The relationship between authentic leadership & positive psychological capital & the moderating affects of professional development & gender in a public organization

Arlene J. Owens

Follow this and additional works at: https://digitalcommons.pepperdine.edu/etd

Recommended Citation

This Dissertation is brought to you for free and open access by Pepperdine Digital Commons. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of Pepperdine Digital Commons. For more information, please contact bailey.berry@pepperdine.edu.
THE RELATIONSHIP BETWEEN AUTHENTIC LEADERSHIP & POSITIVE PSYCHOLOGICAL CAPITAL & THE MODERATING AFFECTS OF PROFESSIONAL DEVELOPMENT & GENDER IN A PUBLIC ORGANIZATION

A dissertation submitted in partial satisfaction of the requirements for the degree of Doctor of Education in Organizational Leadership by Arlene J. Owens

August, 2017

Douglas Leigh, Ph.D. – Dissertation Chairperson
This dissertation, written by

Arlene Joyce Owens

Under the guidance of a Faculty Committee and approved by its members, has been submitted to and accepted by the Graduate Faculty in partial fulfillment of the requirements for the degree of

DOCTOR OF EDUCATION

Doctoral Committee:

Douglas Leigh, Ph.D., Chairperson
John Tobin, J.D.
Shreyas Gandhi, Ed.D.
TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>LIST OF TABLES</th>
<th>viii</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIST OF FIGURES</td>
<td>ix</td>
</tr>
<tr>
<td>DEDICATION</td>
<td>x</td>
</tr>
<tr>
<td>ACKNOWLEDGEMENTS</td>
<td>xi</td>
</tr>
<tr>
<td>VITA</td>
<td>xii</td>
</tr>
<tr>
<td>ABSTRACT</td>
<td>xiv</td>
</tr>
</tbody>
</table>

Chapter 1: Introduction ................................................................. 1

Statement of the Problem .......................................................... 3
Statement of the Purpose .......................................................... 8
Nature of the Study ................................................................. 8
Research Questions ................................................................. 9
Hypotheses .......................................................................... 9
Theoretical Framework ............................................................ 11
Operational Definitions .......................................................... 16
Key Terms .......................................................................... 19
Nature of the Intervention ....................................................... 22
Importance of the Study .......................................................... 25
Limitations and Assumptions .................................................... 27
Summary .......................................................................... 28

Chapter 2: Review of Relevant Literature ........................................ 29

Positive Psychology ............................................................... 29
Positive Organizational Behavior .............................................. 31
Authentic Leadership Development .......................................... 33
Psychological Capital (PsyCap) ................................................ 35
PsyCap Efficacy ................................................................. 35
PsyCap Hope ................................................................. 36
PsyCap Optimism ............................................................... 37
PsyCap Resiliency ............................................................... 38
| Effort: The Performance Link | Positive Leadership Theories | Spiritual Leadership | Transformational Leadership | Authentic Transformational Leadership | Authentic Leadership (Transformational or Full-Range Leadership) | Authentic Leadership and Psychological Capital | Other Positive Emotions and Authentic Leadership | Authentic Leadership, Positive Organizational Context, and PsyCap | Authentic Leadership, Work Climate, and Gender | Trigger Events | Planned Trigger Events | Self-Assessment Instruments | Authentic Leadership Development Intervention | Authentic Leadership Development Intervention Studies | Developing Psychological Capital | Summary |
|----------------------------|----------------------------|--------------------|---------------------------|-------------------------------------|---------------------------------------------------------------|---------------------------------------------|-----------------------------------------------|-------------------------------------------------|-----------------------------------------------|----------------|------------------|---------------------|----------------------------------|-----------------------------|--------------------------|-------------------|------------------|
|                            |                            |                    |                           |                                     |                                                               |                                                             |                                               |                                                 |                                               |                |                  |                     |                                   |                             |                          |                   |                  |
| 39                         | 43                         | 44                 | 45                        | 47                                  | 50                                                           | 55                                                        | 57                                                            | 58                                                            | 63                                                            | 65            | 67               | 68                  | 70                  | 73                        | 76                         | 86                        |
| Chapter 3: Research Methods|                            |                    |                           |                                     |                                                               |                                                             |                                               |                                                 |                                               |                |                  |                     |                                   |                             |                          |                   |                  |
|                            |                            |                     |                            |                                     |                                                               |                                                             |                                               |                                                 |                                               |                |                  |                     |                                   |                             |                          |                   |                  |
|                            | 88                         | 89                 | 90                        | 93                                  | 95                                                          | 95                                                      | 97                                                  | 97                                                            | 97                                                            | 100           | 102             | 103                   |                            |                            |                          |                   |                  |
APPENDIX F. Permission From Organization’s CEO ................................................................. 225
APPENDIX G. Study Participation Recruitment Letter.......................................................... 226
APPENDIX H. Informed Consent .......................................................................................... 227
APPENDIX I. Interview Protocol ......................................................................................... 231
# LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Planned Data Analysis</td>
<td>105</td>
</tr>
<tr>
<td>2</td>
<td>Frequency Counts for Selected Variables</td>
<td>108</td>
</tr>
<tr>
<td>3</td>
<td>Descriptive Statistics for Selected Variables</td>
<td>109</td>
</tr>
<tr>
<td>4</td>
<td>Ratings for Individual PCQ Items Sorted by the Highest Mean</td>
<td>110</td>
</tr>
<tr>
<td>5</td>
<td>Ratings for Individual ALQ Items Sorted by the Highest Mean</td>
<td>112</td>
</tr>
<tr>
<td>6</td>
<td>Psychometric Characteristics for the Aggregated Scale Scores</td>
<td>113</td>
</tr>
<tr>
<td>7</td>
<td>Spearman Correlations for Authentic Leadership With Psychological Capital</td>
<td>116</td>
</tr>
<tr>
<td>8</td>
<td>Spearman Correlations for Total PCQ Score and Total ALQ Score Based on Selected Subsamples Pertaining to Different Professional Development Experiences</td>
<td>117</td>
</tr>
<tr>
<td>9</td>
<td>Spearman Correlations for Total ALQ Score With Selected Professional Development Intervention Variables and PCQ Total Scale Based on Gender</td>
<td>119</td>
</tr>
<tr>
<td>10</td>
<td>Nature of Leadership Development Characteristics of Experiences</td>
<td>121</td>
</tr>
<tr>
<td>11</td>
<td>Extrinsic Aspects of Leadership Development</td>
<td>129</td>
</tr>
<tr>
<td>12</td>
<td>Intrinsic Aspects of Leadership Development</td>
<td>140</td>
</tr>
<tr>
<td>13</td>
<td>Personal Attitudes and Emotions</td>
<td>148</td>
</tr>
<tr>
<td>14</td>
<td>Perceptions About Gender</td>
<td>154</td>
</tr>
<tr>
<td>15</td>
<td>Side-by-Side Comparison of PCQ Cronbach Alpha Reliability Coefficients of This Study Compared to the Original Study</td>
<td>164</td>
</tr>
<tr>
<td>16</td>
<td>Contrast and Comparison of ALQ Cronbach Alpha for the original Walumbwa et al. Study</td>
<td>165</td>
</tr>
<tr>
<td>17</td>
<td>Means, Standard Deviations, Reliabilities, and Correlations for PsyCap and Authenticity</td>
<td>169</td>
</tr>
</tbody>
</table>
LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Authentic leadership development model</td>
<td>13</td>
</tr>
<tr>
<td>2</td>
<td>Proposed authentic leadership development model</td>
<td>15</td>
</tr>
<tr>
<td>3</td>
<td>Coding process for qualitative data analysis</td>
<td>106</td>
</tr>
<tr>
<td>4</td>
<td>Frequency of mentions of each theme one characteristic</td>
<td>122</td>
</tr>
<tr>
<td>5</td>
<td>Frequency of mentions of each theme two characteristic</td>
<td>128</td>
</tr>
<tr>
<td>6</td>
<td>Frequency of mentions of each theme three characteristic</td>
<td>141</td>
</tr>
<tr>
<td>7</td>
<td>Frequency of mentions of each theme four characteristic</td>
<td>149</td>
</tr>
<tr>
<td>8</td>
<td>Frequency of mentions of each theme five characteristic</td>
<td>154</td>
</tr>
</tbody>
</table>
DEDICATION

This work is dedicated to my daughter Natalie. With hope, confidence, resilience, and optimism you will persevere. It is also dedicated to the fields of positive psychology, positive organizational behavior, positive organizational scholarship, and the practitioners and mentors committed to developing positive, ethical leaders worldwide.
ACKNOWLEDGEMENTS

I am ever grateful to God, to whom I owe my very existence. I would also like to express my deep appreciation and gratitude to the following people for helping me complete this dissertation. Dr. Douglas Leigh, my advisor and committee chairman for his commitment, encouragement, careful guidance, and meticulous attention to detail. Without his continuous support and assistance it would not have been possible to finish this dissertation. Judge John Tobin and Dr. Shreyas Gandhi, my committee members for their conscientious advice and service. My family and friends for their unyielding prayers, support, and understanding throughout my dissertation journey.
VITA

Arlene J. Owens

EDUCATION

Pepperdine University, Graduate School of Education and Psychology; West Los Angeles
Doctor of Education in Organizational Leadership, Candidate, 2012 - Present

Azusa Pacific University, Azusa, CA
Master of Arts in Organizational Leadership, December 2011

University of Phoenix, Phoenix, AZ
Bachelors of Science in Business Management, October 2008

California State University Northridge, Roland Tseng College of Extended Learning, Northridge CA

QUALIFICATIONS

• Classroom Teaching, Training, & Learning Facilitation
• Corporate Training & Development
• Curriculum Design & Development
• Program Design Development & Evaluation

TEACHING EXPERIENCE

Adjunct Professor, Mt. Sierra College, Monrovia, CA, February 2012 - June 2012
• Taught sociology at the bachelor level for classes of 25 - 30 students.
• Prepared lesson plans that allowed the students an opportunity to engage new cultures.
• Utilized blended learning: integrated film, social media, text, lecture, and discussion.

TRAINING & DEVELOPMENT EXPERIENCE

Los Angeles County Employees Retirement Association, Pasadena, CA
Quality Auditor II, May 2002 - Present
• Designed and Currently Developing Advanced CERL Education (ACE) Program
• Designed and Developed New-Hire Core Benefits Training Program
• Designed and Developed Annual Refresher Training Program
• Draft training manuals and procedures.
• Design and Develop courses and curriculum for ad-hoc training.
• Facilitate formal classroom learning in the areas of retirement administration.
• Analyze audit findings and make recommendations for performance improvement initiatives.
• Conduct knowledge & skills needs assessment and make recommendations for performance improvement interventions/training.
• Coach & train veteran employees as needed to enhance/improve performance.
• Conduct SWOT & Root Cause Analysis of processes and make recommendations for improvement.
• Review, compile, and communicate audit results to management along with recommendations to improve quality.
• Supervisor Duties: Monitor attendance, coordinate training in terms of scheduling and issuing training assignments, manage training resources, and train facilitators.
• Evaluate facilitators in terms of organization, presentation skills, and ability to engage learners.
• Evaluate trainees in terms of work habits, accuracy, and overall fit for their respective items.

Los Angeles County Employees Retirement Association, Pasadena, CA
Retirement Benefits Specialist III, May 1997 - May 2002
• Conducted In-house & off site retirement planning and health insurance workshops
• Conducted Death-bed and in-home retirement counseling
• Counseled members regarding retirement and financial planning
• Counseled and guided members through the retirement application process
• Supervised Call Center staff as needed as Rotating Call Center Supervisor

American Funds Service Company (AFS) -Carmel IN
Corporate Trainer, January 1995 - December 1996
• Prepared lesson plans and trained classes on various topics, relating to the mutual fund investment vehicle for Qualified & Non Qualified retirement plans, contribution limitations, distribution requirements, reporting of tax deferred dividends, capital gains, and distributions.

PUBLICATIONS & CONFERENCE PRESENTATIONS


HONORS & AWARDS

• Alpha Chi Honors Society Academic Award Inducted February 2011

PROFESSIONAL ASSOCIATIONS

• Association for Talent Development (ATD)
• Institute of Internal Auditors (IIA)

EDUCATIONAL TRAVEL

• Washington, D.C., 2013 Educational Enrichment/Public Policy Research, Pepperdine GSEP
• China, 2013, Educational Enrichment/Economic Policy Research, Pepperdine GSEP
• Belize, 2014, Consultancy Project, Pepperdine GSEP
• Belize, 2015, ICGLM Conference Presentation
ABSTRACT

This study answered the call of prior researchers for (a) a focus on leadership training approaches to facilitate the development of authentic leadership and followership and (b) more evaluations of the programs currently offered that promise to enhance the development of leaders, including their authenticity, integrity, and effectiveness. Researchers or curriculum designers are interested in authentic leadership development. However, it is not yet clear which developmental approaches may have the most effect on psychological capital (PsyCap) or authentic leadership behaviors. This study sought to generate new knowledge about the type of intervention approaches that effect PsyCap and authentic leadership development. The two-part purpose of this study was to (a) measure the relationship between PsyCap and authentic leadership and the extent to which these variables are modified by professional development and gender and (b) to explore the perceptions of leaders regarding their experiences in professional development programs, the emotions that contributed to their professional development, and the differences in their perceptions of men and women. The study hypothesized that there is a relationship between these two variables and that they are moderated by gender and professional development. Quantitative results suggested a correlation exists between PsyCap and AL and that the relationship is stronger among those who completed graduate school, those who attended two or three of the corporate training programs, and those who participated in the mentoring program. Findings showed that the relationship was stronger among females. Qualitative findings explained that women are more passionate about growth and development than men. Qualitative findings suggested that participants believed that mentoring is an important component of leadership development and that the success of leadership development depends heavily on experiential learning, the supportiveness of the environment, and trust in leadership.
Qualitative findings also showed that attitudes and emotions such as confidence, hope, optimism, resilience, patience, compassion, empathy, and positivity may contribute to an individual’s leadership development.
Chapter 1: Introduction

Positive psychology explores how and the extent to which individuals are able to embody certain positive qualities or virtues, such as bravery, wisdom, altruism, compassion, talent, awareness, endurance, spirituality, how these qualities are developed, and the impact these traits may have on their circumstances. It can be applied to institutions for the purpose of identifying and examining how and why some communities and organizations are able to foster positive qualities among their citizens and members (Seligman & Csikszentmihalyi, 2000). In that regard, organizational behavior (OB) is the study of how to improve performance and motivate people in the workplace. Historically, OB has focused on improving weaknesses or deficiencies which, because of its focus on improving what is wrong, takes a negative approach or is negatively oriented. Positive organizational behavior (POB), which advances positive psychology into organizational behavior, is “the study and application of positively oriented human resource strengths and psychological capacities that can be measured, developed, and effectively managed for performance improvement in today’s workplace” (Luthans, 2002a, p. 59).

The objective of POB is to conduct research and develop theory to uncover the qualities and dynamics that facilitate the ability of people and organizations to flourish and succeed. POB research focuses on the positive human attributes that appear to be associated with success or positive outcomes. Operationally, for an OB concept to be included in POB theory and research it has to be related to the state of being positive, distinctive to the OB field, relevant to workplace leadership, measurable; and it also has to be responsive to or sustainable by some type of developmental intervention such as training, and directly related to performance improvement (Luthans, 2002a, 2002b). POB behaviorists originally determined that confidence (self-
efficacy), hope, optimism, subjective well-being (happiness), and emotional intelligence (CHOSE) fit these criteria (Luthans, 2002a, pp. 57-70). It was later determined that hope, self-efficacy, resiliency, and optimism fit the criteria to be included in POB. Theoretically, their collective impact transcends the influence of their individual qualities; combined they form the higher order construct of psychological capital (PsyCap). The term PsyCap represents an inclination to persevere that is garnered through hope, self-efficacy, resiliency, and optimism (Luthans, Youssef, & Avolio, 2007). PsyCap is defined as “an individual’s positive psychological state of development” (p. 542) and is characterized by possessing the confidence to pursue difficult tasks; making affirmation about success; remaining persistent in goal-pursuit and, having the ability to rebound and accomplish success after encountering sizable difficulty.

Through positive organizational scholarship it is becoming more evident that the positive emotions of hope, self-efficacy, resiliency, and optimism have an impact on individuals, organizations, and leadership, in terms of positive outcomes.

Authentic leadership (AL), which also meets the criteria to be included as a construct of POB, is a positive form of leadership that is characterized by an emphasis on moral and ethical perspectives, possessing authenticity, being transformational, self-aware, and transparent. These attributes allow the authentic leader to maintain integrity, garner trust, and develop followers into authentic leaders. The authentic leader is perceived as transparent and trustworthy because of his or her inclination to remain true to personal and leadership ethics while interacting with others. This is thought to be what enables the authentic leader to establish and maintain followership as well as to develop others (Avolio, Luthans, & Walumbwa, 2004; Luthans & Avolio, 2003; Avolio et al., 2004; Gardner et al., 2005; Luthans & May, 2004; Trevino & Brown, 2007).
According to authentic leadership theory (ALT) PsyCap is a critical component of authentic leadership development. Authentic leadership is developed through a process that involves PsyCap, a positive, supportive organizational environment, and self-regulation. Theoretically, when faced with challenges, the self-aware authentic leader brings to bear an ethical perspective while drawing on the psychological capacities of hope, self-efficacy, resiliency, and optimism. This dynamic is what facilitates the authentic leader’s ability to align leadership behaviors with personal ethics and leadership philosophy, persevere, endure through adversity, lead towards positive outcomes, and develop authentic followers (Avolio & Gardner, 2005; Avolio & Luthans, 2003).

**Statement of the Problem**

Thomas (2008) offered, “Leadership is always about integrity…Whatever they believe, outstanding leaders behave in ways that reflect their awareness of the value and rights of other people” (p. 143). This is the idealized perception of leadership. However, there have periodically been situations such as the highly publicized Enron and WorldCom scandals that may have an influence on public perception of organizational leadership (Van de Walle, Van Roosbroek, & Bouckaert, 2008). Enron was an American energy company headquartered in Houston, Texas. In 2001, it was revealed that Enron executives were involved in unethical accounting and business practices in which they falsified accounting statements to fabricate profits, overstating the company’s earnings by hundreds of millions of dollars, and hiding the company’s debt. The company filed bankruptcy protection for its $63.4 billion in assets, which at the time was the largest bankruptcy case in the history of the United States. The company’s executives were subsequently charged and convicted of conspiracy, securities fraud, wire fraud, and sentenced to prison terms. During the Securities Exchange Commission’s investigation of
Enron, Enron’s accounting firm, Arthur Anderson attempted to cover up the crimes by shredding pertinent documents. Arthur Anderson was charged and found guilty of obstruction of justice by the Department of Justice and lost the company’s license from the U.S. Securities and Exchange Commission. Because of a technicality involving the jury, this decision was later overturned by the Supreme Court. In addition to prison terms, this Enron event resulted in civil litigation, great losses to investors and shareholders, and many employees losing their life’s savings (Associated Press, 2006).

In 2002, a similar situation occurred within WorldCom, which was then the second largest long distance company in the United States. An internal audit revealed improper accounting involving $3.8 billion in expenses. The company filed bankruptcy protection for its $107 billion in assets, the largest in the history of the United States (Beltran, 2002). This situation also resulted in the dismissal and resignation of key WorldCom executives, losses to shareholders, and 17,000 layoffs (Handcock, 2002). Fraud charges were filed against key WorldCom executives, resulting in guilty pleas and prison sentences (Cosgrove-Mather, 2005).

With regard to these events, in a CBS MarketWatch interview, Brett Truman, an accounting professor from the University of California’s Haas School of Business, expressed concerns about the declining market and attributed it to public trust or lack thereof (Langlois, 2002). Public trust in organizations worldwide has a tendency to fluctuate depending upon the situation, and specific reasons are not always clear (Van de Walle et al., 2008). Nevertheless, it does not seem unreasonable to suppose ethical disasters such as the Enron, Author Anderson, and WorldCom scandals may have an affect on public trust in organizations.

One of the most high-profile industries in the United States is public pension administration. These are financial institutions that collect employee and employer pension
contributions from city, county, state, and federal agencies. The pension administrator holds the funds in trust, invests, and manages these pension funds within the guidelines of respective Pension Law, and in compliance with federal, state, and local regulations. When employees retire, the expectation is that their promised pension benefits will be available to them. Organizational leaders in the field of pension administration are responsible for producing, providing, and protecting the promised pension benefits. Public pension administration is an important responsibility as the pension fiduciary can be entrusted with, depending upon the size of the public entity, up to billions of dollars in pension funds. In that regard, millions of people potentially depend on the pension administrator’s ability to manage that fiduciary responsibility from a place of moral integrity and in strict adherence to the laws that govern the pension plans.

Pension administration managers are faced with myriad external issues. Periodic changes in legislation such as the recent Public Employee Pension Reform Act (PEPRA) have presented many challenges. Continually advancing technology, political issues, and public scrutiny all add complexity to the fiduciary responsibility (Impavido, 2002). The stakeholders—such as members, retirees and their survivors; and local taxpayers and the government—all hold pension administration management and leadership accountable for governance adherences (Impavido, 2002). In that regard, the new laws must be carefully interpreted and applied correctly. There is, however, often an element of ambiguity in new laws, which requires, on the part of the pension administrator, the ability to consider an ethical or moral perspective in decision-making. When establishing new policies organizational leaders must be able to bring to bear an internal compass that guides decisions to what is moral, prudent, in the best interest of the members, and aligned with the organizational values.
In addition, the current volatile state of the economy—as well as the competition brought about by increased access to the advances in technology and the subsequent flattening effect on the global economy—have increased the competition on a global scale for all business organizations (Friedman, 2005). It stands to reason that not-for-profit service organizations such as the public pension administrator would also be affected by this flattening phenomenon. As technology advances, organizational leaders are under ever increasing pressure to keep up with the changes by updating and upgrading their internal systems and technology (Freidman, 2005). The pressure to provide excellent service as technology advances at such a rapid pace is constant. Organizational leaders must have the ability to realistically assess the organizations resources and plan accordingly (Friedman, 2005). The challenge is the ability to change quickly without compromising accuracy, security, privacy, and service levels. In that regard, resiliency is a valued quality.

Due in part to public concerns about inflated pension benefits amidst a recessed economy, public pension plans have been under scrutiny and criticism. The public is unyieldingly vigilant in its assessment of whether or not pension administrators are ensuring public funds are being administered according to the provisions of the law and often attack the integrity of the concept of public pensions. Also, in the effort to act in the best interest of stakeholders, ever-present political pressure is another factor with which the pension administrator must contend. These types of challenges put to the test the pension plan manager’s leadership virtues, business acumen, and the ability to develop effective strategy, as well as his or her optimism, confidence, fortitude, and integrity (Eaton & Nofsinger, 2004). Leaders must have the wherewithal and resilience to endure these challenges and emerge both uncompromised
and, hopefully, edified as well. In this type of environment, it is important to develop leadership that is positive, self-aware, and highly ethical.

Amidst the crucibles just described, a prescription for positive leadership can be considered that can maintain integrity and self-governance, develop followership, and help followers to find meaningful purpose in their work, as well as lead and develop others into ethical leaders. Avolio and Gardner (2005) discussed the importance of authenticity, authentic leadership, and their relationship to authentic follower development, positive cognitive capacities, positive work environment and positive workplace outcomes. The authors also recommended the aforementioned concepts as topics for research (p. 20). In that regard, research (described in Chapter 2) has suggested a relationship between authentic leadership, a positive form of leadership, positive psychological capital, and positive outcomes in the workplace (Avolio & Luthans, 2003; Luthans, Avolio, Avey, & Norman, 2007). According to Toor and Ofori (2010), “Leaders with high PsyCap rate high on authenticity; exhibit more transformational leadership; exhibit low transactional and laissez-faire leadership, and experience superior outcomes. PsyCap is positively correlated with authenticity, transformational leadership, and …especially leadership effectiveness” (p. 350). There is also a positive relationship between entrepreneurs and their positive psychological capital and their self-perception of authentic leadership (Jensen & Luthans, 2006). Further, authentic followership—characterized by authenticity self-awareness and positive psychological capacities—is a naturally occurring byproduct of authentic leadership development (Avolio & Luthans, 2003).

Other studies to be discussed in Chapter 2 have also provided evidence that psychological capital (PsyCap) and authentic leadership (AL) can be developed through developmental
intervention, such as training, mentoring, and other professional developmental approaches (Luthans, Avey, Avolio, Norman, & Combs, 2006). Research in the area of developmental intervention; however, is in its nascent stages (Avolio, Mhatre, Norman, & Lester, 2009; Baron & Parent, 2015; Luthans et al., 2006; Puente, Crous, & Venter, 2007; Toor & Ofori, 2010; Zhang, Li, Ma, Hu, & Jianga, 2014). It is not yet completely clear which intervention approach is best for developing and sustaining PsyCap and authentic leadership. In that regard, it is important that organizations understand how to design and develop interventions and programs for the purpose of developing authentic leaders; hopefully ensuring future leadership embodies the positive characteristics and demonstrates the ethical behaviors that are apt to lead to positive outcomes.

**Statement of the Purpose**

The purpose of this study is fourfold. First, the study examines the relationship between positive psychological capital and authentic leadership. Second, the study examines to what extent the relationship between positive psychological capital and authentic leadership is moderated by professional development intervention. The study also examines the extent to which, if at all, the relationship between professional development and authentic leadership is moderated by gender. Further, the study explored the lived experiences of managers of a public pension plan concerning their involvement in leadership development programs and the emotions that influenced their leadership development, and the differences and similarities between perceptions of men and women about their professional development experiences.

**Nature of the Study**

This is a relational, non-experimental study with cross-sectional data collection. The study used mixed methods, both quantitative and qualitative methods to explore the relationship
between PsyCap and authentic leadership, as moderated by participation in professional development and gender. This study reviews of the scholarly literature that provides its theoretical basis and discuss the various studies that support these theories. The literature discusses the theoretical underpinnings of Positive Organizational Behavior, the construct of Psychological Capital and the relationship between Positive Psychological Capital and authentic leadership. Orienting information regarding these theories appears in the Theoretical Framework section of this chapter.

Research Questions

1. To what extent, if at all, is there a relationship between positive psychological capital and authentic leadership?

2. To what extent, if at all, is the relationship between positive psychological capital and authentic leadership development moderated by professional development intervention?

3. To what extent, if at all, is the relationship between professional development intervention and authentic leadership moderated by gender?

4. What are the lived experiences of managers of a public pension plan concerning their involvement in leadership development programs and the emotions that influenced their leadership development, and the differences and similarities between perceptions of men and women about their professional development experiences?

Hypotheses

This study poses the following hypotheses:

Alternative hypothesis 1: There is a direct and positive correlation between the relationship between employees’ levels of PsyCap (hope, self-efficacy, resiliency, and optimism)
and authentic leadership dimensions (self-awareness, relational transparency, balanced processing, and internalized moral perspective).

It is theorized that PsyCap contributes to or is the antecedent to a leader’s authentic leadership development, and that authentic leadership contributes to PsyCap (Antonakis, Avolio, & Gardner, 2005; Gardner et al., 2005; Walumbwa, Avolio, Gardner, Wernsing, & Peterson, 2008).

Null hypothesis 1: There is not a direct and positive relationship between employees’ levels of PsyCap (hope, self-efficacy, resiliency, and optimism) and authentic leadership dimensions (self-awareness, relational transparency, balanced processing, and internalized moral perspective).

Alternative hypothesis 2: The relationship between positive psychological capital and authentic leadership development is moderated by professional development.

Luthans and Avolio (2003) pointed out that a leadership development program or the establishment of a formal mentoring program may serve as a trigger event, which is theorized to cause psychological capital, the precursor of authentic leadership to engage. Also, Luthans, Youssef, and Avolio (2007) proposed several ways in which psychological capital can be developed, such as exercises that provide participants with an opportunity to take on challenging tasks in increments, plan projects, anticipate obstacles, and develop alternate plans in anticipation of obstacles. Baron and Parent (2015) explored the authentic leadership development process in a training environment and found that the participants developed characteristics that represented the four dimensions of AL.

Null hypothesis 2: Professional development does not moderate the relationship between positive psychological capital and authentic leadership.
Alternative hypothesis 3: The relationship between professional development and authentic leadership is moderated by gender.

Avolio et al. (2009) found that there are varying differences between the resulting outcomes of leadership interventions conducted with male participants versus female dependent upon the setting. Further, Avolio et al. (2009) conducted a meta-analysis of 57 intervention-based leadership studies, which provided enough data to support that the effect of leadership intervention (i.e., assignment, training, coaching, mentoring, etc.), will vary depending on whether the participant is female or male.

Null hypothesis 3: Gender does not moderate the relationship between professional development and authentic leadership.

**Theoretical Framework**

This study drew from positive organizational behavior theories regarding authentic, leadership theory (ALT), authentic leadership development (ALD), and positive psychological capital (PsyCap). The theoretical areas of the literature that served as the conceptual foundation are as follows: Positive psychological capital (PsyCap), which draws its foundation and explanatory mechanisms from theory building in work motivation (Stajkovic, 2006; Stajkovic & Luthans, 1998a); positive psychology (Seligman, 2000); Bandura’s social cognition (1986, 1997) and agentic theories; authentic leadership theory (ALT; Avolio & Gardner, 2005; Gardner et al., 2005; Ilies et al., 2005); and authentic leadership development (ALD; Avolio & Gardner 2003, 2005).

**Positive organizational behavior (POB).** Behaviorist Fred Luthans posited that there is a place for positive psychology in the workplace, and referred to it as it positive organizational behavior (POB; Luthans, 2002a; Luthans, Avolio, Avey, & Norman, 2007). POB is a positive
method or approach to leading and managing people within the contemporary organizational context. Using those criteria, positive organizational theorists have reasoned that both authentic leadership dimensions and positive psychological capital are malleable, can be developed, and that there is positive relationship between them and developmental interventions such as training, mentoring, or leadership development (Gardner et al., 2005; Luthans, 2002a; Luthans & Avolio, 2003; Luthans, Avolio, Avey, & Norman, 2007; Luthans, Youssef, & Avolio, 2007).

**Positive psychological capital (PsyCap).** There is also a growing body of knowledge that is establishing a positive relationship between PsyCap (a higher order construct of hope, self-efficacy, resiliency, and optimism) and positive outcomes in the workplace such as better performance and satisfaction, organizational citizenship behaviors, and reduced absenteeism, and hopeful leadership and positive outcomes (Avey, Patera, & West, 2006; Luthans, Avolio, Avey, & Norman, 2007; Peterson & Luthans, 2003).

**Authentic leadership development (ALD).** Authentic leadership development (ALD) is the root construct of all positive forms of leadership and the positive psychological capacities of hope, self-efficacy, resiliency, optimism, and supportive environment play key roles (Avolio & Gardner, 2005). Avolio and Luthans (2003) describe authentic leadership development as “a process that draws from both positive psychological capacities and a highly developed organizational context, which results in both greater self-awareness and self-regulated positive behaviors on the part of leaders and associates, fostering self-development” (p. 243). According to the ALD model, authentic leadership is developed over an individual’s lifetime and can be facilitated through institutions that support their development. This includes academic, civic, professional, religious, and other developed organizations, with positive psychological capital being a positive factor (Luthans & Avolio, 2003; Walumbwa et al., 2008).
In this initial authentic leadership framework to which Luthans and Avolio (2003) still hold, it was ascertained that positive psychological capital an integral component of ALD is an internal positive emotional store upon which the authentic leader can draw. In the model (see Figure 1) they proposed that these emotions, invoked by a challenging experience within a positive organizational environment, facilitate authentic leadership development evidenced by authentic leadership behaviors and authentic follower development (Avolio & Luthans, 2003). Others (Clapp-Smith, Vogelgesang, & Avey, 2009; Jensen & Luthans, 2003) have also suggested a positive relationship between positive psychological capital and authentic leadership, which is why this study examines the relationship between these two variables.

**Figure 1.** Authentic leadership development model. From *Positive Organizational Scholarship: Foundations of a New Discipline* by K. S. Cameron, J. E. Dutton, and R. Quinn, 2003, Copyright (2003) by Berrett-Koehler Publishers. Reprinted with permission of the publisher.

**Positive organizational context.** The way in which leaders lead and behave depends on the context in which they are developed and operate (Gardner, 1993; Perrow, 1970). In that regard, Avolio and Gardner (2005) propose that an organizational context that includes
“uncertainty, an inclusive, ethical and positively oriented strength-based culture or climate” is conducive to developing authentic leadership (p. 327). Baron and Parent (2015) discovered that in a training context, supportive climate was an important enabling factor in authentic leadership development. In that regard, the perception of whether the organizational climate in which the organization’s leadership development interventions are conducted is supportive might be related to authentic leadership development.

**Trigger event.** A trigger is considered any positive or negative experience that challenges one’s norm or comfort zone and causes him or her to question existing beliefs or behaviors. Theoretically, as trigger events occur, the leader can draw upon the positive psychological capacities of hope, self-efficacy, resiliency, and optimism as he or she moves through these events when supported by a highly developed organizational context (Avolio & Gardner, 2003). The experience may allow the leader to become more self-aware, in terms of strengths, weaknesses, motives, and values, giving the leader ability to regulate behaviors. This process is believed to be what enables growth, authentic leadership, ethical philosophy, behavior change, and follower development (Avolio & Gardner, 2003; Luthans & Avolio, 2003). The interventions described in this study are representative of the trigger event component illustrated in the ALD model (Luthans & Avolio, 2003).

**Overview of Proposed Theoretical Model**

In advancing the theory of ALD (Luthans & Avolio, 2003), the following model has been adopted and is the a priori that was tested for this study.
Figure 2. Proposed authentic leadership development model.

Figure 2 is the model that was used in this study. The proposed model illustrates the relationships between PsyCap and authentic leadership. It also illustrates the moderating variables in the ADL framework. The model shows the moderating effects of professional development (PD) and gender. In the model the relationship between PsyCap and AL is being moderated by a planned trigger event in the form of PD. The model also illustrates the
moderating effect of gender on the relationship between PD and AL (Antonakis, Avolio, & Sivasubramaniam, 2003; Avolio et al., 2009; Woolley, Caza, & Levey, 2011).

The rationale for proposing that the relationship between participation in one of the interventions and authentic leadership would be moderated by gender is based on two premises: The first is the notion that PsyCap and AL can be developed. Luthans, Avey, Avolio, and Norman (2006) developed and tested micro-intervention inputs for the purpose of developing PsyCap (the proposed antecedent of ALD). The authors created an input to develop each of the PsyCap constructs. In two experiments, one using management students, and another using working managers, the authors explored the effects of the intervention, the details of which are described in Chapter 2. Luthans, Avey, Avolio, and Norman (2006) shared that in both experiments their preliminary results increased the PsyCap of the experimental group and the control group showed no change. Another intervention study conducted by Baron and Parent (2015) found that the participants developed characteristics that represented the four dimensions of AL (Walumbwa et al., 2008). The details of this study are also described in greater depth in Chapter 2. The second premise is that a meta-analysis of 57 intervention-based leadership studies, conducted in both laboratory and field settings, provided sufficient data to support that the effect of leadership intervention (i.e., assignment, training, coaching, mentoring, etc.) may vary depending on whether the participant is female or male (Avolio et al., 2009).

Operational Definitions

**Authentic leadership.** Walumbwa et al. (2008) define authentic leadership in the following manner:

a pattern of leader behavior that draws upon and promotes both positive psychological capacities and a positive ethical climate, to foster self-awareness internalized moral perspective, balanced processing of information, and relational transparency on the part of the leaders working with followers, fostering positive self-development. (p. 93)
These dimensions were measured using the Authentic Leadership Questionnaire (Walumbwa et al., 2008), a 16-item instrument on 5-point Likert scale ranging from 0 (not at all) to 4 (frequently, if not always). This instrument is discussed in detail in Chapter 3.

**Self-awareness.** Kernis in 2003 provided the following definition for self-awareness:

> demonstrating an understanding of how one derives and makes meaning of the world and how that meaning making process impacts the way one views himself or herself over time. It also refers to showing an understanding of one’s strengths and weaknesses and the multifaceted nature of the self, which includes gaining insight into the self through exposure to others, and being cognizant of one’s impact on other people. (as cited in Walumbwa et al., 2008, p. 95)

This dimension was measured using the Authentic Leadership Questionnaire (ALQ), (Walumbwa et al., 2008), a 16-item instrument on 5-point Likert scale ranging from 0 (not at all) to 4 (frequently, if not always). This instrument is discussed in detail in Chapter 3.

**Relational transparency.** Walumbwa et al. (2008) provided the following definition for relational transparency:

> …presenting one’s authentic self (as opposed to a fake or distorted self) to others. Such behavior promotes trust through disclosures that involve openly sharing information and expressions of one’s true thoughts and feelings while trying to minimize displays of inappropriate emotions. (p. 95)

This dimension was measured using the Authentic Leadership Questionnaire (ALQ), (Walumbwa et al. 2008), a 16-item instrument on 5-point Likert scale ranging from 0 (not at all) to 4 (frequently, if not always). This instrument is discussed in detail in Chapter 3.

**Balanced processing.** Balanced processing “refers to leaders who show that they objectively analyze all relevant data before coming to a decision” (Walumbwa et al., 2008, p. 95). This dimension was measured using the Authentic Leadership Questionnaire (ALQ), (Walumbwa et al., 2008), a 16-item instrument on 5-point Likert scale ranging from 0 (not at all) to 4 (frequently, if not always). This instrument is discussed in detail in Chapter 3.
**Internalized moral perspective.** Internalized moral perspective “refers to an internalized and integrated form of self-regulation” (Walumbwa et al., 2008, p. 95). This dimension was measured using the Authentic Leadership Questionnaire (ALQ), (Walumbwa et al., 2008), a 16-item instrument on 5-point Likert scale ranging from 0 (*not at all*) to 4 (*frequently, if not always*). This instrument is discussed in detail in Chapter 3.

**Positive psychological capital (PsyCap).** Luthans, Youssef, and Avolio (2007) defined PsyCap as follows:

PsyCap is an individual’s positive psychological state of development and is characterized by: (a) having confidence (self-efficacy) to take on and put in the necessary effort to succeed at challenging tasks; (b) making a positive attribution (optimism) about succeeding now and in the future; (c) preserving toward goals and, when necessary redirecting paths to goals (hope) in order to succeed; and (d) when beset by problems and adversity, sustaining and bouncing back and even beyond (resilience) to attain success. (p. 3)

The Psychological Capital Questionnaire (Luthans, Avolio, & Avey, 2007) was used to measure each of the four PsyCap constructs. The Psychological Capital Questionnaire (PCQ) is a 24-item rating scale and is described in detail in Chapter 3.

**PsyCap self-efficacy.** Efficacy is confidence in one’s ability to accomplish a particular goal or task or belief in one’s own potential. Luthans, Youssef, and Avolio (2007) asserted that self-efficacy is a quality that gives individuals conviction to set lofty aspirations, to devote themselves to the pursuit of them, and to keep trying when met with opposition. This dimension was measured using the Psychological Capital Questionnaire (Luthans, Avolio, & Avey, 2007), a 24-item instrument on 6-point Likert scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). This instrument is discussed in detail in Chapter 3.

**PsyCap hope.** Hope is defined as “a positive motivational state that is based on an interactively derived sense of successful: one, agency (goal directed energy) and two pathways
PsyCap Hope was measured using the Psychological Capital Questionnaire (Luthans, Avolio, & Avey, 2007), a 24-item instrument on 6-point Likert scale ranging from 1 (strongly disagree) to 6 (strongly agree). This instrument is discussed in detail in Chapter 3.

**PsyCap optimism.** With regard to the construct of PsyCap optimism, Luthans et al., Youssef, and Avolio (2007) explains, “Realistic optimism includes an evaluation of what one can and cannot accomplish in a particular situation…” (Luthans, Avolio, & Avey, 2007, p. 100). PsyCap Optimism was measured using the Psychological Capital Questionnaire (Luthans, Avolio, & Avey, 2007), a 24-item instrument on 6-point Likert scale ranging from 1 (strongly disagree) to 6 (strongly agree). This instrument is discussed in detail in Chapter 3.

**PsyCap resiliency.** Luthans, Youssef, and Avolio (2007) offered that applied in the workplace, resiliency is defined as the “positive psychological capacity to rebound, to ‘bounce back’ from adversity uncertainty, conflict, failure, or even positive change, progress, and increased responsibility” (as cited in Luthans, 2002a, p. 702). PsyCap Resiliency was measured using the Psychological Capital Questionnaire (Luthans, Avolio, & Avey, 2007), a 24-item instrument on 6-point Likert scale ranging from 1 (strongly disagree) to 6 (strongly agree). This instrument is discussed in detail in Chapter 3.

**Key Terms**

**Criterion variable.** The criterion is a predicted outcome or dependent variable that may have a relationship with and a predictor or independent variable. This study explored the relationship between AL, a criterion and PsyCap, a predictor.

**Moderating variable.** A moderating variable may intensify or diminish the strength of the relationship between an independent and dependent variable; or have an affect on the causal
direction between them (Baron & Kenny, 1986). For example, Figure 2 illustrates that in this study, participation in a professional development program would moderate the relationship between PsyCap and AL. Also, the moderating variable, gender, would have either an intensifying or diminishing affect on the relationship between the independent variable, participation in a professional development intervention and the dependent variable, an individual’s level of AL.

