately, commitments” (p. 50). Having a better understanding of the self is also
central to authentic leadership development (Hannah, Avolio, & Walumba, 2011;
Sparrowe, 2005). The development of mature interpersonal relationships and authentic
leadership form the theoretical framework for this study.

Developing Mature Interpersonal Relationships

Chickering’s revised theory of identity development (Chickering & Reisser, 1993)
is likely the most comprehensive model for understanding psychosocial development in
college students (Evans et al., 2010; Valentine & Taub, 1999). Chickering built upon
Erikson’s (1968) identity development theory by proposing that student development
occurs in nonlinear vectors rather than strict stages. Chickering’s seven vectors include
developing competence, managing emotions, moving through autonomy toward
interdependence, developing mature interpersonal relationships, establishing identity,
developing purpose, and developing integrity. College students are said to weave in and
out of these seven vectors during their development. The vectors build upon and support
one another as students establish a personalized value system and begin to acknowledge
and respect the beliefs of others (Evans et al., 2010).

The developing mature interpersonal relationships vector is rooted in two
components: (a) tolerance and appreciation for differences and (b) capacity for intimacy.
Chickering and Reisser (1993) write, “both require the ability to accept individuals for
who they are, to appreciate and respect differences, and to empathize” (p. 146). The development of mature interpersonal relationships can be turbulent for college students. As they develop, students find themselves creating new relationships and often severing old ones. It can be difficult to accept the differences in others with conflicting views or to accept the struggles of society, especially if the student has been privileged enough to have not had to consider the problems before.

Students may also find it challenging to balance the expectations of developmental opportunities and getting through each semester. As students meet new friends and have experiences in new environments, they will begin to learn the problems of their environment. Institutions and their employees should be ready to help students effectively channel the anger and exasperation that comes from a recognition of systematic racism, sexism, and classism into something more positive. Opportunities to build empathy, rather than fear or anger, are plentiful for students broadening their horizons through the development of mature interpersonal relationships (Chickering & Reisser, 1993).

Unfortunately, little empirical evidence exists to link development with specific academic programs (Loundsbury et al., 2005), and no research was found to directly apply any aspect of Chickering’s theory to students studying the performing arts. However, research has shown a relationship between personal development and exposure to active and collaborative courses (Kolb, 2014). Theatre courses and activities are noteworthy in this regard in that they are active and collaborative by nature.
Authentic Leadership

Judge and Long (2012) define leadership as “actions by individuals which serve to direct, control, or influence the group’s behavior toward collective goals” (p. 179). A myriad of leadership theories attempt to tease out these actions into differing types and styles to help explain the construct in relation to the group’s context. Authentic leadership, with its own various models and definitions, is a building block type of leadership theory that can serve as the basis for many others (Avolio & Gardner, 2005). At its core, authentic leadership is based on the premise that leaders should be self-aware and act in accordance with their inner thoughts and feelings (Avolio & Gardner, 2005; Judge & Long, 2012).

Leaders can achieve authenticity through self-awareness, self-acceptance, and authentic actions and relationships (Gardner, Avolio, Luthans, May, & Walumbwa, 2005). Like Chickering and Reiser’s (1993) development of mature interpersonal relationships, authentic leadership extends beyond the self and focuses on the relationships with others. Gardner et al. (2005) write that an authentic leader’s relationship with followers and associates is based “a) transparency, openness, and trust, b) guidance toward worthy objectives, and c) emphasis on follower development” (p. 345). In general, “leading others means dealing with a maelstrom of relationships implying an enormous amount of emotional management” (de Vries, 2013, p.1).

Organizational culture and context also plays an important role in how authentic leaders develop (Sparrowe, 2005). Theorists suggest that authentic leadership best develops within organizations that encourage continual learning with open access to information, resources, and support (Avolio & Gardner, 2005; Gardner et al., 2005). In
this way, institutions of higher education have opportunities to be ideal environments for demonstrating and developing authentic leadership. Authentic leadership within higher education could be demonstrated in varying levels of institutions including relationships between administration and faculty, faculty and students within the classroom, and student leaders through the organizations they serve. The potential for authentic leadership, specifically among students, is best demonstrated through the development of self-awareness shared between both student development and authentic leadership theories.

Summary

As students develop mature interpersonal relationships, they are repetitively narrating the story of themselves to others. This practice of self-awareness that is the repetitive telling of who we are, where we come from, and what we plan to do with our future can help us develop consistent narrative self (Sparrowe, 2005). Like an actor on stage, asking, “What is my motivation?” can help students and authentic leaders alike on their path to self-awareness within their development. The narrative life story a leader uses is not only the basis for who they are as a leader, but also the means through which followers authentic their leadership (Shamir & Eilam, 2005).

Berkovich (2014) suggests that authentic leadership should be developed using the lens of dialogical philosophy, which suggests candor, inclusion, confirmation, and being present as the pillars of genuine dialogue. Through this lens we can view authenticity as something that emerges through communication rather than inherent trait among individuals. Berkovich (2014) writes, “Empathy is crucial to the effective facilitation in growth-focused relationships” (p. 252). By facilitating the development of
empathy among college students, institutions of higher education may also contribute to the development of authentic leaders.

**Literature Review**

The following literature review will explore each of the five constructs in the order they occur within the proposed model: Confidence, Affective Identity, Communal Identity, Empathy, and Theatre Interventions. An overview of each construct is presented, followed by relevant literature to justify its inclusion within the model. The development of mature interpersonal relationships and its implications for authentic leadership development will continue to be the lens through which each construct is discussed.

**Confidence**

As students move through identity development and toward empathy, confidence in the self is playing a major role. Confidence is an assuredness of one's abilities that includes a realistic understanding of limitations. A confident person feels competent and comfortable expressing beliefs and making decisions (Erwin, 2003). Confidence allows student to express their opinions and emotions while opening doors into communities that they begin to identify with.

Confidence in the self is the first step into building communities. College students, especially those moving away from home, are faced with a difficult task of creating a new community for themselves. A student that is confident in their abilities may find it easier to participate in both curricular and extracurricular activities. Chickering and Reisser write, “a sense of competence stems from the confidence that one can cope with what comes and achieve goals successfully” (p. 53). Confidence in one’s
abilities can lead to advances in a student’s interpersonal competence, which is a “prerequisite for building successful friendships and intimate relationships” (Chickering & Reisser, 1993, p. 77).

Students with low levels of confidence may find it difficult to build mature interpersonal relationships, especially in regards to developing the capacity for intimacy. Confidence in the self will allow a student move past the pitfalls of the interdependence that can develop at the early stages of relationships. A confident student who is developing a greater capacity for intimacy will be more discriminating in their choices of partners and friends and will be less likely to enter or stay in toxic relationships. Confidence can also help students be honest in their relationships, which in turn can help build trust and genuine caring (Chickering & Reisser, 2013).

Within the literature, confidence is often related to or used simultaneously with self-concept, or how a student generally sees themselves in relation to others, and self-efficacy, or a student’s belief in their ability to succeed (Bong & Clark, 1999). Mayhew et al. (2016) found that the most significant gains in self-concept during college are the result of “positive, engaging, and even challenging interactions with peers and faculty, as well as significant exposure to diversity in curricular, co-curricular, and social contexts” (p. 245). Specifically, academic self-concept is advanced not simply by talking with faculty during or outside of class, but by challenging faculty ideas during class and by asking for advice outside of class (Kim & Sax, 2008).

Research has shown that improved confidence can lead to stronger relationships through increased empathy (Markway, 2018). In fact, Türk (2018) used multiple regression to examine the effect of self-efficacy, self-regulation, and empathic tendency
on high school students’ ability to resolve conflicts. His study found that while self-efficacy can predict conflict resolution, empathy is a full mediator within the model. He writes, “Adolescents who see themselves as self-efficient make (the) effort to solve their conflicts constructively by empathizing more in their interpersonal relationships” (p. 1001).

Confidence in the self is essential to a student’s success in the first year of college (Finely, 2016). However, Mayhew et al. (2016) note that academic self-concept drops between high school and sophomore year of college. While students tend to regain confidence in their abilities later in college, institutions need to be mindful of the drop in academic self-concept that students experience and look for ways to improve the first-year and second-year experiences. Confidence in the self through the development of mature interpersonal relationships with other students and faculty not only increases one’s academic self-concept, but also increases leadership, autonomy, well-being, and identity formation (Finely, 2016; Mayhew et al., 2016).

**Affective Identity**

Jones and Abes (2013) refer to the internal and personal aspects of identity as our core identity. They developed the Model for Multiple Dimensions of Identity, which consists of a core identity surround by multiple social identities and other external contexts. Our core identity is our internal characteristics, inclusive values, and guiding personal beliefs. Social identities and other external contexts including race, gender, sexual orientation, class, religion, and cultural contexts. They note that “identity is complicated and constantly shifting, resulting in (participants) need to negotiate between their internal sense of self and external influences” (pp. 81-82). Affective identity, or how
we understand, accept, and express our feelings, is just one aspect of overall identity, and like other aspects of identity, it is influenced by external factors (Erwin, 2003).

Affective identity is related to confidence, and correlated in the proposed model, in that individuals with a high sense of identity feel more comfortable, or confident, in social situations and displaying their emotions to friends or intimate partners. Affective identity differs from confidence in that it deals directly with the understanding and acceptance of feelings. An individual with low confidence may still have a high sense of identity in terms of accepting, understanding, and managing emotions. However, an individual with low affective identity would likely exhibit low confidence (Erwin, 2003).

Pascarella and Terenzini (2005) note that little evidence exists to suggest that a specific academic program helps to develop identity, or ego, within students. However, they write that interpersonal relationships, specifically with other students, play an important role in developing identity. King et. al (2009) analyzed dated collected from the Wabash National Study of Liberal Arts Education (WNS) and found that experiencing diverse perspectives through others is a road toward self-authorship. Student responses to the WNS showed that grappling with the complexity of diversity issues allowed students to more fully understand their own background, empathize with others, and become more comfortable with their own feelings and beliefs.

There is evidence linking identity development in college to service learning, student leadership, counseling, career planning programs, positive interactions with faculty, diversity experiences, and supportive but challenging academic environments (King et al., 2009; Mayhew et al., 2016; Pascarella & Terenzini, 2005). A number of positive outcomes can result from students developing a strong sense of identity. A 2005
study by Lounsbury, Huffstetler, Leong, and Gibson found significant positive correlations between developing a sense of identity and GPA. Zhang (2008) successfully used the Erwin Identity Scale (Erwin, 1980) to show a relationship between identity development and thinking styles.

Mayhew et al. (2016) write that “as students grapple with multiple and intersecting aspects of their identities, they tend to grow more assured of their intellectual and interpersonal abilities and gradually become more internally directed in their decision making” (p. 245). This state of flux can be difficult to navigate. Ideally, institutions of higher education are providing a welcoming environment where students can grapple with their internal and external identities in a place they feel they belong.

Communal Identity

Strayhorn (2012) states that a college student’s sense of belonging “refers to students’ perceived social support on campus, a feeling or sensation of connectedness, the experience of mattering or feeling cared about, accepted, respected, valued by, and important to the group or others on campus” (p. 3). Sense of a belonging is a precursor to a strong sense of communal identity, which Erwin (2003) describes communal identity as “the molding of community values, traditions, and expectations into one’s own value system” (p. 6). Studies have shown that time spent with friends and having high quality relationships predicts student retention (Otero, Rivas, & Rivera, 2007; Wolniak, Mayhew, & Engberg, 2012). A student that feels that they belong on campus may feel more confident in their social ability and have a greater opportunity to develop mature interpersonal relationships. In this way, communal identity is a marker of a student’s social competence or acceptance.
Pittman and Richmond’s (2008) longitudinal study found that university sense of belonging is linked to a student’s perception of their social acceptance. They write that institutions of higher education can help students develop a sense of belonging by providing a welcoming and supportive environment, especially for first-year students. College involvement, academic effort, and opportunities to engage with diversity have also been shown to increase a student’s social competence (King et al., 2009; Mayhew et al., 2016). From a leadership perspective, Fusco (2018) found that social acceptance and competence gained in the form of confirming appraisals is a key reason why authentic leadership skills are best developed in a group setting.

