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The Effectiveness of Using Leadership Practice Inventory (LPI 360) Feedback on Leaders' Insight into their Leadership Behaviors in Higher Education

Abdulrahman S. Alajlan

Western Michigan University, saudy999@hotmail.com

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THE EFFECTIVENESS OF USING LEADERSHIP PRACTICE INVENTORY (LPI 360)
FEEDBACK ON LEADERS’ INSIGHT INTO THEIR LEADERSHIP BEHAVIORS IN
HIGHER EDUCATION

by

Abdulrahman S. Alajlan

A dissertation submitted to the Graduate College
in partial fulfillment of the requirements
for the degree of Doctor of Philosophy
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December 2017

Doctoral Committee:

Dr. Nancy Mansberger, Ed.D.
Dr. Keith Hearit, Ph.D.
Dr. Wanda Hadley, Ph.D.
THE EFFECTIVENESS OF USING LEADERSHIP PRACTICE INVENTORY (LPI 360) FEEDBACK ON LEADERS’ INSIGHT INTO THEIR LEADERSHIP BEHAVIORS IN HIGHER EDUCATION

Abdulrahman S. Alajlan, Ph.D.
Western Michigan University, 2017

One of the most popular 360-feedback processes for leadership development is the Leadership Practice Inventory (LPI 360). According to the Leadership Challenge website the LPI tool has been translated into six languages. In addition, it has been implemented in a variety of organizations around the world and there are about 500 studies that have been built around it. However, the popularity of the LPI 360-feedback is not enough reason for it to be adopted for higher education without assurance that it aligns with a higher education organization’s specific vision and goals. After reviewing approximately 153 LPI studies across 766 databases I noticed they utilized the LPI tools assuming its suitability for their organization and to their success without testing that based on the recipients’ perspectives. Therefore, the purpose of this study is to determine the effectiveness of the Leadership Practice Inventory 360-feedback assessment for providing higher education leaders with insight into their own leadership behaviors in higher education.

This study employs a mixed method approach, which uses a convergent parallel design. The qualitative phase applied two data collection methods: (a) Semi-structured interviews, and (b) follow-up emails sent six weeks after the leaders’ interviews. The quantitative data collection method used the Kano survey. There were 14 deans and senior administrators at both a university and a college who were selected to complete the LPI-360 assessment. The findings of this study revealed that the LPI 360-feedback was an effective tool providing all of the participated leaders with personal insights into their own leadership behaviors. In addition, the follow-up emails
indicated that 54% of the leaders fell into a high usage category as determined by Brinkerhoff’s Normal Training Success Theory.
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CHAPTER 1
INTRODUCTION

Higher education is facing ongoing and ever-new challenges, such as globalization, the
development of technologies, and the changing demands in employment and roles, as is true in
nearly every other sector and organization today. Academic leaders are the key force dealing
with and managing these concerns and their impact, while maintaining the effectiveness of their
organizations over time (Bleich, 2015 & Reynolds, 2010). In order for academic leaders to fulfill
the needs of their organizations and thrive through time, they have to embrace a unique set of
skills and behaviors to accomplish the real work that is called for in their positions. According to
Bowman (2002), academic leaders need “well-honed communication skills, problem-solving
skills, conflict-resolution skills, cultural management skills, coaching skills, and transition
skills” (p. 161). These skills do not necessarily come naturally for all leaders in all leadership
positions.

The skills and leadership behaviors that seem to have the potential to address the real
work of academic leaders and to develop the skills they need are found within the
transformational leadership framework. This framework is highly recommended by many
leadership theorists, scholars, and empirical studies for implementation in higher education
(Yukl, 2008; Goulionis, 2013; Van et al., 2009; Burns, 2012; Maxwell, 2013; Kouzes et al., 2012
& Senge, 2010). Transformational leadership is defined as a “process whereby a person engages
with others and creates a connection that raises the level of motivation and morality in both the
leader and the follower” (Northouse, 2015. p. 162). In addition, transformational leaders can be
seen as those who generate awareness of a vision of the team; develop a high level of abilities
and potential in their followers; motivate others to look beyond their own interests toward a goal
or vision that will benefit the organization; and stimulate interest among their followers to view their work from new perspectives (Bass & Avolio, 1994).