**Predictor variable.** A predictor is an independent variable that may have a relationship with a criterion variable. It is used in correlational research to predict how the criterion variable will behave without necessarily implying that causation exists. This study explored the relationship between the predictor, an individual’s PsyCap level, believed to be the antecedent of AL, his or her AL dimensions, and how this relationship was changed by intervening variables.

**Intervention.** With regard to learning and professional development an intervention can be any performance improvement or professional development approach that is used to change knowledge, skill, attitude, or behavior (American Society for Training and Development, 2009). Examples are training, coaching, mentoring, etc. The interventions described in this study are intervening variables that may affect the relationship between a predictor and a criterion. The interventions in this study represent the trigger event in the ALD model (Luthans & Avolio, 2003).

**Fiduciary.** The term fiduciary means the following:

- of, relating to, or involving a confidence or trust: as
- held or founded in trust or confidence;
- holding in trust;
- depending on public confidence for value or currency. (“Fiduciary,” n.d., para. 1)

For the purposes of this study the term fiduciary refers to the nature of the responsibility the pension administrator has with regard to the public pension funds.
In trust. The term *in trust* means “…in the care or possession of a trustee…an arrangement in which someone’s property or money is legally held or managed by someone else or by an organization (such as a bank) for usually a set period of time…” (“In trust,” n.d., para. 1). For the purpose of this study the term *in trust* refers to the fiduciary arrangement between the pension administrator and a government employer.

Not-for-profit. Not-for-profit is another term for non-profit. The goal of a not-for-profit organization is not to earn income for its stakeholders or members. The money acquired by a not-for-profit organization is generally used in pursuit of the institution’s mission. Characteristically not for profit organizations exist to benefit others or provide some type of community or civic service (“Not-for-profit,” n.d., para. 1). The type of not-for-profit pension administrator described in the problem statement of this study is not privately owned, but is a public entity that provides pension administration services for a government agency.

Trigger event. A negative event that causes loss or grief can be a trigger. Positive experiences can also be triggers. Anything positive or negative that challenges one’s norm or comfort zone and causes him or her to question existing beliefs or behaviors can be considered a trigger moment. For example, changing careers, moving to a different unfamiliar place, or learning something new can be a trigger (Luthans & Avolio, 2003). The interventions described in this study represent planned trigger events (see Figure 2).

Stakeholder. A stakeholder is “one who is involved in or affected by a course of action” (“Stakeholder,” n.d., para. 1). For the purpose of this study, the term *stakeholder* refers to employees, board members, the members of the pension plan, the government agency by which they are represented, and the public citizens it serves.
Nature of the Intervention

The interventions described below were not designed specifically for the purpose of PsyCap or AL development. However, it is reasonable to assume that participation might have a relationship with these constructs since the programs use developmental approaches that are designed to raise self-awareness, which is necessary for authentic leadership development (Luthans & Avolio, 2003) as well as tactics similar to those recommended by (Luthans Youssef, & Avolio, 2007) for developing PsyCap. For the purposes of this study, participation in one or more of these professional development interventions was a binomial (yes or no), moderating variable. The following sections describe the organization’s Leadership Development Program, Management Academy, and Self Directed Mentoring Program.

Leadership Development Program. In the Leadership Development Program (LDP) participants who had never held a management position or acted in a leadership capacity were challenged to learn to view and approach situations from a leadership or management perspective. They were challenged with new and greater responsibilities, and their decisions were exposed to scrutiny of the Executive Office and the Board of Retirement. Participants in the Management Academy learn how they are perceived through a 360-degree evaluation and based on the results are challenged to set goals and create professional development plans for achieving those goals. These are the types of experiences that have the characteristics of what Luthans and Avolio (2003) in their authentic leadership development theory describe as trigger events.

The Leadership Development Program (LDP) is an 18-month internal program facilitated on-site. In January of 2013, there were a total of 21 original applicants, 11 of whom were interviewed. The LDP has not been run since. Although a date has not been determined, the
intention is to run the program again. Five participants qualified through an interview processes. The goals of the program are to develop leadership/management competencies. Each of the five management candidates had the opportunity to rotate in to the Division Manager (DM) position for 3 months. As acting DM, he or she was given all DM responsibilities including: challenging assignments such as planning projects, managing human resources, delegating assignments, monitoring work, discipline, promotion, staff development, budget planning, strategizing, planning; problem-solving, decision-making, attending Board meetings, and doing Board presentations. The team held weekly meetings for project planning and strategizing. The team attended monthly one-on-one and group mentoring meetings facilitated by executive leadership as well as leadership coaching sessions facilitated by an outside consultant.

Management Academy. The Management Academy is designed for employees being prepared for leadership positions or already holding leadership positions. This program was implemented in 2008 and is run on an annual basis. Only employees who were recommended by their managers and approved by the organization’s chief executive officer may participate in this program. Since this program was implemented, 86 of the organizations current employees have attended. The program consists of three modules comprising eight sessions facilitated over a 3-month period. Module 1 is a 2-day session. Modules 2 and 3 are both 3-day sessions. These sessions are facilitated off site by a consulting firm. At the beginning of the program participants are required to solicit 360-degree leadership feedback. Each session focused on a different leadership topic. Session topics include effective management and strategic thinking; 360-degree survey feedback; influencing others, generational issues; ethical perspectives and decision-making; managing performance and change-agency
**Self-Directed Mentoring Program.** In the Self-Directed Mentoring Program participants have an opportunity to gain self-awareness through learning about the dimensions of their personality and how that self-awareness is relevant in their personal and professional lives, or based on a mentee’s stated personal or professional goals, a mentor might recommend a reading or other assignment.

The organization’s 12-month mentoring program was first implemented in 2005 and is open to all permanent employees whether in management or regular employee positions. The program is run on an annual basis and 129 current employees have participated. Employees may enroll as either mentor, mentee, or both. All participants complete the Meyers Briggs Typology Instrument (MBTI) assessment; mentors and mentees are matched (pairs or groups) based on their typologies. Coaching and Mentoring Harvard Business School (2005) explains that the success of the relationship between the mentor and mentee is dependent upon the level of similarity in their temperaments as well as aptitudes and pursuits that complement one another (p. 88). Monthly workshops are facilitated on-site by an outside consultant who specializes in workplace related constructs. The workshops address the organization’s stated values (professionalism, respect, open-communication, fairness, and teamwork) as well as topics such as listening, effective communication, conflict management, culture, generational factors, and persuasion. Between workshops participants are given “homework” assignments and a reading assignment from Type Talk at Work (Kroeger, Thuesen, & Rutledge, 2002). Mentors and mentees also meet one-on-one between workshops as their individual schedules permit.

The terminal objective of the program is to facilitate employees’ personal and professional development goals through the mentoring relationship. Zachary (2000) offers that “learning is the fundamental process and the primary purpose of mentoring” (p. 1). The program
is designed to provide mentees with the following opportunities: Develop areas of leadership in which they may have less exposure and experience, such as vision and strategy, persuading and influencing others, and change agency; acquire new learning, and gain insight from a different perspective for strategic thinking purposes; provide a forum for sharing successes and challenges and build confidence for future challenges; and provide an opportunity to partner with experienced people who have a reputation for helping others develop their skills and knowledge.

Participants in the leadership development program, management academy, or mentoring program described as treatments in this study were given the opportunity to set goals, develop goal attainment strategies, evaluate their strategies, visualize the goal completion, and evaluate their success with regard to various projects, assignments, and their ability to carry out these strategies while managing the respective change.

These aspects of the interventions have characteristics similar to those in the micro-interventions developed by Luthans et al. (2006) described in greater detail in Chapter 2. According to Avolio and Luthans (2003) a trigger is a challenging experience either positive or negative. In that regard, many of the exercises in the leadership development programs and mentoring program described as interventions in this study have characteristics of what these scholars describe as a trigger event. Participants in any of these programs can be challenged with difficult assignments, experience things they have never experienced, and learn new information that can change their paradigm.

**Importance of the Study**

This study fits the criteria for positive organizational scholarship (POS; Cameron, Dutton, & Quinn, 2003) and its results aim to add to the body of knowledge emerging through POS with respect to the organizational context. The body of research surrounding PsyCap and
authentic leadership is nascent and there are many new and developing theories, which have yet to be tested in different organizational contexts. In that regard, this study deepens understanding of the relationship between positive psychological capital and authentic leadership, and moderating factors, and provide empirical credibility and theoretical explanations. Specifically, this study answers the call of Luthans and Avolio (2003) to focus on leadership training approaches to facilitate the development of authentic leadership and followership. Further, it answers the plea of Gardner et al. (2011) for more “evaluations of the host of … programs currently offered that promise to enhance the development of leaders, including their authenticity, integrity, and effectiveness” (p. 1141).

Theoretically, it is a trigger event that causes PsyCap to engage and facilitates authentic leadership development. In developing interventions, researchers or curriculum designers are interested in replicating triggers. However, it is not yet clear which of all the developmental approaches may have the most effect on PsyCap or authentic leadership behaviors. Positive Organizational Behavior theorists recommend trying different approaches to determine which have an effect (Luthans & Avolio, 2006). To that end, this study sought to generate new knowledge about the type of intervention approaches that have a relationship with PsyCap and authentic leadership development. This data can be used for designing and developing future PsyCap and authentic leadership interventions and lead to additional inquiry that further adds to this body of knowledge.

The potential benefits of PsyCap and authentic leadership to organizations has previously been discussed in this chapter. Organizations that are intentional about employee development and practitioners of authentic leadership development may be able to use the insights from this study to identify the types of interventions that generate behavior change. This study aims to
provide insight into the type of programs and professional development approaches that develop PsyCap and authentic leadership.

The results of this study may also provide organizations that already have leadership development programs with information that could help them improve their intervention approaches. Professional development programs offered by outside consultants are often costly and many are not evaluated or measured. To better ensure authentic leadership development programs are genuine, this study encourages the use of authentic leadership and PsyCap metrics or standards that can be used to evaluate an in-house or external professional development program (Cooper, Scandura, & Schriesheim, 2005). These metrics were intended to reveal insights that would facilitate the future development of effective PsyCap and AL interventions for performance improvement. Further investigation into the relationships among authentic leadership dimensions, positive psychological capital, and developmental intervention within a challenging organizational context stands to provide additional understanding into the dynamic between these and provide insight into possible developmental approaches. Also, given unethical business leadership practices described in the problem statement, the findings of this study stand to demonstrate social responsibility to the organization’s external clients and society.

Limitations and Assumptions

This study used self-report methods. Self-assessment such as the ALQ and PCQ can reflect the respondents’ subjectivity, as they are meant to do. At issue was whether respondents were sufficiently self-aware to provide useful responses and whether they were truthful in doing so. Further, there may have been unknown confounds that could have had an impact on PsyCap and authentic leadership that were not measured. Another concern was non-response bias. To mitigate this, participants were made aware of the fact that their responses would be anonymous.
This was expected to allay the respondents’ concerns about responding to questions that made them feel uncomfortable or providing answers the respondent would generally feel uncomfortable disclosing. This study was limited to a small population of 51 managers and therefore required 100% response rate. Because there was no guarantee of this, the study used a mixed methods design that implemented a phenomenological analysis using interview data that aimed to explain the quantitative results.

**Summary**

The need for leadership that is authentic, ethical and which can develop followers has been emphasized and authentic leadership and PsyCap have been proven to lead to positive outcomes in the workplace. The challenge now for positive organizational behavior is exploring intervention approaches and determining which are effective in developing authentic leadership and PsyCap. In that regard, new approaches and interventions are being developed and tested (Luthans et al., 2006). However, there are many professional development programs already in existence. It seems reasonable to examine these and explore whether or not the approaches being used in these programs are contributing to positive phenomenon such as the development of PsyCap and authentic leadership in organizations.
Chapter 2: Review of Relevant Literature

The following is a review of the literature that provides the historical background of the positive psychology movement and the constructs that gave organizational behaviorists impetus to begin the positive organizational behavior initiative. As a result of the positive psychology movement positive organizational behaviorists have begun examining leadership, leadership development and positive phenomenon with regard to positive leadership behavior. Current ideas about positive forms of leadership have been derived from positive psychology and the contemporary lens through which organizational behaviorists view authentic leadership focuses on positive qualities that can be developed (Luthans & Avolio, 2003). This review provides a discussion of the theoretical basis of this study and discusses theoretical claims, models, and propositions regarding the constructs of positive organizational behavior. Also included is literature that describes studies that gave rise to evidence that support those theories as well as provide the basis for the research questions in this study.

Positive Psychology

During its first century, although the field of psychology had three distinct missions: one, healing mental illness and dysfunctional behavior, two, making the lives of all people more productive and fulfilling, and three, identifying and nurturing high talent; after World War II, the field, understandably, focused mainly on what was wrong with people. The primary concentration of psychology was clinically exploring, diagnosing, and treating mental illness and the negative aspects of the human psyche (Seligman, 2000; Seligman & Csikszentmihalyi, 2000).

In 1998, Martin Seligman, then president of the American Psychological Association (APA), initiated a new emphasis in the field of psychology referred to as positive psychology.
Seligman along with Csikszentmihalyi Mihalyi known for his research on “flow” began the positive psychology movement. The positive psychology movement is typified by a shift away from focusing on the many psychological diseases and their treatments to focus on examining the positive aspects of the human psyche, identifying correlations between these and other variables, and gaining insight on how to develop these positive traits to help people thrive and grow (Seligman, 2000). Positive psychology, in other words, explored the virtues of mankind, what is right with the human condition and how to develop and sustain that, rather than what is wrong and how to treat it (Peterson & Seligman, 2003).

The concepts underlying positive psychology have a basis in the larger field of psychology. Historical research, such as the well-known Hawthorne studies (Mayo, 1945) found that production increased as a result of positive emotions. Seligman and Csikszentmihalyi (2000) have also noted the work of Terman (1939) on giftedness and of Terman Buttenweiser, Ferguson, Johnson, and Wilson (1938) on marital happiness. More recent studies such as those conducted by Diener (1984), which helped to define subjective well-being or happiness, discussed possible correlates, and explored it theoretically; Scheier and Carver (1985), which explored the correlation between level of optimism and physical symptoms; Csikszentmihalyi (1990, 1997), suggested that individuals are likely to experience a state of flow, described as heightened focus, happiness, and productivity, when they are engaged in a challenging activity at which they are both accomplished and have a desire to do. Snyder (1994) discussed the link between hope and the attainment or pursuit of goals; Frederickson (1998) also explored the possible influence of certain positive emotions on an individual level and Cooperrider and Whitney (1999) discussed the effect of emotions on an organizational level.
Over the seven decades before the positive psychology movement, those studies and other studies had already laid the groundwork for positive psychology by providing support of the positive impact of positive emotions and feelings on relationships, well-being, and performance. Positive psychology builds on this foundation and goes further by looking through a pervasive lens of positivity by exploring positive edifying perspectives, attitudes, and experiences viewed retrospectively, in the moment, as well as in expectation of a favorable future outcome. It also explores how positivity affects all levels of society including individuals, groups, and organizations (Seligman, 2000).

**Positive Organizational Behavior**

Organizational behaviorists drew from the positive psychology literature and determined that the theoretical underpinnings of positive psychology can be relevant in the workplace. Thus, they found it expedient to apply the principles of positive psychology in the workplace and defined it positive organizational behavior (Luthans, Avolio, Avey, & Norman, 2007). In that regard, aligned, with the positive psychology literature the term positive organizational behavior denotes an outgrowth of the positive psychology movement that places emphasis on positive methods of developing leading, and managing in contemporary organizations (Luthans, Avolio, Avey, & Norman, 2007). Luthans, Avolio, Avey, and Norman (2007) provided the following as criterion for including constructs in the definition of positive organizational behavior:

(a) grounded in theory and research; (b) valid measurement; (c) relatively unique to the field of organizational behavior; (d) state-like and hence open to development and change, as opposed to a fixed trait; and (e) have a positive impact on work-related individual-level performance and satisfaction. (p. 11)

Two of the constructs of positive organizational behavior fitting these criteria are authentic leadership and positive psychological capital (PsyCap), as they have been determined to be relevant to the workplace and “state-like,” meaning that they can be developed and
sustained (Gardner et al., 2005; Luthans & Avolio, 2003; Luthans, Avolio, Avey, & Norman, 2007). Positive organizational behavior scholars describe authentic leaders as those who understand themselves in terms of their philosophies, motivations, and actions; have an understanding of how they are viewed by their peers, and followers; and understand their virtues and shortcomings. It is also theorized that authentic leaders are principled, understand the ethics of others, and are in tune with their environment. The authentic leader is thought to embody assuredness, positivity, auspiciousness, and buoyancy (Avolio, Gardner, Walumbwa, Luthans, & May, 2004).

An interesting characteristic according to theory is that these two (AL & PsyCap) appear to be interdependent in that PsyCap contributes to a leader’s authentic leadership development and authentic leaders contribute to follower PsyCap through their ability to nurture a positive organizational climate because of their authentic leadership behaviors (Avolio & Gardner, 2005; Gardner et al., 2005; Walumbwa et al., 2008). Providing a short background on Positive Organizational Behavior (POB), which is essentially the study of positive phenomena in the workplace, Luthans and Avolio (2009) shared some of the foundational principles explaining that the relationship between POB and PsyCap is authentic leadership development. They reiterated the Luthans and Avolio (2003) proposal that PsyCap is both an antecedent of authentic leadership development as well as a result; and also pointed out that authentic leadership has been identified as a higher order construct comprised of four measurable components: self-awareness, balanced decision-making, transparency and ethical moral reasoning (Walumbwa et al., 2008). These discoveries contribute to the efforts put forth towards developing authentic leaders that can make a positive impact on all levels of the global community.
**Authentic Leadership Development**

“Authentic leadership development (ALD) is a dynamic lifespan process,” explained Avolio and Luthans (2003), “whereby trigger events at various points in the life stream are shaping development over time with the key positive psychological antecedents coming from the positive organizational behavior states of confidence, hope, optimism, and resiliency” (p. 322). The primary components of the ALD model are PsyCap, highly developed organization, and trigger events that facilitate positive self-development towards authentic leadership. Theoretically, as trigger events occur, the leader can draw upon the positive psychological capacities of hope, optimism, self-efficacy, and resilience as he or she moves through these events when supported by a highly developed organizational context. The experience may allow the leader to become more self-aware, in terms of strengths, weaknesses, motives, and values, giving the leader ability to regulate behaviors. This process is believed to be what enables growth, authentic leadership, ethical philosophy, behavior change, and follower development (Avolio & Gardner, 2003; Luthans & Avolio, 2003). Their theoretical model illustrates the development of the authentic leader over his or her lifetime (Appendix A). The following is an explanation of the components:

The organizational context is a key component of authentic leadership development theory as its role is to support and facilitate authentic leadership development. The organizational context can itself embody authenticity, awareness, and ethical policies and procedures. To sustain authentic leadership development, it is important that the organizational context embody “uncertainty and an inclusive, ethical and positively oriented strength-based culture/climate” (Avolio & Gardner, 2005, p. 327). This type of environment would be characterized by readily available information in terms of policies, procedures, and business
rules; sufficient and appropriate supplies that employees might need to perform expected duties; encouragement and backing from leadership; and an unbiased employee development strategy, meaning that the organization has in place various training and developmental initiatives to which all eligible employees have access (Avolio & Gardner, 2005).

The ALD model’s point of view involves very challenging moments referred to as trigger events occurring at any time along an individual’s lifespan. Such moments can be negative, such as critical illness or incapacitation; or from loss (e.g., a loved one, job, marriage, etc.). Events that might be considered positive, such as a rigorous training program, can be emotionally challenging and replicate a trigger (Luthans & Avolio, 2003). These moments believed to be what help to develop the leader’s self-awareness. A leader who is aware of his or her own strengths and weaknesses in a given context is expected to have insight into the areas in which personal growth or change is needed to be successful in that context. Self-awareness, the component of ALD that facilitates the authentic character of the authentic leader, is developed through a process which involves evaluating one’s self through detailed mental examination of one’s own feelings, thoughts, and motives. As the leader’s self-awareness grows it is expected that his or her ability to regulate his or her behaviors will grow. By this method authentic leaders are believed to achieve a clear understanding of their identity and alignment with values, character, feelings, and purpose. Having self-awareness is believed to be the component that allows the authentic leader to regulate behaviors, beliefs, and values, resulting in personal growth and change (Avolio & Gardner, 2003; Luthans & Avolio, 2003). It is also thought that this self-regulation facilitates the authentic leadership dimensions. Self-awareness, relational transparency, balanced processing, and internalized moral perspective were identified as characteristics that relate to the self-regulation process (Gardner et al., 2005; Kernis, 2003; Illies,
Morgeson, & Nahrgang, 2005). Authentic followership, as explained in the prior section, is also a consequence of authentic leadership development (Avolio & Luthans, 2003).

**Psychological Capital (PsyCap)**

According to behaviorists (Luthans, Avolio, Avey, & Norman 2007) also fitting the criteria to be included as constructs of positive organizational behavior, self-efficacy, hope, optimism, and resiliency, can be considered state-like, which means they are pliable and can be increased and encouraged to persist. Luthans, Avolio, Avey, and Norman (2007) explained that they used “the term psychological capital…to represent individual motivational propensities that accrue through positive psychological constructs such as efficacy, optimism, hope, and resiliency” (p. 542). This use of the term accrue speaks to the notion that it is not a fixed trait but a quality that has the ability to mature and advance through intentional nurturing. Luthans, Youssef, and Avolio (2007) defined PsyCap as follows:

PsyCap is an individual’s positive psychological state of development and is characterized by: (a) having confidence (self-efficacy) to take on and put in the necessary effort to succeed at challenging tasks; (b) making a positive attribution (optimism) about succeeding now and in the future; (c) preserving toward goals and, when necessary redirecting paths to goals (hope) in order to succeed; and (d) when beset by problems and adversity, sustaining and bouncing back and even beyond (resilience) to attain success. (p. 3)

The following discussion focuses on the definition and theoretical bases of each construct.

**PsyCap Efficacy**

Self-efficacy is a derivative construct of social construct theory (SCT; Bandura, 2001). SCT essentially asserts that in organizational behavior there is a mutual relationship among the unique personality characteristics of the individual employee; the employee’s perception of environment in terms of expected outcomes; and the employee’s efficacious or ineffective beliefs (Stajkovic & Luthans, 1998b). Drawing from that, self-efficacy refers to confidence in one’s
ability to rally the enthusiasm, intellect, and actions needed to successfully execute a specific task within a given context (Stajkovic & Luthans, 1998). It is a process in which one evaluates ability, time resources, and other factors regarding a particular task in a particular context and determines one’s likelihood of being able to persevere to the completion of the task. In that regard, when self-efficacy is high it increases the likelihood choosing and completing a demanding task in which there might be signs of opposition (Luthans, Youssef, & Avolio, 2007; Stajkovic & Luthans, 1998b).

Theoretically, there are five key characteristics of PsyCap efficacy: First, the level of self-efficacy is dependent upon the particular purview as one may be very confident in a particular sphere of influence and less developed and therefore less confident in another area. Second, although one may have a general sense of confidence, self-efficacy is expected to vary dependent upon how proficient and experienced one is in a certain area. Third, in PsyCap efficacy, the attitude is that, even in areas in which one is adept, there is a constant pursuit of further development. Fourth, PsyCap efficacy is enhanced by support from others and can also be inspired by secondhand observation. Lastly, it is not fixed, but is mutable depending upon many influences (e.g., financial, physical, psychological; Luthans, Youssef, & Avolio, 2007).

PsyCap Hope

Snyder (1995) defined hope as “the process of thinking of one’s goals, along with the motivation to move toward (agency) and the ways to achieve those goals” (p. 1). For example, an individual whose strategic plan was denied by the organization’s Board might—because of the agency mechanism of hope—have the inner strength look for ways to modify that plan and return to the Board with the new strategy. It is the pathway mechanism of hope that enables him or her to conceive a strategy or plan to overcome any obstacle that might prevent him or her from
obtaining the necessary approval. In her book *Positivity*, Frederickson asserts, “Hope sustains you. It keeps you from collapsing into despair. It motivates you to tap into your own capabilities and inventiveness to turn things around” (p. 43).

Having PsyCap hope means possessing both the will and a plan for achieving a goal. A hopeful leader might be strong-willed, determined, feel he or she is in control of his or her destiny, relentless, and focused. He or she proactively determines a way to accomplish goals, figures out alternative paths to the same destination, circumvents obstacles, and knows his or strengths to draw from to manage around areas of weakness (Luthans, Youssef, & Avolio, 2007).

Hope is at the heart of authentic leadership development (Avolio et al., 2004; Luthans & Avolio, 2003). Hope is an important resource of authentic leadership and hopeful leaders are expected to propagate resiliency of followers in the workplace (Norman, Luthans, & Luthans, 2005). “Authentic leaders have the ability to nurture and enhance hope in followers by modeling hopeful thinking and interacting with followers in ways that increase follower willpower and way-power” (Helland & Winston, 2005, p. 50).

**PsyCap Optimism**

Like hope, optimism also provides a sustaining affect to one’s ability to persevere over and around obstacles toward goal completion, especially when confronted with challenges or difficulty. Individuals who typically expect positive outcomes are usually considered optimists while those who have negative expectations and attribute negative outcomes to themselves, pessimists. It is important to consider that those individuals who are optimistic in a context in which there is absolutely no reason whatsoever to be optimistic may have a view that is unfounded and unrealistic (Luthans, Youssef, & Avolio, 2007). In a high-stake milieu this is often to the detriment of themselves and other stakeholders. On the other hand, realism is a
characteristic of PsyCap optimism and it involves a flexible explanatory style. Realistic optimism allows one to access a particular milieu, take into account relevant variables, and from those make an authentic assessment of the outcome. In that regard, PsyCap optimism allows one to assess an outcome and attribute negative outcomes to external factors and positive outcomes to self. Flexibility allows one to authentically take a pessimistic stance if so warranted and use either a pessimistic or optimistic explanatory style based on the assessment. With regard to the construct of authentic leadership, PsyCap optimism is the foundation of the authentic leader’s self-awareness (Avolio & Luthans, 2006; Luthans, Youssef, & Avolio, 2007).

**PsyCap Resiliency**

From the clinical perspective of Masten (2001), resiliency is defined as a “class phenomenon characterized by patterns of positive adaptation in the context of significant adversity or risk” (p. 228). It enables individuals and organizations to recover after stress or strain and continue to persevere. A review of resilience theories identified three common characteristics of resilient individuals: “(a) a staunch acceptance of reality; (b) a deeply held belief, often buttressed by strongly held values and belief that life is meaningful; and (c) an uncanny ability to improvise and adapt to significant change” (Countu, 2002, p. 48). It is not probable that all individuals will possess these characteristics, which implies that some individuals are not resilient. However, Frederickson (2009) argued that “resiliency is a resource that fertilized by positive emotions grows over time” (p. 110), which is why it has an important role in authentic leadership development (Avolio & Luthans, 2003).

Luthans, Youssef, and Avolio (2007) offered that “applied in the workplace, resiliency is defined as the positive psychological capacity to rebound, to ‘bounce back’ from adversity uncertainty, conflict, failure, or even positive change, progress and increased responsibility…”
For example, in an organization that has recently downsized, resulting in layoff of managers and key employees, lower ranking employees have to step into leadership positions that they may or may not have been prepared for. They may make mistakes and stumble before they get their footing in the new position. Resiliency is expected to enable them to pick themselves up from the mistakes, dust themselves off, and move forward better than before.

When a rubber band is stretched and then released it bounces back. But it remains a rubber band and in fact, no more resilient than before being stretched. This is likened to the clinical definition of resiliency. However, theoretically the leader with PsyCap resiliency who is placed in a crucible, like carbon under heat and pressure, over time is transformed into diamond, one of the toughest materials known, may emerge from the crucible far better than he or she was upon entering.

**Effort: The Performance Link**

The rationale behind this phenomenon involves a theory regarding the determinants of employee performance. Theoretically, there are certain mechanisms that predict employee performance. In the model there are eight performance predictors: “job-specific task proficiency, non-job specific task proficiency, written and oral communications, demonstrating effort, maintaining personal discipline, facilitating peer and team performance, supervision/leadership and management/administration” (Campbell et al., 1993, pp. 35-70).

The fourth dimension, demonstrating effort, is the common link between each of the positive emotions (i.e., hope, optimism, self-efficacy, and resiliency) and performance, as each of the four constructs has an impact on effort. With increased self-efficacy, or belief in one’s success at completing a task, the more likely one is to endeavor a task and persevere to task completion. On the other hand, if one does not believe one’s talent or strength sufficient to
accomplish a task, then the effort required might not be sustained (Bandura, 1977). This essentially implies that without the construct of self-efficacy an individual would not be able to accomplish a task especially against opposition or adversity, or in an environment in which considerable and or sustained effort would be required to accomplish the goal (Bandura, 1977; Luthans, 2002a). Although achievement motivation theory predicts that individuals who have a high motive for success may be inclined to pursue goals of intermediate difficulty, while individuals with a low motive for success might avoid goals of intermediate difficulty, preferring either difficult or easy goals (Atkinson, 1964), it is plausible that pursuit effort might not be enduring unless an individual believes in his or her ability to succeed. In that regard, although high motive may very well be a catalyst for goal pursuit, self-efficacy might be considered a positive psychological mechanism for individuals to actually complete a task. It stands to reason that if one believes he or she can accomplish a task he or she might put forth sustained effort toward goal completion (Bandura, 1977; Luthans, 2002a).

Additionally, not unlike self-efficacy, realistic optimism (Seligman, 1998) is presumed to also have a positive effect on performance by facilitating sustained effort. An individual’s expectation of a favorable outcome based on a realistic assessment is expected to increase the probability of persistent effort (Avey et al., 2010). For this reason, those high in realistic optimism might be higher performers. Also, when faced with adversity, optimism, positive outlooks, or generalized favorable outcome expectancies might provide individuals with the impetus to persevere in their efforts to sort out complications (Cameron et al., 2003; Scheier & Carver, 1985). Once more, there is the inference that optimism demonstrates its value in a context in which there is a demotivating element, adversity, or cause to give up on the goal pursuit.
Further, the rationale for hope’s impact on an individual’s ability to demonstrate effort is that hope appears to undergird individuals with the goal-directed effort that possibly enables them to persevere; and the agility to strategize and move through or circumvent obstacles to goal completion. Yet again, the insinuation is that the construct of hope is advantageous in a situation in which there is resistance, as it provides the mechanisms of agency for goal pursuit and pathway for overcoming obstacles, which enables individuals to persist in their efforts.

Four studies conducted by Person and Byron (2008) explored the benefits of hopefulness in the workplace. In the first three studies the scholars explored the relationship between hope and job performance using three separate groups of workers in varying ranks and fields. The dispositional Hope Scale (Snyder et al., 1991a, 1991b) discussed in Chapter 3, consisting of four agency items, and four pathways items was used to measure each individual’s level of hope. Data was collected from three groups: The first group was comprised of 163 full-time retail sales associates, the second group was comprised of 79 mortgage brokers, and the third group was comprised of 65 management executives. Each of the organizations was located in the Southwestern United States. The average participant’s age in all three samples was 24, 36, and 39 years. Retail associates had an average of .56 years of university or college education, mortgage brokers had an average of 3.6, and management executives had an average of 4. In terms of position tenure, the retail associates averaged 2.1 years, while mortgage brokers had an average of 3.4 years. Results supported that the aforementioned employees who were higher in hope had higher job performance (Peterson & Byron, 2008).

In the fourth study, using survey data collected from 76 management executives of a Fortune 100 financial services company, Peterson and Byron (2008) examined whether or not employees who had more hope approached problem-solving differently than employees who had
less hope. The sample was 82% males, averaging 43 years of age, holding 11.2 years of tenure. The study revealed that higher hope management executives produced more and better quality solutions to a work-related problem. The results implied that hopefulness might be helpful when dealing with difficult workplace situations (Avey et al., 2010; Peterson & Byron, 2008).

Finally, Avey et al. (2010) discussed the relationship of resiliency to effort. In their explanation they did not make a direct correlation between resiliency and effort. Resiliency does not have the direct impact on effort that self-efficacy, optimism, and hope do, but rather manifests itself as a type of built-in quality that facilitates endurance within and full recovery from the crucible to the extent that effort can persist. “Resiliency provides the mechanism to limit or eliminate the loss of functioning,” explained Avey et al. (2010), “and allows employees to ‘bounce back’ to goal directed effort” (p. 389).

It appears that two common themes emerge in the discussion about the PsyCap constructs. First, these constructs appear to be more than stabilizers. A stabilizer can help individuals and organizations hold their positions and maintain footing. However, based on the PsyCap descriptions, it seems their qualities show their superior value in the midst of change, adversity, or in a difficult or challenging situation that requires perseverance and fortitude. These constructs appear to have qualities that move individuals, organizations, and leaders forward into risk, with the flow of change; and towards the goal. They do not lead individuals to stand in defense of the status quo, but run or press towards the goal (Luthans, Youssef, & Avolio, 2007). Avey, Hughes, Norman, and Luthans (2010) summarized as follows:

Those high in PsyCap, “are hopeful in terms of the will and the way to accomplish their goals, are realistically optimistic about attaining positive outcomes; have efficacy beliefs that they can make a positive difference in their work environment; and bounce back and beyond from setbacks. (p. 113)
Second, adverse, challenging, or unfamiliar situations (triggers) can set these emotions into play, facilitating authentic leadership development (Avolio & Luthans, 2003). This is discussed in detail in the section on authentic leadership development.

Positive Leadership Theories

“Leaders are ethics officers of their organizations casting light or shadow in large part through the example they set,” asserted Johnson (2009), “When it comes to ethics, followers look to their leaders as role models and act accordingly” (p. 266). The introduction of this paper described a volatile global, changing, socioeconomic climate resulting from negative phenomenon such as recession, injustice, and scandals, as well as seemingly positive phenomenon such as advances in technology. In times of flux and crisis, norms are uncertain and the familiar protocols may no longer apply. In that regard, people are unsure and looking for solutions and direction. Followers in this organizational milieu are in a precarious position and vulnerable. What was just described is considered a weak context (Cameron et al., 2004). It is important to have leadership that is ethical, genuine and whose decisions are based on what is in the best interest of the followers and stakeholders, and not based on unilateral motives.

In 2006, Brown and Trevino provided the following regarding ethical leadership characteristics:

…ethical leaders are characterized as honest, caring, and principled individuals who make fair and balanced decisions. Ethical leaders also frequently communicate with their followers about ethics, set clear ethical standards and use rewards and punishments to see that those standards are followed. Finally, ethical leaders do not talk a good game—they practice what they preach and are proactive role models for ethical conduct. (p. 597)

There are three overlapping yet distinct types of [positive] leadership theories that address the moral potential of leadership in some way—authentic, spiritual, and transformational
—all of which embody an ethical dimension of leadership (Brown & Trevino, 2006). The following discussion focuses on spiritual, transformational and authentic leadership

**Spiritual Leadership**

Theoretically, spiritual leadership is an ethical form of leadership in which leaders embody spiritual virtues such as truthfulness and humbleness. It is also demonstrated outwardly to followers through acts of kindness, and valuing the worth and well-being of others as well as espousing the importance of these virtues to followers (Brown & Trevino, 2007).

According to Fry, Vitucci, and Cedillo (2005), “The purpose of spiritual leadership is to create vision and value congruence across the strategic, empowered team, and individual levels and, ultimately, to foster higher levels of organizational commitment and productivity” (p. 1).

Supposedly, there are three dimensions by which spiritual leadership can be measured: (a) the ability to communicate an idea that gives clarity and meaning to a group’s identity and purpose; (b) a sense of hope and or faith that communicates a sense of assurance that the vision will come to fruition, and (c) selfless love and benevolence demonstrated by creating a supportive compassionate environment for followers (Fry, Vitucci, & Cedillo, 2005).

Fry et al. (2005) believes that to motivate followers, leaders need to be intimately in tune with their guiding tenets and impart them to followers by clearly describing a vision and by personal behaviors. They must to establish in their followers a feeling that the spirituality is sustained and persists through vocation and sense of spiritual survival through vocation (calling) and connection with the group (membership). Brown and Trevino (2006) explained “...similar to transformational leaders, spiritual leaders are thought to be visionary...motivated by service to God or to humanity and they view their leadership work as a calling” (p. 600).
Servant leadership (Greenleaf, n.d.) is one example of spiritual leadership. Servant leadership embraces the philosophy that key principle of organizations is to enhance the lives of the workforce, the organizations, and the community; and add value to society. Servant leadership brings a sense of meaning to others by nurturing trust, providing service to others; listening compassionately to others for the purpose of identifying ways to help or serve them for the greater good (Greenleaf, n.d.). Servant leadership is rooted in Eastern philosophy and the teachings of Jesus Christ who told his disciples “whoever wants to become great among you must be your servant and whoever wants to be first must be a slave of all” (Mark 1:43-44, New International Version). The foundational principle of servant leadership is altruism or putting the needs of others first. In his essay “The Servant Leader,” Robert Greenleaf explained that the servant leader is an individual or organization that strives first to serve individuals, organizations, and the community and then aspires to lead not for power but to continue to serve ensuring the well-being of the organization or community in which he or she serves and while doing so develop others into servant leaders. (Greenleaf, 1970, para. 5)

The servant leader’s strengths have been described as altruism, demonstrated by placing the needs of the follower first; simplicity, demonstrated by maintaining service as the primary objective instead of power, profit, or prestige as these pursuits can be related to unethical decision-making; awareness, as demonstrated by listening to their inner voice as well as wise counsel including spiritual guidance; and moral sensitivity as their purpose is to in all decision-making remain aligned with a higher moral purpose (Johnson, 2009).

**Transformational Leadership**

In that regard, transformational leaders are described as those that have the ability to help their followers envision a purpose that seeks to serve the needs of a community, a society (Brown & Trevino, 2006). Theoretically, transformational leadership motivates followers to set
aside their personal agendas and unilateral interests for the benefit of the group. It is believed that this collective effort is what results in positive change on the individual and group levels (Cameron et al., 2003). Transformational leadership behaviors are described as individualized consideration characterized by consideration of the needs of others beyond one’s own; intellectual stimulation meaning encouraging followers to challenge the status quo; idealized influence, characterized by charisma or viewed as exemplifying moral values that are good and honorable and stand to be emulated; they are inspirational, characterized by the ability to offer visions of the future which incite followers to unify and mobilize in their pursuit of far-reaching purpose (Avolio, Bass, & Jung, 1999).

These characteristics, especially their powerful charismatic quality, are the recipe and underlying attributes that make transformational leaders so effective at facilitating change in individuals, organizations and communities. Charisma is believed to be the defining quality of the transformational leader. Followers are believed to be moved by the transformational leader’s passion commitment and virtue. Organizational behavior theorists have established that there are both ethical (e.g., Mahatma Gandhi, Nelson Mandela, and Mother Teresa) and unethical (e.g., Adolf Hitler, Pol Pot, and Saddam Hussein) transformational leaders (Howell & Avolio, 1992).

It has been presumed that in a weak context similar to that described above, there is a risk that the shadows of leadership (Johnson, 1996) can emerge: egoism, narcissism, dishonorable behavior, compromise, and corruption. Nonetheless, Quinn (1996) stressed, “to be a transformational leader in an organization and make deep change one does not have to break the law but it will always require that someone must take some sizeable risks” (p. 5).

Trevino and Brown (2007) discussed the distinction between the terms transformational and authentic transformational leaders by pointing out that—although they are both associated
with leaders who embrace virtues such as integrity, and ethical tenets such as social justice and
fairness—the differentiating factor is that the concept of transformational leadership involves
changing or swaying others to a particular doctrine or purpose. It has been argued that this
opposes certain philosophical moral views (e.g., Kant’s moral philosophy) against manipulating
rational agents. For this reason, there were still some ethical concerns with transforming
followers by manipulating followers’ beliefs. Nevertheless, because of the emphasis placed on
moral values, transformational leadership is still considered positive ethical leadership.

**Authentic Transformational Leadership**

This section discusses and compares authentic transformational and pseudo
transformational leadership characteristics. The ethics of transformational leadership come into
question when the leader’s self-interest or unilateral agenda rivals with what he or she ought to
do in terms of what is morally right (Howell & Avolio, 1992). Along those same lines, “to be
truly transformational,” argued Bass and Steidlmeier (1999), “leadership must be grounded with
moral foundations” (p. 2). This means the authentic leader’s character virtues and moral
obligations to his or her community or organization supposedly outweigh his or her character
flaws such as narcissism, lack of internalization of values and beliefs, Machiavellianism, need
for power, etc. It is important to note here that the authentic leader is thought to be inclined to
place in high regard self-transcendent values such as benevolence and universalism over self
enhancement. This characteristic is what is believed to cause him or her to be altruistic and apt
to put the best interest of others or the organization’s over his or her own (Schwartz, 1994).

Four components of authentic transformational leadership have been identified: (a)
idealized influence, (b) inspirational motivation, (c) intellectual stimulation, and (d)
individualized consideration. With respect to these components a distinction was made between
the leadership behaviors of pseudo-transformational and authentic transformational leadership (Bass & Steidlmeier, 1999).