A high sense of communal identity is associated with an acceptance of one’s background and movement toward acceptance of others’ beliefs and values. A low sense of identity is associated with a value system that lacks flexibility. Individuals may not respect differences in others and have a hard time separating their individuality from their family, race, or religious affiliation (Erwin, 2003). College students have multiple opportunities to blend other community values into their own, including the college culture itself, clubs and associations, residential communities, athletic teams, departmental cultures, and even various groups of peers.

As students develop mature interpersonal relationships, they begin moving from ethnocentric states toward ethnorelative states. Ethnocentrism is a rejection to see and accept the differences in others. This rejection of differences can manifest as a denial of difference, defense against differences, and/or minimization of differences. A denial of differences can lead to segregation and the dehumanization of those in an ‘out group.’ Those who are defensive against differences will acknowledge that differences exist, but
dislike them. Minimization of differences occur when individuals focus solely on what makes people alike (Bennet, 1986; Chickering & Reisser, 1993).

As students move toward ethnorelative states they begin to accept, adapt to, and integrate differences. Cultural differences are respected and seen as legitimate ways for people to live. They may adapt to differences by developing new communication skills that allow for intercultural dialogue. This in turn allows students to be more effectively empathetic as they are better able to understand the perspective of others. An integration of differences may occur in which the lines that separate cultural identity blur as other frames of reference become internalized (Bennet, 1986; Chickering & Reisser, 1993).

Demonstrations of the move from ethnocentric to ethnorelative states can be found in the literature. Hu and Kuh (2003) examined over 50,000 responses to The College Student Experience Questionnaire (CSEQ) and found that interactional diversity experiences resulted in positive increases in personal and intellectual development. Students of color and white students, in a variety of educational contexts, self-reported positive gains. The increases in social competence through interactional diversity experiences is a strong reminder that institutions should continue to foster opportunities for these interactions to occur.

Institutions that provide opportunities for interactional diversity would have a student body exhibiting higher levels of communal identity. Students with high levels of communal identity would reflect more ethnorelative opinions, while students with a low sense of communal identity may be seen as more ethnocentric. Communal identity can only occur when students are accepting of the differences in others and begin to integrate the community’s values into their own. As communal identity develops and students
enter into more ethnorelative states, they begin to have more empathy for others and more opportunities to use that empathy.

**Empathy**

Erwin (2004) states that “students (with high levels of empathy) have moved beyond simply making committed decisions to considering the impact that those decisions have upon others and upon society as a whole” (p. 4). Empathetic students have a system of beliefs that they are committed to, but also recognize the validity of other points of view (Chickering & Reisser, 1993; Erwin, 2004). The development of mature interpersonal relationships among college students requires empathy and a respect for differences. Unfortunately, as stated earlier, it appears that empathy among college students is not as present and valued as it once was. Of particular concern is the decrease in empathy and moral development among business students (Brown et al., 2010; Holt and Marques, 2012; Lau & Haug, 2011).

Empathy plays a central role in moral development and altruistic actions (Howes, 2013). The ability to feel into the mind or place of another is integral to our understanding of fairness and justice as we use empathy to consider what others might think of a decision when deciding whether an action is moral or not. Among college students, business majors have been consistently less likely to report or achieve moral outcomes when compared with other areas of study (Lau & Haug, 2011). Business majors made up 19% of total degrees conferred (372,000 degrees) in the United States in the 2015-2016 academic year (NCES, 2018).

In their study, Brown et al. (2010) were concerned that morality was being left out of business classrooms that are supposed to be giving students the academic and social
skill sets necessary to help them succeed in today’s competitive world. Brown et al. (2010) devised a study that combined a web-based survey to gauge students’ reactions to two ethical dilemmas, as well as the Phares and Erskine (1984) Selfism Test to gauge their tendencies toward narcissism and empathy. The study concluded that “personality traits, including empathy and narcissism, are important factors in determining whether a business student will make ethical decisions [and that] …the financial education sub-discipline seems to either attract or cultivate students with those personality traits that lead to less ethical behavior” (p. 207).

Holt and Marques (2012) built upon the Brown et al. research with an empirical study that showed business students’ ratings of essential leadership qualities including intelligence, charisma, responsibility/commitment, vision, authenticity/integrity, drive, courage, empathy, competence/experience, and service. Business students from multiple groups, across a three-year time frame, all rated empathy as the lowest quality with a mean score of 7.47 out of 10. Authenticity and integrity were also on the lower end of the scale for three of five groups. With all scores being above a 7, it could be said that students placed a relatively equal amount of importance on all qualities. However, as Holt and Marques (2012) point out, the lower score for empathy is intriguing evidence when combined with the Brown et al. (2010) research and reason enough to make a call for business educators to “make a concerted effort in infusing greater awareness into their students on the urgency and importance of empathy in leaders” (p. 104).

Business education that devalues soft skills may be turning students into leaders with little regard for the malfunctions they could be causing. Holt and Marques (2012) note that companies are aware that empathy and other soft skills are becoming more
important within leadership circles and are looking at training programs and candidates who possess these skills. When looking at training programs, like institutions of higher education, companies should focus on how empathy develops in students and use this information to make changes to curriculum as necessary.

The development of empathy means “going beyond the motions of helping as an obligation...acquiring the staying power to continue caring even when there is no quick fix” (Chickering & Reisser, 1993, p. 159). Empathy cannot, and should not, be transactional in nature. We should not only care because we are told caring is good for business, otherwise we risk not caring at all. Developing empathy in a business setting will likely occur in the same way it develops among college students, through exposure to diverse perspectives and the development of mature interpersonal relationships.

Wilson (2011) found that students engaged in service learning activities were more likely to express empathy in their reflective writing when compared to students who did not participate. Students engaging in successful service learning exercises are exposed to diverse perspectives and experiences through those they are serving. Wilson (2011) writes that “students are challenged to re-evaluate their ideas and attitudes…the cognitive dissonance they experience is resolved as they change their beliefs about what groups of people they formerly regarded as other” (p. 210). In this way, service learning activities are tapping into the development of mature interpersonal relationships. Students are making personal connections with those they are serving and seeing positive gains in development in the process.

Self-reflection, like that used in the Wilson (2011) study, is regularly mentioned in the literature as a means for developing empathy among college students (Bentley,
Developing and maintaining empathy is especially important in areas of study that involve patient care. Bentley et al. (2018) led an eight-week course focused on relational mindfulness that helped psychiatry students increase empathy and decrease emotional burnout. McNaughton (2016) found that gaining a better understanding of the self through reflection allowed students to more easily take on the perspective of others. In this way, empathy is similar to authentic leadership in that we can better serve others when we have an accurate understanding of ourselves.

Mayhew et al. (2016) suggest that institutional leaders should feel empowered to rethink and change existing policies regarding student moral development. They write that “classroom-based practices that students experienced as challenging, active, integrative, and reflective were related to moral growth” (p. 360). Using theatre techniques as interventions for empathy and moral reasoning development may be an ideal avenue for institutional leaders to consider. After all, the goal of many theatre programs is to be a challenging, active, integrative, and reflective space on campus.

**Theatre Interventions**

Theatre education is an ideal place to start looking for solutions to the empathy problem within institutions. For example, acting training allows students to practice empathy with “a kind of stepping into another person’s shoes that social scientists say is dwindling among college-age students” (Moore, 2016, p. 3). Affective role taking is one of Howe’s (2013) key ways of developing empathy in adults. In a comprehensive university, there is no reason why non-theatre majors should not have an opportunity to take acting classes, especially given the known benefits for empathy development.
In addition to the individual benefits, theatre also has the ability to build communities in multiple ways. The cast and crew that participate in the creation of a performance are a community in their own right. The theatre can also speak directly to a community by presenting work that examines a particular community’s needs and challenges. Additionally, community-focused forms of theatre, like Boal’s (1985) Theatre of the Oppressed and Legislative Theatre, have built up oppressed communities and have helped to change policies and laws.

Much like jazz or other improvised music performances, theatre is unique in its ability to be in constant communication with the audience. While an audience reacts to the players, the players can, in turn, react to the audience, holding a dramatic moment to build tension or finding new space to elicit laughter and applause. The opportunities to practice emotional sharing, empathetic concern, and perspective taking during the give and take of live theatre are vast. Cummings (2016) refers to this responsive engagement as “dialogic empathy.” When used intentionally, dialogic empathy, like that used in Boal’s theatre forms, has the power to help shape community values and culture.

Legislative Theatre is a form created by Boal (1998) which builds upon his influential Theatre of the Oppressed work. The end goal of Legislative Theatre is to identify issues and create suggestions for policy change that participants and coalition members can advocate. While Boal’s forms seek to explore community issues to create change, other theatre forms including Lind’s Discussion Theatre (2018) use similar methods to teach moral reasoning. Both forms rely on participants to use improvisation either in moving a scenario forward or in discussion. Improvisation is a powerful and
adaptable tool that allows participants to develop a multitude of skills while making the learning environment a more open and energized space.

Dennis (2014) used improvised theatre and dance forms to illustrate this point with workshops given to participants from large public sectors and government organizations. Participants found “intangible positive outcomes like an increase in optimism, experience of friendship, closeness, or intimacy (with self and others), and a feeling of energy of dynamism in the group” (p. 123). In a similar study, Reilly, Trial, Piver, and Schaff (2012) successfully used theatre games and improvisation to help develop empathy in medical students. Huffaker and West’s (2005) use of improv in a business class had significant positive effects on students within the study by making the learning environment more open, creative, participative, and energized. The study also benefited instructors by providing them “a sense of exhilaration, rejuvenation, and joy” (p. 865). Vera and Crossans (2005) used improv to successfully achieve their goal of “increasing individual and team… motivation to rely more on spontaneous and creative actions, when required by the situation” (p. 209).

Student affairs professionals often use theatre to facilitate training. Using theatre for student affairs training allows serious issues to be presented with humor, emotionally engages viewers while allowing them to maintain distance, takes advantage of a willing suspension of disbelief while maintaining credibility, and creates meaning through presentation and active learning (Kaplan, Cook, & Steiger, 2006). I have personally worked in an office of residence life that used role-playing an improvisation in training resident advisors. The students had an opportunity to test their knowledge and training with other students in mock situations that included everything from noise violations to
medical emergencies. Authentic ‘performances’ on the part of trainers encourages participants to be more empathetic and authentic in their responses.

Chickering and Reisser (1993) suggested three admonitions that would help create educationally powerful environments, which in turn help students develop mature interpersonal relationships. Integration of work and learning, recognition and respect for individual differences, and acknowledgment of the cyclical nature of learning and development should be kept in mind when evaluating student development and producing interventions and programming efforts (Evans et al., 2010). Academic environments that focus on some form of artistic performance, like theatre, have the ability to create a powerful environment using the integration of work and learning and encouraging the recognition and respect for individual differences. Catterall, Chapleau, and Iwanaga (1999) found that high school students involved with theatre not only had higher tolerance for racial differences when compared with non-theatre students, but also had gains in reading proficiency and self-esteem.

There are many opportunities to develop empathy through the theatre including acting, writing and reading fiction, creating art through the design and directing process, and being an engaged audience member. The simple act of being in room and having a shared experience with other people is beneficial in today's increasingly digital world. In fact, researchers at University College London (2017) found that audience members’ heartbeats synchronize while watching performances. The theatre is unique in that both the product and the process of its creations can used to the benefit of the greater good. By exploring our nature, we can better understand ourselves and thus begin to better empathize with one another.
CHAPTER 3. METHODOLOGY

The purpose of this study is to examine a model of empathy development with a focus on the mediating effect of theatre engagement. Structural equation modeling is used to examine theatre engagement as a mediator between Communal Identity and Empathy Development among college students. By examining the direct paths between the variables, this research shows the standard deviation increase in Empathy for every one standard deviation increase in Theatre Engagement within the given sample.

**RQ1**: To what extent does theatre engagement influence empathy among college students?

This is answered by testing a path model, which examines the extent to which theatre engagement mediates relationships between empathy and students’ self-perceived confidence, affective and communal identities.

**RQ2**: Does the proposed path model fit data collected from ungraduated students at a large public university?

This is answered by examining the correlations and fit indices produced by the data and evaluating the change in chi-square when comparing the model to a simplified, more parsimonious version. Testing a theory-based and falsifiable model for fit will show whether or not the model is a plausible representation of the theory. Achieving fit will allow this model to be used to examine future data sets and add quantitative evidence of theatre’s effect on empathy to the literature. Figure 1 presents the hypothesized model.
Figure 1. Hypothesized model for Empathy Development with Theatre Perceptions as a Mediator.