Academic leaders have the skill set to perform their faculty roles, but not necessarily the skill set to assume other administrative and leadership roles. Too often, valued faculty are promoted to leadership positions without regard for their leadership skills and without the training and development needed to be effective leaders. They lack administration, and leadership skills sets to become effective leaders in higher education (Van Ameijde, Nelson, Billsberry, & Van Meurs, 2009). For example, Wolverton, Ackerman and Holt (2005) examined the mid-level academic leadership preparedness at the University of Nevada, Las Vegas. The result of the 20 academic leaders interviewed revealed that they were “not being effective at dealing with conflict and difficult people” (p. 232), which is one of the most important skills that leaders need to develop and practice during their leadership journey. This is not surprising given that faculty and leadership skills have little overlap.

The lack of effective leadership skills can also be attributed to the lack of leadership development programs to prepare academic leaders for the positions they attain. Basham (2012) investigated this issue in-depth by collecting data from 52 university presidents in the United States using the Delphi technique. While these university presidents recognized the importance of giving more attention to leadership training development for academic leaders and administrators in higher education, they could not distinguish between transactional and transformational leadership practices nor did they understand how essential the transformational behaviors are in the academic field. This suggests a strong need for academic leaders to participate in formal leadership development since. This is because leaders, who have little awareness of the importance of their leadership behavior, are unlikely to produce their desired
outcomes without the appropriate skills. On the other hand, academic leaders participating in formal leadership development are more likely to develop an intentional, effective leadership style, and to see institutional goals and visions achieved as a result of their leadership behaviors.

**LPI and 360-Feedback Process**

One of the most popular leadership models that embraces most of the commonly-recognized transformational leadership behaviors is the *Leadership Challenge Model*, developed by Kouzes and Posner (1988). Their model consists of 30 transformational leadership behaviors categorized into five practices: *Modeling the Way, Inspiring a Shared Vision, Challenging the Process, Enabling Others to Act, and Encouraging the Heart*, which explains 80% of the behaviors that extraordinary leaders engage with. All of these behaviors and practices can be measured and developed in leaders through the implementation of Kouzes and Posner’s Leadership Practice Inventory (LPI). The expected results of an LPI assessment are: building better communication among the followers; greater shared trust and understanding; greater teamwork; cooperation and collaboration culture; and more active engagement of faculty and staff teams (Griffith, 2004).

The popularity of implementing the LPI assessment has been growing since its creation, not just in the United States, but also around the world. Overall, there have been nearly 500 studies conducted using the LPI assessment as an instrument in a variety of organizations. In addition, a number of training centers around the world have adopted the LPI as their primary instrument for development programs. Its use is wide-spread enough that the LPI has been translated into six languages (English, Simplified Chinese, Arabic, Latin American Spanish, Brazilian Portuguese, and Mongolian (Schwartz, n.d.). The LPI assessment comes in three forms: the LPI-Self, where leaders evaluate themselves based on how they perceive themselves;
the LPI-Other, where followers are asked to evaluate their leaders’ leadership behaviors based on their point of view; and the LPI 360-assessment, which incorporates both the LPI-Self and LPI-Other and comprehensively helps leaders discover the extent to which they exhibit the transformational leadership behaviors.

The LPI 360-feedback tool is one of the most popular transformational leadership assessment tools used to develop more effective leadership behaviors. According to the Leadership Challenge website the LPI tool was translated into six languages. In addition, it was implemented in a variety of organizations around the world and there are around 500 studies were built around it. The instrument is constructed of 30 transformational leadership behavior statements that most exemplary leaders engage in to make extraordinary things happen in their organizations. A review of 153 studies across 766 databases, has found that LPI is increasingly implemented in many organization types and across cultures, such as military, law enforcement, federal departments, educational sectors both (K-12 and higher education), healthcare, sport organizations, business, non-profit organizations, and more. The majority of its use is concentrated in the educational sector, attributing to 42.4% of LPI related studies. In contrast, 18.3% are in health care, and 12.4% in business.