Idealized influence is the leader’s charisma or appeal. With regard to the component of idealized influence, the difference between the pseudo-transformational leader and the authentic transformational leader lies not in external behaviors (although they may appear the same); but in the underlying values for which the leader is put on a pedestal (Bass & Steidlmeier, 1999). For example, Dr. Martin Luther King Jr. had a vision that all men would not be judged by the color of their skin but by the content of their character, whereas Adolf Hitler proclaimed that Jewish people were less than human, based solely on their race and should be exterminated. Hypothetically, in the workplace the pseudo-transformational leader professes to embrace the organization’s values. However, the inner man is indifferent to them and his or her leadership behaviors are not motivated by the organization’s espoused values. His or her actions are thought to be motivated primarily by unilateral ideals or needs (mostly self-gratifying). He or she may engage in ways to maintain the attention of their admirers and satisfy narcissistic tendencies (Bass & Steidlmeier, 1999). The authentic transformational leader, on the other hand, is supposedly focused on the culture. His or her internalized moral values guide him or her to plan activities, make decisions, and establish ethical policies that would be aligned with what is in the best interest of the people and the organization (Bass & Steidlmeier, 1999).

Inspirational motivation is the leadership ability to engage and empower and mobilize people to work together towards a vision. The pseudo-transformational leader is thought to view workers in a negative light and underestimate or undermine their knowledge and abilities. He or she is inclined to use contrived threats, pretexts, stonewalling, and all sorts of divisiveness to prevent people from working together and moving forward towards a goal. The pseudo-
transformational leader may profess to believe in empowering people to accomplish goals. In reality he or she maintains control and follower reliance (Bass & Steidlmeier, 1999). Unlike the pseudo-transformational leader, the authentic transformational leader is concerned about organizational growth and development. He or she looks for talent and readily provides resources, information, and opportunity for development, and enables people to grow. He or she mobilizes people into new and challenging opportunities that are expected to help them and the organization grow (Bass & Steidlmeier, 1999).

Intellectual stimulation is the leadership component that facilitates the ability of followers to think critically, based on assumptions, for problem solving and decision-making; and to think creatively for generating new ideas. The pseudo-transformational leader deliberately misleads and deceives followers with emotionalism and illogical hypotheses in an attempt to exploit their ignorance (Bass & Steidlmeier, 1999). On the other hand, the authentic transformational leader makes every effort to use vetted facts that followers can use to assess circumstances (Bass & Steidlmeier, 1999).

Individualized consideration is being genuinely concerned about the development of all followers and empowering them with training and development that might help them become more proficient in leadership skills. The pseudo-transformational leader may speak about empowering others but is in reality only concerned with his or her development, power, and success. He or she is more interested in maintaining his or her followers’ dependence than in developing them into leaders (Bass & Steidlmeier, 1999).

Authentic transformational leadership requires being genuinely concerned with values of others (i.e., individual followers, or the organization to which one is committed). It is putting the values of these before oneself (altruism). It is this altruistic component that is believed to
differentiate the authentic transformational from the pseudo-transformational leader (Bass & Steidlmeier, 1999). Bass and Steidlmeier (1999) also argued the following:

Leaders are authentically transformational when they increase the awareness of what is right, good, important, and beautiful, when they help to elevate followers’ needs for achievement and self-actualization, when they foster in followers higher moral maturity, and when they move followers to go beyond their self-interests for the good of their group, organization, or society. (p. 190)

In that regard, Howell and Avolio (1992) agreed that only socialized leaders who are concerned with the collective good can be considered authentic.

**Authentic Leadership (Transformational or Full-Range Leadership)**

In agreement with (Bass & Steidlmeier, 1999), transformational (full range) leadership (FRL) theory proposes that ethical and moral perspective-taking as well as follower transformation is essential to positive leadership (Avolio & Luthans, 1999; Luthans, 2002a, 2002b; Luthans, Luthans, & Luthans, 2004). In that that regard authentic leadership is a positive form of leadership characterized by authenticity, high levels of self-awareness, self-regulation, as well as an inclination to take an ethical and moral stance, and develop followers. Although the positive impact of transformational leadership on followers has been emphasized, authentic leadership is believed to transcend transformational (Luthans & Avolio, 2003). Although authentic leadership is also considered transformational, a key differentiating characteristic between authentic and transformational leadership is that follower conversion is fundamental to transformational leadership; yet, it is not essential to authentic leadership (Trevino & Brown, 2007). Nevertheless, one of the consequences of authentic leadership is followership, as it is believed that authentic leaders are also transformational, although, it is not necessarily considered a result of charisma. The belief is that followers are drawn to them because of their true-to-self, candid behavior and through their characteristic of openly practicing their espoused
doctrine and genuineness, people grow to trust the authentic leader. Thus, followers begin to admire, and emulate them.

Supposedly, through this phenomenon, authentic leaders consequently influence without manipulation or force, transforming their followers into leaders (Avolio & Gardner, 2005). This is especially valuable within organizations in terms of employee engagement, performance, and leadership development as it is believed that authentic leaders are inclined to develop others into leaders as a byproduct of their own development. In addition, authentic leadership activates the positive psychological qualities (i.e., hope self-efficacy, optimism, and resiliency) in followers. Being able to develop followers in this way is likely to result in positive outcomes in the workplace (Gardner, Avolio, Luthans, May, & Walumbwa, 2005).

Authenticity, a key construct of authentic leadership, is in theory, derived from a high level of self-awareness in terms of strengths and weaknesses, values, purpose, personal ethics, and beliefs and leading from that worldview. Harter (2002) provided very thorough descriptions of what it means to be inauthentic as well as authentic, explaining that authenticity exists on two levels. The first involves knowing, embracing and accepting all aspects of one’s personality, likes, dislikes’ beliefs, values, and facets of one’s life journey. The second is functioning in a way—in terms of behaviors and conversations—that aligns with that awareness of self. Harter (2002) explains that authenticity is acting and speaking in a way that communicates what one truly thinks or believes without adjusting or bending to impress or please others. The fully actualized individual, described by Maslow (1971), is one who is sure of who he or she is in terms personal ethics and their decisions are based on this awareness.

Moreover, the four components of authenticity are awareness, unbiased processing, action, and relational orientation (Kernis, 2003). These components are incorporated into the
authentic leadership model (Avolio & Luthans, 2003). Of all the leadership models, authentic leadership is the one that is characterized by a deep level of self-awareness that presumably can only be attained through experiences, crucibles, reflection, and intentional self-development (Luthans & Avolio, 2003). In that regard, “self-awareness,” theorized Gardner et al. (2005), “is viewed as linked to self-reflection” (p. 347).

Others agree that authentic leaders are able to take detailed examination of their thoughts feelings and motives to the extent that they become clear about who they are. This is thought to facilitate their ability to bring their behaviors into one accord with what they understand to be their deeply held values, who they believe themselves to be, feelings, purposes and intentions. In other words, theoretically the authentic leader is able to self-regulate to align actions and decisions with personal ethics (Avolio & Gardner, 2005; Gardner et al., 2005).

With regard to the workplace, self-awareness, self-regulation, moral and ethical perspective-taking and follower development are characteristics that could have value on both the individual and group levels in an organizational context. In theory, when under pressure—especially in a situation in which there are multiple stakeholders with conflicting agendas—authenticity and the ability to look at situations from a moral and ethical view may mitigate the risk of making unilateral decisions, possibly lessening the likelihood of the leader succumbing to external pressures to take actions that might compromise their integrity, as well as put their organization at risk (Bass & Steidlmeier, 1999; Impavido, 2002). Also, with regard to the workplace, knowing strengths and weaknesses and accepting them can facilitate the authentic leader’s ability to rally the right diversity of resources and talents to support, complement and enhance the others, creating a more synergistic dynamic that helps them to be more effective and productive (Buckingham & Clifton, 2001). Leaders who know their strengths and weaknesses,”
suggested George, Sims, McLean, and Mayer (2007) “can fill their skill gaps with colleagues that compliment them” (p. 71). This can be attributed to openness about their susceptibility, as according to Avolio and Luthans (2003), “they turn transparency regarding their vulnerabilities into a strength, whereby associates can complement the leader in terms of the strengths they bring to their collective challenges” (p. 248).

As discussed earlier in the section on authentic leadership development, the key components of authentic leadership development fitting the criteria to be included in POB are the psychological capacities of self-efficacy, hope, optimism, and resiliency. According to the POB scholars, these qualities are what contribute to the authentic leader’s high level of self-awareness and the ability to self-regulate (Avolio & Gardner, 2005; Luthans & Avolio, 2003; Luthans, Avolio, Avey, & Norman, 2007). Optimism, as discussed earlier, is a major factor in authentic leadership development in terms of its relationship with the authentic leader’s self-awareness (Luthans & Avolio, 2003; Luthans, Youssef, & Avolio, 2007).

This study focuses primarily on the aforementioned theoretical concepts (positive psychological capacities, moral/ethical values, self-awareness, and self-regulation) that are embodied in the authentic leadership development model (Luthans & Avolio, 2003). However, theirs is not the sole voice on authentic leadership development. Other perspectives on the concept of authentic leadership and its constructs exist. These perspectives may be contrary to or in concert with the ALD theory.

George et al. (2007) agrees that self-awareness is the principal component of authentic leadership because knowing one’s self in terms of talent and interests, facilitates the ability to find one’s place in a group, community, or organization. In agreement with both Kernis (2003) and Gardner et al. (2005), developing self-awareness, suggests George et al., requires uncovering
one’s authentic self, meaning gaining a deep understanding of the whole self by taking a close look at one’s external behaviors and life story. Then, though deep retrospection, and reflection, beginning to understand one’s values, motivations, and “blind spots,” which George et al. referred to as “peeling back the onion.” Finally, “accept what one finds” (pp. 67-82).

Contrarily, some scholars do not agree with the ALD model. “Equating authenticity with a particular configuration of values, or a single distinctive purpose, or even a selection of positive psychological states,” argues Sparrowe, (2000), “fails to capture what is distinctive about an individual simply because his or her identity is a narrative” (p. 431). Drawing from the philosophy of Ricoeur (1992), rooted in hermeneutics, which proposes that human existence draws meaning from word-based or etymological forms such as symbols, metaphors, and narrative; Sparrowe (2000) offers an alternative prospective. First, exercises such as writing one’s own story, keeping a diary, and self-dialogue are more effective methods of developing self-awareness. Second, reading biographies that chronicle a leader’s journey is a useful way of regulating self and effecting deep personal change (Quinn, 2004). Third, using tools such as the reflected best self exercise (Quinn, Dutton, & Spreitzer, 2003) in which others provide personal stories of their positive experiences with the leader at his or her best (Sparrowe, 2000).

Shamir and Eilam (2005) agree that the authentic leader’s self-awareness in terms of values and beliefs, his or her moral integrity, is attained by gleaning meaning through the narrative. “Leaders acquire these characteristics,” argue Shamir and Eilam (2005) “by constructing, developing and revising their life-stories” (p. 396). Interestingly, since any narrative does not occur in a vacuum, but in relation to some type of context it is probable that once this narrative data is collected it would require some level of self-reflection to process it and draw meaning from it for growth. This echoes the notion that authentic leadership can be
developed through experiences, crucibles, reflection, and self-awareness, and self-regulation (George et al., 2007; Luthans & Avolio, 2003).

**Authentic Leadership and Psychological Capital**

Theoretically, authentic leaders are also characterized as possessing high levels of psychological capital, which is believed to be the antecedent of authentic leadership development (Gardner et al., 2005; George et al., 2007; Illies et al., 2005). To test the theory that authentic leaders are high in psychological capital Jensen and Luthans (2006a) explored the relationship between entrepreneurs’ PsyCap and their authentic leadership. They hypothesized that the entrepreneurs’ level of optimism, resiliency, hope, and overall psychological capital will be positively related to followers’ perceptions of the entrepreneurs’ authentic leadership (Luthans, Youssef, & Avolio, 2007). Jensen and Luthans (2006b) tested their hypothesis in an exploratory study using scientific methods on a sample of 148 businesses in the Midwest.

A modified Life Orientation Test (LOT) was used to assess state optimism (Shifren & Hooker, 1995). This 8-item measure uses a 5-point Likert scale (1 = *strongly disagree*, 5 = *strongly agree*). The coefficient alpha was .72. The study also used the 11-item resiliency measure (Block & Kreman, 1996) and had a coefficient alpha of .82. The 6-item State Hope Scale (Snyder et al., 1996) was used to measure hope and had coefficient alpha of .89. Self-efficacy was not measured because at the time this study was conducted, it had not yet been determined that self-efficacy met the POB criteria for being state-like and mutable (Jensen & Luthans, 2006a, 2006b). The results supported the positive relationships between the entrepreneurs’ self-perception and the followers’ perception of the entrepreneur’s authentic leadership (Jensen & Luthans, 2006a, 2006b).
Toor and Ofori (2010) considered the high stress, high pressure, high risk, and competitive nature of the construction industry. “In many countries,” explained Toor and Ofori (2010), “construction is also typified by an antagonistic, environment, a tough culture, and involvement in a large number of stakeholders” (p. 341). Earlier discussions elaborated on the fledgling yet growing body of support for the positive impact of PsyCap within organizations; the benefits of PsyCap in a weak context; and the relationship between PsyCap and positive workplace outcomes. In that regard, high PsyCap construction organizations are likely to attain greater success in their business relationships; employees might adjust better to changing conditions; and work more cooperatively in diverse groups, thereby having an advantage over industry competitors (Luthans, Youssef, & Avolio, 2007).

Toor and Ofori (2010) explored the relationship between PsyCap, authentic leadership, and leadership outcomes. Their study was conducted in the construction industry of Singapore. Self-report questionnaires were distributed to a total of 90 managers. The PsyCap questionnaire PCQ (Luthans, Avolio, & Avey, 2007) was used to measure PsyCap. To measure authenticity, the study used the “authenticity inventory” or AI-3 (Kernis & Goldman, 2005, 2006), which is a self-report measure consisting of four subscales described as awareness, unbiased processing, behavior, and relational orientation. The item demonstrated test-retest reliability with Cronbach’s alpha score of .67 (Kernis & Goldman, 2006). Responses to the scale’s 45 items were collected on a 5-point Likert-type scale from 1 (strongly disagree) to 5 (strongly agree). In addition, MLQ form 5X (Avolio & Bass, 2004) was also used. The 45-item instrument measures, transformational, transactional, and laissez-faire leadership; extra effort, effectiveness, satisfaction; forms of leadership, and leadership outcomes. The study results demonstrated that the relationship between PsyCap and authenticity, transformational leadership, and leadership
outcomes are positively correlated (Toor & Ofori, 2010). “Construction organizations,” proclaimed Toor and Ofori (2010), “need to invest in developing the PsyCap of their employees” (p. 343). Their results supported that leaders with high PsyCap also had high authenticity ratings, displayed greater transformational leadership, demonstrated less transactional and laissez-faire leadership behaviors, and encountered exceptional outcomes. Thus, “PsyCap is positively correlated with authenticity, transformational leadership, and …especially leadership effectiveness” (Toor & Ofori, 2010, p. 350).

Other Positive Emotions and Authentic Leadership

The sustaining effect of the cognitive positive psychological capacities of hope, self-efficacy, resiliency, and optimism (PsyCap) that theoretically facilitates effort that allows authentic leaders to persevere has been clearly emphasized (Luthans, Youssef, & Avolio, 2007). Michie and Gooty (2005) agree that positive emotions play a role in authentic leadership in terms of the authenticity and integrity of the authentic leader. Their discussion is regarding the role of more affective emotions. “Positive other-directed emotions,” argue Michie and Gooty, “are important determinants of authentic leadership” with regard to authenticity (p. 441). Keeping in mind that authenticity is remaining true to one’s internalized feelings, values and beliefs (Harter, 2002), authenticity is believed to be facilitated by an affective component that in essence compels or motivates the leader to act on his or her espoused values (Michie & Gooty, 2005). For example, if respect is an organizational value and the leader is unmoved when people within the organization treat members and coworkers with disrespect, then the leader’s emotional unresponsiveness may indicate lack of authenticity or integrity (Michie & Gooty, 2005). On the other hand, if the leader believes in his or her organizational value of open-communication, for example, and notices that there is a system flaw that prevents the free-flow of important
business-related information, he or she may recognize this as not being in line with the organizational values, and thus not in the best interest of the organization. If the leader feels strongly about his or her beliefs and values, this affective component may motivate him or her to implement a strategy to affect change, thus demonstrating both authenticity and integrity (Michie & Gooty, 2005). Michie and Gooty suggested that positive other-centered emotions play a moderating role in the relationship between the leader’s values and the leader’s actions. Other scholars suggested that emotions such as gratitude, interest, love and other positive emotions enhanced psychological capacities (Frederickson et al., 2003).

**Authentic Leadership, Positive Organizational Context, and PsyCap**

Luthans and Avolio (2003) illustrated in their ADL model that the organization in which authentic leadership is developed must itself be highly developed, as it is this context that supports the change process. Within this context trigger events facilitate self-awareness which leads to self-regulation and behavior change. In order for authentic leadership to develop, the environment itself must be developed and contain the necessary components conducive to growth. An unethical, toxic, highly political environment, in which every individual is looking out only for his or her own advancement with no regard for others, would not be able to sustain authentic leadership. Bass and Avolio (1994) explained that an environment in which authentic leadership will flourish is that in which executives; managers and supervisors demonstrate interest in employee development. In concert with this, “for self and followers to be effective,” proposed Gardner et al. (2005), “leaders must create and sustain an organizational climate that enables themselves and followers to continually learn and grow” (p. 367).

Leadership is not a remote inert concept unaffected by the environment but an interactive social construct that must navigate and perform within ever-changing framework. In that regard,
the context is a relevant factor in leadership development. The organizational context is what supports and influences the leader’s authentic leadership growth. “Authentic leaders,” asserted Gardner et al. (2005), “will create…organizational climates that are more inclusive, caring, engaged, and more oriented towards developing strengths” (p. 367). Conversely, authentic leadership can flourish in an environment that is dynamic, ambiguous, and demanding. Just as the authentic leader is influenced by his or her organizational context, the organization is influenced and can influence the context to be more authentic and positive (Avolio & Gardner, 2005; Luthans & Avolio, 2006).

In that regard, in a field study of samples from China, Kenya, and the United States, Walumbwa, Avolio, and Gardner (2008) found a relationship between authentic leadership and positive organizational context. The authors conducted three studies: The purpose of the first study was to develop the ALQ measure and provide evidence for its construct validity. The study used samples consisting of employees from the United States and the People’s Republic of China to rate their direct superiors on authentic leadership behaviors. The U.S. sample was recruited from a large U.S. high-tech manufacturing firm located in the northeastern United States. This sample was comprised of 224 employees, 80% of which were male. The respondents’ average age was 44.8 years. Each had a degree from a university and 15.03 years was the average work experience (Walumbwa et al., 2008). The Chinese sample consisted of 212 full-time employees (71% female) from a large state-owned company located in Beijing. The average age of the respondents was 23.31 with 2.65 years of work 21% were high-school educated, 48% had a technical secondary education, 15% had a junior college degree, and 16% had a college or university degree (Walumbwa et al., 2008). “The study’s confirmatory factor analyses,” reported Walumbwa et al. (2008) “supported a higher order, multidimensional model
of the authentic leadership construct (the Authentic Leadership Questionnaire [ALQ]) comprising leader self-awareness, relational transparency, internalized moral perspective, and balanced processing” (p. 98). For the U.S. sample “the estimated internal consistency alphas (Cronbach’s alpha) for each of the measures” reported Walumbwa et al. (2008) “were also at acceptable levels: self-awareness, .92; relational transparency, .87; internalized, moral perspective, .76; and balanced processing, .81” (p. 98). For the Chinese sample, “the estimated internal consistency alphas (Cronbach’s alpha) for each of the measures” reported Walumbwa et al. (2008) “were also at acceptable levels: self-awareness, .79; relational transparency, .72; internalized moral perspective, .73; and balanced processing, .76” (p. 100).

The purpose of the second study was to demonstrate how the ALQ could be used to predict organizational outcomes with relationship to ethical and transformational leadership (Walumbwa et al., 2008). The study collected data from two independent samples within a large southwestern U.S. university over a span of two semesters. Sample one consisting of currently employed MBA and evening adult students (56% female) was used to examine the construct and predictive validity and predictive validity of the ALQ leadership measure relative to ethical leadership. The survey response rate was 81% and the average participant-age was 26 years with 3.44 years of work experience (Walumbwa et al., 2008). A semester later, 236 surveys were collected from the second sample consisting of adult evening students (48% female) with full-time jobs, whose average was 24.49 with 3.28 years of work experience. This second sample was used to further assess the construct and predictive validity of the ALQ relative to transformational leadership (Walumbwa et al., 2008).

In addition, to measure ethical leadership, the study used a 10-item (e.g., “Discusses business ethics or values with employees”), 5-point scale developed and validated by Brown et
al. (2005). Responses ranged from 1 (highly unlikely) to 5 (highly likely). The estimated Cronbach’s alpha was .91. To measure transformational leadership, the study also used 16 items (e.g., “Articulates a compelling vision of the future”) from the MLQ Form 5X (Bass & Avolio, 2004) with idealized influence, individualized consideration, inspirational motivation, and intellectual stimulation ($\alpha = .81, .83, .87, .86$). These dimensions were measured using a 5-point scale ranging from 0 (not at all) to 4 (frequently, if not always; Walumbwa et al., 2008).

Organizational Citizenship Behavior (OCB) was measured using a 6-item, scale (i.e., 1 [never] to 5 [always]), employed by Wayne, Shore, and Liden (1997) and originally developed by Smith, Organ, and Near (1983). A sample item is, “I help other employees with their work when they have been absent even when I am not required to do so.” The Cronbach’s alpha of this scale was .72 (Walumbwa et al., 2008). Organizational commitment ($\alpha = .92$) was measured using a 10-item (e.g., “I would be happy to spend the rest of my career with this organization.”) scale from Mowday, Steers, and Porter (1979), which assessed attachment to and identification with a particular organization. To measure satisfaction with supervisor, the study used nine items on a 5-point scale from 1 (strongly disagree) to 5 (strongly agree) from Smith, Kendall, and Hulin’s (1969) Job Descriptive Index to capture follower satisfaction with supervisor ($\alpha = .92$; Walumbwa et al., 2008).

The purpose of the third study was to explore authentic leadership’s contribution to individual follower job satisfaction and performance. The study sample consisted of 610 working adults (98% African) working in 11 U.S. firms in Kenya, Africa. There was an 83% response rate (63% male) that included an average age of 32.81 years with mean work experience of 5.58 years and 54% had at least a college diploma, 46% had a college degree. The supervisors’ average age was 36.49 years; they held degrees and 7.17 was their average work
experience (Walumbwa et al., 2008). To measure authentic leadership, the study used the ALQ, which was the instrument developed in the first two studies. Each of the ALQ measures (self-awareness relational transparency, internalized moral perspective, and balanced processing) demonstrated internal consistency reliability (.73, .77, .73, .70). To measure follower job satisfaction, the study used five items from the Brayfield Rothe Scale (Brayfield & Rothe, 1951). The items were anchored to a 5-point scale from 1 (strongly disagree) to 5 (strongly agree) and demonstrated reliability (.87). Sample items were “I feel fairly satisfied with my present job” and “I find real enjoyment in my work.” The internal consistency for this scale was .82. The “results of study three,” reported Walumbwa et al. (2008) “indicated that follower perceptions of the leaders’ authentic leadership was positively related to individual follower job satisfaction and rated job performance” (p. 117). The overall results demonstrated that authentic leadership, job satisfaction, and performance are positively correlated (Walumbwa et al., 2008).

Woolley et al. (2011) also conducted a study using secondary survey data collected by the New Zealand Leadership Institute of the University of Auckland Business School (Levy & Bentley, 2007). Into various industries, occupations, and organizations, 3000 surveys were distributed. The study used a 28% sample of 828 responses consisting of people between the ages of 18 to 55. Approximately 439 were female. A large percentage of the respondents (91%) had full-time jobs. Most of the respondents (84%) were White and 67% had attended college. In terms of work experience, 10 to 15 years was the median, and current tenure ranged from 3 to 7 years (Statistics New Zealand, 2006). PsyCap was measured with the 12-item version of the Psychological Capital Questionnaire (Luthans, Avolio, & Avey, 2007; Luthans, Youssef, & Avolio, 2007; Norman, Avolio, & Luthans, 2010). Authentic leadership was measured using the 16-item Authentic Leadership Questionnaire (ALQ; Walumbwa et al., 2008). Positive work
climate was measured with a 5-item scale developed by (Avolio & Luthans, 2006; Woolley et al., 2011).

Woolley et al. (2011) reported data that revealed a strong relationship between authentic leadership and positive work climate. The study results indicated sizable correlations between authentic leadership and PsyCap \( (r = .43, p < .05) \), authentic leadership and positive work climate \( (\beta = .83, p < .05) \); and one from positive work climate to PsyCap \( (\beta = .84, p < .05) \).

“Positive work climate” reported Woolley et al. (2011) “only partially mediates the relationship” (p. 443). The aforementioned studies support the theory that PsyCap contributes to a leader’s authentic leadership development and authentic leaders contribute to follower PsyCap through their ability to nurture a positive organizational climate because of their authentic leadership behaviors (Antonakis et al., 2003; Avolio & Gardner, 2005; Gardner et al., 2005; Walumbwa et al., 2008).

**Authentic Leadership, Work Climate, and Gender**

Evidently, other variables such as work climate and gender can affect the relationship between PsyCap and AL. An organization’s climate might be more masculine or feminine in its values, depending on the majority gender of its leaders (Avolio et al., 2009; Eagly, 2005; Jensen et al., 1990). In that regard, the degree of congruence between leaders’ and followers’ values is an important element of the leader—follower relationship (e.g., Brown & Trevino, 2009). Therefore, Antonakis et al. (2003) proposed that the influence of authentic leadership on positive work climate, and subsequent PsyCap development, is moderated by the similarity of leader and follower gender values. While testing this notion they also explored the Multifactor Leadership Questionnaire (MLQ; Bass & Avolio, 1995) validity and factor structure.
Using samples that consisted of 2279 pooled males and 1089 pooled females, the scholars conducted two studies in which the male and female raters evaluated leaders of the same-gender. In the first study they determined that the instrument validly measured the constructs in the male and female groups. In the second study they determined using factor-level data that the instrument is stable (Antonakis et al., 2003). With reference to the above prediction regarding the moderating effect of gender, results also revealed differences between the factor correlations of the male and female groups (Antonakis et al., 2003). For example, aligning with the results reported by (Eagly & Johannesen-Schmidt, 2001), the females received higher scores than males on individualized consideration, one of the dimensions of transformational leadership (Antonakis et al., 2003). On the other hand, with regard to management-by-default and laissez faire leadership (considered passive leadership dimensions) the females’ scores were lower than the males’ (Antonakis et al., 2003).

Further, in the same study described above Antonakis et al. (2003) also proposed that the psychometric properties of leadership instruments can be affected by the setting in which the leader is being measured. In that regard, “the effect of authentic leadership on male followers’ PsyCap,” reported Woolley et al. (2011) “was fully mediated by work climate perceptions” (p. 445). “Positive work climate,” reported Woolley et al. (2011), “only partially mediated the PsyCap effects of authentic leadership among female respondents” (p. 445). With regards to gender, “The relationship between positive work climate and PsyCap,” reported Woolley et al. (2011) “is the same for followers of any gender” (p. 445). However, the study findings showed that gender moderates the relationship between authentic leadership and PsyCap and the relationship between positive work climate and authentic leadership (Woolley et al., 2011).
In summary, the relationship between authentic leadership and PsyCap, as well as the mediating effects of positive work context, and moderating effect of gender, on the authentic leadership process was discussed and study results demonstrated how the authentic leadership development process can be mediated by positive organizational context and moderated by gender (Antonakis et al., 2003; Woolley et al., 2011). With this reasonable evidence of the influence of gender, it was proposed that gender would moderate the relationship between professional development and authentic leadership.

**Trigger Events**

In the ALD process, anything that challenges one’s norm or comfort zone and causes him or her to question existing beliefs or behaviors can be considered a trigger moment. Changing careers, moving to a different unfamiliar place, or learning something new can be triggers. A trigger event is a critical component in ALD as it facilitates self-awareness and self-regulation; and has a moderating affect on authentic leadership dimensions (Luthans & Avolio, 2003). Most trigger events occur not necessarily for the intentional purpose of facilitating ALD. They simply happen naturally throughout the leader’s life. These events are believed to mold the individual’s inherent talent. The down-side to allowing leadership to develop as a result of random experiences is that the leader could develop either negative or positive ways of leading (Luthans & Avolio, 2003).

ALD is ultimately a process of transformative self-development. In *High Impact Leader* (Avolio, 2006) explains that changing from actual self to possible self, equals the authentic self. Generally, the actual self, functions on autopilot based on inherent tendencies. Ideally a trigger moment—negative or positive, past or present—is an opportunity for the leader to think not necessarily about the event but to reflect and take introspect in terms of his or her behaviors,
feelings, and motives while in that crucible. Through this introspection, a leader becomes more self-aware. The leader or observer may perceive a greater potential and room to grow and improve. The leader can identify the gaps between the actual and the possible self and take steps toward the possible self. Leaders who are willing and put forth the effort can change from the auto-pilot response to a regulated response and become their possible more authentic selves. Similarly, Bennis and Thomas (2008) discuss the importance of being able to glean valuable lessons and grow from trying leadership crucibles defined as “…a transformative experience from which a person extracts his or her ‘gold,’ meaning a new or altered identity” (p. 5).

George et al. (2007) agree that this process can happen without intervention. In agreement with the assertions of Sparrowe (2000), that self-awareness and authentic leadership is developed through understanding one’s the narrative, George et al. (2007) explored the notion that individuals learn to be authentic leaders through their life stories. The qualitative study used interviews to collect data from 125 male and female leaders, ranging in age from 23 to 93. They were of various racial, religious, and socioeconomic backgrounds (George et al., 2007). The leaders “were chosen based on their reputations for authenticity and effectiveness as leaders,” explained George et al. (2007), “as well as our personal knowledge of them” (p. 174). Using qualitative methods, the scholars analyzed 3000 pages of transcripts and found that leadership emerges from the life-story. The individuals did not have a common theme of values. However, most learned their core values, beliefs, and other qualities including authenticity over time through being tried by the crucibles and experiences of life’s journey (George et al., 2007) The study revealed that the key to becoming an authentic leader is the ability to perceive one’s self not as a victim, or idle bystander of one’s life, but as an active agentic participant, with the ability to become more self-aware as a consequence of life’s encounters and to use that
awareness to discover one’s authentic leadership. Some individuals are successful at reframing negative trigger events and rising from the crucible edified. Individuals such as Mother Theresa, Bill George, and Daniel Vasella were able to not only overcome, but were transformed by their trigger moments and able to find meaning and purpose for their lives. However, using Richard Nixon as an example, Avolio and Luthans (2006) shared that it is unfortunate that some individuals may not have the ability to manifest positive results from some of their negative trigger moments. Therein lay the need for ADL intervention or training.

**Planned Trigger Events**

In a perfect world, the learning context—from the beginning of the lifespan—would be ideal, containing all the right components for authentic leadership development and the trigger events would occur at exactly the right time. However, this is not the case, as very random poignant, catastrophic, or devastating trigger events can occur over the authentic leader’s lifespan. There is no guarantee that through these crucibles, the leader will develop positive, ethical ways of leading. In that regard, ALD is left to chance.

Therefore, taking into consideration the state-like constructs of the ALD components, rather than taking a laissez faire attitude towards ALD, it is reasonable to consider another strategy that involves hands-on intervention. A trigger does not have to be a negative event (Luthans & Avolio, 2003). POB theorists believe that with education, experience or practice, coaching or mentoring, most leaders can evolve from his or her actual self into the possible self. In other words, individuals can be nurtured to be authentic leaders (Luthans & Avolio, 2003). Cooper et al. (2005) agreed, offering "...authentic leadership may thus be evolutionary as well as revolutionary” (p. 11). The goal of POB is “to design transformational trigger events that can shape the authentic leader, while utilizing unplanned events to reflect and understand why it
happened and how understanding it can enhance authentic leadership” (Luthans & Avolio, 2003, p. 250).

As mentioned earlier, Luthans and Avolio (2003) pointed out that a trigger event could be reading a book that changes the leader’s perspective, or learning a new philosophy or participating in a leadership development program. Cooper et al. (2005) offered that “the establishment of a formal mentoring program may even serve as a trigger event” (p. 485). Cooper et al. (2005) agreed that in such a program, protégés would be given a context in which to develop authentic leadership, as well as model ethical leadership. Ideally, managers (i.e., bosses) and mentors would be equipped with an understanding of ALD, enabling them to facilitate experiences in which protégés could address ethical challenges. Also, mentors would provide guidance and address mistakes. “Trigger events may also be the culmination of smaller events which accumulate over time,” suggested Cooper et al. (2005), “until a threshold level is reached which evokes behaviors that are characteristic of authentic leaders” (p. 11). Taking that into consideration, theoretically trigger events might be simulated in a leadership development program, mentoring program; or graduate or post graduate degree program. On the other hand, Luthans and Avolio (2003, 2006) hold that as long as short ALD initiatives are augmented with follow up interventions, they too can have a favorable impact on authentic leadership behaviors.

**Self-Assessment Instruments**

Intervention organizations, institutions of higher learning, and practitioners responsible for curriculum development of authentic leadership development programs, might be able to replicate trigger events using self-assessment instruments. Cooper et al. (2005) suggested that in an intervention-type setting, such as a leadership training or development programs, a trigger can be simulated using a self-assessment instrument. These may be a genuine way of making the
individual more self-aware. For example, Implicit Association Tests (e.g., Chugh, 2004) can be used to facilitate self-awareness with respect identifying any inclination to be racist or sexist, and going forward, may cause individuals to closely reexamine their decisions from an ethical perspective before implementing them, thus allowing them to take introspection, regulate him or herself, and become more authentic.

To that end, programs designed to develop authentic leaders may incorporate the methodologies that replicate trigger events that research as revealed engender self-awareness, such as assignments that require deep introspection or self-evaluation. Participants might also be provided with tools that facilitate a deeper, broader self-awareness such as a self-evaluation assignment, as well as a platform to conduct a 360-degree evaluation. Analogous with the strengths concept of positive psychology and self-awareness of authentic leadership, the program might provide an opportunity for the students to identify strengths using the StrengthsFinder instrument (Buckingham & Clifton, 2001). Buckingham and Clifton explained the purpose of the StrengthsFinder assessment “is not to anoint one with strengths but to find where one has the greatest potential for strength” (p. 78).

To gain an in-depth awareness of their giftedness, reliable methods such as the Reflected Best Self Exercise can be used. The Reflected Best Self exercise is a copyrighted instrument of the Regents of the University of Michigan (Center for Positive Organizations, 2014). The 360-Degree assessment reveals a leader’s best qualities. Leaders can become more aware of their behavior in conflict situations using the Conflict Mode Instrument (Thomas-Kilmann, 2007), which measures behavior along two dimensions: assertiveness and cooperativeness, which define five approaches for dealing with conflict: competing, collaboration, compromising, avoiding, and accommodating (Thomas & Kilmann, 2007), and using the personal power profile. Leaders can
also gain awareness of their preferences using the Myers Briggs Type Indicator (MBTI; Hirsh & Kummerow, 1993). It is a tool for helping people understand the eight personality preferences: “Extroversion (E) Sensing (S) Thinking (T), Judging (J), Introversion (I), Intuition (N), Feeling (F), and Perceiving (P)” and their relevance in organizational settings (Hirsh & Kummerow, 1993, p. 1). The preferences are organized into “four pairs or dichotomies: (EI), (SN), (TF), and (JP)” (Hirsh & Kummerow, 1993, p. 8).

After discovering new insights participants can be given an assignment that provides an opportunity to practice introspection with journaling and self-dialogue based on the information learned from the assessment. Of all the leadership models, authentic leadership is the one that is characterized by a deep level of self-awareness that can only be attained through experiences, crucibles, reflection, and intentional self-development (Luthans & Avolio, 2003). The leadership development treatment described in this study embodies challenging assignments that represent trigger events as well as a platform to facilitate self-awareness. Luthans and Avolio (2003) pointed out that a leadership development program, or the establishment of a formal mentoring program may even serve as a trigger event. This study intended to test this theory.

**Authentic Leadership Development Intervention**

Toor and Ofori (2010) argued the following:

[Organizations] need to invest in human resources in a more innovative manner. They should manage their talent and train the professionals to be better leaders and followers who…possess positive psychological capacities, and have the highest sense of authenticity to contribute to the achievement of the organizational objectives. (p. 341)

Leadership within organizations can and should take a proactive stance by developing strategies to nurture psychological capital in the workplace and create programs to develop authentic leaders.
However, Jensen and Luthans (2006) were careful to note that Avolio and Luthans (2006) wisely “caution that authentic leadership development involves a complex process that cannot be reduced to a simple training program” (p. 661). So far, very few leadership development programs have been designed for the specific purpose of ALD. However, to provide guidance that effort, Avolio and Luthans (2003) provided the highlights of a meta-analysis that reviewed data from leadership development interventions conducted over the last 100 years. The analysis included 113 intervention studies conducted since 1990, as well as 88 that occurred from 1900 to 1989. The two-thirds that were conducted in the United States did not produce any greater effect than those conducted abroad. The analysis revealed a 63% probability of interventions resulting in a positive outcome, which although not significant, was considered telling of the potential benefit of ALD intervention. From this analysis, Avolio and Luthans (2003) observed that the most positive results meaning desired behavior change occurred when the participants were involved in interventions that were at least 7 days long, and those intervention studies conducted in a lab environment yielded a larger effect that field studies, suggesting that it is important to control the context in which an ALD intervention might be conducted. An ironic finding was that the research that tested the Pygmalion effect or self-fulfilling prophecy saw the greatest effect. The analysis also discovered that positive results were seen across all leadership models. However transformational, charismatic, and visionary leadership interventions produced a higher impact than conventional as participants emerged from the transformational, charismatic, and visionary leadership interventions demonstrating more of the desired leadership behaviors. Although the ability to foster self-awareness is fundamental to ALD, this meta-analysis ultimately revealed that the context in which the ALD is conducted may be the determining factor regarding the success of ALD intervention possibly due to the aforementioned
mediating effect of positive organizational context (Woolley et al., 2011). Avolio and Luthans (2003) acknowledged that to determine what methods for ALD will be most effective more exploration with different approaches is necessary, and they recommend “…testing one approach versus another to learn what works best” (p. 53).

Although this creates a very broad opportunity to explore many approaches, there exist best practices and very pragmatic methods for designing, developing, implementing, and evaluating any training and development intervention or program. Cooper et al. (2005) suggested pre-screening possible participants considering who would receive the most benefit in terms of being able to develop authentic leadership by reframing a negative trigger event. Then again a measure might be used to assess individuals who are more inclined to make ethical decisions, possess high PsyCap, or authentic leadership dimensions. Cooper et al. (2005) also acknowledged the importance of the ethical component in ADL but questioned the extent to which intervention can effect sustainable change in a leader’s ethical behavior. To develop the ethical perspective which embodies authentic leadership, incorporate into the program curriculum or objectives challenging ethical scenarios which the participant must solve. Then facilitating the participants’ ability to reflect on beliefs and motives for decisions made create and discover tools for continued self-discovery growth and change in terms of personal ethical philosophy.

Aligned with the ALD model (Luthans & Avolio, 2003), “…It is important to remember that authentic and ethical behavior may be highly context dependent,” implored Cooper et al. (2005), “…Ethical behavior may be influenced by the persons in power in an organization or by the peer group” (p. 14). Using 505 supermarket managers, Tracy, Tannenbaum, and Kavanagh (1995) found that there were variances in post-training behaviors suggesting that the
organizational climate and culture had an effect on transfer of learning to the job. Therefore, in the case of ALD, it is important that the intervention is undergirded with a network of partners (i.e., managers, supervisors, peers) that will reinforce the ethical component of the training.

Further, to determine whether or not the training was effective resulting in behavior change, evaluation is critical (Cooper et al., 2005). Scholars agreed that a measurement needed to be developed before designing or implementing ALD training expressing the following viewpoint:

Finally, rigorous program assessment will be the key. Training in authentic leadership will need to be linked with behavior change (rated by others in the workplace) and performance at all levels (individual, group, and organization)—preferably using non-perceptual measures. As mentioned above, management development is rarely evaluated at the impact level for any type of training program. Only through such assessment can we determine the utility of an authentic leadership development initiative. The bottom line is that it would be irresponsible (and not genuine) to implement interventions claiming certain benefits if, in fact, they do not provide them. (Cooper et al., 2005, p. 14)

Along the same lines, Luthans and Avolio (2006) expressed the importance of evaluating the impact (behavior change) as a result of ALD approaches offered and suggested that measuring the return on development be a criterion for all ALD initiatives. Answering this call is the ALQ (Walumbwa et al., 2008), which measures the four dimensions of AL: self-awareness, relational transparency, internalized moral perspective, and balanced processing was developed and validated.

**Authentic Leadership Development Intervention Studies**

An action research study conducted by Puente, Crous, and Venter (2007) of 22 managers (15 females and 7 males) whose average age was 33, explored using appreciative inquiry (AI) (Cooperrider & Sekerka, 2003) as an intervention for developing authentic leadership. Appreciative inquiry (AI; Cooperrider & Sekerka, 2003), a correlate of *positive organizational scholarship* (Cameron et al., 2003), is a non-linear method of changing an environment by
asking positive questions regarding an ideal organizational context. It focuses on opportunities and possibilities rather than threats or risks. “AI is a four step process: (a) discovery, (b) dream, (c) design, and (d) of search and discovery designed to value, prize, and honor” (Cooperrider & Sekerka, 2003, p. 226). AI facilitates change by giving organizations the collective purpose and energy to implement projects and strategies that may move them in the direction of a shared dream that has united meaning and value. In this particular study developing authentic leadership represented the dream.