Participants

I collected data from a public regional comprehensive university in the Southeastern United States that measures the constructs shown in Figure 1. The university has approximately 20,000 undergraduate students across 76 undergraduate degree programs. The university is largely populated by white female students. It reports that 58% of the students identify as female and 22% identify as a minority. The university is mildly selective with 73% of applicants selected. Of those applicants, 77% were ranked in the top third of their high school class.

Every student majoring or minoring in Theatre and Dance (360) was contacted via email to ensure the sample purposefully over-represented theatre students due to the study’s topic of interest. Data was also collected from 301 students enrolled in Theatre 210: Introduction to Theatre. Students in Theatre 210 are non-theatre majors that were expected to have a smaller range of theatre engagement when compared to current theatre
and dance majors. By including majors and non-majors I ensured the target population had a full range of theatre engagement across all academic levels.

I contacted students via email with an invitation to participate in a Qualtrics survey. I also attended the Introduction to Theatre class to describe the study and offer a personal invite to the students in attendance. In an effort to encourage participation in the proposed study, students that completed the survey were entered into a raffle to win complimentary tickets to their choice of upcoming School of Theatre and Dance productions. In total, 661 students were sent a Qualtrics survey and invitation to participate.

Of the 661 students contacted, 177 students responded and 156 completed the full survey for a completed response rate of 23.6%. The 21 students that partially completed the survey were not included in the final sample. The sample demographics mirrored that of the institution with the majority of participants identifying as white women between the ages of 18-22. As shown in Table 1 below, approximately 45% of respondents are theatre and dance majors. The other 55% of respondents represented 35 unique majors across the institution. Nearly 70% of the respondents are students in their first or second year of college. Additional demographic data can be found in Table 1 below.
Table 1

Demographic Data of the Sample

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>123</td>
<td>78.8</td>
</tr>
<tr>
<td>Male</td>
<td>32</td>
<td>20.5</td>
</tr>
<tr>
<td>Non-binary</td>
<td>1</td>
<td>0.6</td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
<td>132</td>
<td>84.6</td>
</tr>
<tr>
<td>Black/African</td>
<td>14</td>
<td>9</td>
</tr>
<tr>
<td>Asian</td>
<td>5</td>
<td>3.2</td>
</tr>
<tr>
<td>Hispanic/Latinx</td>
<td>5</td>
<td>3.2</td>
</tr>
<tr>
<td><strong>Academic Year</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First Year</td>
<td>62</td>
<td>40.4</td>
</tr>
<tr>
<td>Second Year</td>
<td>22</td>
<td>28.8</td>
</tr>
<tr>
<td>Third Year</td>
<td>26</td>
<td>14.1</td>
</tr>
<tr>
<td>Fourth Year</td>
<td>45</td>
<td>16.7</td>
</tr>
<tr>
<td><strong>Major</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Theatre/Dance</td>
<td>70</td>
<td>44.9</td>
</tr>
<tr>
<td>Health/Science</td>
<td>25</td>
<td>16</td>
</tr>
<tr>
<td>Business</td>
<td>23</td>
<td>14.7</td>
</tr>
<tr>
<td>Psychology</td>
<td>11</td>
<td>7</td>
</tr>
<tr>
<td>Communications/Media</td>
<td>14</td>
<td>9</td>
</tr>
<tr>
<td>Other</td>
<td>13</td>
<td>8.3</td>
</tr>
</tbody>
</table>

**Instrumentation**

Students were evaluated using items from Erwin’s (2003) Identity Scale (EIS-IV) and Erwin’s (2004) Scale of Intellectual Development (SID-IV). Previous versions of the EIS and SID have been shown to have significant reliability and validity (Erwin & Schmidt, 1981; Erwin, 2004; Zhang, 2008). The EIS-IV measures identity using 116 questions on a six-point scale. The questions are broken out into four subscales: confidence, conceptions about body and appearance, affective identity, and communal identity. The SID-IV measures four subscales of intellectual development (dualism,
relativism, commitment, empathy) using 103 questions on a weight scale (A=1, B=2, C=4, D=5). The internal reliability of the Empathy subscale from the SID-IV (.83) was measured using Cronbach’s Alpha (Erwin, 2004). The internal reliability of the EIS-IV subscales have reported values ranging from .79 to .89 (Alessandria & Nelson, 2005; DeMars & Erwin, 2004; Zhang, 2008).

This study uses seven questions from each of three subscales from the EIS-IV (confidence, affective identity, and communal identity) and seven questions from one subscale from the SID-IV (empathy). Some items were modified in order to use a single response scale across the items (unsure, not at all true of me, not really true of me, somewhat true of me, very true of me). The survey also included seven Theatre Engagement questions written for this study, for a total of 35 questions. See appendix A for the complete survey. Table 2 includes descriptive statistics for each of the following constructs measured.

**Confidence**

Confidence is measured via Erwin’s (2003) Erwin Identity Scale (EIS-IV). The hypothesized model places confidence as an exogenous variable that correlates with Affective Identity. Items include statements like “I am as sure of myself as most other people seem to be sure of themselves” and “In most situations, I am not afraid to express my beliefs to those with opposite beliefs.” While confidence may not directly affect empathy, it is a factor when viewing empathy as result of the development of mature interpersonal relationships and is a likely predictor of participation in theatre.
Affective Identity

Affective Identity is measured via the EIS-IV and placed as an exogenous variable that correlates with confidence. Items include statements like “most of the time I am comfortable with my thoughts and feelings” and “I am as comfortable by myself as I am in a group.” From a performance perspective, actors in theatre classes are exploring the affective identities of their characters in scene work when asking what a character wants and deciding how a character expresses emotions.

Communal Identity

Communal Identity, an endogenous variable within the model, is also measured with the EIS-IV. Confidence and Affective Identity both have direct paths to Communal Identity. A confident student with a greater sense of self will have an easier time developing mature interpersonal relationships, thus increasing their ability to develop a sense of communal identity. Items include statements like “it is important to me to be culturally aware and respectful of differing lifestyles” and “it is easy for me to be a part of my family/racial group/etc. and also be separate.” The collaborative nature of theatre education allows for community building to happen during productions and coursework.

Empathy

Empathetic students have a system of beliefs that they are committed to, but also recognize the validity of other points of view (Erwin, 2004). Empathy, measured by Erwin’s (2004) Scale of Intellectual Development (SID-IV), is an endogenous variable within the model. The SID-IV, with the exception of the Empathy subscale, is based on Perry’s (1970) scheme of intellectual and ethical development. The empathy subscale emerged through the administration of the test and is theorized by Erwin (2004) to
represent the “highest stage of intellectual development” (p. 4). As students develop their affective and communal identity, they will begin to consider the impact of their decisions on others and society. Items include statements like “I am frequently sensitive to the effects I have on others” and “I have consciously made decisions to benefit others even though I wanted to make a different decision.”

Validity evidence of the SID-IV has been gathered across multiple revisions. Evidence of construct validity was found via correlations with other student development instruments including Heath’s (1968) Perceived Self Questionnaire and the Erwin Identity Scale. Brigham Young University used the SID and found a relationship between SID scores and class standing (Erwin, 2004). The empathy subscale has been used as a dependent variable on other occasions. Most recently, Erwin (2012) compared an institutional alumni survey with sophomore-year results from SID for 624 students. Erwin found that alumni who were satisfied in their abilities with the arts, creative thinking, logical inferences, learning independently, exercising of initiative, tolerating other points of view, and achieving personal goals had higher empathy scores in their sophomore year when compared to dissatisfied alumni. These results help to provide validity of the subscales use as a measure of intellectual development.

**Theatre Engagement**

Theatre Engagement is treated as a mediating effect within the model. This variable is comprised of seven questions examining the amount of exposure and engagement a particular student has had with theatre during college and their perceptions of that engagement. Items address how many theatre classes a student has completed, amount of production involvement, number of productions viewed, and two questions
regarding perceptions of theatre: “participating in and seeing live theatre allows me to experience the world from new perspectives” and “theatre classes make me feel connected to the my community.” Like the other variables within the model, Theatre Engagement will have a maximum score of 5 for each question for a total of 35 possible. Allowing each construct to have the same maximum and minimum score allows for easier interpretation and analysis of the results.

Theatre and dance courses included in the response option for “which of the following theatre and dance classes have you completed” are those that engage in any of Howe’s (2013) key ways to develop empathy in adults. I examined the current School of Theatre and Dance course catalogue and found 22 courses that include some combination of affective role taking, creating art, and reading and writing fiction. This item is scored using quintiles (0-1 courses = 1, 2-3 courses = 2, 4-5 courses = 3, 5-7 course = 4, and 8-9 = 5); included courses can be found in Appendix B. Quintiles were determined after collection and based on the minimum and maximum reported classes completed.

Given their centrality to the research, two questions, “have you participated in the creation of a theatrical production during college” and “have you seen a theatrical production during college,” have a yes or no response option with a 1 or 5 scoring. 1 and 5 will be used to keep theatre engagement on the same 35 point scale as the rest of the constructs within the model. Answering yes to these questions prompted additional question for the respondent; “which of the following roles/positions have you held during college” and “how many productions have you seen during college”. Responses for roles and position include five options with blocks of positions. Scoring is 1-5 based on how many of the five responses participants select (A. Designer, Stage Manager, Dramaturg;
B. Actor, Dancer; C. Director, Choreographer; D. Playwright (including sketch, 10-minute plays, and one-acts); E. Other production/stage crew (including assistant roles).

The five responses for amount of productions viewed range from 0-2 productions (scored 1) to 9 or more productions (scored 5).

Table 2

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Empathy</th>
<th>Theatre</th>
<th>Confidence</th>
<th>Affective</th>
<th>Communal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>31.19</td>
<td>23.85</td>
<td>28.62</td>
<td>29.69</td>
<td>31.94</td>
</tr>
<tr>
<td>SD</td>
<td>2.98</td>
<td>6.85</td>
<td>3.95</td>
<td>3.51</td>
<td>2.62</td>
</tr>
<tr>
<td>Min</td>
<td>17</td>
<td>10</td>
<td>12</td>
<td>13</td>
<td>18</td>
</tr>
<tr>
<td>Max</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
</tr>
</tbody>
</table>

Analysis

Before assessing the fit and examining the extent to which theatre engagement influences empathy within the model, the data were examined for univariate and multivariate normality using IBM SPSS Statistics 26 and LISREL version 10.2. After meeting normality assumptions, the model was tested for fit by comparing it to a saturated version using a Chi-Square difference test. This is accomplished by imputing the covariance matrix of the sample data into LISREL version 10.2 with the Maximum Likelihood estimation method.

The goal of the chi-square difference test is to show that the hypothesized model does not fit significantly worse than the saturated model. Testing will show that the theoretical model can reproduce correlations just as well as the saturated model, which will always fit perfectly in a path analysis. It is important to note that a chi-square difference test is specifically examining the path that is or is not restricted depending on the nested models. In this case, the hypothesized model compared to the saturated model...
is specifically examining the paths between confidence and empathy, confidence and theatre engagement, affective identity and empathy, and affective identity and theatre engagement. The difference test shows that leaving those paths out of the model does not significantly decrease the fit.

I also computed correlation residuals using SPSS in order to evaluate specific areas of misfit in hypothesized model and examine path relationships (Kline, 2011). Examining the standardized path coefficients is an effective way to understand the relationships between constructs. My first research question is to examine the extent to which theatre engagement influences empathy among college students. The standardized path coefficient for that direct path in the model will be an indicator showing the standard deviation increase in empathy for everyone 1 standard deviation increase in theatre engagement. The significance and size of paths within the model will help to provide additional support for the theoretical framework and the use of the instrument for examining intellectual development.

Limitations

As with any study, there are limitations that must be addressed. A general limitation of a statistical analysis is discussed above in that the analysis is not proof of a theory, it simply provides additional support of a theory. This research does not prove that theatre engagement causes empathy. However, it does provide evidence that, for this particular sample of students at this particular institution, there is a statistically significant relationship between them. Additional limitations include general limitations with path models and the sample I obtained.
A path analysis cannot correct for unreliability. The observed variables in any path analysis are biased due to measurement error, whereas the latent variables of a full structural model are corrected. A future study with a larger sample size would be required to perform a full structural equation model. Additionally, the proposed model lacks falsifiability due to the limited number of variables. That said, a model should be based on theory, and this is the model that developed from theory. Adding variables to the model might increase the amount of variability within the model, but will not make sense unless there is a sound theoretical reason to do so.