Developing transformational leadership skills in academic leaders in higher education is pivotal for leaders of faculty. Higher education leaders are the heart of their organization when it comes to decision-making. Their leadership behaviors, skills and attitudes have the core impact on everything in their organization, from strategy development to operations. The effectiveness of higher education leaders is often related to the effectiveness of their own routine informal assessments of their leadership style and behaviors (Rosser, Johnsrud and Heck, 2003 & Yukl, 2003). Furthermore, Kouzes and Posner (2012) recognized that leadership behaviors and
performance are enhanced and improved when leaders also examine their own leadership behaviors based on the view of others (360-feedback). Kouzes and Posner stated that as a leader “you get to be a leader in the eyes of others because of what you do” (p. 5). As a result of 360 assessment, leaders become more aware of the impact of their decisions and actions on their followers and organizational cultures.

Despite the popularity of the LPI 360-feedback, and 360-feedback in general, it is a complex process, and success is not guaranteed across all types of organizations. Many studies have revealed that organizations need to determine how a 360-feedback fits into their own organizations before adopting it as a development tool (Brutus, Fleenor & London, 1998; Vukotich, 2014; 3D Group, 2013; Conine et al., 2016; Lawrence, 2015 & Nowack, 2012). This also applies to the determining the LPI’s effectiveness specifically in higher education via an empirical study, regardless of the LPI’s popular use.

One non-empirical report exists by Brown (2001), where she wrote her personal story after coaching 85 department chairs at the University of Saskatchewan in Canada. She noted that after using the LPI assessment tool during a professional development training with department chairs, the LPI tool was accepted and welcomed by them. Regarding the acceptance of the LPI 360-feedback tool, the author stated that “Fortunately, the Psychology Department chair in attendance liked the LPI instrument, and the Organizational Behavior Department chair appreciated the leadership challenge model so much he adopted Kouzes and Posner's text for his leadership class” (p. 318). Brown’s report shows some relevance to the LPI’s possible fit as a professional development tool for the department chairs’ position. The fact that these chairs so appreciated the experience of using the LPI indicates that this tool may also be effective for the leadership development of academic deans, who have even more impact on decision-making in
their institutional organizations. Furthermore, Brown’s report encourages the conducting of empirical studies to see how deans and senior administrators perceive the effectiveness of this tool for development of their leadership skills.

**Problem Statement**

Higher education leaders possess high skill sets necessary to perform their faculty roles, but few of them possess the skill sets of personnel management, administration and leadership roles. Wolverton, Ackerman and Holt. (2005) found that higher education leaders are “not being effective at dealing with conflict and difficult people” (p. 232). The lack of these skills might be caused by the lack of leadership development programs to prepare higher education leaders for their positions. Basham (2012) found that, although university presidents in the United States understood the importance of attention to leadership training, they could not distinguish between transactional and transformational leadership practices, nor did they understand how essential the transformational behaviors are in the academic field. This suggests a strong need for academic leaders to participate in formal leadership development in order to develop greater awareness of the outcomes of their leadership behavior.

One of the most effective methods of raising leaders’ self-awareness is the utilization of reflective processes to work on one’s own self-growth. A 360-feedback process is one of those reflective methods which encourages leaders to become more conscious of the impact of their actions and decisions on others (Atwater et al., 2005; Hageman, 2015; Kouzes and Posner, 2012; Rai et al., 2013; Shahin et al., 2011; Shipper 2007; Smither et al., 2005 & Thach 2002). Because the 360-assessment process is not guaranteed to be equally effective in all organizations, it is important for organizations to select the most appropriate and effective 360 tool that aligns with their organization’s mission, vision, and with their leaders’ roles.
One of the most popular 360-feedback processes for leadership development is the LPI 360-feedback tool. However, the popularity of the LPI 360-feedback is not enough reason for it to be adopted for higher education without assurance that it aligns with a higher education organization’s specific vision and goals. Most of the LPI studies bound in the current literature utilized the LPI tools assuming its suitability for their organization and to their success without testing that based on the recipients’ perspectives. Therefore, the aim of this study is to determine the effectiveness of the Leadership Practice Inventory 360-feedback assessment for providing leaders with insights into their own leadership behaviors in higher education.