Identifying ALD as a deficit-based approach to leadership development and questioning whether it can develop sustained authentic leaders, they chose AI, a strength-based approach. The authors also reasoned that since authenticity is a positive construct, AI, a positive organizational change model, was an expedient developmental method. The aim of the study was to determine to what extent AI could be applied in creating a positive planned trigger event for ALD.

The authors’ goal was to replicate a positive trigger event. They did this by facilitating a 1-day AI workshop using authentic leadership as the positive topic. In the workshop they implemented the AI 4-D cycle that involves four phases: discovery, dream design, and destiny (Cooperrider & Sekerka, 2003). The participants each received a workbook that contained an interview guide of 10 positive questions and the guidelines and discussion questions for each of the four phases. They provided their responses and then during the plenary discussion identified what they considered meaningful themes for authentic leadership. The study determined that “a strength-based [positive] trigger was useful in discovering their authentic selves, thereby eliminating the need to emulate others” (Puente et al., 2007, p. 17). This was a self-assessment
based on the perception that the participants became more aware of what they valued as authentic leadership characteristics.

However, contrary to Cooper et al. (2005), an assessment such as an ALQ measure was not conducted. The study results did not provide quantitative data on whether or not the workshop resulted in a change in authentic leadership dimensions. Also the training lasted one day. Cooper et al. (2005) argued with respect to programs designed for authentic leadership development, “These development interventions will probably not be effective if they are treated as a one-time training event” (p. 10).

A study conducted by (Baron & Parent, 2015) explored the authentic leadership development process in a training environment. Baron and Parent (2015) studied 24 French Canadian middle managers (11 women and 13 men) who on a voluntary basis participated in a leadership development program that over a period of 3 years, attending 15 days per year for a total of 45 days and in-between the training session the participants attended coaching sessions. The training focused on authenticity, influence and impact, development of self and others, establishing lasting relationships, and achieving results. The study used a semi-structured interview process to collect data from the participants. The researchers shared that participants in the study expressed that kindness, gentleness; respect and the lack of judgment; trust or confidence in the structure of the program were important factors. Authentic leadership was measured using a content analysis of the interview transcripts. The findings revealed that the participants developed characteristics that represented the four dimensions of AL (Walumbwa et al., 2008). The study also provided evidence that a supportive climate was an important factor in authentic leadership development. Based on the literature it would appear that individual perception of whether or not the organizational context is positive and supportive is related to
authentic leadership development, which is in line with both (Avolio & Luthans, 2003, 2006; Cooper et al., 2005; Walumbwa et al., 2008), providing impetus for hypothesis 1.

Avolio et al. (2009) explored different leadership development approaches to ascertain how their effects on behavior modification were different across male and female leaders. They conducted a meta-analysis of 57 intervention-based leadership studies, conducted in both laboratory and field settings, which provided sufficient data to support that the effect of leadership intervention (i.e., assignment, training, coaching, mentoring, etc.), may vary depending on whether the participant is female or male.

Avolio et al. (2009) reported the following:

Results showed a significant difference in the effect sizes for leadership interventions conducted with all-male and majority-male participants versus all-female and majority-female participant studies; however, these differences varied based on the setting of the intervention, the theoretical basis of the intervention, and the type of outcome. (p. 325)

In light of this, for the purpose of this study it was reasonable to propose that gender along with organizational context would influence the effect of any leadership development intervention.

Developing Psychological Capital

With regard to the workplace, a relationship between the positive psychological capacities of hope, self-efficacy, resiliency, and optimism has been linked to positive outcomes. Moreover, Luthans and Avolio (2003) pointed out that a leadership development program or the establishment of a formal mentoring program may serve as a trigger event, which is theorized to cause psychological capital, the precursor of authentic leadership to engage. In that regard, employers might find it worthwhile to invest in developing these psychological capacities. Employers invest in compensation packages to attract talent; and then, in some cases, once employed and preliminary training completed, employees are often left on their own to
determine what they need to do to enhance their skills and knowledge to meet organizational goals and initiatives. “Employees are expected to take charge of strategic management of their own careers,” suggested Luthans et al. (2000) “or in essence, take ownership” (p. 5). The ones who can align themselves by demonstrating knowledge and technical expertise are the ones who can make the most favorable contribution to the organization. It is important to understand that an employee’s level of organizational commitment, a large determinant of how much effort they will invest in the organization, should probably not be left to chance (Luthans et al., 2000).

The theoretical positive relationship between psychological capital and employee performance was discussed earlier. With that in mind, in addition to the necessary technical and procedural training and development interventions determined relevant to the task or job, employers might benefit by being intentional about developing, PsyCap. Increasing PsyCap on an individual level may lead to increased self-awareness improved organizational commitment, improved to job satisfaction, greater sense of employee well-being, decreased absenteeism, improved citizenship behaviors, and trust. These factors can facilitate overall improved performance on an organizational level (Avey, Nimnicht, & Pigeon, 2009; Avey et al., 2006; Avolio, Avey, & Norman, 2007).

Further, management generally focuses training efforts on competencies required to complete a task and develops the skills required to that end. Interventions don’t usually focus on identifying natural talent and developing individual strengths (Buckingham & Clifton, 2001). Also, during performance reviews managers typically discuss what needs to be improved more than they talk about what is going well and how to build on that. Employee development strategies on an individual level often involve interventions designed to improve weaknesses, which is usually not as effective as building strengths. Trying to turn a weakness into a strength
focuses on the negative. Going against the grain can result in disappointment and frustration for the employer and the employee because the weakness seldom if ever becomes strength. People are born with natural talents that when enhanced with knowledge and practice can become strengths (Buckingham & Clifton, 2001). Representative of this, Mother Teresa asserted, “I was once asked why I don’t participate in anti-war demonstrations. I said that I will never do that, but as soon as you have a pro-peace rally, I’ll be there.”

With regard to leadership development on an organizational level there is evidence that developing psychological capital on the organizational level might be a more promising venture in capital spending in terms of yield than are conventional forms of capital, such as financial, human, and social (Luthans et al., 2006; Luthans, Youssef, & Avolio, 2007). There is evidence that PsyCap is measurable, and can be developed and sustained in individuals and organizations (Luthans, Avolio, Avey, and Norman 2007). Luthans, Avolio, Avey, and Norman (2007) conducted two relational studies to test the PsyCap measure (Psychological Capital Questionnaire) to explore (a) whether or not employees’ level of PsyCap would have a positive relationship to performance and job satisfaction; (b) whether or not the relationship between employees’ level of PsyCap and performance and job satisfaction would be stronger than the relationship between employees’ levels of each of the discrete facets of hope, self-efficacy, resiliency, and optimism; and (c) performance and job satisfaction.

The studies “focused on the individual as the level of analyses” (Luthans, Avolio, Avey, & Norman, 2007, p. 543). Study 1 used three samples consisting of 745 management students. The first sample (67% male) from a university in the Midwest consisted of 167 students with an average age of 22.25; the second (58% male) from the Mideast, consisted of 404 students with an average age of 21.10; the third sample consisted of 174 students from the aforementioned
Midwest university. The first study used web-based questionnaires to survey PsyCap (predictor variable) and then a week later performance and satisfaction were surveyed (Luthans, Avolio, Avey & Norman 2007).

The second study also used an online questionnaire to survey the independent variables of the participants of the service firm. Performance evaluations were linked with survey responses. The independent variables of the participants from the high-tech manufacturing firm were surveyed onsite by an independent researcher and their performance evaluations were also linked with their responses. According to Luthans, Avolio, Avey, and Norman (2007), for measuring PsyCap “the four scales that were determined to best meet the selection criteria based on reliability validity and relevance in the workplace were (a) hope (Snyder et al., 1991a), (b) resiliency (Wagnild & Young, as cited in Luthans, Avolio, Avey & Norman 2007), (c) optimism (Scheier & Carver, as cited in Luthans, Avolio, Avey & Norman 2007), and (d) self-efficacy (Parker, as cited in Luthans, Avolio, Avey & Norman 2007). From the four scales, the research group developed the PsyCap Questionnaire (PCQ) (Luthans, Avolio, & Avey, 2007, p. 554).

Using scientific methodology, Luthans, Avolio, Avey, and Norman (2007) measured PsyCap of all groups using primary data from the questionnaires and tested reliability of the measures. To measure the students’ performance study, one used a 4-item self-rated performance measure (not used to test any hypothesis) and, if they were not employed, students were asked to rate their academic performance (p. 555). To rate the employees’ performance, a second study used secondary data consisting of actual performance evaluations obtained from human resources records. To measure job satisfaction, both studies used a 3-item Likert scale with 1-6 rating (Luthans, Avolio, Avey, & Norman 2007). The researchers reported that both the hypotheses were supported. However, the greatest limitation found in this study was that
causality was not definitively established. Although there was a direct and positive correlation between PsyCap and performance, the test did not prove that it was PsyCap that impacted the employee performance reflected in the evaluations. The employees may have rated PsyCap high because of their favorable performance evaluations (Luthans, Avolio, Avey, & Norman 2007). The implication is that with regard to leadership development, it is important that managers, academicians developing leadership programs, and leadership practitioners understand how to develop PsyCap. The following discussion focuses on how PsyCap can be developed in individuals, organizations, and leaders (Luthans, Youssef, & Avolio 2007).

PsyCap is developed through positive interventions described by Biwas-Diener (2010) as “ways of working with people where the focus is not on alleviating pain or restoring a person to normal functioning from substandard function, but rather, on promoting superior functioning…” (p. 5). These interventions could involve identifying strengths and taking a strengths approach to leadership. It could involve training, coaching, mentoring and providing other experiences that build an individual’s PsyCap. “The most tried and true approach to developing PsyCap confidence or self-efficacy,” explained Luthans, Youssef, and Avolio (2007), “is repeatedly experiencing success in accomplishing the tasks in which efficacy is to be built” (p. 44). Some of the following approaches may be effective in building PsyCap self-efficacy over time. First, a trainer or coach can break down a complex task into sub components and teach the trainee one at a time allowing the trainee to experience frequent incremental successes so that the trainee develops skill at each step. Second, mastery experiences can be provided by placing managers and individuals in situations where probability of success is relatively high. Third, training can be conducted and stretch goals established in a risk free distraction free environment (Stajkovic, & Luthans, 1998b). Individuals can build their own confidence vicariously through the successes
of their peers, and simply being encouraging and affirming even the smallest accomplishments can change self-doubt into self-efficacy (Luthans, Youssef, & Avolio, 2007).

“Allowing trainees (both managers themselves and human resources in general) to experience success, get plenty of practice, observe relevant models, and receive positive feedback,” asserted Luthans (2002a) “could all enhance their positive efficacy and resulting performance” (p. 61). Developing hope in managers and employees involves setting goals that give individuals the opportunity to challenge their abilities beyond the norm (Lopez et al., 2004; Luthans & Jensen, 2002; Luthans & Youssef, 2004; Snyder, 2000). Hope develops as individuals learn to anticipate obstacles and build an alternate path into a strategy. Developing the tenet that there is always another way is the essence of hope and allows individuals to persist and not give up when initial strategies fail. This is expected to develop the pathway component of hope. In that regard, allow individuals to take part in goal setting and decision-making by allowing them to set goals that align with their intrinsic and extrinsic motivations (Luthans, Youssef, & Avolio, 2007). When employees know that they have access to sufficient means, it is believed that they will more likely be encouraged to implement strategies.

Therefore, ensure individuals are supported in terms of material resources and leadership support. Also, as stated earlier, it is likely that employees are more inclined to be successful at goals that resonate with their natural talents and abilities (Buckingham & Clifton, 2001). Thus, leaders should identify employee talents and strengths and align goal assignments from this perspective which is expected to facilitate the development of the agency component of hope and for that same reason implement an experiential learning environment in which employees might feel supported (Luthans, Youssef, & Avolio, 2007).
Moreover, developing PsyCap hope in individuals requires hopeful leadership. In *The World is Flat*, Freidman (2005) explained a “flattening process” that has been rapidly growing: “all businesses, institutions, and nation-states that are now facing these inevitable, even predictable, changes but lack the leadership, flexibility, and imagination to adapt—not because they are not smart or aware, but because the speed of change is simply overwhelming them” (p. 49). Such rapid change makes it difficult to see a clear path to goals as the target is ever-moving and the effectiveness of interventions is fleeting. In such an environment, management and leadership need the sustaining power of hope to help them persevere over the long term while motivating followers. In the contemporary workplace, leaders who possess the goal-directed agency and pathway components of hope model drive and tenacity that can incite hope in their followers, possibly giving them the motivation to perform (Luthans, Youssef, & Avolio, 2007).

The following are some pragmatic approaches to developing hope in the workplace: (a) help individuals to accept the organizational goals that have been set by getting everyone engaged and involved; (b) establish specific goals that require individuals and the organization to reach beyond what is normal; (c) manage difficult, long-term strategic plans by establishing strategic milestones towards them; (d) learn how to recognize when a particular path to a particular goal is no longer viable and to change the strategic plan accordingly; and (e) practice positive visualization of conduct mental rehearsals of crucial impending dealings (Luthans, 2002a).

Developing PsyCap optimism in individuals involves viewing unfavorable outcomes from three perspectives and explaining things in a positive way (Snyder, 2001). One, instead of punishing oneself or others for things that did not go well, look at the situation realistically. Determine, if possible, the root cause of any setback and focus on the positive aspects of the
situation that were within one’s purview or control, while acknowledging that there were aspects of the situation that were subject to external influences (Luthans, Youssef, & Avolio, 2007). Two, realize that there is something positive that can be gleaned from any unfavorable situation. Do not become fixated upon the negative aspects; but try to reflect upon the positive attributes or things that can be appreciated from the experience (Luthans, Youssef, & Avolio, 2007). Three, realize that with any outcome there is always room for improvement. In that regard, consider what lessons can be learned and look forward to future opportunities for improvement (Luthans, Youssef, & Avolio, 2007; Schneider, 2001). “Optimism can be developed, offer Luthans, Youssef, and Avolio (2007) by either altering a pessimistic explanatory style or enriching the dimensions of an optimistic explanatory style” (p. 101). For example, instead of self-blaming for things that do not go as planned or engaging in negative self-talk, learn to not personalize problems but to identify temporary situational causes that can be fixed and orient thinking towards finding solutions (Luthans, Youssef, & Avolio, 2007).

Drawing from the notion that hopeful individuals are more resilient (Coutu, 2002; Masten & Reed, 2002; Youssef & Luthans, 2003), increasing the asset of hope might increase resiliency within the individual, the leader and the organization. Under hopeful leadership, resiliency can be engendered in individuals and or leaders. Hopeful leadership is a prescription for engendering resiliency on all organizational levels. Placing an emphasis on increased or increasing assets rather than on risks, within the leader and follower leads to better outcomes (Masten & Reed, 2002; Norman et al., 2005). To that end, the following two interventions were created and tested: Using four samples of management students in experimental and control groups, Luthans et al. (2006) implemented a PsyCap micro-intervention (PCI) that provided some evidence that participants PsyCap can be increased. At the beginning of the study, before
the intervention began, the students’ PsyCap was measured using the 24-item PsyCap Questionnaire (PCQ).

When the 2006 study was conducted, PsyCap was based on a novel concept, and at that point due the nascent state of scholarly research on the topic, its discriminant validity had not yet been empirically demonstrated. Later, Luthans, Avolio, Avey, and Norman (2007), explored how the discriminant validity of PsyCap measured up to fixed personality constructs such as the big five (i.e., openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism) and core self-evaluations (Judge & Bono, 2001; Judge, Erez, Bono, & Thoresen, 2003; Judge et al., 2004). When assessed across multiple samples, PCQ demonstrated satisfactory confirmatory factor analytic structure (e.g., Luthans, Avolio, & Avey, 2007). Using the four aforementioned samples, when the four 6-item measures were tested separately, they demonstrated the following Cronbach alpha scores: hope (.72, .75, .80, .76); resilience (71, .71, .66, .72); self-efficacy (75, .84, .85, .75); optimism (74, .69, .76, .79), and overall PsyCap (88, .89, .89, .89). In the second sample, the internal consistency of the optimism scale (.69) was below satisfactory, and in the third sample, the same was true for the resiliency scale (66). Nevertheless, the reliability of the overall PsyCap measure was above satisfactory levels (Luthans, Avolio, & Avey, 2007). Subsequently, Avey, Luthans, and Jensen (2009) used the 24-item PsyCap to explore the relationship between PsyCap, workplace stress, and intentions to quit among a heterogeneous sample of 416 working adults from a wide variety of jobs and industries. In this study, the PCQ had strong internal reliability in this study of .92.

Later, Peterson, Luthans, Avolio, Walumbwa, and Zhang (2011) used the PCQ to explore the relationship between PsyCap and employee performance. The purpose of their study was to test the relationship between employees’ PsyCap and job performance. The sample of consisted
of 179 employees (84% male) from the marketing review division of a large northeastern United States financial service firm. In three separate confirmatory factor analyses (CFAs) to assess its validity, the PCQ demonstrated the following: average CFI = 1.00, average TLI = 1.00, RMSEA ranged from 0.05 to 0.07, and average SRMR = 0.00 (Peterson, Luthans, Avolio, Walumbwa, & Zhang, 2011).

A 12-item version of the 24-item PCQ was used again to explore the relationship between individual PsyCap and performance. Luthans, Avey, Clapp-Smith, and Lia (2008) used a sample of 456 Chinese workers from both the largest copper refining state-owned enterprise and largest private copper refining factory in China. The reliability of this translated 12-item PCQ was .68.

Most recently the PCQ was used to explore the direct effect that mindfulness (heightened awareness) and the mediating effect of psychological capital (i.e., hope, efficacy, resilience, and optimism) may have on mental well-being. The study used four samples. Group one consisted of 205 CEOs, presidents, or top management; group two was comprised of 183 middle managers; group three was 202 junior managers; and the fourth sample was 107 entrepreneurs. The study combined the four dimensions to determine the overall psychological capital score for respondents resulting in the following alpha scores: .85, .87, .83, and .86, which provided evidence of its reliability (Roche, Haar, & Luthans, 2014).

The authors created an input to develop each of the PsyCap components: The input for developing PsyCap hope was a session that lasted from 1 to 3 hours in which the participants identified goals that they would focus on during each of the subsequent sessions. They were required to create and evaluate several pathways towards those goals, and then eliminate ones that were determined not viable. The input for optimism involved strategic planning in which the participants projected the possible setback and prepared strategically to address them,
reducing the possible setbacks and thereby reducing pessimism. The input for confidence involved break out groups in which the participants modeled, visualized, and discussed the successful accomplishment of the set goals. The input for resiliency involved an exercise in which the participants identified personal setbacks, evaluated the genuine impact of the setback, identified what aspects of the situation were in and out of their control, and then weighed their options. Luthans et al. (2006) shared that their preliminary results increased the PsyCap of the experimental group, and the control group showed no change. The researchers experienced the same results using working managers treated with the same micro-intervention approach.

Zhang et al. (2014), in one study of 234 Chinese employees, (105 from the intervention group, and 129 from the control group) created and examined the effectiveness of a reading materials-based intervention program. Male participants comprised 59.2% of the sample and females 40.8%. The reading material was designed according to the micro intervention model developed by Luthans et al. (2006), which they were asked to read to themselves in one 30-minute session. The intervention post-test resulted in increased PsyCap of the experimental group and no change in the control group.

Summary

Chapter 2 is a review of the literature that provides the genesis and history of the positive psychology movement and it purpose to explore the virtues of society. Organizational behaviorists determined its relevancy in the workplace describing this as positive organizational behavior whose goal is to explore positive ways to develop virtuous leaders and organizations. This chapter discussed the criteria for positive organizational behavior and the qualifying constructs of positive psychological capital, authentic leadership, authentic leadership development, and provided a discussion of the theoretical framework of these constructs. This
framework has important leadership development implications, which provided impetus for further exploration. In that regard, there are a number of studies that provided support for many of the theoretical propositions regarding the benefits of authentic leadership and PsyCap and valid measures were created. This generated enthusiasm for further exploration into intervention approaches for developing these constructs. Scholarship in this area is at its genesis and scholars have only begun to explore ways of developing PsyCap and authentic leadership. This chapter reviewed the theoretical basis for these constructs and several intervention studies that are currently published. These studies provided a basis and impetus for the hypotheses that were formulated for this study.
Chapter 3: Research Methods

Creswell (2009) explained, “Postpositivists hold a deterministic philosophy in which causes probably determine effects or outcomes. Thus the problems studied by postpositivists reflect the need to identify and assess the causes that influence outcomes, such as found in experiments” (p. 7). In that regard, coming from a postpositivist’s perspective, this study applied empirical observation of collected data and measurement. The research design involved using survey methodology to collect quantitative data from a sample population of 51 managers at a public pension organization. The study addressed specific research questions that explored relationships between independent and naturally occurring dependent variables.

Research Questions

This study addressed the following three questions:

1. To what extent, if at all, is there a relationship between positive psychological capital and authentic leadership?

2. To what extent, if at all, is the relationship between positive psychological capital and authentic leadership development moderated by professional development intervention?

3. To what extent, if at all, is the relationship between professional development intervention and authentic leadership moderated by gender?

4. What are the lived experiences of managers of a public pension plan concerning their involvement in leadership development programs, the emotions that influenced their leadership development, and the differences and similarities between perceptions of men and women about their professional development experiences?
Research Approach

This study examines a multivariate model using survey methodology. There are several advantages to survey research. First, it characteristically facilitates the methodical development and examination of logical interpretations and allows the testing of synchronously relating multivariate proposals. Second, the survey method facilitates the ability to identify correlation, explain causation, and illuminate the influence of intervening variables. Third, survey research facilitates the ability to make generalizations performance of a larger population from sample data. The expectation is that survey data gathered from the study may facilitate insight into the larger population from which the study sample was taken. Fourth, survey research facilitates the ability to gather many data from only a few variables. Lastly, survey research measures operationally defined variables and lends itself to reaching specific, less biased conclusions (Babbie, 1990).

Upon completion of quantitative data analysis, phenomenological interviews were conducted to gain insight from organizational leaders that added meaning to the quantitative findings in terms of what leaders believe about leadership development. The interview questions were used to gain insight into the role positive emotions (psychological capital) play in leadership development initiatives. The interviews explored how leaders feel professional development may influence the relationship between positive emotions and effective leadership and delved into ideas about the effect gender has on leadership development initiatives. The questions elicited opinions about what leaders believe are the most important components of a professional development program and what are thought to be important environmental factors needed to support a successful professional development program. The insight gained from the
findings can be used in the design of future leadership development initiatives in terms of ensuring important support components are in place.

**Measures**

The study used several instruments simultaneously to collect data regarding demographics, PsyCap, AL, and POS. One researcher-developed supplemental questionnaire was used to survey participants regarding demographics and past or present participation in the organization’s Self-Directed Mentoring, Program, Leadership Development Program, or Management Academy. In addition, the Psychological Capital Questionnaire (Luthans, Avolio, Avey, & Norman, 2007) was used to measure the four PsyCap constructs. The study used the Authentic Leadership Questionnaire (Walumbwa et al., 2008) to measure AL. This study compared the results and examined the relationship between predictor and criterion variables as well as the impact of the moderating variables. The following discussion provides detailed information regarding the survey instruments that were used in this study.

**Psychological Capital Questionnaire (PCQ).** The four dimensions of PsyCap were measured using the Psychological Capital Questionnaire (PCQ; Luthans, Avolio, & Avey, 2007). The measure contains 24 items on a 6-point scale (Appendix C). Items 1, 2, 3, 4, 5, and 6 measure Self-Efficacy; Items 7, 8, 9, 10, 11, and 12 measure hope. Items 13R, 14, 15, 16, 17, and 18 measure Resilience, and items 19, 20R, 21, 22, 23R, and 24 measure Optimism. Each of the four PCQ scale scores is calculated by taking the mean of all items in the scale. To calculate the overall PsyCap identify the mean of all the PCQ scale items. Reverse scored items are marked with an R, and their responses should be scored as follows: 1 is scored as a 6, and a 6 is scored as a 1; a 2 is a 5 and a 5 is a 2; a 3 is a 4 and a 4 is a 3 (Luthans, Avolio, & Avey, 2007).
As explained in Chapter 2, in 2006, PsyCap was just emerging, and there had not yet been published studies that empirically demonstrated its discriminant validity. Later, Luthans, Avolio, Avey, and Norman (2007), explored how the discriminant validity of PsyCap measured up to fixed personality constructs such as the big five and core self-evaluations (Judge & Bono, 2001; Judge et al., 2003, 2004). When assessed across multiple samples, PCQ demonstrated satisfactory confirmatory factor analytic structure (e.g., Luthans, Avolio, Avey, & Norman, 2007). Using the same four samples of management students used in the (2006) study, when the four 6-item measures were tested separately, they demonstrated the following Cronbach alpha scores: hope (.72, .75, .80, .76); resilience (71, .71, .66, .72); self-efficacy (75, .84, .85, .75); optimism (74, .69, .76, .79); and overall PsyCap (88, .89, .89, .89).

In the second sample, the internal consistency of the optimism scale (.69) was below satisfactory and in the third sample, the same was true for the resiliency scale (66). Nevertheless, the reliability of the overall PsyCap measure was above satisfactory levels (Luthans, Avolio, Avey, & Norman, 2007). Avey, Luthans, and Jensen (2009) used the 24-item PsyCap questionnaire to explore the relationship between PsyCap, workplace stress, and intentions to quit among an assorted sample containing 416 employed adults from diverse jobs and industries. In this study, the PCQ had strong internal reliability of .92. Also, the PCQ proved to have criterion validity in terms of the relationship with job satisfaction, which was stronger than core self-evaluations, but not significant ($p < .10$; Luthans, Avolio, Avey, & Norman, 2007). However, in relation to Conscientiousness and Extraversion PsyCap was significantly stronger ($p < .001$). Further, the results indicated that the relationship between PsyCap and affective organizational commitment ($p < .001$) was stronger than that of PsyCap and core self-evaluations, Conscientiousness, and Extraversion (Luthans, Avolio, Avey, & Norman 2007).
**Authentic Leadership Questionnaire (ALQ).** The Authentic Leadership Instrument (ALI; Neider & Schriesheim, 2011) was a considered alternative for this study. However, it was not ideal because the ALI is a leader-rater instrument used to rate leaders, and this study aimed to collect self-report data. A better alternative, the Authentic Leadership Questionnaire (ALQ) (Walumbwa et al., 2008) is a self-report measure and more favorably suited for the aims of this study. The study used the ALQ, a 16-item instrument that measured, using a 5-point Likert-scale, the four dimensions of the authentic leadership construct: self-awareness, relational transparency, balanced processing, and internalized moral perspective (see Appendix D). Items 1, 2, 3, 4, and 5 measure relational transparency. Items 6, 7, 8, and 9 measure Internalized Moral Perspective. Items 10, 11, and 12 measure Balance Processing; and items 13, 14, 15, and 16 measure Self awareness. To achieve the raw score for the scale, calculate the mean item value (Avolio, Gardner, & Walumbwa, 2007).

To develop the ALQ measure and provide evidence for its construct validity the authors conducted a study using an independent sample from the United States and one from the People’s Republic of China (Walumbwa et al., 2008), as described in Chapter 2. Walumbwa et al. (2008) reported that confirmatory factor analyses established the ALQ including leader self-awareness, relational transparency, internalized moral perspective, and balanced processing (Walumbwa et al., 2008). For the U.S. sample, internal consistency alphas (Cronbach’s alpha) for each of the measures reported were as follows: self-awareness, .92; relational transparency, .87; internalized, moral perspective, .76; and balanced processing, .81. For the Chinese sample, internal consistency alphas (Cronbach’s alpha) were at the following levels: self-awareness, .79; relational transparency, .72; internalized moral perspective, .73; and balanced processing, .76.
Permission and licensing for this measure were obtained from the publisher, Mind Garden.

**Demographic questionnaire.** A researcher-developed supplemental questionnaire (see Appendix B) was used to gather nominal data regarding the key demographics among respondents (e.g., gender, age, educational level, employment background, etc.), and whether or not they participated in any of the professional development programs. Since this study uses purposive sampling and not using random selection, the purpose of identifying other demographics used (i.e., age, education level, employment background, leadership experience, etc.) is to establish demographic equivalence of respondents to the population.

**Phenomena Investigated**

**Self-perception of AL and PsyCap.** Using the separate self-report measures discussed above, the study collected data on each respondent’s present self-perception of his or her AL constructs (i.e., self-awareness, relational transparency, balanced processing, and internalized moral perspective) and PsyCap constructs (i.e., hope, self-efficacy, resiliency, and optimism). Efficacy is confidence in one’s ability to accomplish a particular goal or task or belief in one’s own potential. Luthans, Youssef, and Avolio (2007) recognized that “PsyCap self-efficacy represents one’s conviction…about his or her abilities to mobilize the motivation, cognitive resources, and courses of action needed to successfully execute a specific job” (p. 38). Hope is defined as “a positive motivational state that is based on an interactively derived sense of successful: one, agency (goal directed energy) and two pathways (planning to meet the goals)” (Snyder et al., 1991, p. 287). With regard to the construct of PsyCap optimism Luthans, Youssef, and Avolio (2007) explain, “Realistic optimism includes an evaluation of what one can and cannot accomplish in a particular situation…” (Luthans, Youssef, & Avolio, 2007, p. 100).
With reference to work context resilience is a positive emotional ability to recover holistically from all kinds of either positive or negatives challenging experiences (Luthans, Youssef, & Avolio, 2007). Walumbwa et al. (2008) offer the following theoretical definition for authentic leadership:

…a pattern of leader behavior that draws upon and promotes both positive psychological capacities and a positive ethical climate, to foster greater self-awareness, an internalized moral perspective, balanced processing of information, and relational transparency on the part of leaders working with followers, fostering positive self-development. (p. 93)

In this study AL is the only measured outcome variable. Operationally, the four individual dimensions of the AL construct are self-awareness, relational transparency, balanced processing, and internalized moral perspective. Self-awareness refers to one’s ability to live out his or her known purpose and values and beliefs while growing more cognizant of internal and external motivations, drives, emotional intelligence and self-perception. It involves clarity about one’s gifts and talents as well as shortcomings (Walumbwa et al., 2008). Relational transparency refers to behavior that is genuine and a true external representation of one’s inner self in terms of thoughts, beliefs, and purpose. It is being honest, forthcoming and candid while remaining tactful and appropriate (Walumbwa et al., 2008). Balanced processing is a leader’s ability to think globally by strategically weighing out all relevant facets of a situation before making a final judgment or taking a course of action (Walumbwa et al., 2008). Internalized moral perspective is a built-in internal mechanism that the leader employs, either consciously or unconsciously, to manage his or her thoughts and behaviors so that they are aligned with his or her values, beliefs, and the context in which he or she leads (Walumbwa et al., 2008).

Moderating phenomenon. This study explored the moderating influence of participation in one or all of the professional development (PD) interventions on the relationship
between PsyCap and AL. The study also measured the moderating role of gender, on the relationship between participation in a professional development program and AL.

**Phenomenological Exploration**

The study also explored the dynamics of the aforementioned concepts from a phenomenological perspective. In that regard, it explored the lived experiences of managers of a public pension plan concerning their involvement in leadership development programs in terms of what they perceive to be important program components and important environmental factors. It will also reveal beliefs about which positive emotions play a role in leadership development, specifically perceptions of the emotions that influence leadership development. The study also dissected the differences and similarities between perceptions of men and women about their professional development experiences.

**Data Sources and Levels of Measurement**

The dataset for the aforementioned variables was collected using the self-reporting online survey instruments described in the measures section. Regarding levels of measurement, gender and PD are at the nominal level of measurement. Gender and PD are dichotomous nominal variables, with PD comprised of three potential attributes (i.e., Leadership Development Program, Management Academy, and Mentoring Program). The ALQ and PCQ instruments are completed using ranking such as *always, sometimes, or never* on a response scale (Babbie, 1990; Gray, 2009), with results reported at the interval level of measurement for each subscale. The Authentic Leadership Questionnaire (Walumbwa et al., 2008), a 16-item instrument, was used to measure four dimensions of authentic leadership: awareness, relational transparency, balanced processing, and internalized moral perspective on scale from $1 = \text{strongly disagree}$ to $5 = \text{strongly agree}$.
strongly agree. Scores from one to 15 are considered low. Scores from 16 to 20 are considered high in comparison with other dimensions.

The score of the PCQ scale is calculated by determining the mean (average) of the total items in the scale. Items 1 through 6 measure efficacy; items 7 through 12 measure hope; items 13R through 18 measure resilience; and items 19 through 24 measure optimism (20 & 23 are reverse scored). The overall PsyCap score can be determined by calculating the mean of the items in the PCQ altogether. The items that are reverse scored are marked with an R (Luthans, Avolio, & Avey, 2007). In terms of interpretation, each of the four dimensions of the PsyCap scales is scored based on the individual construct.

For example, the higher the score, the more of that respective construct an individual is believed to use. Individuals with high hope, when strategic planning, are thought to be able to predetermine alternative paths to goals (Luthans, Avey, Avolio, & Peterson, 2010). They are also motivated by an awareness of their ability to create ways to succeed in their pursuits (Luthans & Youssef, 2004).

Theoretically, people with efficacy are inclined to be drawn to exigent projects and undertakings. It is also expected that they possess motivation to apply the effort essential for successful goal attainment (Luthans & Youssef, 2004). It is thought that those individuals who have high efficacy are inclined to persevere in the face of adversity. Contrarily, it is believed that persons with low efficacy may tire, become ill, depressed, anxious, and feel overly stressed more readily than high self-efficacy individuals do (Luthans, Luthans, & Luthans, 2004).

Resilient individuals are considered able to recover effectively after hardship, controversy, or collapse and are able to persist through greater than before task and move forward. This is not expected to be the case for people possessing low resilience as these
individuals are believed to become stagnant after setbacks and are inclined to struggle when faced with positive changes such as greater than before responsibility (Luthans, Avolio, & Avey, 2007).

It is believed that persons with high optimism are inclined to attribute favorable life events to their own credit. They can detach personal fault from unfavorable outcomes, which allows them to circumvent becoming depressed, guilty, or blaming themselves, reflection and despondency (Luthans, Avolio, & Avey, 2007). Optimistic people are believed to have the ability to take credit for positive as well as perceive them to be personal, enduring, and all encompassing, while externalizing negative outcomes and perceiving them as attributing negative events to be external, short-term, and restricted to particular circumstances (Seligman, 1998).

**Timeframe of Data Collection**

Cross-sectional survey data are collected at a point in time, and can be used to establish correlations between variables at the time an inquiry is being conducted (Babbie, 1986; Creswell, 2009; Gray, 2009; Trochim & Donnelly, 2007). In this cross-sectional research design, prospective dataset was collected at the respondents’ convenience, over a 2- to 3-week period in the third quarter of 2016, which though brief, was long enough to provide sufficient time to respond. After the quantitative data were gathered and analyzed, semi-structured interviews were used to gather the qualitative data.

**Population, Sampling Method, Sample, and Participants**

“The ultimate purpose of survey sampling,” explained Babbie (1990), “is to select a set of elements from a population in such a way that descriptions of those elements (statistics) accurately describe the total population from which they are selected” (p. 75). The study
universe is employees of public pension plans in California. The site consisted of 377 employees of a large public pension plan administrator. This population was comprised of both men and women of various ages, education levels, races, national origins, and rank (i.e., regular staff supervisors, and managers). This study population consisted of 51 exempt or non-union represented managers referred to as the Management Appraisal and Performance Plan (MAPP) team. MAPP team members may or may not have participated in one or more professional development programs. One of the MAPP members participated in the Leadership Development Program, over half participated in the self-directed mentoring program and over half went through the Management Academy. The population to which this study aimed to generalize was public pension plan employees currently holding management or leadership positions in California. This study aimed to explore variables in relation to leadership and leadership development. Because of the characteristics of the study aims, the fact that organizational managers and leaders were easily identifiable and accessible; and the researcher’s in-depth knowledge of the population, it was expedient to select the study sample using purposive or judgmental sampling (Babbie, 1990). From the same population of 51 MAPP members a sample of 13 individuals were also recruited to participate in the qualitative study.

The organization’s human resources division was used as the source for the sampling frame. It was proposed that the respondents would be divided into two groups: 1) respondents who had participated in at least one of the organization’s professional development programs and those who had not participated in any. In that regard, participation in one of organization’s professional development programs was a binomial (yes or no variable). The study proposed to divide the respondents into two groups: a study group that would be comprised of participants that responded yes (did participate/currently participating in one of the professional development
programs) and a control group comprised of participants that responded no (have not participated in any of the professional development programs). Another factor considered in this sampling design was reliance on available subjects from such a small sample population as the study aimed to gather primary data and participation in this study was voluntary. For these reasons, predicting the exact sample size of the respondents was difficult at best. “A response rate of at least 50%,” explained Babbie (1990), “is generally considered adequate for analysis and reporting” (p. 182). Given this, from the population of 51 a response rate of 25.5 would have been adequate. However, there was concern that a sample size that small would be problematic.

**Protection of Human Subjects**

Permission for this study was obtained from the organization’s CEO and Director of Human Resources (Appendix F). The intended population received an email requesting their participation in the study. The email began with an introduction that provided the potential respondent with the following information: name of the researcher, university, research purposes and details of what participation entailed, risks and benefits of participation, a guarantee of confidentiality, assurance that the participant could withdraw at any time, and names of persons to contact for questions (Creswell, 2009).

Informed consent language was provided on the landing page of the survey battery. It informed potential respondents that participation is purely voluntary and they could opt out or withdraw from the study without negative consequences. It referenced the researcher and university contact information, and informed the respondents that participation only involved completing the online questionnaires through the SurveyMonkey tool. The respondents were informed that they would not be asked for any personally identifiable information such as their names or employee numbers, and that the researcher would not know whose identities are
attributable to which responses. Consent language also informed the participant that the risks associated with participation in this study are minimal and no more than an individual would experience by doing daily tasks. Informed consent was obtained for semi-structured interviews that were conducted for a qualitative phenomenological analysis. Potential respondents were informed that there was not any remuneration or compensation attached to participation and individual benefit is not expected. However, the study results are expected to inform positive organizational behavior regarding professional development approaches and their relationship with positive leadership theories and in that regard benefit society as a whole. This study meets the requirements for exemption under the Public Welfare, Department of Health and Human Services, Title 45 of National Institutes of Health Rule (2009) that governs the protections of human subjects. Specifically, section 45 CFR46.101 (b) (2), which states the following:

(b) Unless otherwise required by Department or Agency heads, research activities in which the only involvement of human subjects will be in one or more of the following categories are exempt from this policy:
Category (2) of 45 CFR 46.101. Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects’ responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects’ financial standing, employability, or reputation. (p. 18)

Data Collection Setting and Procedures

The setting was large public pension plan administrator, which serves a large metropolitan county of over 1000,000 members, including tens of thousands of retirees. Demographically, the organization's employees represent a cross section of the county’s population in terms of nationality, race, gender, and religion. The pension plan administrator was a not-for-profit public agency, with the fiduciary responsibility of administering the county’s tens of billions of dollars in funds in compliance with local pension laws, State, and Federal
regulations. There are hundreds of similar public agencies around the world to which this study may be able to generalize.

The researcher had daily access to the study’s setting and submitted a request for permission to conduct the study (Appendix E). The Chief Executive Officer (CEO) had given his expressed oral and written consent (Appendix F) to support this study. A recruitment letter (Appendix G) was sent by the Human Resources Division via email to all of the organization's 51 Management Appraisal Performance Plan (MAPP) team comprised of individuals holding leadership positions (i.e. division manager, division chief, director, etc.) inviting them to participate in this study. In addition, to facilitate responses, HR communicated the CEO's support of the study. The email asked potential participants to respond by completing the PCQ, ALQ, and supplemental researcher developed questionnaire regarding gender demographic, education, and professional development. The email contained a link to the online questionnaires on SurveyMonkey.

To mitigate response bias and non-responses the potential respondents were assured that there would be no link to their or the organization’s identity. To encourage participation the recruitment population received a weekly reminder message. One week after the initial recruitment email, the population received a second email notifying them that there was still time to respond to the questionnaires. At the two-week mark, the study failed to achieve at least a 50% response rate. Therefore, a third email was sent to inform everyone that the study had been extended an additional week because the needed responses had not been received and that there was still time to participate. At the end of the third week a fourth email was sent out informing the respondents that the study was closed and expressing appreciation for all who participated.
Once all the responses had been received, the dataset was exported from the SurveyMonkey database into SPSS files and analyzed.

Once the quantitative data was analyzed, a phenomenological study was conducted. Qualitative dataset was collected through an interview process. The interviews provided an opportunity to explore from a leadership perspective, what the quantitative results might mean in terms of the components of the theoretical model (see Figure 2). To recruit for the interviews, all of the 51 MAPP executives were sent a recruitment letter via email (Appendix G) and asked in the initial emails to indicate if they wanted to participate in an interview. Thirteen participants expressed interest and one-on-one interviews were conducted on-site with the 13 volunteers. The interviewee’s office or an available conference room was used to conduct the interviews. At the beginning of each interview, the interviewee was provided with an informed consent to sign (Appendix H). With the interviewee’s consent, the interviews were audio recorded and notes were also taken. During the interview, aggregated quantitative results were shared with the interviewee. The interview protocol (Appendix I) consisted of open-ended questions about the quantitative data results as they related to the components in the study model and questions about the participants’ emotions and leadership experiences.