Limitations within the sample could be corrected for future studies. Both the sample size and demographic information are limitations in this study. While I had enough participants to conduct a path model, conducting a full structural model with the same sample would be inappropriate. The demographic information from the sample also limits the generalizability of the results. Participants are students from a single institution, the majority of which are white women in their first two years of college. The results might be the same for other student populations, but claims cannot be made until those tests are conducted.
CHAPTER 4. RESULTS

The following chapter is a report of results from the methodology and analysis outlined in Chapter 3. The obtained data and their assumptions are described, the reproduced model is evaluated for fit and quality, and each path is examined. Further discussion of the results will follow in Chapter 5.

Data and Assumptions

Before assessing the fit and paths, the data were examined for potential issues in outliers, linearity, multicollinearity and normality using IBM SPSS Statistics 26 and LISREL version 10.2. A few low scores could be considered outliers in comparison with the rest of the data; however, after checking for data entry errors it became clear that the low score outliers for the students were accurate as reported. Therefore, no outliers were removed from the data set. A curve estimation was produced for all relationships in the model and determined that each relationship is sufficiently linear. Multicollinearity was examined due to the known theoretical relationship between Confidence and Affective Identity and their placement within the model. If the two variables are too highly correlated, it could be considered redundant to include both variables in the analysis. Collinearity statistics were sufficient (VIF=1).

While there is no specific consensus on acceptable degrees of normality, the literature suggests that biased maximum likely estimation results can occur when skewness and kurtosis reach absolute values of 2 and 7 respectively (Chou & Bentler, 1995; West, Curran, & Finch, 1995). However, Kline (2011) suggests slightly less stringent cutoff values of 3 and 10. As shown in Table 3 below, results indicated acceptable univariate normality for all factors and no evidence of multicollinearity.
Table 3

*Correlation Matrix and Descriptive Statistics for Empathy Data*

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Empathy</th>
<th>Theatre</th>
<th>Confidence</th>
<th>Affective</th>
<th>Communal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Empathy</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Theatre</td>
<td>.360</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Confidence</td>
<td>.183</td>
<td>.091</td>
<td>--</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affective</td>
<td>.357</td>
<td>.110</td>
<td>.566</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>Communal</td>
<td>.433</td>
<td>.183</td>
<td>.352</td>
<td>.490</td>
<td>--</td>
</tr>
</tbody>
</table>

| M          | 31.19   | 23.85   | 28.62      | 29.69     | 31.94    |
| SD         | 2.98    | 6.85    | 3.95       | 3.51      | 2.62     |
| Skew       | -1.43   | 0.08    | -1.05      | -0.93     | -1.73    |
| Kurt       | 3.75    | -1.34   | 1.90       | 2.24      | 5.48     |

Homoscedasticity assumptions were not tested because the data is expected to have some level of heteroscedasticity. Homoscedasticity is the assumption that variability in scores for one variable is the same across the values of another variable (Finney, 2015). Theatre majors and non-theatre majors are expected to have differing levels of theatre engagement and a bimodal distribution. Theatre and dance majors, who made up 45% of the respondents, were intentionally over-represented in the sample due to the topic of interest.

**The Model**

After meeting normality assumptions, the hypothesized model was examined by imputing the correlation matrix of the sample data into LISREL version 10.2 with the Maximum Likelihood estimation method. The correlation and covariance matrix can be found in the appendix B along with additional output from LISREL and SPSS. Olson, Foss, Troye, and Howell (1999) suggest using Maximum Likelihood (ML) over Generalized Least Squares (GLS) due to ML’s sensitivity to misspecification. GLS will
tend to suggest better fit than ML with a misspecified model, which could lead to Type 2 errors.

The survey obtained a sample of 156 undergraduate students representing 35 unique majors. As demonstrated in Figure 2, results indicate that a student’s level of theatre engagement has significant effect on their level of empathy (p<.01). For every one standard deviation increase in theatre engagement, empathy scores increased by nearly one-third of a standard deviation (b = .29). Results also indicated that the proposed path model fits the data collected and can be considered a plausible representation of theory ($\chi^2 (4) = 6.46, p=0.16, \text{SRMR}=0.039, \text{CFI}=0.984$).

**Figure 2.** Hypothesized model for empathy development including standardized path coefficients. Standard error in parenthesis. *Note:* Reported disturbance is the coefficient of nondetermination (1-$R^2$).

The hypothesized model examines direct paths from confidence and affective identity to communal identity, communal identity to theatre engagement and empathy,
and theatre engagement to empathy. Figure 2 shows standardized coefficients for each of these paths. Direct paths between theatre engagement and empathy, affective identity and communal identity, and communal identity and empathy are statistically significant (p < .01). The path between communal identity and theatre engagement is less significant (p = .021), while the path between confidence and communal identity is insignificant (p = .19). For every one standard deviation increase in confidence, communal identity increases by an insignificant .11 standard deviations. For every one standard deviation increase in affective identity, communal identity increases by .43 standard deviations. Empathy increases by .28 and .38 standard deviations for every one standard deviation increase in theatre engagement and communal identity, respectively.

**Evaluating Model Quality**

Correlation residuals were computed using SPSS in order to evaluate specific areas of misfit in the hypothesized model. While the low SRMR value is a good indication that correlation residuals will be low, it is critical to evaluate the residuals in a path analysis in order to diagnose potential misfit in the model. Low correlations between the constructs could bias the SRMR value. If most of the variance is in the error/disturbance term then there is little covariation to reproduce (Kline, 2011). The literature suggests any correlation residual greater than .15 is an indication that the model doesn’t explain the correlation well (Finney, 2015; Kline, 2011). Results shown in Table 4 below indicate acceptable residuals across the board. However, the correlation residual between affective identity and empathy is approaching an upper bound (.145).
This result is an indicator that a relationship between the two variables is not being optimally modeled. Specifically, this residual is representing the lack of a direct path between affective identity and empathy. The two have a moderate correlation (.357) that could be effectively modeled by adding a direct path. However, the hypothesized model is based in theory that suggests a building up toward empathy through the development of communal identity. While multiple and intersecting forms of identity are in a constant state of flux for students, this model is testing the theory that the development of communal identity will lead to more ethnorelative states and empathy.

While the direct path is not included, a connection between affective identity and empathy is present through affective identities relationship with communal identity. Leaving the path out of the model is theoretically sound; however, it might have an effect on the overall fit of the model. Conducting a chi-square difference test shows that the hypothesized model does not fit significantly worse than the saturated model. The difference test in Table 5 shows that leaving the path between affective identity and empathy out of the model does not significantly decrease the fit.
Table 5

χ² and Difference Test for Saturated and Hypothesized Models

<table>
<thead>
<tr>
<th>Model</th>
<th>χ²</th>
<th>p-value</th>
<th>df</th>
<th>Difference</th>
<th>χ²</th>
<th>p-value</th>
<th>SRMR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saturated</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Affective Path</td>
<td>.942</td>
<td>.81</td>
<td>3</td>
<td>3</td>
<td>.942</td>
<td>.81</td>
<td>0.013</td>
</tr>
<tr>
<td>Hypothesized</td>
<td>6.46</td>
<td>.16</td>
<td>4</td>
<td>1</td>
<td>5.518</td>
<td>0.018</td>
<td>0.039</td>
</tr>
</tbody>
</table>

**Post-Hoc Analyses**

Additional exploratory data analyses were conducted to examine differences among groups of students. A t-test was conducted to examine the empathy mean difference between theatre students and non theatre students. Results indicated that there is a statistically significant difference between theatre students [M = 32.02, SD = 2.31] and non-theatre students [M = 30.52, SD = 3.29](t (154) = -3.2, p<.01). A one-way between subjects ANOVA was also conducted to compare the effect of major on empathy for Theatre and Dance [M = 32.02, SD = 2.31], Health and Sciences [M = 31.2, SD = 3.55], Business [M = 29.13, SD = 3.91], Media and Communications [M = 31.00, SD = 2.28], Psychology [M = 31.00, SD = 2.00], and Other majors [M = 30.76, SD = 3.03]. There was a statistically significant difference between major means on empathy at the p<.01 level for the six major groups [F (5, 150) = 3.66, p = .004].

Post hoc tests using the Bonferroni correction revealed the mean differences between each group. The only significant mean difference was between Theatre and Dance and Business majors. Theatre and Dance students reported higher levels of empathy with a mean difference over business majors of 2.9 (p = .005). Other groups did not statistically differ from one another.
Conclusion

Results presented in this chapter answer both research questions.

**RQ1:** To what extent does theatre engagement influence empathy among college students?

Theatre engagement has a statistically significant influence on empathy among college students within the given sample. Empathy increases by nearly one-third standard deviation for every increase in theatre engagement. This was answered by producing a path model, examining the relationship between the variables and reporting the standardized path coefficients.

**RQ2:** Does the proposed path model fit data collected from ungraduated students at a large public university?

Yes, the model fits the data collected from undergraduate students ($\chi^2 (4) = 6.46$, $p=0.16$, SRMR=.039, CFI=.984). This was answered by examining the correlations and fit indices produced by the data and evaluating the change in chi-square when comparing the model to a simplified, more parsimonious version. The model is a plausible representation of theory. The following chapter explores discussion of these results, implications for theory, and opportunities for future research.
CHAPTER 5. DISCUSSION

The results of the study indicate that, with consideration to the sample, a college student’s level of empathy increases by nearly one-third standard deviation for every standard deviation increase of their theatre engagement. Results also indicated that the hypothesized model is a plausible representation of theory. These results suggest many implications for practice and opportunities for additional research. In this chapter I will discuss the findings and create a bridge between them and the theoretical framework presented in Chapter 2.

Discussion of Findings

The hypothesized path model presented in Chapter 4 is a plausible representation of theory. As students accept their own background and develop confidence and affective identity, they begin to develop a sense of communal identity and move toward an acceptance of other’s beliefs and values (Erwin, 2003). Empathy, the endogenous variable in the model, is increased as theatre engagement and communal identity increase. Confidence and affective identity affect empathy through their relationship with one another and communal identity. Each path in the model represents a relationship between the constructs that is supported by the theory presented in Chapter 2.

Theatre Engagement and Empathy

The primary aim of this study was to examine the extent to which theatre engagement influences empathy among college students. The results of the path model indicate that empathy increases approximately one-third standard deviation for each standard deviation increase in theatre engagement (b = .29, p < .01). Theatre engagement
is a mediator within the model. Its effect on empathy happens above and beyond the usual increase we might expect from the model without theatre engagement included.

Without theatre engagement as a variable, the model presents a plausible representation of theory showing the development of empathy through multiple aspects of identity. With theatre engagement in the model, we get a visualization of theatre as a possible empathy-developing-intervention among college students. For the current sample of students, a combination of their perceptions about theatre and the amount of theatre they saw, participated in creating, and learned about is shown to be related to higher levels of empathy.

This finding provides significant quantitative weight to the myriad of mostly qualitative evidence about theatre’s ability to help develop empathy. Not all students have the same college experience. In a perfect situation, we can hope that our institutions are providing enough support and opportunities for students to successfully navigate the internal struggles that come with identity development during college. In reality, many institutions focus heavily on first year experiences for the sake of retention and hope the developmental pieces fall in place over the next three years. There is no guarantee that students will develop empathy naturally through the college experience. Some students may not develop mature interpersonal relationships or a sense of communal identity that helps lead them toward empathy for others. This is why interventions, like those possible with increasing theatre engagement among students, are so important.

Empathy can build over time. These results show that the more theatre exposure a student has, the more empathy they tend to have. Theatre as an intervention for empathy development can be happening well outside the first two years of the college experience.
In fact, students that experience theatre and develop an appreciation for it may continue seek out theatre experiences after college that could lead to continued empathy development throughout their lives. This should be the kind of outcome that our institutions of higher learning should strive for. Higher education’s responsibility to society is not simply to serve and educate a student for 4 to 6 years, but to create enlightened citizens that will continue to grow and impact the world in positive ways.