**Deficiency**

Among the 153 empirical studies found that have implemented the LPI assessment tools, 42 (27.4%) were conducted in higher education. Almost half of those focused on measuring students’ leadership behaviors. Only seven studies focused on academic leaders and focused mainly on providing statistical results such as descriptive statistic of leaders’ leadership behaviors (Horton, 2013) or test of associations (Grafton, 2009 & O’Dell 2014). None of the studies were for a leadership development purpose, which was the focus of this study.

However, there is one non-empirical study by Brown (2001), as mentioned earlier, that reports on the acceptance of LPI in higher education. Since acceptance is a possible indicator of the value of LPI 360-feedback to leaders in higher education, it points to the value of my proposed research. The limitation of Brown’s study was that, while it showed how the LPI-tool was acceptable by the higher education department chairs, the study did not report any further information about how or whether the LPI tool itself had affected the department chairs’ insight into their own leadership behaviors. How the LPI process impacts higher education leaders’ behavioral development is a crucial aspect to determining how effective the LPI 360 can be for
use in higher education, which is what my study covered. Furthermore, the target population of Brown’s study was department chairs. My study focused on one level higher, academic deans’ perceptions and senior administrators, because they have significantly more responsibility for decision-making in higher education.

This study differed from the previous studies, which focused mainly on statistical finding, in three ways: (1) it is an empirical mixed method study to determine and understand in-depth the impact of the online LPI 360-feedback assessment process on higher education leaders’ insights into their own leadership behaviors; (2) it follows the second method of implementing the LPI 360-feedback, where higher education leaders’ work on their own leadership development using the online version of the LPI 360 without an LPI coach; (3) and it was structured to discover the higher education leaders’ perspectives, as well as their views of the suitability of adopting this online LPI 360 feedback tool in higher education.

**Purpose Statement and Research Questions**

The purpose of this study was to determine the effectiveness of the Leadership Practice Inventory (LPI) 360-feedback for providing leaders with insight into their own leadership behaviors in higher education.

**Research Questions**

The overall research question and three sub-questions that guided this study include: How effective is the online LPI 360-feedback providing leaders’ insight into their own leadership behaviors in higher education?

1. How satisfied are higher education leaders with the LPI 360 facilitation process?
2. How effective is LPI 360-feedback as a tool for encouraging higher education leaders’ self-awareness?
3. How effective is LPI 360-feedback as a tool for encouraging higher education leaders’ self-development?

**Significance of the Study**

The result of this study provides important evidence of how the LPI 360-feedback process is suitable and effective in the higher education culture, as well as for the higher education leaders in particular. In addition, the findings of this study may help higher education institutions recognize which elements make the LPI 360-feedback process more adoptable for use on higher education leaders’ leadership development. Lastly, this study may contribute to filling some of the gaps in the area of determining the effectiveness of using 360-feedback evaluations in higher education.

**Overview of Methodology**

The study’s procedure consists of three phases. First, higher education leaders completed the online LPI 360-feedback and use the LPI reflection materials that are provided by the Leadership Challenge website. Second, after completing the reflection process, I scheduled one-on-one interview discussion with them to explore their experiences while engaging in of the online LPI 360-feedback process. Third, six weeks after leaders’ interviews, leaders were contacted to answer one follow-up question. The follow-up explored how leaders used what they had learned throughout the LPI 360-feedback process. The focus of this study is on the higher education leaders’ experiences with the Online LPI 360-feedback version process itself, not the LPI statistical result; so, the numeric result of their LPI reports will not be reported.