**Summarization of Hypotheses and Constituent Variables**

Alternative hypothesis 1: There is a direct and positive correlation between the leader’s levels of PsyCap (self-efficacy, optimism, hope, and resiliency) and authentic leadership dimensions (self-awareness, relational transparency, balanced processing, and internalized moral perspective).

- Null hypothesis 1: There is not a direct and positive relationship between a leader’s levels of PsyCap (self-efficacy, optimism, hope, and resiliency) and authentic leadership
dimensions (self-awareness, relational transparency, balanced processing, and internalized moral perspective).

- Alternative hypothesis 2: The relationship between positive psychological capital and authentic leadership development is moderated by professional development.
- Null hypothesis 2: Professional development does not moderate the relationship between positive psychological capital and authentic leadership.
- Alternative hypothesis 3: The relationship between professional development and authentic leadership is moderated by gender.
- Null hypothesis 3: Gender does not modify the relationship between professional development and authentic leadership.

Analytic Techniques

In this study, AL is a continuous dependent variable, and PsyCap is an independent continuous predictor variable. Professional Development (PD) is an independent moderating dichotomous variable. Gender is a dichotomous independent moderating variable. The study proposed to use Pearson correlation analysis, to explore the degree of the relationship between each unit’s PsyCap and AL. The study proposed to test the assumptions of moderated multiple regression (MMR) prior to testing the model, and measure the degrees of variance within each of the variables. The study proposed to use SPSS statistics for the analyses. To test the moderating effect of PD on the relationship between PsyCap and AL and the moderating effect of gender on the relationship between professional development and AL, the study proposed to use moderated multiple regression (MMR) procedures.

Quantitative data analysis. To test the study’s hypotheses, the study proposed the following analyses: (see Table 1). In each case the size of the sample was predicted to be small.
Therefore, the study proposed to calculate the standard errors and confidence limits through bootstrapping (MacKinnon, Lockwood, & Williams, 2004). The study proposed to test AL and PsyCap at the interval level using MMR as the primary technique for testing the main hypothesis regarding the relationship between employees’ levels of authentic leadership dimensions (self-awareness, relational transparency, balanced processing, and internalized moral perspective) and PsyCap (self-efficacy, optimism, hope, and resiliency).

With regard to hypothesis 2, this study proposed to use MMR analysis to test the moderating effect of PD on the relationship between PsyCap and AL. Here, it was assumed highly likely that a respondent could have participated in one or more of the interventions (treatments) described in Chapter 1. Therefore, the study proposed to test the moderating effect of PD across eight levels (i.e., none, one, two, three, etc.) of the independent moderating variable.

With regard to hypothesis 3, the study proposed to use MMR to test the moderating effect of gender on the relationship between professional development intervention and AL. Here again it was assumed highly likely that a respondent could have participated in one or more of the interventions (treatments) described in Chapter 1. Therefore, the study proposed to test the moderating effect of gender across eight levels (i.e., none, one, two, three, etc.) of the independent variable. This study proposed the following analyses:
Table 1

Planned Data Analysis

<table>
<thead>
<tr>
<th>Research question</th>
<th>Measures</th>
<th>Level of measurement</th>
<th>Data analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>To what extent, if at all, is there a relationship between positive psychological capital and authentic leadership?</td>
<td>ALQ (Walumbwa et al., 2008)</td>
<td>Interval continuous: PsyCap, AL</td>
<td>Pearson Correlation analysis with bootstrapping</td>
</tr>
<tr>
<td></td>
<td>PCQ (Luthans et al., 2007a, 2007b)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To what extent, if at all, is the relationship between positive psychological capital and authentic leadership development moderated by professional development intervention?</td>
<td>PCQ (Luthans et al., 2007a, 2007b)</td>
<td>Interval continuous: PsyCap, AL</td>
<td>MMR analysis with bootstrapping</td>
</tr>
<tr>
<td></td>
<td>ALQ (Walumbwa et al., 2008)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>supplemental questionnaire</td>
<td>Supplemental Questionnaire</td>
<td>Dichotomous moderator: professional development</td>
<td></td>
</tr>
<tr>
<td>To what extent, if at all, is the relationship between professional development intervention and authentic leadership moderated by gender?</td>
<td>ALQ (Walumbwa et al., 2008)</td>
<td>Interval continuous: AL</td>
<td>MMR analysis with bootstrapping</td>
</tr>
<tr>
<td></td>
<td>Supplemental Questionnaire</td>
<td>Dichotomous moderator: gender professional development</td>
<td></td>
</tr>
</tbody>
</table>

Phenomenological analysis. Once the quantitative dataset was collected and analyzed, semi-structured interviews were conducted. The aim of the phenomenological analysis was to give meaning to the quantitative data results. In accordance with phenomenological data analysis described by Creswell (2015), the study used a coding process to analyze the raw quantitative data (Figure 3). The interview data responses were transcribed and organized into a
matrix of numbered interviews. The written dataset was analyzed by hand to identify categories. The categories were reduced to non-redundant codes that do not overlap, and then the codes were used to identify themes (Creswell, 2015).

Figure 3. Coding process for qualitative data analysis (Creswell, 2015).

The themes derived from the qualitative data were used to help interpret the meaning of the quantitative data. The aim was to provide a narrative from leadership perspective to explain the findings in terms of the relationships between positive emotions, authentic leadership, professional development, and gender in such a way as to inform organizational leadership in leadership development selection, practitioners of professional development and instructional design of professional development programs.
Chapter 4: Results

The purpose of this study was fourfold. First, the study examined the relationship between positive psychological capital and authentic leadership. Second, the study examined to what extent the relationship between positive psychological capital and authentic leadership was moderated by professional development intervention. The study also examined the extent to which, if at all, the relationship between professional development and authentic leadership was moderated by gender. Further, the study explored the lived experiences of managers of a public pension plan concerning their involvement in leadership development programs and the emotions that influenced their leadership development, and the differences and similarities between perceptions of men and women about their professional development experiences. Surveys from 27 participants were collected to address the first three research question. In addition, 13 of the 27 participants were interviewed to address the fourth research question.

This chapter will first provide an overview of the sample drawn from the population. Second, it will provide the results of the quantitative analyses of the 27 surveys to answer the research questions RQ1 (“To what extent, if at all, is there a relationship between positive psychological capital and authentic leadership?”), RQ2 (“To what extent, if at all, is the relationship between positive psychological capital and authentic leadership development moderated by professional development intervention?”), and RQ3 (“To what extent, if at all, is the relationship between professional development intervention and authentic leadership moderated by gender?”). Also, provided in this chapter are qualitative findings derived from 13 interviews to answer RQ4 (“What are the lived experiences of managers of a public pension plan concerning their involvement in leadership development programs and the emotions that
influenced their leadership development, and the differences and similarities between perceptions of men and women about their professional development experiences?").

**Description of the Sample**

Table 2 displays the frequency counts for selected participant variables from the quantitative survey. There were more males (59.3%) than females (40.7%).

Table 2

*Frequency Counts for Selected Variables (N = 27)*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Category</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td></td>
<td>16</td>
<td>59.3</td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td>11</td>
<td>40.7</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bachelor’s degree</td>
<td></td>
<td>14</td>
<td>51.9</td>
</tr>
<tr>
<td>Master’s degree</td>
<td></td>
<td>6</td>
<td>22.2</td>
</tr>
<tr>
<td>Professional degree/doctorate</td>
<td></td>
<td>7</td>
<td>25.9</td>
</tr>
<tr>
<td>Training programs completed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management Academy</td>
<td></td>
<td>16</td>
<td>59.3</td>
</tr>
<tr>
<td>Leadership Development Program</td>
<td></td>
<td>10</td>
<td>37.0</td>
</tr>
<tr>
<td>Mentoring Program</td>
<td></td>
<td>16</td>
<td>59.3</td>
</tr>
<tr>
<td>Total programs completed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td></td>
<td>2</td>
<td>7.4</td>
</tr>
<tr>
<td>One</td>
<td></td>
<td>12</td>
<td>44.4</td>
</tr>
<tr>
<td>Two</td>
<td></td>
<td>9</td>
<td>33.3</td>
</tr>
<tr>
<td>Three</td>
<td></td>
<td>4</td>
<td>14.8</td>
</tr>
</tbody>
</table>

*a Respondents could have participated in more than one training program.

b Programs: $M = 1.56$, $SD = 0.85$. 
All participants had at least a bachelor’s degree with 48.1% also having a graduate degree. Respondents were queried about their involvement in three management programs. Their participation was as follows: management academy (59.3%), leadership development program (37.0%), and mentoring program (59.3%). As for the number of programs attended, the number ranged from none (7.4%) to all three (14.8%) (\(M = 1.56, SD = 0.85\)).

Table 3 displays the descriptive statistics for selected participant variables. The variables were the participant’s age (\(M = 30.78\)), current leadership experience (\(M = 11.72\)), and total leadership experience (\(M = 14.22\)).

Table 3

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>30.78</td>
<td>8.09</td>
<td>18.00</td>
<td>46.00</td>
</tr>
<tr>
<td>Current leadership experience</td>
<td>11.72</td>
<td>8.15</td>
<td>0.17</td>
<td>25.00</td>
</tr>
<tr>
<td>Total leadership experience</td>
<td>14.22</td>
<td>7.86</td>
<td>3.00</td>
<td>30.00</td>
</tr>
</tbody>
</table>

**Description of the PCQ Items**

Table 4 displays the mean ratings for the 23 individual Psychological Capital Questionnaire (PCQ) items sorted by the highest mean. These ratings were based on a 6-point scale: 1 = *strongly disagree* to 6 = *strongly agree*. The highest agreement was for item 2, “I feel confident in representing my work area in meetings with management” (\(M = 5.67\)), and item 1, “I feel confident analyzing a long-term problem to find a solution” (\(M = 5.63\)). The lowest agreement was for item 19, “When things are uncertain for me at work, I usually expect the best” (\(M = 4.52\)) and item 12, “At this time, I am meeting the work goals I that I have set for myself” (\(M = 4.63\)).
Table 4

*Ratings for Individual PCQ Items Sorted by the Highest Mean (N = 27)*

<table>
<thead>
<tr>
<th>PCQ item</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. I feel confident in representing my work area in meetings with management.</td>
<td>5.67</td>
<td>0.68</td>
</tr>
<tr>
<td>1. I feel confident analyzing a long-term problem to find a solution.</td>
<td>5.63</td>
<td>0.63</td>
</tr>
<tr>
<td>6. I feel confident presenting information to a group of colleagues.</td>
<td>5.59</td>
<td>0.57</td>
</tr>
<tr>
<td>5. I feel confident contacting people outside my organization (e.g., suppliers, customers) to discuss problems.</td>
<td>5.59</td>
<td>0.64</td>
</tr>
<tr>
<td>7. If I should find myself in a jam at work, I could think of many ways to get out of it.</td>
<td>5.52</td>
<td>0.64</td>
</tr>
<tr>
<td>17. I can get through difficult times at work because I’ve experienced difficulty before.</td>
<td>5.52</td>
<td>0.64</td>
</tr>
<tr>
<td>18. I feel like I can handle many things at a time at this job.</td>
<td>5.44</td>
<td>0.58</td>
</tr>
<tr>
<td>15. I can be “on my own,” so to speak, at work if I have to.</td>
<td>5.44</td>
<td>0.64</td>
</tr>
<tr>
<td>3. I feel confident contributing to discussions about the organization’s strategy.</td>
<td>5.37</td>
<td>0.88</td>
</tr>
<tr>
<td>9. There are lots of ways around any problem.</td>
<td>5.33</td>
<td>0.62</td>
</tr>
<tr>
<td>10. Right now I see myself as being pretty successful at work.</td>
<td>5.30</td>
<td>0.78</td>
</tr>
<tr>
<td>14. I usually manage difficulties one way or another at work.</td>
<td>5.22</td>
<td>0.51</td>
</tr>
<tr>
<td>8. At the present time, I am energetically pursuing my work goals.</td>
<td>5.19</td>
<td>0.88</td>
</tr>
<tr>
<td>11. I can think of many ways to reach my current work goals.</td>
<td>5.19</td>
<td>0.62</td>
</tr>
<tr>
<td>22. I’m optimistic about what will happen to me in the future as it pertains to work.</td>
<td>5.07</td>
<td>0.92</td>
</tr>
<tr>
<td>16. I usually take stressful things at work in stride.</td>
<td>5.04</td>
<td>0.71</td>
</tr>
<tr>
<td>21. I always look on the bright side of things regarding my job.</td>
<td>4.89</td>
<td>0.97</td>
</tr>
</tbody>
</table>

(continued)
Table 5 displays the mean ratings for the 16 individual Authentic Leadership Questionnaire (ALQ) items sorted by the highest mean. These ratings were based on a 5-point scale: 0 = not at all to 4 = frequently, if not always. The highest reported frequency was for Item 9, “As a leader, I make difficult decisions based on high standards of ethical conduct” ($M = 3.78$), and item 11, “As a leader I analyze relevant data before coming to a decision” ($M = 3.74$). The lowest reported frequency was for Item 5, “As a leader, I display emotions exactly in line with feelings” ($M = 2.52$) and item 14, “As a leader, I accurately describe how others view my capabilities” ($M = 2.67$).
Table 5

*Ratings for Individual ALQ Items Sorted by the Highest Mean (N = 27)*

<table>
<thead>
<tr>
<th>ALQ Item</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>9. As a leader, I make difficult decisions based on high standards of</td>
<td>3.78</td>
<td>0.42</td>
</tr>
<tr>
<td>ethical conduct.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. As a leader I analyze relevant data before coming to a decision.</td>
<td>3.74</td>
<td>0.53</td>
</tr>
<tr>
<td>7. As a leader, I make decisions based on my core values.</td>
<td>3.74</td>
<td>0.45</td>
</tr>
<tr>
<td>2. As a leader I admit mistakes when they are made.</td>
<td>3.74</td>
<td>0.53</td>
</tr>
<tr>
<td>6. As a leader, I demonstrate beliefs that are consistent with actions.</td>
<td>3.63</td>
<td>0.49</td>
</tr>
<tr>
<td>3. As a leader I encourage everyone to speak their mind.</td>
<td>3.59</td>
<td>0.50</td>
</tr>
<tr>
<td>12. As a leader, I listen carefully to different points of view before</td>
<td>3.56</td>
<td>0.58</td>
</tr>
<tr>
<td>coming to conclusions.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. As a leader I say exactly what I mean.</td>
<td>3.41</td>
<td>0.57</td>
</tr>
<tr>
<td>4. As a leader, I tell you the hard truth.</td>
<td>3.37</td>
<td>0.74</td>
</tr>
<tr>
<td>13. As a leader, I seek feedback to improve interactions with others.</td>
<td>3.33</td>
<td>0.62</td>
</tr>
<tr>
<td>16. As a leader, I show I understand how specific actions impact others.</td>
<td>3.26</td>
<td>0.59</td>
</tr>
<tr>
<td>10. As a leader, I solicit views that challenge my deeply held positions.</td>
<td>3.19</td>
<td>0.74</td>
</tr>
<tr>
<td>8. As a leader, I ask you to take positions that support your core values.</td>
<td>3.11</td>
<td>0.85</td>
</tr>
<tr>
<td>15. As a leader, I know when it is time to reevaluate my position.</td>
<td>2.93</td>
<td>0.78</td>
</tr>
<tr>
<td>14. As a leader, I accurately describe how others view my capabilities.</td>
<td>2.67</td>
<td>0.83</td>
</tr>
<tr>
<td>5. As a leader, I display emotions exactly in line with feelings.</td>
<td>2.52</td>
<td>0.89</td>
</tr>
</tbody>
</table>

*Note.* Ratings based on 4-point scale: 0 = *not at all* to 4 = *frequently, if not always.*

ALQ = Authentic Leadership Questionnaire.

**Quantitative Results**

The quantitative phase of the study was designed to answer the first three research questions. To answer these questions, first the psychometric characteristics for the five PCQ
scale scores and the five ALQ scale scores are presented (see Table 6). The Cronbach alpha reliability coefficients ranged in size from $\alpha = .54$ to $\alpha = .92$, with the median alpha being $\alpha = .69$. The total PCQ score had a mean of $M = 5.17$. The highest PCQ subscale score was for self-efficacy ($M = 5.67$) while the lowest PCQ subscale score was for optimism ($M = 4.81$). The total ALQ score had a mean of $M = 3.35$. The highest ALQ subscale score was for internalized moral perspective ($M = 3.56$) while the lowest ALQ subscale score was for self-awareness ($M = 3.05$) (see Table 6).

Table 6

*Psychometric Characteristics for the Aggregated Scale Scores (N = 27)*

<table>
<thead>
<tr>
<th>Scale</th>
<th>No. of items</th>
<th>$M$</th>
<th>$SD$</th>
<th>Low</th>
<th>High</th>
<th>$\alpha$</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCQ self-efficacy</td>
<td>5</td>
<td>5.57</td>
<td>0.57</td>
<td>3.60</td>
<td>6.00</td>
<td>.89</td>
</tr>
<tr>
<td>PCQ hope</td>
<td>6</td>
<td>5.19</td>
<td>0.56</td>
<td>4.00</td>
<td>6.00</td>
<td>.81</td>
</tr>
<tr>
<td>PCQ resilience</td>
<td>6</td>
<td>5.22</td>
<td>0.42</td>
<td>4.50</td>
<td>6.00</td>
<td>.65</td>
</tr>
<tr>
<td>PCQ optimism</td>
<td>6</td>
<td>4.81</td>
<td>0.83</td>
<td>1.83</td>
<td>6.00</td>
<td>.89</td>
</tr>
<tr>
<td>PCQ total scale</td>
<td>23</td>
<td>5.17</td>
<td>0.48</td>
<td>4.09</td>
<td>6.00</td>
<td>.92</td>
</tr>
<tr>
<td>ALQ relational transparency</td>
<td>5</td>
<td>3.33</td>
<td>0.42</td>
<td>2.40</td>
<td>4.00</td>
<td>.62</td>
</tr>
<tr>
<td>ALQ balanced processing</td>
<td>3</td>
<td>3.49</td>
<td>0.45</td>
<td>2.33</td>
<td>4.00</td>
<td>.54</td>
</tr>
<tr>
<td>ALQ internalized moral</td>
<td>4</td>
<td>3.56</td>
<td>0.41</td>
<td>2.75</td>
<td>4.00</td>
<td>.68</td>
</tr>
<tr>
<td>perspective</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ALQ total scale</td>
<td>16</td>
<td>3.35</td>
<td>0.34</td>
<td>2.63</td>
<td>3.88</td>
<td>.82</td>
</tr>
</tbody>
</table>

PCQ = Psychological Capital Questionnaire.

ALQ = Authentic Leadership Questionnaire.
This study originally proposed to conduct a multiple regression/correlation analysis. However, this study did not succeed in recruiting the minimal sample size required to provide sufficient statistical power for such analyses. In this study, multiple regression/correlation analysis for RQ1 would involve 16 separate bivariate analyses; RQ2 adds a three-way interaction with 15 possible dummy codes for PD; and RQ3 would involve a three-way analysis of those 15 permutations by four types of authentic leadership by dummy coded gender. To illustrate the extent to which this study is under-powered the following example is provided: The minimal necessary sample size \( n \) for an alpha of .05, power of .80 and a small effect size (the degree to which the null hypothesis is believed to be false) for a study using multiple regression/correlation analysis with only eight (fewer than in this study) independent variables would require a sample size of 757 (Cohen, 1992). This study’s sample size is \( N = 27 \). The implications of having such an underpowered study are (a) the risk of Type I error (mistakenly rejecting the null hypothesis when the test statistic is less than .05) or (b) rejecting the null hypothesis when the effect size is not equal to (greater than) zero (Cohen 1992). Also, were the sample size larger, the sampling distribution of the mean would be closer to a normal distribution. Because \( n = 27 \), it is unlikely that the sample is normally distributed, therefore Pearson correlation could not be used as Pearson’s \( r \) assumes that the variables should be normally distributed.

Therefore, the analytic approach was changed to Spearman’s rho. Spearman’s correlation is the nonparametric (meaning it is not necessary to satisfy the statistical assumption that the sample is drawn from a normal distribution) version of Pearson’s correlation coefficient. Spearman’s correlation coefficient, \( \rho \) (also signified by \( r_s \)) measures the strength and direction of association between two ranked variables. Further, Spearman’s rank and correlation test does not make any assumptions about the shape of the sampling distribution. The assumptions of
Spearman rho correlation are that the data must be at least ordinal and scores on one variable must be monotonically related (meaning never increasing or decreasing as the value of the independent variables change) to the other variable. Also, a Spearman correlation of \( r_s = 0 \) indicates that there is no association between ranks.

**Answering Research Questions 1, 2, and 3**

Research question 1 asked, “To what extent, if at all, is there a relationship between positive psychological capital and authentic leadership?” Table 7 displays the Spearman correlations between the five PCQ scales and the five ALQ scales. One of the resulting 25 correlations was significant at the \( p \leq .05 \) level, though the confidence interval was wide. The PCQ hope scale was positively related to the ALQ internal moral perspective (\( r_s = .38, p = .05, 95\% \text{ CI} [.01, .70] \)). In addition, three other correlations were of moderate strength using the Cohen (1988) criteria. Specifically, PCQ resilience had a non-significant but moderately sized relationship with ALQ self-awareness (\( r_s = .31, p = .12, 95\% \text{ CI} [-.06, .64] \)). The PCQ total scale had a non-significant but moderately sized relationship with ALQ relational transparency (\( r_s = .33, p = .09, 95\% \text{ CI} [-.09, .65] \)). Also, the PCQ hope scale had a non-significant but moderately sized relationship with the ALQ total score (\( r_s = .30, p = .12, 95\% \text{ CI} [-.10, .66] \), see Table 7).

Research question 2 asked, “To what extent, if at all, is the relationship between positive psychological capital and authentic leadership development moderated by professional development intervention?” This question was answered in Table 8 using Spearman correlations between the total PCQ score and the total ALQ score based on selected subsamples of respondents who have participated in different professional development experiences. These experiences included graduate school, three different corporate training programs as well as the number of those training programs that the respondent had participated in.
Table 7

Spearman Correlations for Authentic Leadership with Psychological Capital (N = 27)

<table>
<thead>
<tr>
<th>Authentic leadership with psychological capital</th>
<th>( r_s )</th>
<th>( LL )</th>
<th>( UL )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-awareness with PCQ self-efficacy</td>
<td>.06</td>
<td>-.35</td>
<td>.44</td>
</tr>
<tr>
<td>Self-awareness with PCQ hope</td>
<td>.12</td>
<td>-.24</td>
<td>.51</td>
</tr>
<tr>
<td>Self-awareness with PCQ resilience</td>
<td>.31</td>
<td>-.06</td>
<td>.64</td>
</tr>
<tr>
<td>Self-awareness with PCQ optimism</td>
<td>.12</td>
<td>-.27</td>
<td>.45</td>
</tr>
<tr>
<td>Self-awareness with PCQ total scale</td>
<td>.21</td>
<td>-.15</td>
<td>.51</td>
</tr>
<tr>
<td>Relational transparency with PCQ self-efficacy</td>
<td>.27</td>
<td>-.18</td>
<td>.61</td>
</tr>
<tr>
<td>Relational transparency with PCQ hope</td>
<td>.28</td>
<td>-.14</td>
<td>.60</td>
</tr>
<tr>
<td>Relational transparency with PCQ resilience</td>
<td>.29</td>
<td>-.12</td>
<td>.62</td>
</tr>
<tr>
<td>Relational transparency with PCQ optimism</td>
<td>.12</td>
<td>-.28</td>
<td>.48</td>
</tr>
<tr>
<td>Relational transparency with PCQ total scale</td>
<td>.33</td>
<td>-.09</td>
<td>.65</td>
</tr>
<tr>
<td>Balanced processing with PCQ self-efficacy</td>
<td>.01</td>
<td>-.42</td>
<td>.43</td>
</tr>
<tr>
<td>Balanced processing with PCQ hope</td>
<td>.07</td>
<td>-.30</td>
<td>.40</td>
</tr>
<tr>
<td>Balanced processing with PCQ resilience</td>
<td>.00</td>
<td>-.39</td>
<td>.38</td>
</tr>
<tr>
<td>Balanced processing with PCQ optimism</td>
<td>.00</td>
<td>-.41</td>
<td>.40</td>
</tr>
<tr>
<td>Balanced processing with PCQ total scale</td>
<td>-.09</td>
<td>-.44</td>
<td>.27</td>
</tr>
<tr>
<td>Internal moral perspective with PCQ self-efficacy</td>
<td>.22</td>
<td>-.27</td>
<td>.64</td>
</tr>
<tr>
<td>Internal moral perspective with PCQ hope</td>
<td>.38</td>
<td>**</td>
<td>.01</td>
</tr>
<tr>
<td>Internal moral perspective with PCQ resilience</td>
<td>.15</td>
<td>-.23</td>
<td>.52</td>
</tr>
<tr>
<td>Internal moral perspective with PCQ optimism</td>
<td>.19</td>
<td>-.28</td>
<td>.58</td>
</tr>
<tr>
<td>Internal moral perspective with PCQ total scale</td>
<td>.25</td>
<td>-.17</td>
<td>.62</td>
</tr>
<tr>
<td>ALQ total scale with PCQ self-efficacy</td>
<td>.18</td>
<td>-.27</td>
<td>.56</td>
</tr>
<tr>
<td>ALQ total scale with PCQ hope</td>
<td>.30</td>
<td>-.10</td>
<td>.66</td>
</tr>
<tr>
<td>ALQ total scale with PCQ resilience</td>
<td>.28</td>
<td>-.12</td>
<td>.64</td>
</tr>
<tr>
<td>ALQ total scale with PCQ optimism</td>
<td>.15</td>
<td>-.26</td>
<td>.49</td>
</tr>
<tr>
<td>ALQ total scale with PCQ total scale</td>
<td>.29</td>
<td>-.14</td>
<td>.63</td>
</tr>
</tbody>
</table>

PCQ = Psychological Capital Questionnaire. ALQ = Authentic Leadership Questionnaire.

* \( p \leq .10 \). ** \( p \leq .05 \). *** \( p \leq .01 \).
The overall Spearman correlation between the total PCQ score and the total ALQ score was $r_s = .29$ ($r_s^2 = 8.4\%$ of the variance shared or explained by the two variables; here forward abbreviated PVE), with a 95% CI [-.14, .63]. Those subsamples with the highest shared variance were for those who had completed graduate school ($r_s = .68$, $r_s^2 = 46.2\%$ of PVE, with a 95% CI [.16, .92]), those attending two or three of the corporate training programs ($r_s = .49$, $r_s^2 = 24.0\%$ PVE, 95% CI [-.13, .87]), and those who participated in the mentoring program ($r_s = .46$, $r_s^2 = 21.2\%$ PVE, 95% CI [-.11, .83]) (see Table 8).

Table 8

<table>
<thead>
<tr>
<th>Sample</th>
<th>$r_s$</th>
<th>$r_s^2$</th>
<th>LL</th>
<th>UL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall sample ($n = 27$)</td>
<td>.29</td>
<td>8.4</td>
<td>-.14</td>
<td>.63</td>
</tr>
<tr>
<td>No graduate education ($n = 14$)</td>
<td>.10</td>
<td>1.0</td>
<td>-.48</td>
<td>.59</td>
</tr>
<tr>
<td>Graduate education ($n = 13$)</td>
<td>.68</td>
<td>***</td>
<td>46.2</td>
<td>.16</td>
</tr>
<tr>
<td>No management academy ($n = 11$)</td>
<td>.31</td>
<td>9.6</td>
<td>-.44</td>
<td>.78</td>
</tr>
<tr>
<td>Attended management academy ($n = 16$)</td>
<td>.26</td>
<td>6.8</td>
<td>-.26</td>
<td>.67</td>
</tr>
<tr>
<td>No leadership development program ($n = 17$)</td>
<td>.35</td>
<td>12.3</td>
<td>-.16</td>
<td>.73</td>
</tr>
<tr>
<td>Attended leadership development program ($n = 10$)</td>
<td>.24</td>
<td>5.8</td>
<td>-.55</td>
<td>.84</td>
</tr>
<tr>
<td>No mentoring program ($n = 11$)</td>
<td>.07</td>
<td>0.5</td>
<td>-.54</td>
<td>.69</td>
</tr>
<tr>
<td>Attended mentoring program ($n = 16$)</td>
<td>.46</td>
<td>*</td>
<td>21.2</td>
<td>-.11</td>
</tr>
<tr>
<td>Attended one program ($n = 12$)</td>
<td>.27</td>
<td>7.3</td>
<td>-.49</td>
<td>.83</td>
</tr>
<tr>
<td>Attended two or three programs ($n = 13$)</td>
<td>.49</td>
<td>*</td>
<td>24.0</td>
<td>-.13</td>
</tr>
</tbody>
</table>

$r_s^2$ = Coefficient of determination.

PCQ = Psychological Capital Questionnaire.

ALQ = Authentic Leadership Questionnaire.

* $p < .10$. ** $p < .05$. *** $p < .01$. 
Research question 3 was, “To what extent, if at all, is the relationship between professional development intervention and authentic leadership moderated by gender?” To answer this question, Table 9 displays the Spearman correlations between selected professional development intervention variables for the entire sample ($n = 27$) as well as for the male only subsample ($n = 16$) and the female only subsample ($n = 11$). The gender-moderated effect would be suggested if considerably more variance was accounted for (based on the $r_s^2$ statistic) for one gender subsample as compared to the other. The largest differences in shared variance between the subsamples were as follows: (a) attended management academy explained 34 times more variance for females (6.8% PVE, 95% CI [-.44, .81]) compared to males (0.2% PVE, 95% CI [-.47, .50]); (b) completing graduate school explained 15 times more variance for females (21.2% PVE, 95% CI [-.89, .12]) compared to males (1.4% PVE, 95% CI [-.61, .42]); and (c) attended the leadership development program explained eight times more variance for females (4.0% PVE, 95% CI [-.79, .44]) compared to males (0.5% PVE, 95% CI [-.55, .65]). Also in Table 9, the relationship between the PCQ total score and the ALQ total score explained 11 times more variance for females only (26.0% PVE, 95% CI [-.23, .85]) compared to males only (2.3% PVE, 95% CI [-.38, .66]; see Table 9).
Table 9

Spearman Correlations for Total ALQ Score with Selected Professional Development Intervention Variables and PCQ Total Scale Based on Gender

<table>
<thead>
<tr>
<th>Sample</th>
<th>Intervention variable</th>
<th>( r_s )</th>
<th>( r_s^2 )</th>
<th>LL</th>
<th>UL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall (( N = 27 ))</td>
<td>Graduate education (^a)</td>
<td>-.20</td>
<td>4.0</td>
<td>-.55</td>
<td>.24</td>
</tr>
<tr>
<td>Males (( n = 16 ))</td>
<td>Graduate education (^a)</td>
<td>-.12</td>
<td>1.4</td>
<td>-.61</td>
<td>.42</td>
</tr>
<tr>
<td>Females (( n = 11 ))</td>
<td>Graduate education (^a)</td>
<td>-.46</td>
<td>21.2</td>
<td>-.89</td>
<td>.12</td>
</tr>
<tr>
<td>Overall (( N = 27 ))</td>
<td>Management Academy (^a)</td>
<td>.15</td>
<td>2.3</td>
<td>-.22</td>
<td>.49</td>
</tr>
<tr>
<td>Males (( n = 16 ))</td>
<td>Management Academy (^a)</td>
<td>.04</td>
<td>0.2</td>
<td>-.47</td>
<td>.50</td>
</tr>
<tr>
<td>Females (( n = 11 ))</td>
<td>Management Academy (^a)</td>
<td>.26</td>
<td>6.8</td>
<td>-.44</td>
<td>.81</td>
</tr>
<tr>
<td>Overall (( N = 27 ))</td>
<td>Leadership Development Program (^a)</td>
<td>-.12</td>
<td>1.4</td>
<td>-.50</td>
<td>.28</td>
</tr>
<tr>
<td>Males (( n = 16 ))</td>
<td>Leadership Development Program (^a)</td>
<td>.07</td>
<td>0.5</td>
<td>-.55</td>
<td>.65</td>
</tr>
<tr>
<td>Females (( n = 11 ))</td>
<td>Leadership Development Program (^a)</td>
<td>-.20</td>
<td>4.0</td>
<td>-.79</td>
<td>.44</td>
</tr>
<tr>
<td>Overall (( N = 27 ))</td>
<td>Mentoring Program (^a)</td>
<td>-.10</td>
<td>1.0</td>
<td>-.48</td>
<td>.29</td>
</tr>
<tr>
<td>Males (( n = 16 ))</td>
<td>Mentoring Program (^a)</td>
<td>-.11</td>
<td>1.2</td>
<td>-.60</td>
<td>.44</td>
</tr>
<tr>
<td>Females (( n = 11 ))</td>
<td>Mentoring Program (^a)</td>
<td>-.06</td>
<td>0.4</td>
<td>-.65</td>
<td>.60</td>
</tr>
<tr>
<td>Overall (( N = 27 ))</td>
<td>Number of programs attended</td>
<td>-.03</td>
<td>0.1</td>
<td>-.39</td>
<td>.33</td>
</tr>
<tr>
<td>Males (( n = 16 ))</td>
<td>Number of programs attended</td>
<td>.00</td>
<td>0.0</td>
<td>-.51</td>
<td>.50</td>
</tr>
<tr>
<td>Females (( n = 11 ))</td>
<td>Number of programs attended</td>
<td>.03</td>
<td>0.1</td>
<td>-.55</td>
<td>.62</td>
</tr>
<tr>
<td>Overall (( N = 27 ))</td>
<td>PCQ total scale</td>
<td>.29</td>
<td>8.4</td>
<td>-.10</td>
<td>.62</td>
</tr>
<tr>
<td>Males (( n = 16 ))</td>
<td>PCQ total scale</td>
<td>.15</td>
<td>2.3</td>
<td>-.38</td>
<td>.66</td>
</tr>
<tr>
<td>Females (( n = 11 ))</td>
<td>PCQ total scale</td>
<td>.51</td>
<td>26.0</td>
<td>-.23</td>
<td>.85</td>
</tr>
</tbody>
</table>

PCQ = Psychological Capital Questionnaire. ALQ = Authentic Leadership Questionnaire.

\( r_s^2 \) = Coefficient of determination expressed as a percentage.

\* \( p < .10 \).

\(^a\) Coding: 0 = No 1 = Yes.
Qualitative Results

The qualitative phase of the study was designed to answer the fourth research question: “What are the lived experiences of managers of a public pension plan concerning their involvement in leadership development programs and the emotions that influenced their leadership development, and the differences and similarities between perceptions of men and women about their professional development experiences?” To answer this research question, 13 of the 27 managers were interviewed. These interviews were audio recorded and prepared for analysis by being transcribed. During the first phase of qualitative analysis, inductive and deductive open-coding techniques were used to identify meaningful categories of information helpful for answering the research question based on the model proposed by Creswell (2015). The second phase of analysis entailed using the qualitative data analysis (QDA) computer program ATLAS.ti to conduct thematic analysis. Five themes emerged from the interview data that describes the lived experiences of the managers: (a) nature of leadership development, (b) extrinsic aspects of leadership development, (c) intrinsic aspects of leadership development, (d) personal attitudes and emotions, and (e) perceptions about gender. Each theme is defined in the following sections. Additionally, the meaningful categories of information specific to each theme are presented along with participant quotes that exemplify the themes.

**Theme 1: Nature of leadership development.** This first theme provides an overview of the participants’ perceptions about the nature of leadership development, the most frequently discussed topic from the interviews. Table 10 shows the six characteristics of experiences that the participants believed contributed to their leadership development. The totals in the table concern the number of mentions, rather than the frequency count of the raw number of independent respondents that that made mention of the characteristic
Two of the characteristics of this theme were particularly noteworthy. The characteristic “development as learning” emerged from the analysis most frequently \((n = 32)\) across most of the 13 study participants \((n = 10)\). Of the 13 participants, 10 discussed development as learning. Another important finding was that 9 of the 13 participants described the nature of leadership in terms of mentoring \((n = 23)\). Each of the six characteristics is described in the following sections. Definitions are provided and exemplary quotes from the study participants’ transcripts are provided.

Table 10

*Nature of Leadership Development Characteristics of Experiences*

<table>
<thead>
<tr>
<th>Category</th>
<th>P1</th>
<th>P2</th>
<th>P3</th>
<th>P4</th>
<th>P5</th>
<th>P6</th>
<th>P7</th>
<th>P8</th>
<th>P9</th>
<th>P10</th>
<th>P11</th>
<th>P12</th>
<th>P13</th>
<th>(P=n)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning as development</td>
<td>2</td>
<td>7</td>
<td>0</td>
<td>6</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>5</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>10</td>
<td>32</td>
</tr>
<tr>
<td>Mentoring as development</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>5</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>10</td>
<td>23</td>
</tr>
<tr>
<td>Approval as Development</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>6</td>
<td>13</td>
</tr>
<tr>
<td>Difficult challenges as development</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>Classroom training as development</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Teamwork as development</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>
1.a. Learning as development. This characteristic entails the learning of new beliefs, concepts, skills, theories, or behavior by broadening one’s perspective. By inference, if one is learning, he or she could be said to be developing. This characteristic emerged most frequently across the majority of the study participants’ interview transcripts. While Participant 1 generally identified development as “a learning experience,” Participant 4 (P4) articulated his astute awareness of how his ability to learn impacts his experiences with leadership development programs:

I didn’t get this position because I was the most knowledgeable, but I got it because of the characteristics and other qualities that I have, that I know how to get the information, obtain the information, and can easily absorb information that’s of value to me, you know, in a quick manner. So I’m capable of learning new processes quickly on a broader scale and I may not be the one who learns all the intricate details. But on a big picture, yes, I’m very capable, you know, of getting it, obtaining it, grab[bing] the information quickly.

Furthermore, P4 also related learning, in a general sense, to making mistakes, explaining the following: “You may make a mistake, but you learn from your mistakes so you won’t do that same thing again. And mistakes are a good thing because they’re learning.” Similarly,
Participant 6 discussed learning from mistakes, but her description was more personal than that of P4: “There have been instances that have happened in this office where I fell really hard, made some really bad decisions or didn’t say the right things with some of our support staff here and, oh yeah, I learned!” Participant 10 discussed the personal and practical nature of learning by comparing her learning in the workplace environment to how children learn observationally: “Just like kids watch their parents. You’re always doing that and so you learn a lot of things just along the way. What works and what doesn’t.”

1.b. Mentoring as development. The mentoring characteristic is exemplified by mutual partnering with someone who possesses the experience, wisdom, knowledge, know-how or skill in an area and described as an approach to leadership development. Participants shared that benefits such as increased confidence, increased knowledge/skill, emotional support, emerged from mentoring as development. P9 said, “there’s a stronger connection between the mentor and the mentee that’s going to create a stronger emotional relationship…and [development] into leadership.”

Participant 8 (P8) asserted, “I think, helping develop people is also really in its own way, mentoring…in certain ways mentors have the ability to shine a light on a path…help individuals…ask questions of themselves that they’re not quite yet aware of.

Some of the participants expressed that a mentoring program in and of itself is development. Participant 2 (P2) said, “I think the thing that was most helpful was the mentoring program.” Participant 10 (P10) agreed that a formal leadership development should have a mentoring component. P6 asserted, “[For] personal growth and development, I think the mentoring aspect is a big deal.” Participant 5 (P5) referred to a mentor’s ability to “provide the insight and tailor it to the mentee’s needs or the current goal.” Along the same lines, participant 2 described development as having a mentor address his persistent challenges such as “how to
deal with difficult employees.” Participant 12 (P12) said, “I went to the mentorship program and I thought it was great….” Participant 3 explained that a contributing factor in his development was the mentor’s ability to provide motivation and monitor progress. He observed, “If you can’t set goals for yourself, they’ll give you the goals and then they can measure those goals.”

One sentiment that was expressed across several of the interviews was the idea that mentoring as development is reciprocal: teaching and learning happen concurrently or mutually. For example, P2 said, “You learn as much from your mentee as the mentee learns from you in the mentoring program.” Several of the participants viewed this characteristic in terms of the direction, encouragement motivation, and support they received. P3 shared that in his experience development as mentoring increased belief in himself. He suggested, “The job of the mentor is to give you that confidence to let you know you “can do this.” P9 expressed that mentoring manifested itself as “encouragement, from my mentors and… bosses.” He also shared the following with regard to his managers.

The great ones were mentors. They would take the time to say, ‘You did that right or you might have thought about this and why don’t you try this approach?’ That made a big difference in my development.

1.c. Approval as development. This characteristic was typically described as being motivated by approval and affirmation from team members/superiors. For some it was the original catalyst into their leadership development. This suggests that leadership development can be enhanced through encouragement and a vote of confidence from others. In that regard, P2 recalled that this type of support was that which catapulted his own experience of leadership development. He reminisced, “Well, it all started when I was asked to be the supervisor of the new class and someone believing in me I think that’s what gave me the motivation to continue.” P5 shared that he was motivated and emotionally edified by the positive nudging and
endorsement of others explaining, “What pushed me forward [was] having other leaders seeing something in me, trusting me either with tasks or assignments listening to my…idea and saying, “Hey that was really good.” I think emotionally, that’s enough for me. P11 explained that, in his experience, this characteristic motivated him to develop himself further. He had not been formally developed or compelled by his superiors to seek development. But it was the approval from his superiors that gave him the impetus to pursue additional professional growth. He explained, “getting feedback from my supervisors and managers and getting their affirmation” was a motivating factor for him to “self-develop.”