It is important to note that testing the statistical significance of this path is not proving a cause and effect. This path provides additional evidence that the relationship between theatre and empathy development suggested by the literature exists. The p-value of <.01 allows me to reject the null hypothesis that assumes there is zero relationship between the two variables. That said, this result is encouraging and adds quantitative strength to other findings in the literature. The result provides many implications for practice and opportunities for future research that are discussed below.

**Communal Identity and Empathy**

Results of the path analysis showed that empathy increases by .38 standard deviations for every standard deviation increase in communal identity. This statistically significant effect is also supported by the literature. The development of mature interpersonal relationships requires a respect for differences. Students who have a strong sense of communal identity through the development of mature interpersonal relationships can develop empathy that allows them to recognize the validity of other points of view and ways of life (Chickering & Reisser, 1993; Erwin, 2004).

This communal identity toward empathy development is best described in the possibility of a student’s movement from ethnocentric to ethnorelative states of being. A
strong sense of communal identity is associated with an acceptance of one’s background and movement toward acceptance of others’ beliefs and values (Erwin, 2003). Empathy can allow a person to not only understand and respect the differences in others, but possibly integrate group differences into their own lives. One communal identity can blend toward another as the lines that separate the two begin to blur.

From a leadership perspective, an authentic leader with a strong sense of communal identity within their organization will more easily empathize with followers and others. The interpersonal connections they make can help bridge the gap between follower and leader and allow for a more harmonious working environment where employees feel respected and cared for. This path relationship provides additional support that the development of communal identity can lead toward greater empathy. Studies have shown that is the kind of leadership followers want (Giovannoni, 2009; Holt & Marquese, 2012).

**Communal Identity and Theatre Engagement**

The weak path between communal identity and theatre is as expected. While the path is significant, it has a minimal beta (.18) and is not a relationship that is theoretically supported. There is no basis to claim that a strong sense of communal identity should lead to more theatre engagement. In fact, if this path was strong, it would have raised questions about the validity of the rest of the model. Variance can be the result of chance and error, however the bases for relationships in the model needs to be theoretically supported. Theatre engagement exists in the model strictly as a mediator for empathy. This primary research question is discussed below.
Affective Identity and Communal Identity

The path between affective identity and communal identity is the strongest in the model. Communal identity increases by .43 standard deviations for every one increase in affective identity. While identity development does not occur in perfect stages, the literature suggests that students who feel more comfortable with their own sense of identity will have an easier time adapting to the community. Affective identity is one aspect of the multiple identities students are wrestling with during college. As they become more comfortable in themselves, they become more comfortable in their interpersonal abilities (Erwin, 2003; Mayhew et al., 2016; Pascarella & Terenzini, 2005).

This relationship between affective identity and communal identity is also supported by the authentic leadership literature. Affective identity, as an understanding of our emotions, is the core of developing self-awareness. Our emotional self-awareness is tied to the concept of Sparrowe’s (2005) repetitive telling of who we are, where we come from, and what we plan to do with our future can help us develop a consistent and authentic self. An authentic leader with a high sense of affective identity would likely have an easier time developing communal identity within themselves and their followers.

Confidence and Affective Identity

Theory suggests that there is a strong correlation between confidence and affective identity. This relationship was successfully modeled by reporting the coefficient of determination, or the squared correlation between the two variables ($r^2 = .32$). This result indicates that confidence and affective identity share one-third of their variability. During the development of mature interpersonal relationships, individuals with a high
sense of affective identity feel more comfortable, or confident, in social situations and
displaying their emotions (Erwin, 2003).

The weak path between confidence and communal identity is showing that
confidence does not have as much of an effect on communal identity as does affective
identity. While confidence does not have a statistically significant path toward communal
identity within the given sample, confidence is still affecting communal identity through
its shared variability with affective identity. Given the shared variability between
confidence and affective identity, a completely different sample of students could
produce differing path results toward communal identity while showing a similar $r^2$.

Approximately 54% of the participants were in their first or second year of
college, which explains why confidence was the lowest scored variable with a mean score
of 28.6 out of possible 35. Students in their first and second year of college are known to
have a drop in their confidence (Mayhew et al., 2016). It is possible that retesting the
model with a more evenly distributed range of academic years would show a stronger
relationship between confidence and communal identity.

**Implications**

The implications of theatre engagement having a statistically significant effect on
empathy are many. Given the reported decrease in empathy among college students, any
opportunity to increase empathy should be given serious consideration. The results of the
study provide support for the many reports of theatre having an effect on the empathy of
those engaged in it. This effect has implications for a variety of stakeholders including
parents and students considering majors and schools, theatre programs and their faculty,
business programs, administrators and leaders working in or on the behalf of institutions of higher education, leadership theorists and trainers, and business leaders and owners.

**Parents and Students**

The results of this study could make theatre and theatre programs more appealing to potential students and parents of students. Students that have chosen to study theatre have evidence that their program of study is providing them an opportunity to develop empathy above and beyond that of their counterparts within the institution. Institutions should ensure that students both in and out of theatre programs have the opportunity to take advantage of empathy-developing interventions.

Parents can look to institutions and programs that focus on the development of the entirety of the student, rather than a focus on a specific skill. For a theatre program, consider those that reach out across their institutions with an aim to inspire and develop the minds of those both in and out of the major. When considering colleges and universities, look for those that integrate the arts across the institution to know that your child has the opportunity to benefit.

Parents and students are footing the majority of the bill for current cost of higher education. In this way, they have a strategic advantage to push for change within institutions. If the opportunity for empathy development through theatre interventions is important to any number of parents and students considering higher education, demand it from the institutions you are giving your money to, or send your child or yourself to institutions that already show they value theatre. Parents and students that are supporters of the arts should be especially vocal about seeing more opportunities for theatre interventions on college campuses.
Theatre Programs and Faculty

Theatre programs and their faculty are the most likely and practical benefactors of this research. It provides additional evidence to the value of their art and practice. This value can be used and communicated in recruiting, creating new initiatives or positions, and helping to drive broader change within the institution. However, simply knowing and communicating that value is the first step. Using new evidence of the value of theatre to drive meaningful change is the responsibility of theatre educators and practitioners everywhere.

Theatre programs and their faculty need to consider their responsibility to students outside the major, as the possibility for greater gains in empathy should not be reserved for those studying theatre. Theatre faculty and their program administrators need to ask themselves some difficult questions. Do they have enough faculty with the willingness and ability to serve a broader population? Do they value the concept of process over product and are they willing to admit students into the major or classroom that don’t live up to their expectations of being talented enough to get in? Are they sufficiently funded and able to remove the financial barriers for students to see and participate in their art?

I understand the desire to want to teach ‘good’ students. I also understand the desire to create entertaining and impactful art. However, I argue that an institution of higher education should be focused on the process of teaching that art, rather than the quality of the product that is produced. This question of process over product was brought up regularly by faculty during my undergraduate career and again by my colleagues when I became a theatre educator myself. It’s often reserved for discussion
regarding the work current students are actively engaged in. However, I argue that the concept of process over product should extend outside the boundaries of an individual production and into everything we do as theatre educators.

If theatre educators and programs value process over product, then they should not be afraid to admit students with little to no acting experience into a performance major or classes. It has always made little sense to me that a theatre program would focus on recruiting students that are already well trained. Being a good program should not rely on recruiting the best students, it should rely on meaningful change in the ability of all students. I worry that institutions may hang their laurels on the talent of the students they are able to bring in, rather than our ability to help all students grow. The value of education in theatre should not be based on some arbitrary competition of who is the best, but on the gains made from studying theatre. Gains like a one-third standard deviation increase in empathy for every increase in theatre engagement.

Many institutions charge students large auxiliary fees to pay for a variety of the campus experience. In many institutions, the arts are not a part of what this fee covers. In my own institution, not only are students outside of the theatre and dance major required to pay to see student performances that cost little to nothing to produce, but students within the theatre and dance major itself are required to pay upward of $15 to see a show. With a crises of declining empathy among college students, creating a financial barrier to experience and participate in a potential solution is problematic. We are making students pay a premium to obtain a goal that should be embedded within the institution.

The financial barrier to experience theatre isn’t only found in the price of admission. There is a steep financial barrier to actively participate in the creation of
theatre as a student. Students paying their own way through college would likely not being able to afford the time commitment that comes from creating a show. Graduates without additional financial support may find it difficult to create a career in the arts with the lower than average salary that can be expected after graduation (Carnevale, Cheah, & Hanson, 2015). Instead of the theatre being a place for everybody, the rising cost of higher education is making the theatre a place for a privileged few who can afford to participate.

If removing barriers for participation isn’t realistic, educators both in and out of the theatre can look to Drama-Based Pedagogies (DPG) to help integrate the arts in a natural and effective way across the institution. DBP is a series of drama-based teaching and learning strategies that focus on an embodied process-orientation approach to learning (Lee, Patall, Cawthon, & Steingut, 2015). A meta-analysis by Lee et. al (2015) found that DBP has “a positive, significant impact on achievement outcomes in educational settings” (p. 1). Educators should seek out training in DBP and learn how these techniques can improve their teaching.

The possibility for gains in empathy development should not be reserved for students who can afford it or those talented enough to deserve it. Theatre faculty and programs with financial and skill-based barriers should seek out opportunities for broadening their audience. This may require specific training in Drama-Based Pedagogies to be effectively implemented. Another possibility is to seek partnerships from across the institution to create interdisciplinary opportunities for students. One of the clearest opportunities presented through this research is increasing partnerships between theatre and business programs.
Business Programs and Faculty

Opportunities for collaboration and partnerships between business and theatre programs would solve two issues. For theatre programs, it would provide an opportunity to broaden their audience and create unique programs by reaching out to the population of students that make up 19% of degrees conferred in the United States each year. For business programs it would provide experiential learning and the opportunity to help address the empathy issue addressed in business education literature (Brown et al., 2010; Holt & Marques 2012).

Theatre is a business. Each theatre production could be seen as entrepreneurial activity. In higher education settings, theatre programs are creating experiential learning opportunities on a weekly basis that business programs should be salivating over. Students working on a show have to find or create a product, which is the play or performance itself. Students audition, or interview, employees to be a part of creating that product. The director, or leader, communicates their vision for the product to their team. They use marketing and sales strategies to provide their product to a paying audience. They often use a post-mortem process to evaluate what went right and what went wrong in the product’s creation. They learn from their mistakes and they move forward with something new. When I think of a business program creating an experiential learning center to provide hands on business training for their students, I can’t help but think they should just build another theatre on campus.

In the same way that theatre is a business, business can be very much like theatre, especially when considering entrepreneurship and sales. It is entirely possible that a recent graduate will obtain a job in sales, selling a product that they themselves have no
use for, don’t believe in, or think is overpriced. Regardless of feelings, that recent college graduate’s job is to find people who might have a use for the product and convince them to buy it. That recent graduate will have a specific script their working with and will need to be a decent actor in order to sell their product convincingly. When seeking investors, entrepreneurs should have a range of rehearsed monologues, or pitches, available at all times in order to sell their idea. This is so much like theatre that television producers have create multiple shows around the concept of pitching to investors. Entrepreneurship is story telling with real life consequences.

Unfortunately, due to the way academic departments silo themselves within their institutions, many theatre programs fail to make the business training connection and many business programs fail to see the opportunity for experiential learning provided in a different building on campus. It’s also possible that faculty within these programs would resist the idea of working with one another. Some sort of theatre and business integration on a campus where it isn’t already happening would require buy-in from multiple stakeholders, long term support for the faculty and staff in charge of integration efforts, and financial resources.

Faculty and students in these programs could learn a great deal from one another. That said, many academic units are spending much of their time competing for an ever-dwindling number of students and providing great classes and programming for the students they currently have, that it becomes difficult to reach out across an institution, even if they had the desire to do so. Change can be a long and difficult process. For these reasons, it is important for leaders within institutions of higher education to understand the need for change and push for this type of collaboration.
Leaders in Higher Education

Leading change within an institution of higher education can be a difficult process. Institutions have a distributed nature than can allow for grassroots change from students, parents, and faculty. While grassroots efforts are important, they may fail without the support of senior leaders within the institution (Buller, 2015; Eckel & Kezar, 2003). Leaders within an institution may have a desire to fight back against the empathy decline, but if the arts aren’t valued and visible on a campus, they may be ignoring one of their best tools to do so.