This study employs a mixed method approach, which uses a convergent parallel design. According to Creswell (2014), “The convergent design is useful for researchers who need to gather both forms of data while they are in the field; it intuitively makes sense because both
forms are brought together; and it enables one to gain multiple pictures of a problem from several angles” (p. 37).

The target population of this study was higher education leaders from deans to vice presidents (who were the leaders that were assessed) at two higher education institutions, a mid-sized, public research university and a small college located in the Upper Midwest of the United States. There were 14 deans and senior administrators drawn across the university and the college to complete the LPI-Self Assessment. Of these administrators, males constituted 43% and females 57% of the sample. The job titles represented by the leaders in the sample were Vice President 14%, Associate Vice President 14%, Provost 7%, Associate Provost 29%, Executive Director 14%, Dean 14%, and Associate Dean 7%.

Five to 10 observers for each academic dean answered the LPI-Observer Assessment to measure how they perceived the deans’ leadership behaviors. According to Kouzes and Posner (2003), five to 10 observers is a suitable number to assess a leader’s leadership behaviors. Each group of five to 10 faculty members was selected randomly in order to keep the observers’ anonymity, increase the confidentiality of their responses, and reduce the bias of evaluation.
CHAPTER 2
LITERATURE REVIEW

The purpose of this study is to determine the effectiveness of the Leadership Practice Inventory (LPI) 360-feedback for providing leaders with insight into their own leadership behaviors in higher education. In general, 360-feedback is a complex process and its success is not guaranteed to be the same across all types of organizations. So, in order to determine the effectiveness of the LPI 360-feedback in higher education, it is important to first explore the factors that contribute to the effectiveness of any 360-feedback tool and the best practices of their implementation in human resource development. Thus, the aim of this literature review is to understand those factors and best practices, but it first will begin with the unique context of leadership in higher education.

Leadership in Higher Education

The core impact on everything in academic institutions, especially in higher education, from strategy development to strategy operations, comes from the leaders’ roles. When those roles are mediated by a set of unique competencies and suitable leadership behaviors, the needs of their organizations’ success will be fulfilled and maintained over time. So, the call for better, wiser, and more skilled leaders is ongoing for all types of organizations. The demand to respond to this call is great in higher education institutions to ensure their success and that they thrive in the midst of all of the 21st century changes. Unfortunately, according to Brown (2001), a leadership professional development trainer who has worked with educational organizations in Canada, the United States, Australia, and South Africa, most academic leaders neither consider successful leadership behaviors and skills as a part of their career paths, nor do they think they need to acquire them. However, after completing her leadership development programs, Brown
found that most academic leaders realize the importance of successful leadership behaviors and implementing them in their academic leadership positions.

Importantly, while academic leaders possess high skill sets for faculty roles, few of them possess all three skill sets for faculty, administration, and leadership roles. Wolverton, Ackerman & Holt (2005) examined the mid-level academic leadership preparedness issue at the University of Nevada, Las Vegas. The result of the 20 academic leaders interview revealed that they were “not being effective at dealing with conflict and difficult people” (p. 232). On the other hand, the real work of academic leaders calls for “well-honed communication skills, problem-solving skills, conflict-resolution skills, cultural management skills, coaching skills, and transition skills” (Bowman, 2002, p. 161). These skills can be more effective when they are mediated by a set of leadership behaviors that fit the unique roles of academic leaders.

The lack of these critical skills can be attributed to a lack of leadership development programs to prepare academic leaders for their new positions. Basham (2012) investigated this issue in-depth by collecting data from 52 university presidents in the United States using the Delphi technique. While these university presidents recognized and emphasized the importance of giving more attention to leadership training development for both academic leaders and administrators in higher education, they could not distinguish between transactional and transformational leadership practices. This suggests a strong need for academic leaders to participate in formal leadership development, since they seem to have little awareness of the outcomes of their leadership behavior, so their efforts are unlikely to produce the desired outcomes. Academic leaders participating in formal leadership development are likely to see institutional goals and visions achieved as a result of their leadership behaviors.
The particular set of leadership behaviors desirable in higher education, including communication, problem-solving, and coaching others (Bowman, 2002), is found within the transformational leadership model and highly recommended by leadership theorists, scholars, and empirical studies for implementation in higher education (Yukl, 2003; Goulionis, 2013; Van et al., 2009; Burns, 2012; Maxell, 2013; Kouzes & Posner, 2012 & Senge, 2010).