1.d. Difficult challenges as development. This attribute is illustrated by increased emotional strength, confidence, resilience, and leadership qualities such as self-awareness as one endures rigorous trials, pursuits, or stretch goals. For example, the rigor of law school or graduate school requires endurance and perseverance to achieve the degree. When explaining why the relationship between PsyCap and AL was stronger among those with a graduate degree he observed, P4, who holds a bachelor’s degree, shared the following perspective: “Getting these professional degrees while…working seems to be challenging. So I think that that would make someone have a more resilient spirit.” P6 expressed difficult challenges as development in terms of her very trying law school experience as she recalled, “I had a really hard time in school. When you get higher up and it gets more competitive you have to work harder…that builds up resilience…which I think probably helped with my leadership development.”

P8 discussed a difficult experience with regards to the social climate that he believed contributed to his development in terms of resiliency, recalling, “I grew up in Boston in the mid-1970ss during forced segregation. Sometimes negative things propel you….Without a doubt, you come back to resiliency, as being a key element of [development].” P9 expressed that
pursuit of difficult goals develops other qualities. He said, “You have to have the hope that you’re going to be able to meet that really tough goal. You have to be optimistic you’re going to reach it…” Participant 10 had a completely different perspective on difficult challenges as development. Speaking in terms of academic pursuits, from her perspective, the point at which the difficult challenge takes place in the lifespan and individual’s “stage in life, and readiness [and] mental preparedness” are factors in whether or not the difficult challenge will result in development. P8 described how a challenging superior can contribute to development and shared the following experience and insight:

Challenging people also develop your leadership skills. Being able to work with them, and see the strengths and weaknesses of that style helps you develop your own style as well. They help shape who you ultimately become and how you interact with people.

1.e. Classroom training as development. This is the perspective that leadership development involves classroom training and should be a component of an environment that supports leadership development. There was an opinion among most of the participants that leadership development involves activities that take place in a classroom setting in which both theory and practice can be taught.

P9 designed a leadership development program in which there was a classroom component. He shared, “we put on the leadership development program here and…we did have a consultant come in and do some classroom work with [the participants]. P6 discussed the value of the theoretical perspective of leadership development, saying, “I do think the classes that we’ve had in some of the programs are important too because I think it’s still good to have some of the theory behind stuff.” In addition, P11’s perspective is that the classroom is where steps, procedures, methods can be imparted. He expressed this as, “I think to me that’s [where] you can learn the technical aspects.”
**1.f. Teamwork as development.** This characteristic is exemplified by providing individuals with opportunities to work in a team environment. An emphasis is placed on the team concept that includes being a team-player (i.e., helping team mates and being concerned with the needs of the team) and also taking a corporate approach to projects and tasks, meaning consulting with the team on decision-making planning and implementation of plans. This characteristic was expressed primarily by P9. From his prospective teamwork in general is development whether as part of one’s development or developing someone else. He explained that “when you’re working…as part of a team that’s part of your development” and added that “If you’re going to be developing somebody, you’ve got to have teamwork.”

**Theme 2: Extrinsic aspects of leadership development.** Table 11 shows the 12 characteristics of experiences that the participants believed contribute to their leadership growth. All concern extrinsic aspects of leadership development. The totals in the table concern the number of mentions, rather than the frequency count of the raw number of independent respondents that that made mention of the characteristic. The second most frequently discussed topic from the interviews. Three of these characteristics of experiences are particularly prominent. First the extrinsic aspect of “lack of organizational support versus organizational support” emerged from the analysis frequently (n = 28) across most of the 13 study participants (n = 9). Second the extrinsic aspect of “safe learning environment” emerged from the analysis frequently (n = 28) across most of the 13 study participants (n = 10). Third “open communication and transparency” emerged from the analysis frequently (n = 28) across most of the 13 study participants (n = 10). Of the 13 participants, nine discussed the aspect of lack of organizational support versus organizational support, 10 discussed the aspect of safe learning environment, and 10 discussed the aspect of open communication and transparency. Each of the
12 aspects is described in the following sections. Definitions are provided and exemplary quotes from the study participants’ transcripts are provided.

![Figure 5](image)

**Figure 5.** Frequency of mentions of each theme two characteristic.

**2.a. Lack of organizational support vs. organizational support.** This characteristic is exemplified by the perception that in order for a leadership development program to be successful or for people to be developed organizational policy, then procedure, cultural norms, budget, and related matters should facilitate rather than hinder one’s ability to meet organizational or personal goals. It is also exemplified by having access to resources within the organization that can facilitate organizational, divisional, and individual goals. Several of the participants provided examples of a supportive environment that include encouragement, resources, moral support, and knowledgeable advisors.
Table 11

Extrinsic Aspects of Leadership Development

<table>
<thead>
<tr>
<th>Category</th>
<th>P1</th>
<th>P2</th>
<th>P3</th>
<th>P4</th>
<th>P5</th>
<th>P6</th>
<th>P7</th>
<th>P8</th>
<th>P9</th>
<th>P10</th>
<th>P11</th>
<th>P12</th>
<th>P13</th>
<th>P=n</th>
<th>Tot</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of organizational support vs. org. support</td>
<td>4</td>
<td>0</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>7</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>2</td>
<td>9</td>
<td>28</td>
</tr>
<tr>
<td>Safe learning environment</td>
<td>2</td>
<td>10</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>10</td>
<td>28</td>
</tr>
<tr>
<td>Open communication/transparency</td>
<td>1</td>
<td>2</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>10</td>
<td>28</td>
</tr>
<tr>
<td>Real experiences vs. theory/text book</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>8</td>
<td>19</td>
</tr>
<tr>
<td>Serving others</td>
<td>0</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>8</td>
<td>18</td>
</tr>
<tr>
<td>Followership through authenticity/ transparency</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>10</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>5</td>
<td>16</td>
</tr>
<tr>
<td>Building relationships</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>Influence of culture/personality/interests</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>Understanding the culture/diplomacy</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Leading by example</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Dealing with conflict</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Program evaluation/measure improvement</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Some likened organizational support with having experienced people willing to provide direction and advice. For example P5 said, “It’s great to have others that you can bounce ideas off of, a go-to person who supports you …they need to be available…” if I’m an aspiring leader, I need to be able to talk to somebody.” Several of the participants expressed that organizational support means having necessary resources in terms of information, money, time, and tools to perform the required task or meet the intended goal. P13 also affiliated with this sentiment. She said, “You know exactly what your job is to do. You have all the tools and the resources to do it.” Similarly P3 echoed, “you should have all the resources and the tools available to you.”

Along those same lines P10 elaborated with regard to programs and suggested the success of development programs are contingent upon the organizations “commitment to put the resources together [and] give people the time to go do this.” P12 added that support in terms of resources means granting the permission and allowing the time as well as money to participate in developmental programs. For example, “we can go to our supervisors and say, ‘I’d like to take this class… [requiring] X amount of time…can I do it?’ …for the most part…supervisors say yes, and then it’s part of the budget obviously so.”

On the other hand, some the participants discussed their perception of lack of organizational support. P1 explained one of the aspects of lack of organizational support in terms of bureaucracy and how it can affect organizational goals. Explaining why confidence rated high and hope low, he said, “hope is lost when red tape gets involved. Over the years, it’s been hard to achieve those goals because of …all of the red tape and not enough support organization wide to help them achieve those goals.”

Other participants also equated lack of support with impeded development. P3 suggested “without giving them continuous support, they’re going to fail.” Several of the participants
expressed that another manifestation of lack of organizational support is the perception that managers or executives do not personally demonstrate support of development programs. In light of this, P6 expressed, “I’m very grateful that [the organization] does put that program together. But one of the things that I’m kind of disappointed about and I’ll be very frank with you is that I don’t think that the executive office buys into it that much.” P6 recalled a situation in which lack of organizational support was characterized by a mentor who was not personally invested in her. She shared, “The mentor that I had when I first started here was not really truly invested in the program so I went to a lot of the meetings by myself and…it really stunted my experience.” P8 described this as not having the project backing he needed from those with legitimate power. He shared the following experience:

There’s a project that I wasn’t really successful with. Having, other potential stakeholders aligned would have helped the project get further down the road. Ultimately change management helps when key stakeholders in the organization who have legitimate power see the benefits of what you’re doing and are in your corner.

2.b. Safe learning environment. This is characterized by a learner-centric environment which facilitates learning experiences. It is an environment in which confidentiality is protected while learning and developing employees feel comfortable enough to be true to themselves. They are encouraged to be themselves, ask questions, share ideas, innovate, and create without fear of reprisal for making mistakes. Also, in this environment employees are not judged negatively because of their characteristics.

Two of the participants characterized this environment as one in which people can interact on a social level. P7 shared that “people here are more open and willing to connect than other places I have worked.” With regard to welcoming new ideas and new viewpoints, P2 described this environment as one that fosters creativity. In reference to his subordinate team, P2 said, “…they don’t have to follow my example. They might find a better way than [mine] or a
way that works better for them. You’ve got to let people be free to innovate.” Expressing a similar perspective with respect to facilitating growth in others, P11 offered the following:

The environment has to be one that is going to welcome the thoughts and suggestions of other people. This is going to lead to someone’s development because if they’re listening to me and they’re taking into consideration [or] using my suggestions it’s going to create for myself an environment I can thrive.

The safe learning environment was also described by several as one in which people are allowed to make mistakes as an aspect of learning. P2 shared that it is important that people can live in this environment without fear. He explained, “two things: not being afraid to make a mistake, that’s important but then not being afraid period.” In agreement with this, P3 said, “when someone does critique you, I mean everyone is going to make mistakes, but it should be positive reinforcement.” P8 observed that in the developmental process people are encouraged to attempt things in which they have not yet mastered and from his perspective, it follows that mistakes will be made. Therefore this environment would have “…a mindset [that] it’s okay if people fail.” P13 summed up the perspective of P2, P3, and P8 offering, “You have to be willing to let people fail so they can learn without fear of reprisal.” P7 described a safe environment as one that is “not judging” people based on protected characteristics or “any differences …generational, cultural, historical.” P8 said, “I guess it would hopefully [be] a reflection of an environment that’s accepting of everyone and not discriminatory or hostile.”

2.c. Open-communication (transparency). The perception that leaders need to know how to communicate openly with others in the workplace exemplified by sharing ideas/information, being forthcoming with regard to opinions, thoughts, and feelings. Another facet of this is knowing how to have important and transparent conversations with others while building and maintaining relationships. P1 described it in terms of dialogue explaining, “In development two-way communication is extremely important and everyone needs to be heard
and everyone needs to be listened to.” From the perspective of an executive, P9 expressed that in his experience being transparent means displaying all facets of one’s personality, suggesting that it helps others relate. He said, “I found that by showing your emotions... people treat you as a human being.” P3 pointed out that “people are there to help you... they want to see you succeed,” inferring that open communication and transparency is letting others know your developmental needs. He suggested, “They might not know that you... need help... so you have to ask and this is where transparency is the key.”

A perception that was shared among several of the participants is the idea that the ability to have difficult conversations with people without damaging the work relationship is an important skill. P4 said, “In leadership... there could be discipline conversations... a plethora of things... issues can arise. But you have to be able to handle those difficult conversations with ease.” P13 agreed that this is an important communication skill that developing leaders need to learn declaring “give people tools like communication.” She suggested that developing leaders want to know, “how [to] navigate difficult conversations without tearing somebody down or [denying] them... their own voice.”

2.d. Real experiences versus theory (text book). This is exemplified by hands-on experience, involvement/practice as a source of learning and leadership development. Exposure to real-life (or simulated where real-life cannot be facilitated), context-based leadership experiences in an organizational environment versus hearing or reading about it in a book. This would include decision-making, leading meetings, doing performance evaluations, having crucial conversations with staff, attending board meetings, leading a project, setting goals, strategic planning, et cetera.
Participants 1 (P1) shared the following perspective:

If you’re going to have the leadership development program, the first thing they need to do is to be in a real environment...surrounded around a reality of that organization...so that the right type of development can be applied. If you don’t know the reality of the [environment] that you’re trying to lead or eventually lead one day and you’re receiving general [leadership theory] then I think that’s a disservice.

P1 described board meetings, system meetings, or budget meetings as examples of the type of real-life experiences that were included in a leadership development program sponsored by his organization. P9 provided the following insight:

Putting somebody in the environment where they experience the real world and having the ability to talk about it… is one of the most important aspects of [development] because you can go to a classroom, you can get training, you could pick up a book. All of that will have some value but [when] you have experienced it… it becomes impactful to you and you’ll remember it more.

While P1 and P9 described this concept as context-specific development, others were topic specific as they described the concept of real-life versus classroom experience. For example, P13 described particular tasks that could be developed from hands-on experience versus classroom instruction. “I’ve gone through like 20 classes as a first-time supervisor and then the moment I actually have to deliver information to someone, I don’t necessarily know how to do that well.” She suggested, “allowing someone to practice” is development.

2.e. Serving others. A leadership behavior that is exemplified by doing /providing what is needed to ensure others, team members, subordinates, in the workplace have the tools, resources, assistance, emotional support needed to do their jobs (e.g., training, listening, coaching, assisting with tasks, and other related matters.). As a senior executive in the organization, Participant 2 explained that serving others means providing more than just tangible resources for his staff. He said “…That means I give them not just the physical tools…get
resources...lift a box..., but the emotional mental tools to get their work done...empathetic
listening, [and] nurturing....”

P5 shared an experience that, from his perspective, illustrates the idea of serving others in
which he provided them “an opportunity to show their skills.” He believes the opportunity
“really opened the doors for them to [develop]. In a similar sense, P8 described serving others as
“helping other people achieve their capabilities and growth in those instances where I’ve
been…overseeing folks [and] seeing them really blossom.” P13 also shared her views on what it
means to serve others. She said, “[I] find what it is that they need, [for] whatever they’re trying
to accomplish, whether that’s as a member getting a benefit paid or an employee who wants to
promote.” While P2, P8, and P13 described how they demonstrate this aspect of leadership
towards others, P6 provided an example of how serving others was manifested through a
supervisor and contributed to her own leadership development. “There was one night that I think
I had to stay pretty late to finish some brief that was due the following morning and [my
supervisor] stayed...until it was done.”

2.f. **Followership thru authenticity (transparency).** This is the perspective that people
will follow a leader who can make a human or personal emotional connection with others
because he or she is authentic, honest, and transparent; opposed to someone who is fake or not
genuine. The inference is that authenticity builds trust and people will follow someone they
trust. P1 inferred that having a set of principles is a predictor of positive leadership outcomes,
suggesting that “a value-based person would be a successful leader.” P7 expressed the difficulty
of trying to lead without authenticity, suggesting “you can’t lead them; nobody buys in no matter
what it is...because people know when they’re being duped.” She added, “Honesty and just
being one’s authentic self I think that’s being an authentic leader.” P9 provided his perspective
in terms of developing followership through the connections that are engendered by showing true feelings:

As long as you show them the true self and you’re doing things for the right reasons they’ll follow you. If you disconnect, people follow simply because it’s the positional power but they don’t put as much effort into it. They’re not as dedicated to it as they would be if they were following that person because …they have felt a connection to that person.

2.g. **Building relationships.** The inference is that building relationships is evidence of emotional intelligence and emotional/leadership development is attained through forming bonds/connections with others including mentors, teachers, business partners. It also contributes to and facilitates learning, goal attainment and health of the organization. P11 shared, “good leaders [have] the ability to interact…create relationships with staff and employees and people at their own level.” P4 explained that his knack for building strong business relationships has helped him attain his goals and also benefits organizational development:

The key to achieve success [is] building strong relationships with your strategic partners… It’s always been beneficial for me to foster good relationships with… my business partners so that we can all accomplish our goals together.

While P4 expressed this concept on a practical level in terms of facilitating goal attainment, P6 suggested, “the relationship and the emotions they go hand-in-hand” and described building relationships as more of an affective aspect of leadership development and equated relating to people with leadership explaining, “Part of leadership is building relationship with the people.”

2.h. **Understanding the culture (diplomacy).** This is the perspective or belief that self-awareness means understanding the organizational culture and demonstrating attitudes/behaviors that conform to or aligned with what is understood to be acceptable within a particular organizational context. P3 described this aspect as being made aware of the characteristics of the
organizational culture during his on boarding process as he recalled “from day one… our executives talked to us…they’re all about happy productive people.” He elaborated based on his experience working in the culture sharing that “you can tell when someone’s happy and when someone’s not; and when they’re not, trying to bring everyone down doesn’t work here…words [and] actions have impact so you have to be very diplomatic.” While P3 described the importance of demonstrating the right attitude and being diplomatic, P4, referring to the organizational values, suggested that when you understand the cultural norms and exemplify them “others will be more than willing to help you.”

2.i. Influence of culture, personality, and interests. This is the idea that cultural background and personality differences as well as diverse interests will influence what an individual will glean or take-away from leadership or professional development intervention. It should also shape the types programs people will have to choose from. The inference is that an effective leadership development program will include diverse offerings (e.g., mentoring, coaching, classroom instruction, etc.) as well as diverse topics. P12 sees this aspect as providing a structure that would appeal to diversity. She suggested this perspective is what sustains the organization because it develops a wider variety of people and retains diverse talent. She shared the following insight: “It would be great to have professional development for women and minorities. I think organizations that actually do that thrive.” While P12 described this aspect from a cultural perspective, it was also described as development that appeals to different personalities or interests. In that regard, P10 inferred that this aspect means taking into consideration the fact that people have different developmental needs depending on the point at which they have evolved in their leadership development journey. She shared the following perspective: “Formal programs I’ve seen…may be important at different stages of your
career…depending on what type of result you want.” With regard to developmental outcomes based on individual interest, P11 explained, “Of course we’re all different and we may latch onto something [in] particular in the development.”

2.j. **Leading by example.** This aspect is exemplified by communicating the desired behavior to followers not only in word but also deeds, behaviors, decision-making, and other matters. P2 described this as having both a theoretical understanding in the form of “definitely very clear defined values” and a “living, breathing example of those values…something for me to see.” P9 affiliated with this perspective exclaiming, “If you’re going to be developing or helping somebody grow, you need to show them what’s right and wrong!” In the following explanation, P10 described this aspect of leadership development as “inspiration”:

> You’re not telling them directly to do this a certain way. You’re just trying to act in certain ways that will inspire that person to follow you because it’s something that’s very positive. You just show them and you hope that they see it and follow you. I think inspiration drives leadership.

2.k. **Dealing with conflict.** This is the belief that leadership development programs should include a conflict resolution component that teaches the participant how to address various types of conflicts. It would also address different personality types and the correct protocols for managing uncooperative people. P11 stated that “good leaders resolve conflicts.” Describing conflict as uncooperative employees, P2 expressed that “teaching how to deal with difficult employees” is most useful if learned at the beginning of leadership development and alluded to the difficulty he has had learning to master this. He explained, “[Dealing with conflict has] been an ongoing process. I wish I could have [learned] at the beginning… That would have [sped] up my professional development in terms of how to deal with difficult employees.”

2.l. **Program evaluation and measured improvement.** The belief that to provide an element of accountability and continual program improvement, it is important to measure and
evaluate the program itself as well as the program impact on participants. In that regard, P12 suggested, “successful programs are those that are introspective…not just having the program for the sake of having it but evolving it. So, it needs to just always be reviewed…thinking about how to make things better.”

Theme 3: Intrinsic aspects of leadership development. The third most frequently discussed topic from the interviews concerned participants’ point of view regarding the internal elements that were involved in their leadership development. It discusses factors such as self-awareness, self-reflection, alignment with values, attitudes towards others, resilience and inner fortitude. Table 12 shows the seven intrinsic aspects of their experiences that the participants believed contributed to their leadership growth. The totals in the table concern the number of mentions, rather than the frequency count of the raw number of independent respondents that made mention of the characteristic. Three of the aspects of experiences were most influential. First, the aspect “developing self-awareness and resilience through reflection, introspection,” emerged from the analysis most frequently \((n = 39)\) across all of the 13 study participants \((n = 13)\). Of the 13 participants, 13 discussed developing self-awareness and resilience through reflection/ introspection as an intrinsic aspect of their development. The second prominent finding was that 12 of the 13 participants described “learning from others’ experiences or narratives” \((n = 27)\) as an intrinsic aspect of their leadership development. The third prominent finding was the aspect “aligning behaviors with values,” which emerged from the analysis with frequency \((n = 23)\) from 10 of the 13 study participants \((n = 13)\). The experiences with regard to each of these seven aspects are described in the following sections. Definitions are provided and exemplary quotes from the study participants’ transcripts are
Table 12

Intrinsic Aspects of Leadership Development

<table>
<thead>
<tr>
<th>Category</th>
<th>P1</th>
<th>P2</th>
<th>P3</th>
<th>P4</th>
<th>P5</th>
<th>P6</th>
<th>P7</th>
<th>P8</th>
<th>P9</th>
<th>P10</th>
<th>P11</th>
<th>P12</th>
<th>P13</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developing self-awareness with reflection/ introspection</td>
<td>3</td>
<td>5</td>
<td>2</td>
<td>3</td>
<td>6</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>13</td>
</tr>
<tr>
<td>Learning from others’ experiences/narratives</td>
<td>0</td>
<td>4</td>
<td>5</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>12</td>
<td>27</td>
</tr>
<tr>
<td>Aligning behaviors with values</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Team leadership/team-building</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other-centered emotions</td>
<td>0</td>
<td>4</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Spirituality</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Self-awareness/ &amp; change as resilience</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>7</td>
</tr>
</tbody>
</table>
3.a. Developing self-awareness thru reflection and introspection. The belief that self-awareness, exemplified by an understanding about one’s self in terms of intrinsic qualities, characteristics, preferences, motivations, strengths, weaknesses, level of resilience, and other personal aspects, is developed as a result of going through different experiences, where reflection and introspection with regard to these experiences facilitate deeper understanding about oneself.

P1 described this aspect as knowing one’s self and one’s environment, suggesting, “You have to be aware of [yourself] and your surroundings [and] your ability in order to know how to lead others.” P3 stated, “you have to know the organizational values.” While P3 referred to “organizational values,” P13 offered, “you really have to know what you value.”

Several participants have the perspective that self-awareness can be developed through asking questions of one’s self and others. P13 explained that self-evaluation involves introspection and described the types of questions would ask one’s self as “So what are the values that you hold? What’s important to you? What motivates you ultimately as a human being?” P2 described his experience learning about himself using the Myers Briggs Instrument.
as “drawing out the qualities that were already inside of me.” While P2 described developing self-awareness as learning about hidden talents, P8 referred to it as uncovering hidden prejudice as he offered, “know your biases…I think the more you understand about your own biases [and] how those impact other people the better.” In that regard, developing self-awareness was also described as soliciting feedback from others. P2 provided the following insights: “Even if you’re relatively good at being self-reflective, you often can’t see yourself clearly. It’s good to get other people to give you feedback and for you to start thinking about yourself in different ways.” P8 affiliated with this opinion when he suggested, “a 360-degree type of evaluation” can bring about understanding of “strengths and weaknesses, opportunities for development, blind spots, [and] those kinds of things.”

3.b. Learning from others’ experiences and narratives. This is the perspective that leadership can be developed through the stories of others. Knowledge, insight, lessons, about leadership can be gleaned through watching, reading about, and listening to the lived experiences, stories and lessons learned by others. P2 described a personal experience he had with this while attending the Management Academy. “You got to hear other people talk about their own experiences and how they handled it, how they failed, or how they succeeded, and those were very instructive.” Some described this as having a mentor. P3 suggested, “if you have someone who went through the organization, been in those shoes, and will mentor you…I think that’s the most important.” P11 concurred that individuals can learn from the experiences of mentors suggesting, “the mentoring program that we have…offers that knowledge to be passed down in regards to how people have advanced.”

While P2, P3, and P11 described the aspect of learning from others’ experiences or narratives as learning from someone else. P4 affirmed, “I can share some of the experiences that
I’ve had over the years.” P9 described this as professors sharing their experiences with students versus lecture only suggesting that “discussion that occurs between the students and the professors…has a big benefit. They’re sharing their experiences and not just lecturing. They’re also peppering it with their experiences and you have more of that back and forth.” Most of the participants described this aspect in terms of actually listening in real time to someone share their experiences. P9 also described this as reflecting back on someone else’s experience and using that to help him shape his own behaviors. He explained, “When I’m thinking about how do I want to react to a situation, how do I want to be, I’m actually in my mind thinking of well what would so and so have done?”

3.c. Aligning behaviors with values. This is exemplified as knowledge and understanding of personal organizational values, being mindful of these in the day-to-day, and ensuring that behaviors and goals line up with these espoused values. This aspect is about demonstrating integrity in terms of ensuring actions represent the espoused values and beliefs. The inference is that developing leaders need to see that the leadership is modeling the accepted values.

P4 explained that when he is setting goals and dealing with people he puts forth an effort to embody the organizational values declaring: “As a leader and staff employee, you are supposed to exemplify those values at all times and if I’m setting a goal [or] I’m doing something involving others, I would always, exemplify those values.” P1 described this as walking the talk. He said, “you know what you believe, the values that you hold, the values that that ring true to you… As a leader you would try to live those and it goes back to walk the talk.”

P3 suggested that alignment with values is self-regulation. He said, “you have to regulate yourself.” Based on his experience he described it as having to change his behavior when
necessary and explained, “I had to do the right thing and I have to control myself and if something wasn’t going the right way I had to make those changes.” P5 described the aspect of “aligning behaviors with values” as having an internal component that will point in the direction of what is right. He suggested, “a leader worth following is someone who has a moral compass, someone who has a boundary, this is okay, [or] this is definitely not okay.” P13 said, “If you value something like integrity, then you’re not going to be swayed when you’re having to make ethical decisions or you know what’s right and you know what’s wrong and you’re going to stand on that.”

3.d. Team leadership and team-building. Leadership style that develops others: An affiliative leadership style in which the leader through his or words, deeds behaviors facilitates cohesiveness, harmony, trust and alignment within a team. P7 described this aspect as bringing diverse individuals together explaining, “You can unify people from different backgrounds, different beliefs, and different personalities.” P8 described this in term of being able to help develop his team and together bring to fruition a common dream and shared, “I’m not formally in a leadership role but, would certainly say I’m a leader in the group nonetheless. Having a vision that I’ve been able to articulate that has been embraced help[ed] lead our team towards, that ultimate vision.” P9 described this as bringing a group together to discuss, share, and resolve workplace issues as a team. He shared the following experience regarding how he led a team through a leadership development program: “It was like, okay, what’s going on? Let’s talk about it. What’re your ideas? Did you all get together and talk about it? I would share my insight. They would share their insight.” P11 described this as a mindset that welcomes diverse knowledge and expertise from other team members. He provided the following point of view:

No leader has all the answers and that’s why you have the workforce…to find different options on how to approach things and be flexible and use everybody to come up with the
best solution, the best manner in which to go and approach things. If not, then you may not be approaching it from the best angle.

3.e. Other-centered emotions. Emotion that contributed to professional development with regard to facilitating the ability to put forth effort, to persevere other-centered emotions are based on and expressed out of concern for other people (e.g., empathy, compassion, patience, etc). P13 described this as “being open, being kind, being compassionate, showing empathy, truly caring about a human being, not because I have to but because I want to really understand the needs of my staff.” P2 described this intrinsic aspect of leadership development with regard to his staff as “patience” and “empathy.” He offered that “you have to be a very patient and deep empathetic listener and so I do that on a regular basis with my team members.” Also with regard to listening to his team members, P4 described this as making concern for people his priority and shared the following leadership experience: “at work…I had to have compassion for people when they [were] facing, very difficult challenges in their personal life and they would come to me and tell me about them. So I had to have compassion while they’re talking to me and not be so focused on the work per se.” P6 described this as showing her staff that she “genuinely care[s] about them.”

Also with regard to dealing with staff, P9 described other-centered emotions in terms of giving someone the benefit of the doubt or showing leniency instead of judging them. He provided the following perspective:

When you’re leading and somebody’s not doing what you need them to do, you can’t just look at them and say ‘you’re just worthless and you’re no good and you just can’t do it.’ You can look at them and you can say ‘that person needs help’, and you can be empathetic towards them and you can try to coach them and help them and develop them.

Also, in terms of how she treats her staff, P13 described other-centered emotions as “the ability to love unconditionally.” Also, similar to P9 with regard to showing leniency P13
suggested that “you have to love people every day because you have to forgive. It’s one of the things that I think helps me in managing staff here.”

3.f. Spirituality. Emotion or a quality that contributed to professional development with regard to facilitating the ability to put forth effort, to persevere. Antecedent is the belief that there is a metaphysical or non-physical component of one’s inner-being that is the spirit or soul and is related to religious beliefs, tenets, or morals. Spirituality is a positive source of inner strength and positive emotions derived through connection with God or a higher spiritual power through practices such as prayer and meditation. P4 described spirituality as strength and guidance through prayer and referred to himself as a “praying man.” To illustrate this he shared the following experience:

I had to talk to one of my staff and this particular staff member can be combative, on the defense when you’re having particular conversations…. The night before I talked to this particular person I had to go say a prayer to God to give me strength to deal with this conversation. I’ve done this on more than one occasion and He has guided me through those conversations with that person.

Similarly, with regard to when she was having a difficult time during law school and felt like giving up, P6 also described spirituality as acquiring direction and perseverance from God through prayer. She shared that she would pray, “Okay Lord, do you want me to finish this? Do you not want me to finish this? If you do want me to finish this, you’re going to have to help me get through it somehow because I can’t do it on my own.”

P6 also described spirituality as aligning her work ethic with what she believes to be God’s standards, which is her personal “best.” In that regard she provided the following perspective:

I always remind myself when I get down [that] I’m not working for me. I’m not even really working for [the organization]. Everything I do is for the glory of God. I’m working for God. I’m not really working for man. So did I do my best for God?
P13 shared that spirituality is manifested in the form of other-centered emotions and explained “within doing [my] job here I can apply the tenets of my faith: being of service, being compassionate, being loving, being forgiving, …every day in every way without you ever even knowing that I’m a Christian necessarily.”

3.g. **Self-awareness and change as resilience.** Discussing the relationship between resilience & self-awareness: This is the perspective that resiliency is, with self-awareness and understanding the organizational culture or values as the antecedents, the ability to change behavior or attitude, as necessary to successfully work through or endure a difficult situation. The inference is that changing, realigning oneself, as necessary in a particular context will lead to the ability to “bounce back” from mistakes to a successful outcome.

In that regard P3 shared an experience that he believes illustrates the relationship between self awareness and resiliency:

> When I was a trainee, I was practicing open communication too much. I knew that. But I did nothing about it. When my manager came to me, I knew I was wrong, so I changed…turned it around and from there… my accuracy and my production, everything increased. But [I] had to be self-aware that [I] had a problem [otherwise] no change is going to come.

P8 stated this relationship simply as “the reflection allows you to consider how else you might have done things or you might do things differently going forward.”

**Theme 4: Personal attitudes and emotions.** This theme derived from the fourth most frequently discussed topic from the interviews concerns participants’ awareness of the state of mind or feelings participants’ believed contributed to their leadership development. It explains how these attitudes motivated and enabled them to persevere through various experiences during their development. Table 13 shows the nine characteristics of experiences that the participants believed illustrate the attitudes and emotions that contribute to their leadership growth. The
totals in the table concern the number of mentions, rather than the frequency count of the raw number of independent respondents that made mention of the characteristic. Of these, hope and optimism emerged with the most frequency \((n = 18)\) across all study participants \((n = 13)\). Of the 13 participants, eight discussed hope and optimism in goal pursuit. Trust emerged frequently \((n = 17)\) across all study participants \((n = 13)\). Of the 13 participants, 7 discussed trust. Confidence emerged frequently \((n = 15)\) across all study participants \((n = 13)\). Of the 13 participants six discussed confidence as a personal attitude that was helpful in their leadership development. Each of the nine attitudes and emotions are described in the following sections. Definitions and exemplary quotes from the study participants’ transcripts are provided.

Table 13

**Personal Attitudes and Emotions**

<table>
<thead>
<tr>
<th>Category</th>
<th>P1</th>
<th>P2</th>
<th>P3</th>
<th>P4</th>
<th>P5</th>
<th>P6</th>
<th>P7</th>
<th>P8</th>
<th>P9</th>
<th>P10</th>
<th>P11</th>
<th>P12</th>
<th>P13</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hope &amp; optimism in goal pursuit</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>8</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>18</td>
</tr>
<tr>
<td>Trust</td>
<td>0</td>
<td>1</td>
<td>5</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>17</td>
</tr>
<tr>
<td>Confidence</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>15</td>
</tr>
<tr>
<td>Enthusiasm about development</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Patience</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>Emotional balance</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Positive attitude</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Humility</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>6</td>
</tr>
</tbody>
</table>
Figure 7. Frequency of mentions of each theme four characteristic.

4.a. Hope and optimism in goal pursuit. This is a positive attitude/emotion that contributed to professional development with regard to facilitating the ability to put forth effort, to persevere towards a goal. This is exemplified by having the goal-directed energy and the necessary ability and means to set and achieve goals and to plan find ways around obstacles. It is the belief in a positive outcome with regards to goal pursuit and the ability to look on the bright side when things do not go as planned.

P4 described this in terms of planning his approach to his work, doing what he can and not berating himself when unforeseen circumstances hinder his progress. He explained, “You have to prioritize and do the ones that are most important and when you get a chance, you get back to the ones that have the least effect you.” He also shared his experience with regard to setbacks. “Things out of my control that just came out of nowhere; this case or this meeting. So I could not make the goals that I set out for myself. But those were things that were out of my control.” P4 shared how he perceives setbacks explaining, “I don’t beat myself for it because that happens when you’re in leadership positions.” P5 described hope and optimism in goal
pursuit as viewing hurdles as “temporary and not permanent.” P8 shared these in existential terms with regard to personal agentic and provided the following point of view:

I think it’s about having a really strong, belief in self and, the roles you want and how you try to create the world you want and control the world you want and to the extent that one can do that, there’s hope, there’s optimism.

P9 described these as being able to design a plan and identify resources to implement it. He explained, “you know what you need to do to get it done. You’ve identified what resources you’re going to [need] to get it done and you’ve identified what time you need to get it done.”

4.b. Trust. Being able to share openly, express personal feelings, beliefs, and confidences without the fear of ridicule, reprisal, or consequence. P5 described this as being open with his team about his flaws. He said, “I’m not hiding anything from them. Of course it’s going to promote a spirit of trust.” P7 agreed that trust is exemplified by followership and facilitated by honesty. She said, “being authentic…being honest…I think people sense that. So they know if you’re coming from a place where they can trust where you’re leading them.” P8 echoed that sentiment saying, “I think the honesty with self translates and allows you to be honest with other people…, which helps you break down barriers to get to shared visions of where you want to go.” P9 described trust as being able to share confidential or even compromising information. He described the following perspective:

In order to really help develop somebody, they have to have enough trust in [me] to share their feelings, their thoughts, [confidential information]… [I] have to have that honest conversation. [They] have to give [me] all the information for whatever we’re talking about because if [they] don’t, whatever advice [I] give [them] is not going to be, applicable because [I] don’t have all the facts. So you have to have trust any time you’re in a learning environment when you’re developing somebody.

4.c. Confidence. Positive attitude and emotion contributed to professional development with regard to facilitating the ability to put forth effort, to persever. It is exemplified by being positive about abilities and competencies to handle a particular task. P1 expressed that
confidence is assuredness in ones choices and business acumen. He said with regard to his leadership, “I felt very comfortable with the decision that I had made.” He explained that this was “because of fact finding and [his] knowledge of that particular process and how it affects other things.” P2 described it as being equipped with what is needed and not being afraid to err. Referring to developing leaders, he explained, “They just need to accept that they have all the tools they need to become a leader. Let go of that self-doubt…. Don’t be afraid to make a mistake.” Like P1, P4 described confidence as reassurance in knowing that he knew what people or resources that can be called upon for information. He said, “That gave me a sense of comfort that I’m self-efficient.” P5 described confidence as enthusiasm derived from encouragement or approval from others. He said, “I think emotionally, that’s enough for me to… give it a shot… do something else.”

4.d. Enthusiasm about development. Positive attitude/emotion that contributed to professional development with regard to facilitating the ability to put forth effort, to persevere. This is exemplified by pursuit of development that is motivated by intrinsic personal desire to grow and learn and improve knowledge and skill. P1 simply described this as “they want to be developed.” Whereas P5 described it as “excitement [in] knowing that at some point you’re going to achieve something greater than what you’ve already done.” P11 described it as pursuing one’s own development even you have been told it is not necessary. He explained his experience:

I had a bachelor’s degree in business. But I still, wanted to further develop my education in the field and [my employer] said you don’t really need that broad knowledge. One of the reasons why I came back to [this organization] is [it] had a continuing education type of program and so there [were] opportunities in which to further my development. I recently went through a workplace investigation certification. I do believe that it starts with the individual. You have to [take] ownership of it and take advantage of whatever opportunities there are. It’s a two-way street and you’re on that street driving the car.
Very similar to P11 who described “enthusiasm about development” as self motivation, P12 described enthusiasm about development as continual pursuit of personal growth: She said “I think those type[s] of people are always developing. They tend to read more on growth and, attend seminars and do the mentors. They’re always growing.”

4.e. Patience. Positive emotion and attitude that contributed to professional development with regard to facilitating the ability to put forth effort, to persevere. It is exemplified by withholding judgment, giving a situation time to play out while maintaining positive attitude, and remaining confident.

P8 described patience as an attitude that is acquired with age or maturity. He shared the following perspective:

I think as you get older it’s also being cognizant that change takes time for people and for organizations and…you may be planting seeds that aren’t really going to be harvested quite yet…even in your tenure. It may be that you’re enabling change that’s going to happen down the road and your role…is to be a stepping stone or someone who is greasing the wheels. But ultimately I think certain things are inevitable.

4.f. Emotional balance. The ability to not allow external factors or situations to cause emotions to fluctuate. But just to remain objective, cool, calm, and level-headed. It also includes an element of emotional intelligence in terms of understanding the emotions one is feeling or communicating to others. P1 explained this in the following manner, “I think…staying even keel, not being too high or too low when things go either good or bad and just trying to be even keel.” P9 expressed this in terms of choosing what attitude is expedient when communicating and dealing with subordinates. He explained that “there’s a time to make it a very stark conversation with an employee. But most times there’s the gentle approach… never show…frustration with somebody.”
4.g. Positive attitude. Emotion or attitude that contributed to professional development with regard to facilitating the ability to put forth effort, to persevere. This is exemplified by maintaining a perspective that focuses on the positive aspects of a situation and approaching situations from that positive perspective. P7 shared that positive attitude is taking a negative situation or a negative person and turning it around somehow. In her words, “It’s kind of like flipping it on its head and thinking I’m going to make them smile.” P8 shared that it is, “learning how to not react negatively to resistance but to…welcome it and to figure out…the underlying…values or beliefs…holding somebody in a particular position that aren’t allowing them to move.”

4.h. Humility. Attitude or emotion that contributed to professional development exemplified by refraining from haughtiness or appearing superior. Not taking all the credit for a job well done and the ability to give credit to others (i.e., team members, colleagues, etc.). It is also, the ability to accept responsibility when things don’t go well, acknowledge missteps, and apologize. P2 expressed that “Everyone is human, and when [a mistake] happens, admit to it. I mean I recently had to apologize to one of my secretaries for making a bad call…Humility,” and expressed, “I will go apologize to somebody if I’ve make a mistake.”

Theme 5: Perceptions about gender. The fifth most frequently discussed topic from the interviews concerns participants’ views and experiences with regard to how the various aspects of leadership development are influenced by an individual’s gender. Table 14 shows the four aspects of their perceptions regarding gender. The totals in the table concern the number of mentions, rather than the frequency count of the raw number of independent respondents that that made mention of the characteristic. From these one of the perceptions, EI gender comparison emerged with the most frequency (n = 15) across all study participants (n = 13). Of
the 13 participants, 7 compared EI by gender. Each of the four characteristics is described in the following section. Definitions are provided and exemplary quotes from the study participants’ transcripts are provided.

Table 14

*Perceptions About Gender*

<table>
<thead>
<tr>
<th>Category</th>
<th>P1</th>
<th>P2</th>
<th>P3</th>
<th>P4</th>
<th>P5</th>
<th>P6</th>
<th>P7</th>
<th>P8</th>
<th>P9</th>
<th>P10</th>
<th>P11</th>
<th>P12</th>
<th>P13</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>EI gender comparison</td>
<td>5</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>15</td>
</tr>
<tr>
<td>Equal access and exposure</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>12</td>
</tr>
<tr>
<td>Leadership/management style gender comparison</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>11</td>
</tr>
<tr>
<td>Male dominated/discrimination</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>10</td>
</tr>
</tbody>
</table>

*Figure 8.* Frequency of mentions of each theme five characteristic.
5.a. EI gender comparison. Making a distinction between the extent to which males and females, are aware of, understand, and relate to their own emotions and those of others. When explaining why in this study there was a larger variance between the PCQ and ALQ scores among the female group than the male group, most of the participants attributed to a higher level of emotional intelligence among females in general. P1 shared, “I’ve learned over the years that women have more control over their emotions than men do as far as emotional intelligence and use during decision making.” While P1 made reference to emotional intelligence in decision-making, P2 made inference to the interpersonal aspect when he said, “I think in general, there is a significant difference between men and women, how they process emotions and how they relate to people.”