Howe’s (2013) four ways to promoting empathy in adults include creating art, reading fiction, writing fiction, and affective role taking. With all of these empathy promoting activities existing within theatre, and the results of this study providing evidence that theatre engagement has a statistically significant effect on empathy development, leaders within institutions of higher education should begin seeking ways to further integrate the arts within the institution. Looking toward natural collaborations, like those discussed between business and theatre above, are a great step. In fact, finding these kind of synergistic collaborations taps into Eckel and Kezar’s (2003) five core and 15 secondary support strategies for leading change in higher education.

There are many change leadership models and strategies for leaders within higher education to subscribe to. Unfortunately, no single strategy, plan, or roadmap is guaranteed to lead toward success (Buller, 2015; Eckel & Kezar, 2003). That said, I’m a great fan of Eckel and Kezar’s (2003) Five Core Strategies and 15 Support Strategies that they’ve gleaned from the literature, as they are fairly comprehensive and can be applied to almost any situation. The first of their Five Core Strategies is obtaining senior
administrative support. Demands for change can come from a number of stakeholders, when it has supported by or implemented by senior administrative leaders, that change has a better opportunity for success (Buller, 2015; Eckel & Kezar, 2003; Lloyd, 2016).

The other core strategies include having collaborative leadership, creating a flexible vision, making action toward transformation visible, and continuing to develop staff. The 15 interrelated support strategies are

1. putting issues into a broad context
2. setting expectations and being accountable
3. persuasive and effective communication
4. inviting stakeholder participation
5. ensuring influence over results to stakeholders
6. bringing people together for new interactions
7. aligning administrative and governance processes
8. moderating change momentum
9. providing supportive structures like new staff and initiatives
10. financial resources
11. incentives for stakeholders
12. having a long term orientation
13. making new connections and synergies
14. looking for external factors
15. considering outside perspectives
Leaders on campus looking to combat the declining empathy issue through the development of theatre interventions would do well to consider these strategies when looking to transform their institutions.

While no single list or theory can guarantee change, actively using a strategy like Eckel and Kezar can help guide transformation and keep people accountable. Instituting arts-based change in a STEM focused world may be a difficult process. Leaders can use research like this, future research stemming from this study, and literature related to DBP to help justify the cost and disruption that creating new initiatives or removing barriers for theatre engagement can incur. Knowing that theatre interventions can help develop empathy in college students, leaders in higher education should ask themselves, “What’s the alternative? To not pursue empathy development?”

**Leadership Theory and Training**

The audience is intelligent. The audience, and followers, know a bad performance when they see one. They intuitively pick up on authenticity. A lack of authenticity in a political address, motivational speech by a supervisor, or closing argument in a court room is no different than an inauthentic performance on stage or the screen. Not knowing yourself or your audience as a performer or leader can bring about disastrous results. In developing empathy through interpersonal relationships, we use an understanding of ourselves to help develop an understanding of others.

As discussed in the literature review, leaders can achieve authenticity through self-awareness, self-acceptance, and authentic actions and relationships (Gardner, Avolio, Luthans, May, & Walumbwa, 2005). Empathy is essential to developing the kind of authentic actions and growth-focused relationships that define authentic leadership.
(Berkovich, 2014). If empathy is the key to authenticity, then perhaps the theatre interventions that work for students will also work for developing authentic leaders.

In seeking to develop authentic leadership, trainers and theorists can look more intentionally to Drama Based Pedagogies for solutions and interventions. Plenty of organizations already use theatre games and improvisation to aid in training sessions. Theatre games are often used as icebreakers during conferences and training programs to get a group feeling comfortable with one another and encourage participants to step out of their comfort zone. If leadership development professionals, especially those working on authentic leadership development, were trained in DBP, I suspect they would see an improvement in their outcomes and reviews.

The proposed partnerships between theatre and business programs would also offer theorists and trainers and opportunity operationalize business and leadership approaches in a new way. As each new production is considered a business, researchers could examine directors, or entrepreneurs, and their relationship with followers and the product they are creating. There are many opportunities to examine the overlaps in studying and training for sales and authenticity of performance, leader and member relationships, and emergent leadership.

Another way to ensure authentic leadership in an organization is to consider hiring talent that’s already had exposure to empathy building content. Corporate structure and culture, specific marketing and sales strategies, and daily tasks can be easily taught to new employees. Soft skills, like empathy, can take longer to develop. Given the current trends in the literature, this research should serve as flashing neon sign to business owners and leaders that reads, “Recruit and hire theatre students.”
Business Owners and Leaders

Imagine your team is full of creative and empathetic people that know how to communicate effectively, step out of their comfort zone, and engage with new ideas and unique perspectives. This dream is far more attainable than a business owner or leader within an organization might think. All it requires is a simple change of perspective and reaching out to recruit and hire students graduating with degrees in theatre and dance.

Business leaders need reminding that the kind of leadership that followers want is changing. Our classic markers of what makes good leadership may not be what followers actually need. Vision, drive, and ambition are being replaced by trust, compassion, and integrity as preferred leadership qualities (Giovannoni, 2009). If institutions of higher education are unable to produce individuals with the requisite soft skills in their business programs, and are unwilling or unable to produce meaningful change through new collaborations or theatre interventions, then businesses need to be willing to make a change on their end.

This research supports the idea that when companies are looking for recent graduates, the more theatre experience that graduate has, the more empathetic they may be. Business could intentionally choose these students, or make it known to institutions that they want their business students to have theatre interventions as a part of their education. These empathetic students could develop into the kind of leaders that followers want. Tracking that development is just one example of the potential for future research that these results provide.
Leading an Empathy Change: An Organizational Perspective

The literature indicates that business programs need to do more to engage their students in the development of soft skills like empathy. Additionally, results from this study show a significant empathy mean difference between theatre and business students. Implementing theatre interventions within a business curriculum is an extremely viable opportunity for business programs. That said, instituting that change, no matter how clearly it makes sense to do, is easier said than done. A path forward using Eckel and Kezar’s (2003) strategies for transformation begins with deans and other senior leaders.

An interdepartmental collaboration between theatre and business programs would need to start with the dean of each college. Having the support of presidents, provosts, and other senior leaders is important, but a change like this needs to come from where the change is physically going to happen. Lloyd (2016) writes, “there are measures senior leaders can take to remove barriers, bring the campus together, and reward collaborative efforts and initiatives; our institutions accomplish more together than we could ever achieve in the silo” (pg. 8). Senior leadership can help make the change possible, but deans and directors will make the change happen.

Eckel and Kezar (2003) write, “leaders should become culture analysts to assess and understand the cultures in which they are so entrenched, and they then need to become interpreters to translate these understanding to the ways they go about transformational change” (p 144). By understanding their varying cultures and contexts deans and directors within colleges of performing arts and business can make their process unique to their individual institutions, anticipate challenges, and begin change from a place of collaboration and understanding. Senior leaders in these areas can start
with an understanding of how collaboration between them is mutually beneficial. For example, business programs gain the benefit of empathy development and experiential learning while theatre programs may gain access to new space, diverse student populations, or financial resources.

Using DBP to implement theatre interventions and creating opportunities for low stakes efforts allows for flexibility. Business programs may not have the availability or resources to suddenly introduce new courses into their curriculum. Similarly, theatre programs may not have the availability or resources to suddenly start educating a massive new group of students. Interventions do not have to be large-scale undertakings, in fact, as this research suggests, continued intervention dosing is preferable to a singular event. If resources and interest are limited, introducing and allowing collaborations between faculty and classes is a great way to provide visible actions while moderating the pace of change.

Curricular projects could include partnerships between accounting students and the theatre program that requires accounting students to read the play and help build the budget through collaboration and discussion with key stakeholders in the production process. A marketing class could also collaborate with a production team to create effective advertising. Inviting participation via small class projects will help create new interactions and connections across campus that are beneficial to both students and faculty. Providing incentives for this kind of collaboration could be as simple as offering complimentary tickets to any students and faculty involved in the shared project. Opportunities to see the production would add additional co-curricular engagement that requires little effort and cost.
Providing complimentary tickets to a new portion of students may reduce the number of tickets sold. However, each university would need to examine their individual context to get a better picture of whether or a change in complimentary ticket policy would result in an increased need of financial resources from a theatre program. It is entirely possible that providing complimentary tickets to a previously untargeted population on campus would result in additional sales from students, faculty, and community members supporting the students involved in the production. This invited participation through curricular and co-curricular cross-disciplinary projects could be a catalyst for additional and ongoing community involvement and the basis for providing a long-term orientation of a focus on empathy interventions through theatre.

As previously noted, leading change within higher education is difficult. Changing a process or expectation within a single unit can lead to discussions that open old wounds and create fresh interpersonal challenges. Some people may be naturally resistant to change. However, it is possible to sabotage a change process by labeling people with differing opinions as resistant. In moderating the pace of change, it is important to take time to understand why we consider others resistant. Empathy should be imbedded within the change process, especially when that process has empathy as an end goal.

Deans, directors, and other senior leaders in theatre and business programs need to provide supportive structures and opportunities for stakeholders to influence the results of change efforts. By creating new decision-making groups with actual authority to make change, leaders can open up pathways for grassroots change makers to take an idea and run with it. This would allow interested stakeholders from across campus and in the
community to come together under a shared vision. Not every business faculty member should feel required to introduce theatre into his or her course. In many contexts, it might not make sense to introduce a theatre intervention or partnership. Celebrate and incentivize faculty that find ways to introduce empathy building interventions and partnerships and avoid labeling those unwilling or unable to participate as change resistant.

Starting with partnerships that help address direct concerns within this study and the broader literature are the first step in leading an empathy change on campus. Those partnerships may spur additional partnerships and collaborations. Additional curricular opportunities for theatre engagement include:

- partnerships with engineering and fine art students in the creation of scenic and lighting elements;
- media and design students in the creation of projections;
- history and literature students collaborating with dramaturgs;
- philosophy class discussions regarding the ethical dilemmas presented within a play;
- nonprofit studies courses examining an on-campus theatre and comparing with nonprofit theatres in the community;
- nursing students working with actors to practice bedside manner;
- communications students using the interaction between actors and a live audience as a case study;
- education students learning about Drama Based Pedagogy;
• music students creating music and other sound elements for the sound design of a production;
• management and hospitality management students using their campus theater’s front of house operations as a case study;
• international affairs and conflict resolution students examining theatre for social change;

Possibilities for collaborations and low cost engagement can reach into any field when you begin to consider the infinite subject matter that a play could address. Additionally, leaders in institutions of higher education can introduce a variety of co-curricular theatre interventions.

If developing empathy among undergraduate students is a goal of higher education, whether as a distal or intermediate outcome, student support services and divisions of Student Affairs can easily participate. Partnerships between senior leaders can help open doors to an empathetic, arts integrated campus. Some co-curricular theatre partnership examples for leaders in student affairs include:

• residence life staff including programming that brings resident students into the theatre;
• inclusion and access offices encouraging students with disabilities to attend the theatre by providing or demanding support services like interpreters and accessible seating and technologies;
• working with theatre programs and offices supporting diverse student populations to ensure productions are telling a diversity of stories from a diversity of populations;
• collaborations with health and counselling centers to ensure students working in the theatre are living balanced lives;
• university unions partnering with theatres to offer space for rehearsals;
• community service learning offices creating positions and trips around arts interventions for the community;
• career and academic planning offices understanding the audition process and working with theatre programs to bring agents, casting agencies, and other stakeholders to campus;
• student activities offices creating unique programming and providing low cost or free access to the theatre for first and second year students.

**Future Research**

Results from this study open the door for a myriad of future research opportunities. Other researchers might come up with alternative models for comparison, or expand the current version to a full structural equation model. Examining additional populations with the same model to enhance the generalizability of the results is logical next step. Beyond increasing the generalizability of the current model and model comparisons, the results and their implications lead to many other research opportunities including comparing disparate groups, developing and testing specific theatre interventions in varying contexts, longitudinal studies, and qualitative studies.

Using the model examined in this study to test additional populations and different institutions is an easy target for additional research. I, or any other researcher interested in this work, could provide the same survey to a new population of students to increase the validity and generalizability of the instrument and model. The majority of the
population obtained for this study were white women in their first two years of college. It will be important to continue examining this model with a more diverse population. In addition to adding to the validity and generalizability, additional populations, if tested using the same instrument and methods, could be added together for a larger overall sample to be used for a full structural equation model. This would allow researchers to drill further into the instrument and allow for fine-tuning and identification of potential misfit in the model.