Transformational leadership is defined as a “process whereby a person engages with others and creates a connection that raises the level of motivation and morality in both the leader and the follower” (Northouse, 2015. p. 162). In addition, transformational leaders can be seen as those who generate awareness of a vision of the team; develop high level of abilities and potential in their followers; motivate others to look beyond their own interests toward a goal or vision that will benefit the organization; and stimulate interest among their followers to view their work from new perspectives (Bass and Avolio, 1994).

The main notion behind transformational leadership behaviors is generating a change instead of relying on exchange. For instance, when transformational academic leaders step up to lead their organizations, they change the old, sluggish systems to an active, vibrant culture. Transformational leaders do not depend on *quid pro quo* with their subordinates just to get along with them and secure their positions, as transactional leaders would. Importantly, transformational leaders may not be welcomed initially by some of their resistant subordinates who feel their comfort zone is being threatened by the changes. Nonetheless, leaders who embrace transformational behaviors have a greater chance to inspire these resistant subordinates to become engaged with the new shared vision.

One of the most widely used transformational leadership models is the *Leadership Challenge*. Kouzes and Posner (1988) investigated in-depth what transformational leaders do
when they are in their best. Through their search they developed The Leadership Challenge, which consists of the five most frequent transformational leadership practices extraordinary leaders engage in when they are at their best. These practices are: Modeling the Way, Inspiring a Shared Vision, Challenging the Process, Enabling Others to Act, and Encouraging the Heart.

Applying The Leadership Challenge Model in Higher Education

According to Kouzes and Posner, the five practices of the Leadership Challenge Model account for 80% of all the behaviors that extraordinary leaders engage in when they are at their personal best. The expected results of their implementation are: building better communication among administrators and faculty members; greater shared trust and understanding; greater teamwork; cooperation and collaboration culture; and more active engagement of faculty members and administrators (Kouzes and Posner, 1988; Kouzes and Posner, 2012; Rosser, Johnsrud and Heck, 2003; Carlson and Perrewe, 1995; Dasborough, 2006 & Griffith, 2004).

The first practice of the Leadership Challenge Model is Modeling the Way. Exemplary academic leaders model the way in their organizations by clarifying their values and making themselves an example for the faculty members and administrators to be admired. When those exemplary academic leaders climb to a formal leadership position, they come with distinctive beliefs and personal values that they stand up for. They clarify those values and beliefs by finding their voice and sharing their values and beliefs with their followers using their own words and metaphors. Posner and Schmidt (1992) studied the benefits and importance of leaders’ personal values in their organizations and found that “Clarity about personal values was consistently more significant in accounting for positive workplace attitudes and levels of engagement than was clarity around organizational values” (p. 47). In addition, Kouzes and Posner (2012) found that leaders who have a clear personal and leadership philosophy or values
are 30% more likely to build trust than leaders with unclear personal and leadership philosophy or values (p. 43). So, academic leaders who are vocal in expressing their personal values are more likely to create motivated, highly committed and productive faculty members and administrators in the organizations that they lead. However, clarifying values alone is not enough for exemplary academic leaders to model the way; they must also lead the change in their organizations by demonstrating their actions are aligned with their values. This is evident to followers when they work side-by-side with their followers and are visible to provide support.