P3 also gave an explanation for the stronger correlation between the PCQ and AL scores among the female group. He discussed the social aspects and explained with regard to “what is expected of men and what is expected of women.” He said, “men are told, ‘keep your emotions to yourself’… or at least I was. So…to me it makes sense why [among] women there would be a bigger correlation between [these] emotions and [leadership].” P3 affiliated the difference in the relationship between PCQ and AL between the male and female group with society’s influence on gender norms. In contrast, P5 suggested that it might be inherent calling out that “women really do have that intuition. They are more self-aware emotionally. Men, of course, have the same emotions but…not always taking into account the emotion that’s driving…behavior. Whereas…women may just have that knack.” P5 suggested that women are more aware of their attitudes or emotions and P9 suggested that women are also more inclined to displaying inner emotions declaring, “men even today still don’t show their emotions as much. But [women] tend to show their emotions more.” He also shared “in my experience, the higher up the ladder the
woman goes, the less [she] show[s] the emotion, the more [she] become [s] like the man, and then sometimes way beyond where the man is at. [Then] they can’t connect with their, with their…people that they’re leading.” P11 discussed the relationship between emotions and leadership implying that “females have stronger emotional feelings…for what they do and [the] outcome of what they do.” He implied that a female is more inclined to take “initiative” and suggested “[emotion] could be a driving force [of] the leadership aspects.”

5.b. Equal access and exposure. Organizational factor exemplified by absence of bias for or against any protected characteristic, providing everyone with the same opportunities for learning growth and development (e.g., resources, training, information, etc.). P1, with regards to one of his organization’s training programs explained, “They’re all exposed to the same material. They all get the same exercises. They all get the same test. They get everything the same.” While P1 was referring to equity within the program, P3 was concerned about equity in who is admitted into the programs. He referred to this as everyone getting a “chance” and suggested that leadership development programs work “…as long as people get a chance.” He inferred that everyone does not always have equal access, asserting, “that’s the problem.” In that regard, P8 shared, “One factor has to be fairness in access internally. Alluding to a contradiction between the stated and observed, he said that organizations establish diversity programs “and the person in charge of it is a White male who’s 55 or 60 years old.” For the purpose of equal access and exposure, he suggested “have[ing] somebody different running [it].” He suggested “having paths towards advancement and opportunity in that program are important.”

With regard to gender and explaining the stronger correlation between PD and AL among the female group, P5 pointed out that this is a social construct that is culture driven. He said “…We’re fairly progressive ….We’re not taught gender-based when we’re getting
developed…We don’t make the distinction [and] give [her] what I would tell a woman and…
give him what I would tell a man.” Also, explaining the stronger correlation between PD and
AL among females versus males in this study, P8 explained, “it would hopefully be a reflection
of, an environment that’s accepting of everyone and not discriminatory or hostile, where women
see women leaders in the organization… advancing and progressing and have an opportunity to
access those roles someday themselves.”

5.c. Leadership and management style gender comparison. Making a distinction
between the way men and women characteristically approach leadership/management in terms of
learning and management style (e.g., autocratic, diplomatic, laisse fair, visionary, coaching,
commanding, pacesetting, etc.) in the workplace. With regard to management style, P1 shared;
“from my personal experiences the women are more visionary.” He provided the following
observations:

   In this environment, the male managers take a more conservative approach to their
management style and decision making. The female managers have more of a visionary
outlook and are more passionate about their division and their work.

   P1 also shared another observation with regard to the difference between the way the
genders respond to hindrances or lack of organizational support: “I think male managers would
tend to just [say], ‘Okay,’ and keep the status quo versus the women managers would remain in
that visionary state trying to get those goals because they still want to achieve [them].” P11,
based on what he has “witnessed,” agreed that “…females have that change aspect in them, more
of that drive…Females…take action to change…processes or the way work is done or the way
things are viewed.” While P1 and P11 refer to the female style as agentic, visionary, or
passionate, P10 viewed them as methodical. She suggested that “females tend to be very
careful…and conservative” in terms of having “all the facts.” She suggested that this is driven
by the need to ensure accuracy and “prove their ability.” Whereas, “[males] take charge whether they know what they’re doing or not.” Also with regard to the difference in the correlations between PD and AL among the genders, P2 provided his perspective. Affiliating learning style with the relationship, he said, “I think most men in general are not good listeners and so that might be part of the reason why there’s this difference in correlation between development [and] leadership characteristics.”

5.d. Male dominated and discrimination. The perspective and inference that in an organizational culture or context with masculine dominated ideals, males are preferred, given preferential treatment in terms of opportunities and access to development, and are more likely to be promoted. P3, in his explanation for the data results regarding the stronger correlation between PD and AL among the female group shared, “In this organization…most of the management is male…most executive officers are male.” But he said that females are not discriminated against and inferred that the stronger relationship between PD and AL could be attributed to the fact that there are “strong” and “independent” females in the organizational culture. While P3 views the gender imbalance as benign, P8 points out that “many management teams…come through and the majority of them aren’t particularly diverse…from a gender basis.” In his point of view lack of representation allowed to persist is problematic and suggested, “those are factors that impact perspectives from people who are making decisions.” In that regard P10 articulated, “A male leader versus a female leader is perceived a little differently.” Those biases I have noticed in board members and in people following these leaders….Sometimes you can’t change those things.” On the other hand P12, who attended “a women’s college” believes things can change and suggested that it is a matter of being aware of the subconscious biases.
Summary

Quantitatively, this study used data from 27 surveys and 13 participant interviews to examine: (a) the relationship between positive psychological capital and authentic leadership; (b) what extent the relationship between positive psychological capital and authentic leadership was moderated by professional development intervention; (c) the extent to which, if at all, the relationship between professional development and authentic leadership was moderated by gender; and (d) the lived experiences of managers of a public pension plan concerning their involvement in leadership development programs and the emotions that influenced their leadership development, and the differences and similarities between perceptions of men and women about their professional development experiences. Because of the small sample size, the study did not have sufficient statistical power to meaningfully claim any of these associations as being statistically significant.

Quantitative analysis of the survey responses related to RQ1 (the relationship between PsyCap and AL showed three moderate correlations ($r \leq .30$) between PCQ resilience and ALQ self-awareness; PCQ hope scale and the ALQ total score: and PsyCap and AL overall. The one strong correlation ($r \leq .5$) was between the PCQ hope scale and the ALQ internal moral perspective. The results related to RQ2 (moderating effect of PD on the relationship between PsyCap and AL) showed that three subsamples had the highest shared variance: those who had completed graduate school, those attending two or three of the corporate training programs, and those who participated in the mentoring program. The results related to RQ3 (moderating effect of gender on the relationship between PD and AL), showed that the relationship between PD and AL was stronger overall among the female participants. It is also worth noting that the
relationship between PsyCap and AL for the female only group (26.0%) was 11 times stronger than the male only group (2.3%).

Five themes emerged from qualitative analysis of the interview responses related to RQ4 (the lived experiences of managers of a public pension plan concerning their involvement in leadership development programs and the emotions that influenced their leadership development, and the differences and similarities between perceptions of men and women about their professional development experiences). The most commonly discussed theme concerned the nature of leadership development; two of the characteristics of experiences were central to this theme. First, the characteristic “development as learning” emerged from the analysis most frequently \( (n = 32) \) across most of the 13 study participants \( (n = 10) \). Of the 13 participants, 10 discussed development as learning. Another key finding was that 9 of the 13 participants described the nature of leadership in terms of mentoring \( (n = 22) \).

From the second most commonly discussed theme—extrinsic aspects of leadership development—three aspects emerged that were particularly important. First the extrinsic aspect of “lack of organizational support versus organizational support” emerged from the analysis frequently \( (n = 28) \) across most of the 13 study participants \( (n = 9) \). Second the extrinsic aspect of “safe learning environment” emerged from the analysis frequently \( (n = 28) \) across most of the 13 study participants \( (n = 10) \). Third “open communication/ transparency” emerged from the analysis frequently \( (n = 26) \) across most of the 13 study participants \( (n = 10) \). Of the 13 participants, 9 discussed the aspect of lack of organizational support versus organizational support, 10 discussed the aspect of safe learning environment, and 10 discussed the aspect of open communication and transparency.
The third most commonly discussed theme concerned intrinsic aspects of leadership development, from which three important aspects emerged. First, the aspect “developing self-awareness and resilience through reflection and introspection” emerged from the analysis most frequently \((n = 38)\) across all of the 13 study participants \((n = 13)\). Of the 13 participants, 13 discussed developing self-awareness and resilience through reflection and introspection as an intrinsic aspect of their development. The second noteworthy finding was that 12 of the 13 participants described “learning from others’ experiences or narratives” \((n = 27)\) as an influential aspect of their leadership development. The third influential finding was the aspect “aligning behaviors with values,” which emerged from the analysis with frequency \((n = 23)\) from 10 of the 13 study participants \((n = 13)\).

The fourth most commonly discussed theme concerned personal attitudes and emotions, “hope & optimism” emerged with the most frequency \((n = 18)\) across all study participants \((n = 13)\). Of the 13 participants 8 discussed “hope and optimism in goal pursuit” as an attitude or emotion that contributed to their leadership development. Trust emerged frequently \((n = 17)\) across all study participants \((n = 13)\). Of the 13 participants, 7 discussed trust. Confidence emerged frequently \((n = 15)\) across all study participants \((n = 13)\). Of the 13 participants six discussed confidence as a personal attitude that was helpful in their leadership development.

The fifth most commonly discussed theme concerned participants’ views and experiences with regard to how the various aspects of leadership development are influenced by an individual’s gender. From these one of the perceptions EI gender comparison emerged with the most frequency \((n = 15)\) across all study participants \((n = 13)\). Of the 13 participants, 7 discussed EI gender comparison in their perceptions about gender.
In the final chapter, these findings will be synthesized and compared to the literature. Conclusions and implications for theory, policy and practice will be drawn. Lastly, a series of recommendations for policy, practice and future research will be suggested.
Chapter 5: Discussion

Quantitative and qualitative methods were used to provide answers to the four research questions. This chapter is a discussion of those findings. The discussion summarizes the key findings, compares the study findings to the literature, draws conclusions and implications, and makes a series of recommendations. First, the purpose is reiterated. Next the study’s research questions and hypotheses are restated and the key findings are summarized. Following this is a discussion of the quantitative findings, followed by a discussion of the qualitative findings.

The purpose of this study was fourfold. First, the study examined the relationship between positive psychological capital and authentic leadership. Second, the study examined the extent to which the relationship between positive psychological capital and authentic leadership was moderated by professional development intervention. Third, the study examined the extent to which, if at all, the relationship between professional development and authentic leadership was moderated by gender. Fourth, the study explored the lived experiences of managers of a public pension plan concerning their leadership development experiences, sustaining attitudes and emotions in that regard, and the perceptions of men and women about their professional development experiences. The study posed the following four questions. RQ1: To what extent, if at all, is there a relationship between positive psychological capital and authentic leadership? RQ2: To what extent, if at all, is the relationship between positive psychological capital and authentic leadership moderated by professional development intervention? RQ3: To what extent, if at all, is the relationship between professional development intervention and authentic leadership moderated by gender? RQ4: What are the lived experiences of managers of a public pension plan concerning their involvement in leadership development programs and the emotions that influenced their leadership development, and the differences and similarities
between perceptions of men and women about their professional development experiences? The study hypothesized that a positive relationship exists between a leader’s positive emotions and their authentic leadership. In other words, it was predicted that the stronger a leader is emotionally, the more he or she will display authentic leadership characteristics. It also hypothesized that participation in a leadership development program will enhance this relationship. The study also hypothesized that the effect of a leadership development intervention might be different, enhanced or diminished, depending upon gender. Results germane to these questions are discussed in accordance with this study’s two parts. The quantitative results (RQ1, RQ2, and RQ3) will be presented first, followed by the qualitative results (RQ4).

**Quantitative Results Discussion**

The quantitative results of this study showed the Cronbach alpha reliability coefficients for the PCQ ranged in size from $\alpha = .65$ to $\alpha = .92$, with the median alpha being $\alpha = .89$. Table 15 shows a side-by-side comparison of this study’s reliability in terms of internal consistency.

Table 15

<table>
<thead>
<tr>
<th>Scale</th>
<th>$\alpha$</th>
<th>$\alpha$</th>
<th>$\alpha$</th>
<th>$\alpha$</th>
<th>$\alpha$</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCQ self-efficacy</td>
<td>.89</td>
<td>.75</td>
<td>.84</td>
<td>.85</td>
<td>.75</td>
</tr>
<tr>
<td>PCQ hope</td>
<td>.81</td>
<td>.72</td>
<td>.75</td>
<td>.80</td>
<td>.76</td>
</tr>
<tr>
<td>PCQ resilience</td>
<td>.65</td>
<td>.71</td>
<td>.71</td>
<td>.66</td>
<td>.72</td>
</tr>
<tr>
<td>PCQ optimism</td>
<td>.89</td>
<td>.74</td>
<td>.69</td>
<td>.76</td>
<td>.79</td>
</tr>
<tr>
<td>PCQ total scale</td>
<td>.92</td>
<td>.88</td>
<td>.89</td>
<td>.89</td>
<td>.89</td>
</tr>
</tbody>
</table>

PCQ = Psychological Capital Questionnaire.
The Cronbach alpha reliability coefficients for the ALQ in this study ranged in size from $\alpha = .54$ to $\alpha = .82$, with the median alpha being $\alpha = .62$. Table 16 below shows a side-by-side comparison between this study’s Cronbach alpha and that of the original study conducted by Walumbwa et al. (2008).

Table 16

| Contrast and Comparison of ALQ Cronbach Alpha for the original Walumbwa et al. Study |
|---------------------------------|-----|-----|-----|-----|
| Scale                           | $\alpha$ | $\alpha$ | $\alpha$ | $\alpha$ |
| ALQ self-awareness              | .60   | .92   | .79   | .73   |
| ALQ relational transparency     | .62   | .87   | .72   | .77   |
| ALQ balanced processing         | .54   | .76   | .73   | .73   |
| ALQ internalized moral perspective | .68   | .81   | .76   | .70   |

ALQ = Authentic Leadership Questionnaire.

Quantitative analysis of the survey responses related to RQ1 (the relationship between PsyCap and AL showed three moderate correlations ($r \leq .30$) between PCQ resilience and ALQ self-awareness; PCQ hope scale and the ALQ total score: and PCQ total scale ALQ relational transparency ($r_s = .33$). One strong correlation ($r \leq .5$) was identified between the PCQ hope scale and the ALQ internal moral perspective. The results related to RQ2 (moderating effect of PD on the relationship between PsyCap and AL) showed that three subsamples had the highest shared variance: those who had completed graduate school, those attending two or three of the corporate training programs, and those who participated in the mentoring program. The results related to RQ3 (moderating effect of gender on the relationship between PD and AL), showed that the relationship between PD and AL was stronger overall among the female participants. It is also worth noting that the relationship between PsyCap and AL for the female-only group
(26.0%) was 11 times stronger than the male only group (2.3%). While nearly none of these quantitative associations achieved statistical significance, given the non-trivial size of the effects, the following discussion relates and compares these findings to the research literature.

**Research question 1.** According to the survey data, with regard to the relationship between PsyCap and AL, the results showed a moderate positive relationship between positive emotions and authentic leadership characteristics overall. When all of the individual components were examined, the results showed a moderate positive correlation between PCQ resilience and ALQ self-awareness ($r_s = .31, p = .12$), PsyCap overall and relational transparency ($r = .33$); and hope and authentic leadership characteristics overall ($r_s = .30, p = .12$). A significant relationship between hope and internalized moral perspective ($r_s = .38, p = .05$) was identified, though this may be the result of inflated family-wide error rate introduced by multiple testing of the data. In exploration of the relationship between PsyCap and AL, this study found that, although moderate, there is a positive relationship between PsyCap and AL. This finding can also be explained by the qualitative finding that participants believed that an important component of leadership development is the leader’s ability to align behaviors when pursuing goals with his or her values and beliefs. For clarity, hope is defined as “a positive motivational state that is based on an interactively derived sense of successful: one, agency (goal directed energy) and two pathways (planning to meet the goals)” (Snyder et al., 1991a, p. 287). For further clarity, Internalized moral perspective is a built-in internal mechanism that the leader employs, either consciously or unconsciously, to manage his or her thoughts and behaviors so that they are aligned with his or her values, beliefs, and the context in which he or she leads (Walumbwa et al., 2008). In addition the moderate relationship between the total PCQ scale and ALQ relational transparency can be explained by the qualitative finding that participants believe...
that open communication and transparency was and is an important extrinsic aspect of their leadership development experience. These findings provided some support for H1, that there is a relationship between PsyCap and AL.

Unlike this study, which used the PCQ to measure PsyCap, Jensen and Luthans (2006b) used a separate scale for each of the PsyCap constructs. A modified Life Orientation Test (LOT) (Shifren & Hooker, 1995) was used to assess state optimism; Resiliency measure (Block and Kreman, 1996) was used to measure resiliency; State Hope Scale (Snyder et al., 1996) was used to measure hope. Jensen and Luthans (2006a, 2006b) tested their hypothesis in an exploratory study using scientific methods on a sample of 148 businesses in the Midwest. The results supported the positive relationships between the entrepreneurs’ self-perception and the followers’ perception of the entrepreneur’s authentic leadership (Jensen & Luthans, 2006a, 2006b).

This study’s RQ1 results also agree with Luthans, Youssef, and Avolio (2007), who explored the relationship between entrepreneurs’ PsyCap and their authentic leadership using a slightly different approach. That study hypothesized that the entrepreneurs’ level of optimism, resiliency, hope, and overall psychological capital will be positively related to followers’ perceptions of the entrepreneurs’ authentic leadership (Luthans, Youssef, & Avolio, 2007). There is, however, a difference in methodology between that study and the present one. Luthans, Youssef, and Avolio (2007) measured these two variables using both a self-rater and rater instruments. In their study the self-rater PCQ was used to measure the entrepreneurs PsyCap levels, while the rater ALQ was used to measure the followers’ perception of the leaders’ AL. Nevertheless, the correlation between the two variables persisted.
This study’s findings are also consistent with a similar study, in which Toor and Ofori (2010) explored the relationship between PsyCap, authentic leadership, and leadership outcomes. They hypothesized leaders with higher levels of PsyCap rate high on authentic leadership. Their study was conducted in the construction industry of Singapore. Self-report questionnaires were distributed to a total of 90 managers. Like this present study, the PsyCap Questionnaire (PCQ) was used to measure PsyCap. Different from the present study, which used the ALQ to measure all four dimensions of authentic leadership, Toor and Ofori (2010) measured authenticity using the authenticity inventory or AI:3 (Kernis & Goldman, 2005, 2006), which is a self-report measure consisting of four subscales describes as awareness, unbiased processing, behavior, and relational orientation. The correlation coefficients among composite scales and component scales of both PsyCap and authenticity are shown in table 16. The Cronbach alpha for the total scale and for each individual construct scale is shown along the diagonals in tables 16. Total PsyCap, \( \alpha = .88 \), PsyCap self-efficacy \( \alpha = 0.85 \); PsyCap hope \( \alpha = .73 \), PsyCap resiliency \( \alpha = .56 \), PsyCap optimism \( \alpha = .51 \), authenticity \( \alpha = .92 \), unbiased processing \( \alpha = .075 \), behavior \( \alpha = .69 \), and relational orientation \( \alpha = .76 \). Their study found that total PsyCap and its constructs demonstrated positive relationships with authenticity and its dimensions. Unlike this present study, all of the relationships were significant except “unbiased processing” and “behavior”. However, there was a significant relationship between PsyCap optimism: \( r = 0.36, p \leq 0.05 \) (Toor & Ofori, 2010).

Toor and Ofori (2010) showed a positive relationship between PsyCap, authenticity, transformational leadership (which like authentic leadership is a form of positive leadership) and leadership outcomes. Like this study, although the correlations between the individual constructs
did not always reach a level of significance, their findings suggest that there is a relationship
between psychological capital and authenticity.

Table 17

*Means, Standard Deviations, Reliabilities, and Correlations for PsyCap and Authenticity*

<table>
<thead>
<tr>
<th>Variables</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>PsyCap</td>
<td>3.90</td>
<td>0.39</td>
<td>0.88c</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PsyCap self-efficacy</td>
<td>4.18</td>
<td>0.52</td>
<td>0.90a</td>
<td>0.85c</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PsyCap hope</td>
<td>3.99</td>
<td>0.43</td>
<td>0.91a</td>
<td>0.72a</td>
<td>0.73c</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PsyCap resiliency</td>
<td>3.77</td>
<td>0.37</td>
<td>0.88a</td>
<td>0.80a</td>
<td>0.77a</td>
<td>0.51c</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PsyCap optimism</td>
<td>3.63</td>
<td>0.43</td>
<td>0.83a</td>
<td>0.62a</td>
<td>0.77a</td>
<td>0.59a</td>
<td>0.51c</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Authenticity</td>
<td>3.66</td>
<td>0.37</td>
<td>0.52a</td>
<td>0.56a</td>
<td>0.36b</td>
<td>0.38b</td>
<td>0.49a</td>
<td>0.92c</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-awareness</td>
<td>3.91</td>
<td>0.50</td>
<td>0.60a</td>
<td>0.58a</td>
<td>0.48a</td>
<td>0.51a</td>
<td>0.55a</td>
<td>0.85a</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unbiased processing</td>
<td>3.51</td>
<td>0.51</td>
<td>0.20</td>
<td>0.29</td>
<td>0.10</td>
<td>0.12</td>
<td>0.15</td>
<td>0.79a</td>
<td>0.47a</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal moral persp.</td>
<td>3.37</td>
<td>0.41</td>
<td>0.31</td>
<td>0.35</td>
<td>0.14</td>
<td>0.24</td>
<td>0.36b</td>
<td>0.82a</td>
<td>0.58a</td>
<td>0.72a</td>
<td>0.69c</td>
<td></td>
</tr>
<tr>
<td>Relational transparencies</td>
<td>3.78</td>
<td>0.42</td>
<td>0.56a</td>
<td>0.60a</td>
<td>0.42b</td>
<td>0.40b</td>
<td>0.52a</td>
<td>0.76a</td>
<td>0.68a</td>
<td>0.38b</td>
<td>0.42b</td>
<td>0.76c</td>
</tr>
</tbody>
</table>

*aCorrelation is significant at the 0.01 level two-tailed.

*bCorrelation is significant at the 0.05 level two-tailed.

*cCronbach’s alpha for internal reliability.

This study’s findings are also consistent with Woolley et al. (2011) who, using secondary
data and the same self-rater Psychological Capital Questionnaire (PCQ; Luthans, Avolio, &
Avey, 2007a) and Authentic Leadership Questionnaire (ALQ; Walumbwa et al., 2008) instruments as this study, obtained results that indicated sizable correlations between authentic leadership and PsyCap ($r = .43, p < .05$).

**Research question 2.** The present study explored the impact of professional development (e.g., higher education, mentoring, management academy, and leadership development programs) on the relationship between PsyCap and authentic leadership. The shared variance between the two variables was greatest among those that held a graduate/professional degree (46.2%). While not statistically significant at $p < .05$ there was a small shared variance between those who participated in the mentoring program (21.2%), and those that attended two or three of the programs (24%). This finding can be explained by the qualitative findings that participants believe that if they are learning they are being developed and their perception that being mentored is being developed.

An explanation for these quantitative findings can also be found in the authentic leadership development (ALD) framework. In the ALD framework (see Figure 1 in Chapter 1) it was ascertained that PsyCap an integral component of ALD is an internal positive emotional store upon which the authentic leader can draw. This theoretical concept is reflected in this study’s quantitative findings that show a relationship between the PCQ and ALQ scores. Also, in the ALD model, Avolio and Luthans (2003) proposed that PsyCap, invoked by a challenging experience or trigger event within a positive organizational environment, facilitate ALD evidenced by authentic leadership behaviors and authentic follower development. In that regard, graduate school, a mentoring program, management academy or leadership development program described in this study are representative of the trigger event component illustrated in the ALD model (Luthans & Avolio, 2003).
A trigger is considered any positive or negative experience that challenges one’s norm or comfort zone and causes him or her to question existing beliefs or behaviors. Such an experience may allow the leader to become more self-aware, in terms of strengths, weaknesses, motives, and values, giving the leader ability to regulate behaviors. This process is believed to be what enables growth, authentic leadership, ethical philosophy, behavior change, and follower development (Avolio & Gardner, 2003; Luthans & Avolio, 2003). With PD (i.e., graduate school, corporate training, mentoring) representing a trigger, the ALD process is reflected in this study’s findings, regarding the moderating effect of PD on the relationship between PsyCap and AL. In this regard, the present study’s quantitative results which showed a moderate to strong relationship between PCQ and ALQ components, and moderating effects of PD fit well within the ALD theoretical framework whereby PD represents a challenging experience or trigger. These findings provide some support for H2 that PD will modify the relationship between PsyCap and AL.

Of importance to the authentic leadership literature is the finding that among bachelors, graduate and professional degree holders, the relationship between the PsyCap and AL was seven times greater among those that held a graduate/professional degree ($r = .70$) than in those with a bachelor’s degree ($r = .10$). Equally important is the notably higher correlation among those who participated in the mentoring program ($r = .50$). This is important because literature on the moderating effects of intervention on the relationship between PsyCap and AL are scant and so far, very few leadership development programs have been designed for the specific purpose of authentic leadership development (Avolio & Luthans, 2003). However, with regard to AL development although neither strong nor statistically significant, this study’s results provided some evidence of the possible positive effect of PD on ALD. Similarly, the highlights
of a meta-analysis presented by Avolio and Luthans (2003) revealed a 63% probability of interventions (at least 7 days long in a controlled context) resulting in a positive outcome. Although not significant, this was considered telling of the potential benefit of developmental intervention. The analysis also discovered that positive results were seen across all leadership models, including authentic leadership. The present study’s findings are also supported by research literature on the ADL process in a training environment (Baron & Parent, 2015). The researchers shared that the findings revealed that the participants developed characteristics that represented the four dimensions of AL (Walumbwa et al., 2008). Different from this present study, which used the ALQ to measure the four dimensions of AL, Walumbwa et al. (2008) used a content analysis of the interview transcripts to measure AL. In that regard, with the correlation between PsyCap and AL already established, it follows that if an intervention increases AL, then PsyCap, the antecedent of authentic leadership development (ALD) would also have been increased.

In answering RQ2, this study’s findings provided moderate evidence and literature supports that PD may effect the relationship between PsyCap and AL. However, George et al. (2007) argue that the ALD process with PsyCap as the antecedent can happen without intervention. In agreement with the assertions of Sparrowe (2000) that self-awareness and authentic leadership are developed through understanding one’s narrative, George et al. (2007) explored the notion that individuals learn to be authentic leaders through their life stories. Their qualitative study found that leadership emerges from these life-stories. The individuals in their study did not have a common theme of values. However, most learned their core values beliefs, and other qualities including authenticity over time from being tried by the crucibles and experiences of life’s journey. The study revealed that the key to becoming an authentic leader
may be the ability to perceive one’s self not as a victim or idle bystander of one’s life but as an active agentic participant, with the ability to become more self-aware because of life’s encounters and use that awareness to discover one’s authentic leadership (George et al., 2007).

**Research question 3.** With regard to whether gender moderates the relationship between PD and AL, the present study showed that gender did affect the relationship between PD and AL in certain types of professional development. Among those who attended the management academy the females demonstrated 34 times more shared variance than did males. In addition, among those with graduate degrees, females demonstrated 15 times more shared variance between these variables than did males. Further, among participants with who attended the leadership development program, the relationship between PD and AL was eight times stronger among females than males. Moreover, the relationship between PD and AL was stronger overall among the female participants. It is also worth noting that the relationship between PsyCap and AL for the female-only group (26.0%) was 11 times stronger than the male-only group (2.3%).

These findings have similar implications to Antonakis et al. (2003), who proposed that the influence of authentic leadership on positive work climate, and subsequent PsyCap development, is moderated by the similarity of leader and follower gender values. In that regard, “the effect of authentic leadership on male followers’ PsyCap,” reported Woolley et al. (2011), “was fully mediated by work climate perceptions” (p. 445). However, “Positive work climate” reported Woolley et al. (2011) “only partially mediated the PsyCap effects of authentic leadership among female respondents” (p. 445). With regards to gender, “The relationship between positive work climate and PsyCap,” reported Woolley et al. (2011), is the same for “any gender” (p. 445). Avolio et al. (2009) conducted a meta-analysis of 57 intervention-based leadership studies in both laboratory and field settings, also identifying the effects of gender.
They found that the effect of professional development or leadership intervention (i.e., assignment, training, coaching, mentoring, etc.) may vary, depending on whether the participants were all female or all male, and also upon the environment. As in this study, gender did have an effect on the relationship between certain types of development and authentic leadership dimensions.

Qualitative Results Discussion

Research question 4. The lived experiences of managers of a public pension plan regarding their involvement in leadership development programs and the emotions that influenced their leadership development was examined in the present study. In addition, the differences and similarities between perceptions of men and women about their professional development experiences were also explored. Germaine to these matters, the following is a discussion of the qualitative results.

Involvement in leadership development programs. Qualitative analysis of the participant interviews showed that participants felt that if they were learning, they were also being developed. In that regard, Participant 3 (P3) suggested that people who complete graduate school are more confident. Confidence or self-efficacy is a construct of PsyCap. The implication is that learning develops PsyCap confidence. With that said, this finding is supported by experimental research involving a micro-intervention model designed by Luthans, Et al. (2006) to increase PsyCap. Using four samples of management students, their work provided some evidence that participants’ PsyCap (self-efficacy, hope, optimism, and resiliency) can be increased. Like this study, to measure PsyCap, their study used the 24-item PsyCap Questionnaire (PCQ). Likewise, Zhang et al. (2014) in a study of 234 Chinese workers used an intervention designed per Luthans et al.’s (2006) micro intervention model in which they
developed structured reading material. Participants were asked to read to themselves in one 30-minute session. Post-test resulted in increased PsyCap (the antecedent for ALD).

Qualitative analysis of the participant interviews also showed that participants felt that mentoring, graduate school, or management training experiences contributed to their development for several reasons. These types of experiences challenged them, helped them to become more self-aware, and afforded them the opportunity to learn from others experiences. The latter can be explained by literature that suggests reading biographies that chronicle a leader’s journey is a useful way of regulating self and effecting deep personal change (Quinn, 2004). Further, two results inform the question “to what extent, if at all, is the relationship between positive PsyCap and AL development moderated by professional development (PD) intervention?” First, qualitative analysis of the participant interviews showed that these leaders had participated in a combination of leadership and professional development experiences such as formal leadership development programs, mentoring programs, law school, management training, and graduate school. Within this group, the intervention or program that the participants believed was most helpful in their development was mentoring. This finding is consistent with the quantitative phase finding that showed the subsample of those who participated in the mentoring program had a higher shared variance between PCQ and ALQ (see Table 8 in Chapter 4). The organizations Employee and Organizational Development (EOD) Division manager explained that the mentoring program participant feedback about the program in general is positive. Negative comments were usually outliers regarding an unavailable mentor. She explained that in such cases mentees would be assigned another mentor. Second, qualitative analysis of the participant interviews also showed that difficult experiences contributed to their development. This is also consistent with the quantitative phase finding that
showed that those who had completed graduate school had a higher shared variance than those who did not. These findings provide some support for hypothesis 2 that professional development moderates the relationship between PsyCap and AL.

Qualitative analysis of the participant interviews also showed that Participant 2 (P2) believed himself able to self-discover in the mentoring program that used Myers Briggs Type Indicator (MBTI; Hirsh & Kummerow, 1993). The purpose of this instrument is to facilitate awareness of the eight personality preferences: “Extroversion (E) Sensing (S) Thinking (T), Judging (J), Introversion (I), Intuition (N), Feeling (F), and Perceiving (P)” and their relevance in “organizational settings” (Hirsh & Kummerow, 1993, p. 1). The preferences are organized into four pairs or dichotomies: EI, SN, TF, and JP (Hirsh & Kummerow, 1993, p. 8).

Additionally, participants made reference to the 360-degree evaluation that was used in the organizations management academy training as a factor that contributed to their development in terms of self-awareness. In that regard, both the mentoring program and the management academy used self-assessment instruments. This also agrees with Cooper et al. (2005), who suggested that in an intervention-type setting, such as leadership training or development programs, a trigger can be simulated using a self-assessment instrument. The following definition provides theoretical relevance for this finding: anything positive or negative that challenges one’s norm or comfort zone and causes him or her to question existing beliefs or behaviors can be considered a trigger moment (Avolio & Gardner 2003). For example, changing careers, moving to an unfamiliar place, a mentoring or leadership development program, or learning something new can serve as triggers (Luthans & Avolio 2003). Theoretically, trigger events engage PsyCap, which facilitates authentic leadership development.
The following definition of AL and one of its dimensions, self-awareness, shows how participants’ perception that they became more self-aware as a result of participating in these programs relates to authentic leadership development: Walumbwa et al. (2008) define authentic leadership in the following manner:

a pattern of leader behavior that draws upon and promotes both positive psychological capacities and a positive ethical climate, to foster self-awareness internalized moral perspective, balanced processing of information, and relational transparency on the part of the leaders working with followers, fostering positive self-development. (p. 93)

In addition, Kernis (2003) explained that self-awareness refers to

demonstrating an understanding of how one derives and makes meaning of the world and how that meaning making process impacts the way one views himself or herself over time. It also refers to showing an understanding of one’s strengths and weaknesses and the multifaceted nature of the self, which includes gaining insight into the self through exposure to others, and being cognizant of one’s impact on other people. (as cited in Walumbwa et al., 2008, p. 95)

This study’s qualitative results were also similar to those of Baron and Parent (2015), who found that through their study intervention participants developed characteristics that represented the four dimensions of AL (Walumbwa et al., 2008). This finding is also supported by research literature on authentic leadership development using appreciative inquiry (Cooperrider & Sekerka, 2003), which found that “a strength-based [positive] trigger was useful in discovering [participants] authentic selves” (Puente et al., 2007, p. 17). Their qualitative results showed that their intervention resulted in what participants perceived as becoming more self-aware in terms of what they valued as AL characteristics. In other words, the development in which they participated increased self-awareness, one of the dimensions of AL (Puente et al., 2007). These findings also provide some support for hypothesis 2 that professional development will moderate the relationship between PsyCap and AL.
Qualitative analysis of the participant interviews showed that participants felt that the supportiveness and safety of the organizational environment was a factor in their leadership development. Participants described these aspects as withholding judgment, trust, positive reinforcement; open to new suggestions, and supportive. This finding is supported by research literature on the ALD process in a training environment (Baron & Parent, 2015). The researchers shared that participants in the study expressed that kindness, gentleness; respect, and the lack of judgment; trust or confidence in the structure of the program were important factors. The present study also provided evidence that a supportive climate was an important factor in authentic leadership development. This is in line with other researchers’ findings (Cooper et al., 2005; Avolio & Luthans, 2003, 2006; Walumbwa et al., 2008). In that regard, this study’s findings and the literature, agree that individual perception of whether the organizational context is positive and supportive might be an aspect of development. These findings can be explained by the authentic leadership development theoretical framework regarding Avolio and Gardner’s (2005) proposition that an organizational context that includes “uncertainty, an inclusive, ethical and positively oriented strength-based culture or climate” is conducive to developing authentic leadership (p. 327). Also, fitting within the ALD theoretical framework regarding the positive organizational environment component of the model are the qualitative findings, which reflected the importance of the supportiveness of the environment and other external aspects of professional development.

Qualitative analysis of the participant interviews also showed that participants felt that openness and transparency are important aspects of leadership development. Data from ATLAS.ti co-occurrence analysis indicated that “open communication/ transparency” emerged from the analysis frequently (n = 28) across most of the 13 study participants (n = 10). This
finding is consistent with the quantitative finding that the PCQ total scale had a non-significant but moderately sized relationship with ALQ relational transparency \((r_s = .33, p = .09, 95\% \text{ CI } [-.09, .65])\). Though not statistically significant, together these findings are suggestive of a possible relationship between PsyCap and AL. Also, for the purpose of clarity, Kernis (2003) provided the following definition of relational transparency:

> …presenting one’s authentic self (as opposed to a fake or distorted self) to others. Such behavior promotes trust through disclosures that involve openly sharing information and expressions of one’s true thoughts and feelings while trying to minimize displays of inappropriate emotions. (as cited in Walumbwa et al., 2008, p. 95)

This elucidates Participant 9’s (P9) explanation that he found that by showing all of his true emotions people would relate more favorably to his leadership and be intrinsically inclined to follow him. It also illuminates Participant 7’s (P7) agreement that trust is facilitated by transparency and exemplified through followership in her statement, “being authentic…being honest…I think people sense that so they know if you’re coming from a place where they can trust where you’re leading them.” These findings are supported by research literature on the perceived impact of positivity and transparency on trust in leaders and their effectiveness, in which positive, transparent leaders engendered trust and were perceived as effective (Norman, Avolio, & Luthans, 2010). With regards to the ALD framework (see Figure 1 in Chapter 1), transparency and authentic followership are components of authentic leadership (Luthans & Avolio, 2003).

Twenty-four qualitative findings were especially relevant to the question of the extent to which, if at all, there is a relationship between positive psychological capital (hope, self-efficacy, resiliency, and optimism) and authentic leadership (self-awareness, relational transparency, balanced processing, and internalized moral perspective). Qualitative analysis of the participant interviews showed that participants believed that an important component of leadership
development is the leader’s ability to align their behaviors with his or her espoused values and beliefs. Data from co-occurrence analysis indicated that the aspect “aligning behaviors with values” emerged from the analysis with frequency \( n = 24 \) from 10 of the of the 13 study participants \( n = 13 \). With regard to goal pursuit, Snyder (1995) defined hope as “the process of thinking of one’s goals, along with the motivation to move toward (agency) and the ways to achieve those goals” (p. 1). In addition, Ryan and Deci explained that internalized moral perspective “refers to an internalized and integrated form of self-regulation” (as cited in Walumbwa et al., 2008, p. 95). These definitions inform Participant 4’s (P4) perspective that “As a leader and staff employee, you are supposed to exemplify those [organizational] values at all times and if I’m setting a goal [or] I’m doing something involving others, I would always, exemplify those values,” and on Participant 13’s’ (P13) statement, “If you value something like integrity, then you’re not going to be swayed when you’re having to make ethical decisions or you know what’s right and you know what’s wrong and you’re going to stand on that.”

These qualitative findings explain this present study’s quantitative analysis that showed a significant positive correlation between the PCQ hope scale and the ALQ internal moral perspective \( r_s = .38, p = .05, 95\% \text{ CI [.01, .70]} \), with hope or agency and means (behaviors) during goal pursuit embodying the leader’s internal values and beliefs. These findings provide partial support for hypothesis one that a direct and positive correlation exists between the relationship between employees’ levels of PsyCap (hope, self-efficacy, resiliency, and optimism) and authentic leadership dimensions (self-awareness, relational transparency, balanced processing, and internalized moral perspective).

**Attitudes and emotions that influenced their leadership development.** Qualitative analysis of the participant interviews showed that participants believed that having hope and
being optimistic are important attitudes when pursuing goals in leadership development. Data from co-occurrence analysis indicated that Hope & Optimism emerged frequently ($n = 19$) across all study participants ($n = 8$). This finding is consistent with the quantitative phase finding that showed two hope items that ranked among the top 10 in terms of agreement. The 24 PCQ scale items were ranked from highest to lowest in terms of agreement with 5.67 being the highest rating and 4.52 being the lowest. Item number seven, “If I should find myself in a jam at work, I could think of many ways to get out of it,” which rates hope, was in the top five receiving a score of 5.52. PCQ item number nine, “there are lots of ways around any problem,” which also rates hope, was in the top 10, receiving a score of 5.33.

To explain how this finding applies to the study participants, theoretically, individuals with high hope, when strategic planning, are thought to be able to predetermine alternative paths to goals (Luthans, Avey, Avolio, & Peterson, 2010). They are also motivated by an awareness of their ability to create ways to succeed in their pursuits (Luthans & Youssef, 2004). Hope was also defined as “a positive motivational state that is based on an interactively derived sense of successful: one, agency (goal directed energy) and two pathways (planning to meet the goals)” (Snyder et al., 1991a, p. 287). This illuminates Participant 9’s executive explanation with regards to planning to meet goals, “you know what you need to do to get it done. You’ve identified what resources you’re going to [need] to get it done and you’ve identified…what time you need to get it done.” This finding, too, is supported by the research literature on how, with regard to leadership development, “higher hope management executives produced more and better quality solutions to a work-related problem, suggesting that hopefulness may help employees when they are confronted with problems and encounter obstacles at work” (Peterson & Byron, 2008, p. 785).
Further, this finding is consistent with the quantitative phase finding that showed two PCQ items that measured optimism ranked among the top five in terms of agreement. Item 23, “In this job, things never work out the way I want them to,” and Item 20, “If something can go wrong for me work-wise, it will,” both received a score 4.67 which, since these items are reverse scored, indicates higher optimism. To explain how this finding applies to the study participants theoretically, it is believed that persons with high optimism are inclined to attribute favorable life events to their own credit. They can detach personal fault from unfavorable outcomes, which allows them to circumvent blaming themselves, becoming depressed, guilty, or reflection and despondency (Luthans, Avolio, & Avey, 2007). Optimistic people are believed to have the ability to take credit for positive outcomes as well as perceive them to be personal, enduring, and all encompassing, while externalizing negative outcomes and perceiving them as short-term, and restricted to particular circumstances (Seligman, 1998). This expounds on P5’s description of hope and optimism in goal pursuit as viewing hurdles as “temporary and not permanent.”