Additional research could also compare different groups using the same model. A larger sample could allow for comparisons between genders, age groups, majors, or any other marker a researcher choose to pinpoint. Examining age groups would allow a research expand on this study to see if first and second-year students, who might be lower on other identity scores, still have additional empathy when compared to juniors and seniors due to increased theatre engagement. Comparing different majors, even with a model that does not include theatre engagement as a mediator, could be worthwhile to expand on our understanding of the differences in empathy development in general.

Experimental studies that examine specific theatre interventions are also a potential for future research stemming from the results of this study. Developing and testing specific theatre interventions to further pinpoint the best opportunities for increasing empathy could go a long way to increasing the understanding of the power of theatre interventions. Specifically, looking at groups like business students, who research shows struggle with empathy and moral outcomes, and introducing interventions to experimental groups and comparing to a control group, would be an incredible research opportunity. This would not only allow for testing the power of theatre interventions in
general, but could also be used to test specific interventions to see which are able to have the best empathy developing result. For example, this kind of experimental design could see if there is difference in empathy development between students that view theatre when compared to students that participate in the creation of a production.

Research exploring Drama Based Pedagogies within leadership development programs is also warranted. Exploring the effect of DBP on leadership development program outcomes, especially if those programs include empathy or authenticity, could help advance both the theatre education and leadership literatures. This research is similar to the experimental design discussed above in that it exploring how theatre might be used as intervention. That said, interventions in terms of specific programming are unlikely in a corporate environment or during leadership development programs. The use of DBP, or development professionals trained in DBP, would remove the intervention by a step and put it into the way people are taught, rather than any specific event.

Any longitudinal or qualitative study would also add to the validity of the model and theory. A similar study could be conducted that follows a group of first-year students all the way through graduation. Testing students upon entering and exiting the university would show whether or not empathy is changing over time, and how theatre engagement or interventions affects it. Qualitative research would be beneficial in that it would allow researchers to explore additional nuance regarding student’s perceived empathy and their theatre exposure. Asking what experiences students have had in the theatre that helped them develop deeper connections and understandings of themselves and others would be a worthy pursuit given the results of this study.
Conclusion

This study examined an empathy development path model with theatre engagement as a mediating variable. Results indicated that the hypothesized model is a plausible representation of theory and, for the given sample, empathy increased by nearly one-third standard deviation for every standard deviation increase of their theatre engagement. The implications of this research and future research opportunities presented are many and varied. Researchers, parents, students, educators in theatre and business programs, business leaders, and administrators in institutions of higher education can all benefit from this study and any future studies stemming from it.

World renowned actress and acting teacher Stella Adler (2000) wrote “The word theatre comes from the Greek. It means the seeing place. It is the place people come to see the truth about life and the social situation. The theatre is a spiritual and social X-ray of its time” (p.60). As educators, scholars, practitioners, and leaders, we can all use the theatre as a place to see the truth about life and the social situation. We can use it to develop a deeper understanding of ourselves and others. The theatre can help us empathize in what often feels like an increasingly unempathetic world. We have the tools; this research can serve as a reminder to use them, and use them often.
Appendix A

Questions by Construct for Identity and Empathy Questionnaire

Instructions
The following series of statements describes how people sometimes feel about themselves and other people. Please read each statement and record how accurately each statement applies to you. Sometimes people try to make themselves out to be better than they really are. Therefore, the questionnaire includes some items to check on this. The first thing that comes to your mind is probably the best response. There may be one or two statements that do not directly apply to you; however try to answer them as they might apply to you in a hypothetical situation. Remember there are no right or wrong answers so do not spend too much time deciding on a correct answer. Respond to the statements in order and do not leave out any responses.

For each statement ask yourself: How true is this of me?

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>very true of me</td>
<td>somewhat true of me</td>
<td>not really true of me</td>
<td>not at all true of me</td>
<td>unsure</td>
</tr>
</tbody>
</table>

Confidence
1. It is easy for me to contribute in class or other academic settings.
2. In most situations, I am not afraid to express my beliefs to those with opposite beliefs.
3. Although I may not always make the right decisions, I usually feel good about my choices.
4. I feel I fit in intellectually at college.
5. I am willing to try new things.
6. I am as sure of myself as most other people seem to be sure of themselves.
7. I am confident of my talents.

Affective Identity
8. I am comfortable with private displays of affection.
9. In stressful situations, I usually remain composed and clear headed.
10. Most of the time I am comfortable with my thoughts and feelings.
11. I feel the best way to handle emotions is to be aware of them and share feelings when appropriate.
12. When I feel sad, I will try to figure out why I feel sad.
13. I am as comfortable by myself as I am in a group.
14. If a friend is upset with me I am able to discuss the problem so we can work out a solution.
Communal Identity
15. My friends are friends, no matter what their background is (ex. race/religion/social).
16. I choose to participate in activities in which I will meet different people.
17. It is important to me to be culturally aware and respectful of differing lifestyles.
18. I can associate with others who have differing religious views.
19. I am accepting of different lifestyles and values.
20. It is easy for me to be a part of my family/racial group/etc. and also be separate.
21. Whether I agree or not I always listen and respect other’s opinions and thoughts.

Empathy
22. I have consciously made decisions to benefit others even though I wanted to make a different decision
23. I have thought about ways that my future occupation will enable me to help those less fortunate.
24. I believe the best leaders are those who are motivated by a deep concern for the well-being of others.
25. I enjoy discussing and studying about social issues of our day.
26. I am frequently sensitive to the effects I have on others.
27. I often think, “Whatever I do affects other people.”
28. I have begun to consider how my beliefs impact society.

Theatre Engagement Questions
29. Participating in and seeing live theatre allows me to experience the world from new perspectives. (Strongly Agree-Strongly Disagree)
30. Theatre is more than entertainment. It has the power to change the world. (Strongly Agree-Strongly Disagree)
31. Which of the following Theatre/Dance classes have you completed? (please select all that apply)
32. Have you participated in the creation of a theatrical production during college? (yes, no)
33. Which roles/positions have you held during college? (please select all that apply)
34. Have you seen a theatrical production during college? (yes, no)
35. How many productions have you seen during college? (0-10+)
Appendix B

Courses Used in Theatre Engagement Subscale

observed variables: theatre confidence affective communal empathy

correlations:

<table>
<thead>
<tr>
<th></th>
<th>theatre</th>
<th>confidence</th>
<th>affective</th>
<th>communal</th>
<th>empathy</th>
</tr>
</thead>
<tbody>
<tr>
<td>theatre</td>
<td>1.000</td>
<td>0.091</td>
<td>0.110</td>
<td>0.183</td>
<td>0.360</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.000</td>
<td>0.566</td>
<td>0.352</td>
<td>0.357</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1.000</td>
<td>0.490</td>
<td>0.433</td>
</tr>
</tbody>
</table>

standard deviations:

<table>
<thead>
<tr>
<th></th>
<th>theatre</th>
<th>confidence</th>
<th>affective</th>
<th>communal</th>
<th>empathy</th>
</tr>
</thead>
<tbody>
<tr>
<td>theatre</td>
<td>6.85218</td>
<td>3.95514</td>
<td>3.5148</td>
<td>2.62935</td>
<td>2.98257</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sample size 156

Relationships

- empathy = communal
- empathy = theatre
- theatre = communal
- communal = confidence
- communal = affective

options: ss rs ef ftb ml

path diagram

end of problem

Sample Size = 156

Covariance Matrix

<table>
<thead>
<tr>
<th></th>
<th>theatre</th>
<th>communal</th>
<th>empathy</th>
<th>confidence</th>
<th>affective</th>
</tr>
</thead>
<tbody>
<tr>
<td>theatre</td>
<td>46.952</td>
<td>3.297</td>
<td>7.357</td>
<td>2.466</td>
<td>2.649</td>
</tr>
<tr>
<td>communal</td>
<td>3.297</td>
<td>6.913</td>
<td>3.396</td>
<td>3.661</td>
<td>4.528</td>
</tr>
<tr>
<td>empathy</td>
<td>7.357</td>
<td>3.396</td>
<td>8.896</td>
<td>2.159</td>
<td>3.742</td>
</tr>
<tr>
<td>confidence</td>
<td>2.466</td>
<td>3.661</td>
<td>2.159</td>
<td>15.643</td>
<td>7.868</td>
</tr>
<tr>
<td>affective</td>
<td>2.649</td>
<td>4.528</td>
<td>3.742</td>
<td>7.868</td>
<td>12.354</td>
</tr>
</tbody>
</table>

Total Variance = 90.759 Generalized Variance = 193237.376

Largest Eigenvalue = 49.569 Smallest Eigenvalue = 3.894

Condition Number = 3.568

Number of Iterations = 16

LISREL Estimates (Maximum Likelihood)

Structural Equations

theatre = 0.477* communal, Errorvar. = 45.380, R² = 0.0335
Standerr (0.206) (5.172)
Z-values 2.310 8.775
P-values 0.021 0.000

communal = 0.0730* confidence + 0.320* affective, Errorvar. = 5.197, R² = 0.248
Standerr (0.0563) (0.0634) (0.592)
Z-values 1.296 5.048 8.775
P-values 0.195 0.000 0.000

empathy = 0.126* theatre + 0.431* communal, Errorvar. = 6.502, R² = 0.269
Standerr (0.0305) (0.0795) (0.741)
Z-values 4.145 5.420 8.775
P-values 0.000 0.000 0.000
NOTE: $R^2$ for Structural Equations are Hayduk’s (2006) Blocked-Error $R^2$

Reduced Form Equations

$\text{theatre} = 0.0348*\text{confiden} + 0.153*\text{affectiv}$, Errorvar. = 46.562, $R^2 = 0.00832$

Standerr (0.0309) (0.0729)
Z-values 1.127 2.094
P-values 0.260 0.036

$\text{communal} = 0.0730*\text{confiden} + 0.320*\text{affectiv}$, Errorvar. = 5.197, $R^2 = 0.248$

Standerr (0.0565) (0.0636)
Z-values 1.292 5.032
P-values 0.196 0.000

$\text{empathy} = 0.0359*\text{confiden} + 0.157*\text{affectiv}$, Errorvar. = 8.482, $R^2 = 0.0466$

Standerr (0.0284) (0.0409)
Z-values 1.263 3.840
P-values 0.207 0.000

Covariance Matrix of Independent Variables

\[
\begin{array}{c|c|c}
\text{confiden} & \text{affectiv} \\
\hline
15.643 & 8.775 \\
\end{array}
\]

\[
\begin{array}{c|c|c}
\text{affectiv} & 7.868 & 12.354 \\
\hline
(1.287) & (1.408) & 6.113 \\
\end{array}
\]

8.775

Covariance Matrix of Latent Variables

\[
\begin{array}{c|c|c|c|c|c}
\text{theatre} & \text{communal} & \text{empathy} & \text{confiden} & \text{affectiv} \\
\hline
46.952 & 3.297 & 6.913 & & \\
\hline
3.297 & 3.396 & 6.896 & & \\
\hline
1.746 & 3.661 & 1.798 & 15.643 & \\
\hline
\end{array}
\]

Log-likelihood Values

<table>
<thead>
<tr>
<th>Estimated Model</th>
<th>Saturated Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of free parameters (t)</td>
<td>11</td>
</tr>
<tr>
<td>$-2\ln(L)$</td>
<td>2685.244</td>
</tr>
<tr>
<td>AIC (Akaike, 1974)*</td>
<td>2707.244</td>
</tr>
<tr>
<td>BIC (Schwarz, 1978)*</td>
<td>2740.792</td>
</tr>
</tbody>
</table>

* LISREL uses AIC = 2t - 2ln(L) and BIC = tln(N) - 2ln(L)

Goodness-of-Fit Statistics

| Degrees of Freedom for (C1)-(C2) | 4 |
| Maximum Likelihood Ratio Chi-Square (C1) | $6.462$ (P = 0.1672) |
| Browne’s (1984) ADI Chi-Square (C2_NT) | $6.335$ (P = 0.1755) |
| Estimated Non-centrality Parameter (NCP) | 2.462 |
| 90 Percent Confidence Interval for NCP | (0.0 ; 13.617) |