Once academic leaders clarify their values and set themselves as an example, they need to engage with the second practice of the Leadership Challenge Model, which is *Inspiring a Shared Vision*. The shared vision combines leadership values and visions with the followers’ visions and interests. A shared vision that serves the interests of followers and leaders, as well as the organizations’ interests, will increase and sustain the commitment of followers over time (Kouzes & Posner, 2012). However, before academic leaders can inspire the shared vision, they first need to envision the future and show what the outcome looks like. This requires reviewing their own past achievements and successes, then investigating present opportunities, and, finally, making predictions about the future. This is important because almost 70% of followers expect that their leaders have the requisite abilities and will envision the future for organizational success (Kouzes & Posner, 2012). When exemplary academic leaders predict how bright the final destination looks, they have the responsibility to appeal to followers’ interests and show the team how they fit into the common vision. It is the academic leaders’ passion and desire to make extraordinary things happen in the organization that is the fuel that ultimately enlists followers in the shared vision for the future.
The third practice of the Leadership Challenge Model is *Challenging the Process*. It is not surprising that when academic leaders share their beliefs and new ideas, those ideas may not be welcomed by some of the followers who feel their comfort zones are threatened. One of the challenges of academic leaders is to face this resistance. Thus, it is important for those academic leaders to align the new shared vision with a smooth transformational and innovation process to revive the old sluggish systems and create an active and vital culture. While this transformational process is surrounded with risks of failure, it is both normal for any change or innovation and crucial that academic leaders take risks to prove their transformational leadership abilities. To reduce the possible impact of the risks, leaders need to plan for small wins (Kouzes and Posner, 2012 & Maxwell, 2013). That way, they can test their skills and the followers’ abilities, as well as discover the extent to which the followers are willing to jump on the wagon and accept any new change. With each small win, academic leaders begin to gain trust from their team of followers regarding the leaders’ ability to lead change. In addition, leaders can demonstrate encouragement of their team to move ahead toward the general shared vision with confident steps. Importantly, if academic leaders challenge the process and fail, it is possible for them to lose some trust and credibility (Maxwell, 2013). In this situation, academic leaders have to immediately redirect their teams to focus on the lighter side of the failure by seeking to learn from this experience, and pursuing new ways of improvement from this point. According to Kouzes and Posner (2012), “The key that unlocks the door to opportunity is learning. Great leaders are great learners. You must create a climate in which people can learn from their failures as well as their successes” (p. 15).

Academic leaders alone cannot challenge the process and make extraordinary things happen in the organizations without a helping hand from their teams, which is what the fourth
practice of the Leadership Challenge Model, *Enabling Others to Act* is about. Academic leaders need to foster a culture of cooperation, trust, and freedom to choose how the team will do their work to meet the shared vision. However, before sharing the responsibilities and enabling the team to act, academic leaders have to first nurture their own skills and behaviors. These include: communication skills; becoming more active listeners to the new diverse perspectives; and treating their followers with respect. Also, academic leaders need to ensure the growth of the team members’ skills, as well, by providing them with suitable supports of professional development programs.

The last practice in order for academic leaders to complete the process of making extraordinary things happen in their organizations is *Encouraging the Heart*. Leaders applying this practice recognize their teams’ efforts, appreciate and praise their teams for the great job they have done achieving the short wins and serving in the shared vision. In addition, academic leaders need to celebrate the success with their teams, and raise their followers’ repetition for public recognitions. As a result, the team will be inspired to maintain the creativity and commitment over time. As an indirect impact and a benefit to the whole organization, the followers who were resistant to change would be encouraged by the achievements of the group might change their views and become more involved in the future (Kouzes & Posner, 2012).

These five practice of exemplary leaders were developed by Kouzes and Posner after intensive study for almost thirty years (Kouzes & Posner, 1988). They have recently tested the five practices again to see if organizations have changed their view of the behaviors of extraordinary leaders or not (Kouzes & Posner, 2012). The researchers consistently sought to answer: What is it that leaders do when they are at their personal best? Surprisingly, at the end of their recent study of leadership, they found the same five practices that they found thirty years
ago (Kouzes & Posner, 2012). Those five practices of exemplary leaders can be measured by the Leadership Practice Inventory (LPI) and used as a leadership professional development tool.