“Realistic optimism includes an evaluation of what one can and cannot accomplish in a particular situation” (Luthans, Youssef, & Avolio 2007, p. 100). This illuminates Participant 4’s (P4) explanation that “things out of my control…just came out of nowhere; this case or this meeting. So, I could not make the goals that I set out for myself. But those were things that were out of my control…I don’t beat myself [up] for it because that happens when you’re in leadership positions.”

Qualitative analysis of the participant interviews also showed that participants believe that having trust in leadership or developing trust in followers is an important aspect of leadership development. Trust emerged frequently (n = 17) across all study participants (n = 13),
Of the 13 participants 7 discussed trust. P9 described trust as being able to share confidential or even compromising information. He described the following perspective:

In order to really help develop somebody, they have to have enough trust in [me] to share their feelings, their thoughts [confidential information]… [I] have to have that honest conversation. [They] have to give [me] all the information for whatever we’re talking about because if [they] don’t, whatever advice [I] give [them] is not going to be, applicable because [I] don’t have all the facts. So, you have to have trust any time you’re in a learning environment when you’re developing somebody.

Relationships between PsyCap, trust, and improved performance on an organizational level have been shown in prior literature (Avey et al., 2006; Avolio, Avey, & Norman, 2007; Avey et al., 2009). To better understand this finding emerging literature is also helpful. Clapp-Smith et al. (2009) in a study of 89 predominately female employees at 26 small retail stores, investigated the relationship between authentic leadership, trust, positive psychological capital (PsyCap), and performance at the group level of analysis. Trust in management was found to mediate the relationship between PsyCap and performance and to partially mediate the relationship between authentic leadership and performance.

Qualitative analysis of the participant interviews also showed that participants believe that having confidence in oneself or developing confidence in followers is an important aspect of leadership development. Confidence emerged with some frequency (n = 15). Of the 13 participants, six discussed confidence as a personal attitude that was helpful in their leadership development. This finding was consistent with the quantitative finding that the highest agreement on the PCQ scale was for Item two, “I feel confident in representing my work area in meetings with management” (M = 5.67), and item one, “I feel confident analyzing a long-term problem to find a solution” (M = 5.63). Self-efficacy refers to confidence in one’s ability to rally the enthusiasm, intellect, and actions needed to successfully execute a specific task within a given context (Stajkovic & Luthans, 1998a). This explains Participant 1’s comment expressing
confidence in his decision-making and business acumen. He said in that regard, “I felt very comfortable with the decision that I had made.” He explained that this was “because of fact finding and [his] knowledge of that particular process and how it affects other things.”

**Gender differences and similarities about professional development experiences.**

Qualitative analysis of the participant interviews showed that participants believed that there is a difference between men and women in terms of emotional intelligence, emotions in general, and learning and leadership styles. This is consistent with the quantitative finding that gender moderated the relationship between PsyCap and AL, with the female group having 11 times more shared variance between PsyCap and AL than the male group. This finding is also supported by research literature on the relationship between PsyCap, AL, Work context, and gender (Antonakis et al., 2003; Woolley et al., 2011) in which a relationship was found between authentic leadership and PsyCap, as was a mediating effect of work climate perceptions, and a moderating effect of gender. In that regard, their study suggested that the congruence between workplace and gender values played a role in the relationship.

With regard to emotional intelligence (EI) in men and women, EI gender comparison emerged with the most frequency ($n = 15$). EI gender comparison refers to making a distinction between the extent to which males and females, are aware of, understand, and relate to their own emotions and those of others. Of the 13 participants, 7 discussed “EI gender comparison”. Salovey and Mayer (1990) defined emotional intelligence as “the subset of social intelligence that involves the ability to monitor one’s own and others’ feelings and emotions, to discriminate among them and to use this information to guide one’s thinking and actions” (p. 189). This definition clarifies P5’s suggestion that it might be that “Women really do have that intuition; they are more self-aware emotionally…taking into account the emotion that’s driving…women
may just have that knack.” Also, research literature on a gender comparison of leadership style and emotional intelligence (Quader, 2011) expounds on P2’s statement, “I think in general, there is a significant difference between men and women, how they process emotions and how they relate to people.” The present study found that women scored higher than men in the two of the EI interpersonal factors: (a) relating well and (b) emotional mentoring.

Qualitative analysis of the participant interviews showed that the participants in this study believe that there is a difference in general between the management styles of men and women. Regarding management style, P1 shared that “from my personal experiences the women are more visionary.” He provided the following observations:

In this environment, the male managers take a more conservative approach to their management style and decision making. The female managers have more of a visionary outlook and are more passionate about their division and their work.

Antonakis et al. (2003) used samples consisting of 2279 pooled male and 1089 pooled female raters who evaluated same-gender leaders to explore the moderating effect of gender. The results revealed differences between the factor correlations of the male and female groups. For example, aligning with the results reported by Eagly and Johannesen-Schmidt (2001), the females received higher scores than males on individualized consideration, one of the dimensions of transformational leadership (Antonakis et al., 2003). On the other hand, with regard to management-by-default and laisse faire leadership (considered passive leadership dimensions), the females’ scores were lower than those of males (Antonakis et al., 2003).

Five qualitative results were especially relevant to the question “To what extent, if at all, is the relationship between professional development intervention and authentic leadership moderated by gender?” First P10 explained that “females tend to be very careful…and conservative” in terms of having “all the facts,” driven by the need to ensure accuracy and prove
ability. Whereas “[Males] take charge whether they know what they’re doing or not.” Second, with regard to the difference in the correlations between PD and AL among the genders, P2 suggested, “most men in general are not good listeners, and so that might be part of the reason why there’s this difference in correlation between development [and] leadership characteristics.” Third, also, explaining the stronger correlation between PD and AL among females versus males in this study, P8 explained, “it would hopefully be a reflection of an environment that’s accepting of everyone and not discriminatory or hostile, where women see women leaders…advancing and progressing and have an opportunity to access [leadership] roles someday themselves.” Fourth, acknowledging the social biases against females, P12, who attended “a women’s college” believes women are agents of change and suggested that it is a matter of being “aware” of the “subconscious” biases. Fifth, P3 in his explanation for the data results regarding the stronger correlation between PD and AL among the female group shared, “In this organization…most of the management is male…most executive officers are male.” But also declared that females are not discriminated against and inferred that the stronger correlation between PD and AL among the female group could be attributed to the fact that there are strong and independent females in the organizational culture.

When compared to males, most of the male participants believe women have higher levels of emotional intelligence and are more in tuned with their emotions. Regarding learning style they believe women are better listeners, and regarding management style women are more visionary and passionate about effecting positive change versus men who they believe tend to embrace the status quo. This is how participants explained the quantitative finding that there was 11 times more shared variance between PCQ and ALQ total scores among the female group.
Most of the female participants believe that to overcome biases, discrimination, and inequality in academia, the workplace, and society women must work harder, be more disciplined, self aware, careful, vigilant, and mindful of their behavior than males, and therefore are more evolved emotionally and in terms of their leadership. This is how participants explained the RQ2 quantitative result that showed a higher shared variance between Professional Development and Authentic Leadership among the female group. Perceptions about gender can be influenced by a society’s values. These values include ideas about emotional and social role differentiation, how one interacts with others, priorities regarding work and family, ideas about society’s vulnerable classes, parenting, self-defense, political leadership, religious beliefs, and sexuality. In that regard, many of these differences in perception could be a result of gender values of the culture (Hofstede et al., 1998).

The finding regarding equal access and exposure speaks to the notion that workplace perceptions influence leadership development efforts as well as the leader follower relationship. These findings are also supported by research literature on the relationship between PsyCap, AL, Work context, and gender in which a relationship was found between authentic leadership and PsyCap, that was moderated by gender and workplace perceptions (Antonakis et al., 2003; Woolley et al., 2011).

New Contributions to the Literature

Qualitative analysis of the participant interviews showed that prayer can be considered a component of leadership development. P4 described spirituality as strength and guidance through prayer and referred to himself as a praying man. To illustrate this, he shared the following experience:

I had to talk to one of my staff and this particular staff member can be combative, on the defense when you’re having particular conversations … The night before I talked to this
particular person I had to go say a prayer to God to give me strength to deal with this conversation. I’ve done this on more than one occasion and He has guided me through those conversations with that person.

With regard to when she was having a difficult time during law school and felt like giving up, P6 also described spirituality as acquiring direction and perseverance from God through prayer. She shared that she would pray, “Okay Lord do you want me to finish this? Do you not want me to finish this? If you do want me to finish this, you’re going to have to help me get through it somehow because I can’t do it on my own.”

Although the literature is scant, spirituality in leadership development is not new (Brown & Trevino, 2007; Greenleaf, n.d.; Fry et al., 2005; Johnson, 2009; Vitucci & Cedillo, 2005). However, the idea of prayer as a moderating variable of the relationship between psychological capital and authentic leadership development is possibly a new concept that can be explored towards the advancement of the authentic leadership development literature through positive organizational scholarship.

**Summary of the Literature**

The prior literature provides evidence of the many benefits of PsyCap and AL in an organizational context. One study showed that employees’ level of PsyCap is positively related to their performance and job satisfaction (Luthans, Avolio, Avey, & Norman, 2007). Another study showed that “leaders with high PsyCap also had high authenticity ratings; displayed greater transformational leadership; demonstrate less transactional and Laissez-Faire leadership behaviors, and encounter exceptional outcomes” (Toor & Ofori, 2010, p. 350). Another study provided evidence that authentic leadership can influence the organizational context to be more authentic and positive (Walumbwa et al., 2008). Moreover, this study agreed with literature that provided evidence that there is a correlation between PsyCap and AL (Jensen & Luthans, 2006a).
Most importantly, the literature provided evidence that it is possible for a proactive intervention to develop PsyCap and AL dimensions (Avolio & Luthans, 2003; Baron & Parent, 2015; Luthans et al., 2006, Puente et al., 2007; Zhang et al., 2014). Literature also suggested that reading biographies that chronicle a leader’s journey is a useful way of regulating self and effecting deep personal change (Quinn, 2004). Yet, another study (Baron & Parent, 2015), found that through intervention participants developed characteristics that represented the four dimensions of AL (Walumbwa et al., 2008). In addition, a qualitative study discovered that “a strength-based [positive] trigger was useful in discovering [participants] authentic selves” (Puente et al., 2007, p. 17). This work showed that intervention resulted in increased self-awareness, one of the dimensions of AL (Puente et al., 2007).

Also with regards to the role of the organization’s environment, Baron and Parent, (2010), explored the ALD process in a training environment. Their work revealed that participants in the study expressed that kindness, gentleness; respect, and the lack of judgment; trust or confidence in the structure of the program were important factors in their development. Other literature showed that the leader’s ability to engender trust is an important factor in leadership development (Norman, Avolio, & Luthans, 2010). This work revealed that leaders who were perceived to be positive and transparent engendered trust and were perceived as effective. Studies also showed a relationship between PsyCap development, trust, and organizational performance (Avey et al., 2006; Avolio, Avey, & Norman, 2007; Avey et al., 2009). Also, work done by Clapp-Smith et al. (2009) showed that trust in management mediated the relationship between PsyCap and performance and partially mediated the relationship between authentic leadership and performance.
Regarding gender differences, studies showed that females displayed more transformational leadership dimensions and less management-by-default and laisse faire leadership, both considered passive leadership dimensions (Antonakis et al., 2003). Work regarding the influence of gender found that an organization’s climate might be more masculine or feminine in its values, depending on the majority gender of its leaders (Avolio et al., 2009; Eagly, 2005; Jensen et al., 1990). In that regard, the degree of congruence between leaders’ and followers’ values is an important element of the leader–follower relationship (Antonakis et al., 2003).

Conclusions

Quantitative results showed a moderate relationship between most of these variables. There was a significant correlation between the subscales hope and internalized moral perspective \((r_s = .38, p = .05)\). Several of the participants tied it to the organizational culture; specifically, with regard to dissemination of the values. They mentioned the values often. It may be that because these values are so engrained in a culture that is goal oriented. The qualitative data revealed an obvious orientation to workplace goals. The organization seems to have embedded the values into the culture very well. Each participant recited all, mentioned at least one of the values, or made reference to the organizational values. This might be the reason the highest ALQ subscale score was for internalized moral perspective \((M = 3.56)\). It could also explain why in this sample the relationship between hope and internalized moral perspective was significant. The inference among this sample is there is a strong connection to a code of work ethics morals values that transfers over into goal pursuit, thus, the relationship between hope and internalized moral perspective. Although tentative at best, due to the small sample size \(n = 27\), this study’s findings provided partial support for hypothesis one, that there is a direct and
positive correlation between the relationship between employees’ levels of PsyCap (hope, self-efficacy, resiliency, and optimism) and authentic leadership dimensions (self-awareness, relational transparency, balanced processing, and internalized moral perspective).

This study’s findings showed that people who attended graduate school, the organization’s mentoring program, or at least two of the organizations development programs reported at least a moderate variance between PsyCap and AL. Regarding the organization’s programs, literature showed that there is a correlation between ALD and a supportive or positive work climate. In that regard, several of the participants described a safe/supportive working environment as a component of their current paradigm. This aligns so closely with the literature that it is possible that the group’s overall perception that the work environment is supportive played a role in these results and fits the ALD theoretical framework.

Also, important to the literature, is that qualitative findings showed that participation in the organizations programs achieved greater self-awareness, one of the primary characteristics of AL. In that regard, the mentoring program used a self-assessment, the Myers Briggs Personality Type instrument, and the Management Academy used a 360-degree evaluation, which all participants were required to take. Cooper et al. (2005) suggested that in an intervention-type setting, such as a leadership training or development program, a trigger can be simulated using a self-assessment instrument. This partially explained the stronger relationship between PCQ and ALQ scores among those that attended the mentoring program and Management Academy.

Further, a trigger is theoretically a challenging experience that challenges beliefs or norms. This description also epitomizes the nature of higher education. It stands to reason that, if using the theoretical framework to explain graduate school’s impact on relationship between PsyCap and AL, it was expected to moderate it. However, alluding to the ethical component of
AL, P5 said he had a hard time drawing a connection between higher education and morals or ethics (dimension AL). That agrees with the literature. Avolio and Luthans (2006) shared that it is unfortunate that some individuals may not have the ability to manifest positive results from triggers such as higher education or leadership development. Nevertheless, there was a non-significant correlation in this study. So, although professional development modified the relationship between PD and AL, the implication is that ethics and morals must be taught. Though limited by a small sample size, and tentative, this study’s findings, supported by literature showed that PD did modify the relationship between PsyCap and AL and provided some support for hypothesis two, that professional development will moderate the relationship between PsyCap and AL.

The relationship between PD and AL was 11 times stronger among the female group. The group provided several explanations for this such as women are strong, they are better listeners, they are more agentic, visionary and passionate about their work and goals, they are more careful and methodical, and the organizational culture is congruent with the female values. All these explanations are plausible, and supported by literature (Antonakis et al., 2003; Woolley et al., 2011). With regard to the mentoring program, qualitative results revealed that the coordinator was female and most of the participants including the mentors were female. This is a possible explanation for the stronger correlation between PD and AL among the female subgroup of those who participated in the mentoring program, as literature indicates that congruence between leader and followers’ values is important (Antonakis et al., 2003).

Also, with regard to the influence of gender, it was suggested that women are generally more self-aware. Self-awareness is a dimension of AL. Theoretically; the authentic leader is both self-aware and aware of how he or she is perceived. Because some women may be more in
tune with how their emotions are affecting them and others in a particular situation (Ingram, Peake, Stewart, & Watson, 2014), they may also be more self-aware. This would give them an inherent propensity to use this emotional awareness to manage themselves and direct these emotional strengths into achieving academic and work goals and overcoming obstacles to effect both personal and organizational change. It follows that this level of self-awareness might facilitate, and in fact expedite, the ALD process. These findings provide some support for hypothesis three that gender modifies the relationship between professional development and authentic leadership.

With regard to the type of emotions that contributed to leadership development, in addition to hope, self-efficacy (confidence), optimism, and resiliency (PsyCap), participants are able to draw on other forms of emotional strength and intrinsic aspects of leadership development. For example, enthusiasm ($n=10$), passion ($n=2$), patience ($n=6$), a positive attitude ($n=6$), compassion/empathy/kindness ($n=11$), joy ($n=1$), spirituality ($n=11$), and humility ($n=4$) were named. All of these attitudes or emotions were in some way sustaining in the pursuit of goals and during their leadership development. Some of these attitudes or emotions, such as compassion, empathy, and kindness, provide leaders with the ability to relate to and serve followers, while others such as confidence, enthusiasm, passion, and a positive attitude help to sustain and motivate them when faced with challenges during development.

Also, in this study participants expressed the importance of a heuristic approach to development, meaning they want to learn by experiencing or doing, opposed to only lecture or theory (Knowles, 1974). They need to be able to practice or apply leadership concepts in a real environment. During development, participants also need to see a living example of the
leadership concept. In that regard it is important that the leadership or organizational sponsors embody the ideal as the opposite can hinder followership and development.

An environment in which people feel at liberty to—and are in fact encouraged to—express themselves, share ideas, and opinions is also conducive to development. The opposite is stifling, which would not facilitate growth. The need for making personal connections, networking and building relationships emerged as an important aspect of leadership development. In that regard, participating in a mentoring program or having a mentor emerged as a very important component of development both for those that had mentors and for those that did not. Those that participated in formal leadership development programs expressed that being able to learn and make mistakes free of reprisal was and is an important aspect of development. Another important component that emerged was the importance of fairness and equal access, lack of favoritism, bias or discrimination in terms of opportunities. With that said, leadership development initiatives should offer diverse growth and development opportunities that appeal to diverse interests.

Implications and Recommendations for Organizational Leaders and Leadership Practitioners

Leadership within organizations can and should take a proactive stance by developing strategies to nurture psychological capital in the workplace and create programs to develop authentic leaders. In light of the current global context, there is not a better time to focus on authentic leadership development in pervasive domains. Leadership development programs can develop curriculum that involves a great deal of personal examination and emphasis on acquiring an ethical perspective, consideration of others, as well as emotional intelligence training. If authentic leadership begins with self-awareness and self-regulation, then organizations ought to
be intentional about facilitating the type of programs that allow aspiring leaders to examine themselves and their values, while learning to navigate and lead in a particular organizational context. Continued positive organizational leadership development is perhaps one of the most critical aspects of ensuring ethical perspective taking is embedded into the fabric of this society’s culture. It is also important for practitioners of leadership development programs and organizational leaders who are implementing these programs within their organizations to bear in mind that that gender—along with organizational context—will influence the effect of any leadership development intervention. In light of the present study’s findings, several implications can be drawn.

First, this study’s findings imply that how individuals feel and their attitudes about themselves and their situations and contexts play an important role in their development. There are many affective or emotional components to leadership development that can influence outcomes with regard to their ability to persevere and their ability to develop and lead followers.

Second, this study’s findings imply that the participants’ perceptions of the external aspects of the program may impact the effect of leadership development outcomes. This would include aspects such as whether or not they feel supported by the organization, whether or not they feel safe in the learning environment, whether or not they perceive the learning to be relevant, and the extent to which they perceive the leadership to be authentic and trustworthy.

Third, this study’s findings imply that adult learners need a heuristic approach to development that allows them to learn by doing. Also, developing leaders must be able to see examples of the expected behavior as well as have mentors to guide them along the way. Based on the findings, the way in which these factors are managed can impact the success of the program and whether the desired outcome is achieved.
Fourth, this study’s findings imply that gender perceptions and perceptions about the organizational context may have an important impact on the effect of any leadership development intervention. Gender should therefore be taken into consideration when designing a leadership development program. The implication is that if participants feel that they are supported, represented and respected equally within the context of the organization and the program with regard to their gender, they are more likely to reap positive benefits from leadership development. It follows that this will lead to positive organizational growth.

It is recommended that leadership development practitioners take a holistic approach to leadership development by taking into account the internal aspects of leadership development as well as the external. Become familiar with PsyCap and ALD and design programs for the purpose of developing PsyCap (hope, efficacy, resilience, & optimism) and authentic leadership characteristics (internal moral perspective, balanced processing, self-awareness, & relational transparency; Avolio & Luthans, 2003). It is recommended that they implement programs that facilitate self-awareness, develop emotional intelligence, and focus on developing an ethical perspective and mindfulness of the needs of others. It is also recommended that the program is facilitated in a way that will allow the participant to explore the context and be challenged to find their own answers to problems and scenarios. It is expected the participants will come into the program with existing knowledge. In that regard, the program should facilitate the participants’ ability to immediately synthesize that knowledge and new learning to gain insight and solve problems. Finally, to ensure authentic leadership development programs are genuine, this study recommends the use of authentic leadership and PsyCap metrics (e.g., PCQ & ALQ) and develop standards that can be used to evaluate an in-house or external professional development program (Cooper et al., 2005).


**Recommendations for Future Research**

Four recommendations are put forth for future research. First, future research should use a much larger sample size and focus on professional development opportunities designed to develop authentic leadership. In other words, when compared to other leadership development initiatives, specifically designed to enhance self-awareness, relational transparency, balanced processing, and internalized moral perspective. As mentioned, very few leadership development programs have been designed for the specific purpose of ALD. With regards to those that have, none of the literature (Baron & Parent, 2015; Puente et al., 2007), including this study, was able to establish strong support for causation. To that end, conduct a mixed methods study with an experimental design to determine the effect of the leadership intervention. The purpose of the study would be twofold: (a) to identify causal direction in the relationship between professional development and authentic leadership and establish support for causation, and (b) to identify the external factors including workplace perceptions that moderate the relationship. The aim would be to help bring positive organizational scholarship closer to identifying the best developmental approaches for ALD. RQ1 and RQ3 would be answered using quantitative methods and RQ2 would be answered using qualitative methods. The following research questions would guide the recommended study:

- **RQ1.** What is the effect, if any, of the PD intervention on authentic leadership dimensions?
- **RQ2.** What leadership development approaches did participants find most effective in their leadership development experience?
- **RQ3.** What is the effect, if any, of perceived organizational support on the relationship between PD and AL?
Second, conduct a meta-analysis of the results of studies aimed at developing authentic leadership and psychological capital. Third, conduct a meta-analysis of results of any studies' findings that identify the correlation between the components of the PCQ and ALQ. Conduct a meta-analysis of PsyCAP and AL intervention studies including this one and of other studies that explore the PsyCAP & AL. Fourth, conduct a semantic analysis of the transcripts obtained from this study’s interviews.

Fifth, the qualitative results from this present study showed that prayer was an aspect of development. This appears to be a new concept in the ALD literature. Therefore, the recommendation is for further exploration of the role of spirituality in the form of prayer/meditation in the ALD process. Spirituality in the workplace is not new (Greenleaf, 1977, 1978; Fry, 2003; Vitucci, and Cedillo, 2005; Brown & Trevino, 2007; Fry et al., 2005; Greenleaf, n.d.; Johnson, 2009; Vitucci & Cedillo, 2005). However, the idea of prayer as a component of leadership development is possibly a new concept that can be explored towards the advancement of the authentic leadership development literature in positive organizational scholarship.

**Limitation**

The primary limitation of this study is the small sample size. Ultimately, it is difficult to draw valid conclusions from a sample of \( N = 27 \). For that reason, the sample size is problematic and therefore, the results and conclusions are tentative at best. In that regard it is recommended that future quantitative research using these variables ensure a much larger sample size.

**Final Summary**

A prescription for positive leadership can be considered that can maintain integrity and self-governance develop followership, help their followers to find meaningful purpose in their
work, as well as lead and develop others into ethical leaders. Avolio and Gardner (2005) discussed the importance of authenticity, authentic leadership, and their relationship to authentic follower development, positive cognitive capacities, positive work environment and positive workplace outcomes. These authors also recommended the aforementioned concepts as topics for research (p. 20). In that regard, this study answered the call of Luthans and Avolio (2003) to focus on leadership training approaches to facilitate the development of authentic leadership and followership. Further, it answered the call of Gardner et al. (2011) for more “evaluations of the host of … programs currently offered that promise to enhance the development of leaders, including their authenticity, integrity, and effectiveness” (p. 1141).

In developing interventions, researchers or curriculum designers are interested in replicating triggers. However, it is not yet clear which of all the developmental approaches may have the most effect on PsyCap or authentic leadership behaviors. Positive Organizational Behavior theorists recommend trying different approaches to determine which have an effect (Luthans & Avolio, 2006). To that end, this study sought to generate new knowledge about the type of intervention approaches that have a relationship with PsyCap and authentic leadership development.

The two-part purpose of this sequential mixed-methods study was to (a) measure the relationship between psychological capital and authentic leadership and the extent to which these variables are modified by professional development and gender and (b) to explore the perceptions of leaders regarding their experiences in professional development programs, the emotions that contributed to their professional development, and the differences in their perceptions of men and women. First quantitative dataset was collected using the ALQ and PCQ. Following collection of quantitative data using an online survey tool, qualitative dataset
was collected using semi-structured interviews with 13 respondents. The aim was to provide a narrative from a leadership perspective that will explain the findings in terms of the relationships between positive emotions, authentic leadership. The interviews were designed to explore the leaders’ perceptions about the emotions that facilitated their development, their perceptions about leadership development programs, and their gender perceptions. The following four research questions (RQs) provided guidance for the study:

- **RQ1**: To what extent, if at all, is there a relationship between positive psychological capital (PsyCap) and authentic leadership (AL)?
- **RQ2**: To what extent, if at all, is the relationship between positive PsyCap and AL development moderated by professional development (PD) intervention?
- **RQ3**: To what extent, if at all, is the relationship between PD intervention and AL moderated by gender?
- **RQ4**: What are the lived experiences of managers of a public pension plan concerning their involvement in leadership development programs and the emotions that influenced their leadership development, and the differences and similarities between perceptions of men and women about their professional development experiences?

Quantitative methods were used to answer the first three research questions. Research question 1 data showed three moderate correlations ($r \leq .30$) between PCQ resilience and ALQ self-awareness; PCQ hope scale and the ALQ total score; and PsyCap and AL overall. The one strong correlation ($r \leq .5$) was between the PCQ hope scale and the ALQ internal moral perspective. Research question 2 data showed that three subsamples had the highest shared variance: those who had completed graduate school, those attending two or three of the corporate training programs, and those who participated in the mentoring program. Research question 3
data showed that the relationship between PD and AL was stronger overall among the female participants. It is also worth noting that the relationship between PsyCap and AL for the female-only group (26.0%) was 11-fold that of the male only group (2.3%).

Qualitative methods were used to answer research question 4. Research question four data suggested that participants believed that mentoring is a very important component of leadership development and that the success of any leadership development program depends heavily on the supportiveness of the environment. The results also showed that challenges such as the experience of graduate school embody the nature of development as well as many of the various extrinsic aspects. The qualitative results also showed that attitudes and emotions such as confidence, hope, optimism, resilience, patience, compassion, empathy, and positivity may contribute to an individual’s development and the ability to persevere. The qualitative results also showed that women are perceived as having higher emotional intelligence than men, they are agentic, visionary, and more inclined to challenge the status quos to effect personal and organizational change. Moreover, the qualitative findings regarding the perceptions of the nature of development and the gender perceptions provide explanations for the finding from the quantitative phase that showed higher shared variance between PsyCap and AL among those that attended graduate school, the organization’s mentoring program, or two of the organizations development programs and also between PsyCap and AL and between PD and AL among the female group.

Several implications/recommendations were drawn from this study. First, there are many affective or emotional components to leadership development that can influence outcomes with regard to their ability to persevere and their ability to develop and lead followers. Practitioners should include components designed to raise self-awareness, emotional intelligence, and ethical
perspective. Second, since authentic leadership development has been associated with many positive workplace outcomes in terms of performance work environment and followership (Antonakis et al., 2003; Avey et al., 2006; Avolio, Avey, & Norman, 2007; Avolio & Gardner, 2005; Avey et al., 2009; Gardner et al., 2005; Jensen & Luthans, 2006a, 2006b; Walumbwa et al., 2008), organization leaders should consider the benefits of authentic leadership development when designing leadership development programs. In the same sense, it was also recommended that practitioners and designers of leadership development programs become familiar with the concepts of ALD and design programs for the purpose of developing authentic leadership.

Third, they should consider the program environment to ensure it is perceived as supportive, safe, and positive. Fourth, they should take into consideration the culture with regards to gender. It should reflect gender neutrality and fairness. Fifth, they should use measurements to ensure development interventions result in AL.

Several recommendations for future research were made. First, continue to explore the relationship between professional development interventions and AL. Second, explore the relationship between spirituality exemplified by prayer and its role in the ALD process.

Toor and Ofori (2010) argued that organizations need to invest in human resources in a more innovative manner. They should manage their talent and train the professionals to be better leaders and followers who...possess positive psychological capacities, and have the highest sense of authenticity to contribute to the achievement of the organizational objectives. (p. 341)

The results of this study may provide organizations that already have leadership development programs with information that will help them improve their intervention approaches. This data can be used for designing and developing future PsyCap and authentic leadership interventions and lead to additional inquiry that will further add to this body of knowledge. Organizations that are intentional about employee development and practitioners of
authentic leadership development may be able to use the insights from this study to identify the types of interventions that generate positive behavior change.
REFERENCES


doi:10.1177/0002764203260207


doi:10.1023/B:SORE.0000027410.26010.40


doi:10.1037/t01207-000


doi:10.16/j.leaqua.2011.09.007


Howell, J. M., & Avolio, B. J. (1992). *The ethics of charismatic leadership: Submission or liberation?* Retrieved from amp.aom.org/content/6/2/43.short


performance impact of positive psychological capital. *Human Resource Development 
Quarterly, 21*(1), 41-67. doi:10.1002/hrdq.20034

Chinese workers, exploring the relationship with performance. *Management and 


human and social capital. *Business Horizons, 47*(1), 45-50. 
doi:10.1016/j.bushor.2003.11.007

effect: Distribution of the product and resampling methods. *Multivariate Behavioral 
Research, 39*(1), 99-128. doi:10.1207/s15327906mbr3901_4


(Eds.), *Handbook of positive psychology* (pp. 74-88). Oxford, UK: Oxford University 
Press.

Mayo, E. (1945). *Social problems of an industrial civilization*. Boston, MA: Harvard University, 
Graduate School of Business Administration, Division of Research.

handbook* (pp. 1-11). Danvers, MA: ASTD Press.


doi:10.1016/j.leaqua.2005.03.005


APPENDIX A

Authentic Leadership Development Model

(Luthans & Avolio, 2003)
APPENDIX B

Researcher-Developed Demographic Questionnaire

1. Your Gender:
   — Male
   — Female

2. Your age in years: _____

3. What is the highest level of education that you have completed?
   — Less than high school
   — High school
   — Trade/technical training
   — Some college
   — An Associate degree
   — A Bachelor’s degree
   — A Master’s degree
   — A professional degree (e.g., DDS, JD, MD etc.)
   — A Doctorate (e.g., Ph.D., Ed.D.)

4. Number of years employed following completion of High School: _____

5. Number of years of experience at your current job: _____
   — Years:
   — Month

6. Total length of experience in leadership positions
   — Years:
   — Months:

7. In which, if any of the following Professional Development Programs have you participated?
   — CALAPRS Management Academy Year Participated?_______
   — Leadership Development Program Year Participated?_______
   — Mentoring Program Year Participated?_______
   — Other Professional Development

   Please describe:
   _______________________________________________________________
   _______________________________________________________________
   _______________________________________________________________
   _______________________________________________________________
   _______________________________________________________________
   Year Participated/Completed:____________________
APPENDIX C

Psychological Capital (PsyCap) Questionnaire (PCQ)

Instructions: Below are statements that describe how you may think about yourself right now. Use the following scale to indicate your level of agreement or disagreement with each statement:

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

PCQ Sample Items:

1. I feel confident analyzing a long-term problem to find a solution.
2. There are lots of ways around any problem
3. I usually manage difficulties one way or another at work.
4. I’m optimistic about what will happen to me in the future as it pertains to work.  
   (Luthans, Avolio, & Avey, 2007)
APPENDIX D

Authentic Leadership Questionnaire ALQ

Name: ______________________________________________________  Date: ____________

Instructions: The following survey items refer to your leadership style, as you perceive it. Please judge how frequently each statement fits your leadership style using the following scale:

<table>
<thead>
<tr>
<th>Not at all</th>
<th>Once in a while</th>
<th>Sometimes</th>
<th>Fairly often</th>
<th>Frequently, if not always</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

As a leader I…

1. say exactly what I mean. .......................................................... 0 1 2 3 4
2. admit mistakes when they are made. ........................................ 0 1 2 3 4
3. encourage everyone to speak their mind. ............................... 0 1 2 3 4

(Avolio, Gardner, & Walumbwa 2007)
APPENDIX E

Request for Permission from Organization’s CEO

Arlene J. Owens
[address omitted for publication]

January 4, 2016

Dear Sir,

I hope all is well with you. I am writing this letter to request your permission to conduct my dissertation study within your organization in order to complete the requirements for my Doctorate in Education in Organizational Leadership from Pepperdine University Graduate School of Education and Psychology.

Before I can more forward into the data collection stage of my study, the Pepperdine Internal Review Board (IRB) requires I demonstrate that I have been given permission to conduct my study. I know that you have already expressed your support. For that reason, I apologize if this appears redundant. In that regard,

This is a relational, non-experimental study with cross-sectional online survey and interview data collection. The study used quantitative and qualitative methods to explore the relationship between Psychological Capital, Authentic Leadership, and Professional Development. Participation in the study is voluntary and confidentiality are maintained to the participants’ satisfaction. Participation entails completing several online questionnaires and face to face interviews.

Participation in this study will be extremely valuable to designers of corporate leadership training programs as well as other scholars and practitioners in the field of leadership development.

With your permission, I will be conducting this study within your organization. Please feel free to ask any me questions about this study before I begin. If there are any questions I cannot answer please feel free to contact Dr. Doug Leigh, Dissertation Chair (dleigh@pepperdine.edu) and or Dr. Kevin Collins (Kevin.collins@pepperdine.edu), Manager of Pepperdine Graduate and Professional Schools Internal Review Board (IRB). Please let me know if I have your permission to proceed with the data collection for this study.

Warmest Regards,

Arlene J. Owens
APPENDIX F

Permission From Organization’s CEO

>>> 2/16/16 2:43 PM >>>

Legal has looked over the attached cover and surveys. They do not see an issue if you limit the scope of your survey to management (MAP) staff therefore you have HR’s approval to this scope with the attached surveys.
APPENDIX G

Study Participation Recruitment Letter

Arlene J. Owens
Doctoral Candidate, Ed.D. in Organizational Leadership
Organizational Leadership

Hello. My name is Arlene Owens I am a doctoral candidate in Organizational Leadership at Pepperdine University’s Graduate School of Education and Psychology. I am conducting a study on leadership development in organizations.

You have been carefully selected to participate in the study. Participation in the study is voluntary and confidentiality and anonymity are maintained to your satisfaction.

Participation entails completing an online questionnaire and a brief interview. Questions asked in the interview and an informed consent form will be sent to you in advance of the interview. Your participation in this study will be extremely valuable to me as it will facilitate my degree completion. It will also inform organizational leadership development as well as scholars and practitioners of leadership development programs.

I would like to ask if you would be willing to be interviewed as part of my study?

Sincerely,

Arlene J. Owens
Doctoral Candidate, Ed.D. in Organizational Leadership
APPENDIX H

Informed Consent

PEPPERDINE UNIVERSITY

INFORMED CONSENT FOR PARTICIPATION IN RESEARCH ACTIVITIES

RELATIONSHIP BETWEEN EMPLOYEE PROFESSIONAL DEVELOPMENT, POSITIVE PSYCHOLOGICAL CAPITAL, AND AUTHENTIC LEADERSHIP DEVELOPMENT WITHIN A PUBLIC ORGANIZATION

You are invited to participate in a research study conducted by Arlene J. Owens, Doctoral Candidate of Ed.D. in Organizational Leadership at Pepperdine University, because you are in a position of organizational leadership. Your participation is voluntary. You should read the information below, and ask questions about anything that you do not understand, before deciding whether to participate. Please take as much time as you need to read the consent form. You may also decide to discuss participation with your family or friends. You will also be given a copy of this form for you records.

PURPOSE OF THE STUDY

The purpose of this study is fourfold. First, the study examines the relationship between positive emotions and authentic leadership characteristics.

Second, the study examines whether or not the relationship between positive emotions and authentic leadership characteristics are enhanced by participation in a leadership development program.

Third, the study also examines whether or not the relationship between professional development and leadership characteristics are increased or changed depending on a participant’s gender.

Fourth, the study explored the lived leadership development experiences of managers of a public pension organization concerning emotions that influenced their leadership development, and the differences and similarities between perceptions of men and women about their professional development experiences.
STUDY PROCEDURES

**Online Survey**

If you volunteer to participate in this study, first you will respond by completing three online survey questionnaires, which will take approximately 20 minutes to complete. The following is an example of the types of questions/items the questionnaires will address:

- **Demographics:**
  - What is your Gender?
  - What is your age in years?
  - What is the highest level of education that you have completed?
  - What is the total length of experience in leadership positions?

- **Emotions:**
  - I feel confident analyzing a long-term problem to find a solution.
  - There are lots of ways around any problem
  - I usually manage difficulties one way or another at work.
  - I’m optimistic about what will happen to me in the future as it pertains to work.

- **Leadership Characteristics**
  - As a leader I…
    - o say exactly what I mean. ........................................... 0 1 2 3 4
    - o admit mistakes when they are made. ............................ 0 1 2 3 4
    - o encourage everyone to speak their mind. ........................ 0 1 2 3 4

**Interview**

You will also be asked to participate in a one-on-one interview. The interview, which will take no more than 1 hour, will be conducted on-site in a private location such as an office, or an available conference room. With your consent, the interview will be audio recorded. If you do not want to be recorded, you may still participate in this research study and the researcher will only take notes.

During the interview, quantitative data results will be shared with you. You will be asked open-ended questions concerning lived experiences and perceptions regarding leadership development, beliefs about emotions that influence leadership, and your perceptions of the quantitative data results.
POTENTIAL RISKS AND DISCOMFORTS

The potential and foreseeable risks associated with participation in this study include breach of confidentiality, self-efficacy, self-esteem, professional reputation, boredom, fatigue. Participation is voluntary and you may opt out at any time without retribution.

POTENTIAL BENEFITS TO PARTICIPANTS AND/OR TO SOCIETY

While there are no direct benefits to the study participants, there are several anticipated benefits to society which include the following:

Study results are expected to inform Positive Organizational Behavior regarding professional development approaches and their relationship with positive leadership theories and in that regard benefit society as a whole, with regard to positive leadership development.

CONFIDENTIALITY

I will keep your records for this study confidential as far as permitted by law.

Any identifiable information obtained in connection with this study will remain confidential. Your responses will be coded with a pseudonym and transcript data will be maintained separately. The audio-tapes will be destroyed once they have been transcribed.

The data will be stored on a password protected computer in the researcher’s office for 3 years after the study has been completed and then destroyed.

However, if I am required to do so by law, I may be required to disclose information collected about you. Examples of the types of issues that would require me to break confidentiality are if you tell me about instances of child abuse and elder abuse. Pepperdine’s University’s Human Subjects Protection Program (HSPP) may also access the data collected. The HSPP occasionally reviews and monitors research studies to protect the rights and welfare of research subjects.

PARTICIPATION AND WITHDRAWAL

Your participation is voluntary. Your refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled. You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study.
ALTERNATIVES TO FULL PARTICIPATION

The alternative to participation in the study is not participating or completing only the items which you feel comfortable.

Your relationship with your employer will not be affected whether you participate or not in this study.

EMERGENCY CARE AND COMPENSATION FOR INJURY

If you are injured as a direct result of research procedures you will receive medical treatment; however, you or your insurance will be responsible for the cost. Pepperdine University does not provide any monetary compensation for injury.

INVESTIGATOR’S CONTACT INFORMATION

I understand that the investigator is willing to answer any inquiries I may have concerning the research herein described. I understand that I may contact Arlene J. Owens [contact information omitted for publication] if I have any other questions or concerns about this research.

RIGHTS OF RESEARCH PARTICIPANT – IRB CONTACT INFORMATION

If you have questions, concerns or complaints about your rights as a research participant or research in general please contact Dr. Judy Ho, Chairperson of the Graduate & Professional Schools Institutional Review Board at Pepperdine University 6100 Center Drive Suite 500 Los Angeles, CA 90045, 310-568-5753 or gpsirb@pepperdine.edu.
APPENDIX I

Interview Protocol

Authentic Leadership Development Interview

Date: __________________

Interviewer: __________________

Interviewee: __________________

This interview will take approximately 60 minutes

1. What positive emotions (psychological capital) do you think played a role in your leadership development?

2. How would you explain the data results regarding of the effect of professional development on the relationship between positive emotions and effective leadership?

3. How would you explain the data results regarding the effect of gender on leadership development initiatives?

4. What in your opinion are the most important components of a professional development program?

5. What in your opinion are the most important environmental factors needed to support a successful professional development program?

Thank you for your time and participation in this study.