Minimum Fit Function Value | 0.0414 |
Population Discrepancy Function Value (F0) | 0.0158 |
90 Percent Confidence Interval for F0 | (0.0 ; 0.0873) |
Root Mean Square Error of Approximation (RMSEA) | 0.0628 |
90 Percent Confidence Interval for RMSEA | (0.0 ; 0.148) |
P-Value for Test of Close Fit (RMSEA < 0.05) | 0.329 |

Expected Cross-Validation Index (ECVI) | 0.182 |
90 Percent Confidence Interval for ECVI | (0.167 ; 0.254) |
ECVI for Saturated Model | 0.192 |
THEATRE AS AN INTERVENTION FOR EMPATHY DEVELOPMENT

ECVI for Independence Model 1.125
Chi-Square for Independence Model (10 df) 165.438
Normed Fit Index (NFI) 0.961
Non-Normed Fit Index (NNFI) 0.960
Parsimony Normed Fit Index (PNFI) 0.384
Comparative Fit Index (CFI) 0.984
Incremental Fit Index (IFI) 0.985
Relative Fit Index (RFI) 0.902
Critical N (CN) 319.444
Root Mean Square Residual (RMR) 0.461
Standardized RMR 0.0392
Goodness of Fit Index (GFI) 0.984
Adjusted Goodness of Fit Index (AGFI) 0.940
Parsimony Goodness of Fit Index (PGFI) 0.262

Fitted Covariance Matrix

<table>
<thead>
<tr>
<th></th>
<th>theatre</th>
<th>communal</th>
<th>empathy</th>
<th>confidence</th>
<th>affective</th>
</tr>
</thead>
<tbody>
<tr>
<td>theatre</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>communal</td>
<td>0.000</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>empathy</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>confidence</td>
<td>0.720</td>
<td>-</td>
<td>0.361</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>affective</td>
<td>0.490</td>
<td>-</td>
<td>1.318</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Summary Statistics for Fitted Residuals
Smallest Fitted Residual = 1.518
Median Fitted Residual = 0.000
Largest Fitted Residual = 0.000

Stemleaf Plot

0|0000000000000000000000

Standardized Residuals

<table>
<thead>
<tr>
<th></th>
<th>theatre</th>
<th>communal</th>
<th>empathy</th>
<th>confidence</th>
<th>affective</th>
</tr>
</thead>
<tbody>
<tr>
<td>theatre</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>communal</td>
<td>0.000</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>empathy</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>confidence</td>
<td>0.513</td>
<td>-</td>
<td>0.513</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>affective</td>
<td>0.255</td>
<td>-</td>
<td>1.850</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Summary Statistics for Standardized Residuals
Smallest Standardized Residual = 1.850
Median Standardized Residual = 0.000
Largest Standardized Residual = 0.000

Stemleaf Plot

0|0000000000000000000000

Qplot of Standardized Residuals
### Standardized Solution

#### BETA

<table>
<thead>
<tr>
<th></th>
<th>theatre</th>
<th>communal</th>
<th>empathy</th>
</tr>
</thead>
<tbody>
<tr>
<td>theatre</td>
<td>-</td>
<td>0.183</td>
<td>-</td>
</tr>
<tr>
<td>communal</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>empathy</td>
<td>0.290</td>
<td>0.380</td>
<td>-</td>
</tr>
</tbody>
</table>

#### GAMMA

<table>
<thead>
<tr>
<th></th>
<th>confiden</th>
<th>affectiv</th>
</tr>
</thead>
<tbody>
<tr>
<td>theatre</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>communal</td>
<td>0.110</td>
<td>0.428</td>
</tr>
<tr>
<td>empathy</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

### Correlation Matrix of Y and X

<table>
<thead>
<tr>
<th></th>
<th>theatre</th>
<th>communal</th>
<th>empathy</th>
<th>confiden</th>
<th>affectiv</th>
</tr>
</thead>
<tbody>
<tr>
<td>theatre</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>communal</td>
<td>0.183</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>empathy</td>
<td>0.360</td>
<td>0.433</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>confiden</td>
<td>0.064</td>
<td>0.352</td>
<td>0.152</td>
<td>1.000</td>
<td></td>
</tr>
</tbody>
</table>
### Theatrical Intervention for Empathy Development

#### Affectiv

<table>
<thead>
<tr>
<th></th>
<th>theatre</th>
<th>communal</th>
<th>empathy</th>
</tr>
</thead>
<tbody>
<tr>
<td>affectiv</td>
<td>0.090</td>
<td>0.490</td>
<td>0.212</td>
</tr>
</tbody>
</table>

**Note:** This matrix is diagonal.

#### Regression Matrix $Y$ on $X$ (Standardized)

<table>
<thead>
<tr>
<th></th>
<th>confiden</th>
<th>affectiv</th>
</tr>
</thead>
<tbody>
<tr>
<td>theatre</td>
<td>0.020</td>
<td>0.078</td>
</tr>
<tr>
<td>communal</td>
<td>0.110</td>
<td>0.428</td>
</tr>
<tr>
<td>empathy</td>
<td>0.048</td>
<td>0.185</td>
</tr>
</tbody>
</table>

#### Total and Indirect Effects

**Total Effects of $X$ on $Y$**

<table>
<thead>
<tr>
<th></th>
<th>confiden</th>
<th>affectiv</th>
</tr>
</thead>
<tbody>
<tr>
<td>theatre</td>
<td>0.035</td>
<td>0.153</td>
</tr>
<tr>
<td>communal</td>
<td>0.073</td>
<td>0.320</td>
</tr>
<tr>
<td>empathy</td>
<td>0.036</td>
<td>0.157</td>
</tr>
</tbody>
</table>

**Indirect Effects of $X$ on $Y$**

<table>
<thead>
<tr>
<th></th>
<th>confiden</th>
<th>affectiv</th>
</tr>
</thead>
<tbody>
<tr>
<td>theatre</td>
<td>0.035</td>
<td>0.153</td>
</tr>
<tr>
<td>communal</td>
<td>0.073</td>
<td>0.320</td>
</tr>
<tr>
<td>empathy</td>
<td>0.036</td>
<td>0.157</td>
</tr>
</tbody>
</table>

**Total Effects of $Y$ on $Y$**

<table>
<thead>
<tr>
<th></th>
<th>theatre</th>
<th>communal</th>
<th>empathy</th>
</tr>
</thead>
<tbody>
<tr>
<td>theatre</td>
<td>0.477</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>communal</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>empathy</td>
<td>0.126</td>
<td>0.491</td>
<td>-</td>
</tr>
</tbody>
</table>

**Largest Eigenvalue of $B^*B'$ (Stability Index) is 0.420**

**Indirect Effects of $Y$ on $Y$**

<table>
<thead>
<tr>
<th></th>
<th>theatre</th>
<th>communal</th>
<th>empathy</th>
</tr>
</thead>
<tbody>
<tr>
<td>theatre</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

---

THEATRE AS AN INTERVENTION FOR EMPATHY DEVELOPMENT

87
THEATRE AS AN INTERVENTION FOR EMPATHY DEVELOPMENT

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>TheatreI</td>
<td>23.853</td>
<td>6.852</td>
<td>0.085</td>
<td>-1.349</td>
<td>10.000</td>
<td>1 35.000 3</td>
</tr>
<tr>
<td>Confidence</td>
<td>29.622</td>
<td>4.955</td>
<td>-1.055</td>
<td>1.906</td>
<td>12.000</td>
<td>1 35.000 5</td>
</tr>
<tr>
<td>Affectiv</td>
<td>29.699</td>
<td>3.515</td>
<td>-0.931</td>
<td>2.245</td>
<td>13.000</td>
<td>1 35.000 8</td>
</tr>
<tr>
<td>Communal</td>
<td>31.949</td>
<td>2.629</td>
<td>-1.736</td>
<td>5.481</td>
<td>18.000</td>
<td>1 35.000 22</td>
</tr>
<tr>
<td>Empathy</td>
<td>31.199</td>
<td>2.983</td>
<td>-1.431</td>
<td>3.751</td>
<td>17.000</td>
<td>1 35.000 19</td>
</tr>
</tbody>
</table>

Test of Univariate Normality for Continuous Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Z-Score</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>TheatreI</td>
<td>0.449</td>
<td>0.654</td>
</tr>
<tr>
<td>Confidence</td>
<td>-4.710</td>
<td>0.000</td>
</tr>
<tr>
<td>Affectiv</td>
<td>-4.276</td>
<td>0.000</td>
</tr>
<tr>
<td>Communal</td>
<td>-6.646</td>
<td>0.000</td>
</tr>
<tr>
<td>Empathy</td>
<td>-5.861</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Relative Multivariate Kurtosis = 1.443

Test of Multivariate Normality for Continuous Variables

<table>
<thead>
<tr>
<th>Skewness</th>
<th>Kurtosis</th>
<th>Skewness and Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>TheatreI</td>
<td>0.449</td>
<td>0.654</td>
</tr>
<tr>
<td>Confidence</td>
<td>-4.710</td>
<td>0.000</td>
</tr>
<tr>
<td>Affectiv</td>
<td>-4.276</td>
<td>0.000</td>
</tr>
<tr>
<td>Communal</td>
<td>-6.646</td>
<td>0.000</td>
</tr>
<tr>
<td>Empathy</td>
<td>-5.861</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Total Sample Size(N) = 156
Value Z-Score P-Value  Value Z-Score P-Value  Chi-Square P-Value
-----------  -----------  -----------  -----------  -----------  -----------
10.796  12.651  0.000  50.514  6.490  0.000  202.158  0.000

Covariance Matrix

<table>
<thead>
<tr>
<th></th>
<th>TheatreI</th>
<th>Confidence</th>
<th>Affective</th>
<th>Communal</th>
<th>Empathy</th>
</tr>
</thead>
<tbody>
<tr>
<td>TheatreI</td>
<td>46.952</td>
<td>15.643</td>
<td>4.526</td>
<td>6.913</td>
<td>8.896</td>
</tr>
<tr>
<td>Confidence</td>
<td>2.466</td>
<td>7.872</td>
<td>3.664</td>
<td>4.526</td>
<td>3.397</td>
</tr>
<tr>
<td>Affectiv</td>
<td>2.646</td>
<td>12.354</td>
<td>12.354</td>
<td>6.913</td>
<td>8.896</td>
</tr>
<tr>
<td>Empathy</td>
<td>7.352</td>
<td>2.153</td>
<td>3.738</td>
<td>3.397</td>
<td>8.896</td>
</tr>
</tbody>
</table>

Total Variance = 90.758 Generalized Variance = 193207.508
Largest Eigenvalue = 49.564 Smallest Eigenvalue = 3.892
Condition Number = 3.569

Means

<table>
<thead>
<tr>
<th></th>
<th>TheatreI</th>
<th>Confidence</th>
<th>Affective</th>
<th>Communal</th>
<th>Empathy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confidence</td>
<td>6.852</td>
<td>3.955</td>
<td>3.515</td>
<td>2.629</td>
<td>2.983</td>
</tr>
<tr>
<td>Affectiv</td>
<td>7.352</td>
<td>2.153</td>
<td>3.738</td>
<td>3.397</td>
<td>8.896</td>
</tr>
<tr>
<td>Communal</td>
<td>2.466</td>
<td>7.872</td>
<td>3.664</td>
<td>4.526</td>
<td>3.397</td>
</tr>
<tr>
<td>Empathy</td>
<td>7.352</td>
<td>2.153</td>
<td>3.738</td>
<td>3.397</td>
<td>8.896</td>
</tr>
</tbody>
</table>

The Problem used 5992 Bytes (= 0.0% of available workspace)
References


Coombs, L. J. (2013). Developing purpose in college: A mixed methods study to investigate how first-year and senior students developed purpose at a large research midwestern university. *MA thesis, University of Nebraska-Lincoln*


Steen, A. (2013) MBA Students learn that all the business world’s a stage: Schools are drawing lessons from the theatre to teach leadership and communication skills. *Financial Times*. Retrieved from https://www.ft.com/content/d22b02c2-8b0f-11e2-8fcf-00144feabdc0

Stewart, J. (2018) It’s complicated: Ethical reasoning in action: *Orientation Workshop*, James Madison University, Harrisonburg, VA, August 23, 2018


equation modeling: Concepts, issues, and applications (57-75) California, Sage Publications.