**LPI Assessment Tools on Leaders in Higher Education**

Since the LPI assessment tools were developed by Kouzes and Posner in 1987, nearly 500 studies that have been conducted using the LPI assessments tools in a variety of organizations around the world (Schwartz, n.d.). The LPI assessment tools come in three forms: The LPI-Self, where leaders evaluate themselves based on how they perceive themselves; the LPI-Other, where followers evaluate their leaders’ leadership behaviors based on their view; and the LPI-360 assessment, where leaders evaluate themselves and ask their followers to evaluate them in order to understand the extent of the discrepancy between how they perceive their leadership abilities and how others see them as leaders.

The Leadership Practice Inventory has been implemented and accepted in many organizations and cultures around the world. According to the *Leadership Challenge website* the LPI tool was translated into six languages (English, Simplified Chinese, Arabic, Latin American Spanish, Brazilian Portuguese, and Mongolian). The LPI 360-assessment can be implemented in one of two ways. First, academic leaders can complete an LPI assessment and then follow up with a facilitator to help them understand the numeric feedback and make sense of the data. The facilitator can also encourage leaders to start developing their own action plans for improvement. The second way to utilize the LPI assessment is when leaders choose to work on their own leadership development without relying on a facilitator. After they complete the survey, they can use variety of available reflecting materials such as *LPI Participant’s Workbook* that provokes participants’ introspection about their feedback results. Also, the *Leadership Development Planner* can be used as a coaching tool into the future. Moreover, *The Leadership Challenge,*
Encouraging the Heart, A Leader’s Legacy, The Leadership Challenge Workbook, and Credibility, are used for leadership knowledge enhancement (Kouzes, Posner, & Biech, 2010). This second method of leadership development using LPI 360-feedback will be used for this study in order to determine its effectiveness for providing leaders with insight into their own leadership behaviors in higher education.

After reviewing 153 empirical studies that implemented the LPI assessment tools across 766 databases, it was found that the popularity of its utilization has been increasing among numerous and various organizations since 1988. Among those studies, 42 of 153 (27.4%) were conducted in higher education. Almost half of those 42 studies (20/42) focused on measuring students’ leadership behaviors. Few of these studies focused on academic leaders (7/42), and among those seven studies. However, these seven studies focused mainly on providing statistical results such as descriptive statistic of leaders’ leadership behaviors (Horton, 2013) or test of associations (Grafton, 2009 & O’Dell 2014) but not for leadership development purposes.

From the best of my search, there is a lack of qualitative empirical studies that focus on the effectiveness of the LPI 360-assessment tool on leaders’ leadership behaviors in higher education, as well as a lack in quantitative study that focus on leaders’ satisfaction of the LPI facilitation process.

There is, however, one non-empirical study of an author reporting her own personal story and experiences implementing an LPI 360-feedback in higher education (Brown, 2001). It points to the value of my research since her study showed some success in the area of acceptance of the LPI 360 among academic leaders. Brown facilitated a leadership development program at the University of Saskatchewan in Canada for almost seven years. The leadership competency model that was selected for the leadership training program was the Leadership Challenge Model and
the LPI 360-assessment tool to train 85 department chairs. She stated that, in general, the LPI tool have been accepted by many department chairs and welcomed. In addition to the acceptance of the LPI 360 tool and its reflecting materials, the author stated that “Fortunately, the Psychology Department chair in attendance liked the LPI instrument, and the Organizational Behavior Department chair appreciated the leadership challenge model so much he adopted Kouzes and Posner's text for his leadership class” (p. 318). The limitation of this study was that, while it showed how the LPI tool was acceptable by the higher education department chairs, the study did not report any further information about how the LPI tool had affected the deans’ and senior administrators’ insight into their own leadership behaviors. This is crucial aspect of my study because this is how LPI 360-feedback process can impact leadership in higher education. Furthermore, the target population of Brown’s study was only on the perceptions of department chairs. My study focused on deans’ and senior administrators’ perceptions because they have significant responsibility for decision-making in higher education.

**The 360-Feedback Assessment**

In order to understand how the LPI 360-feedback fits an organization, it is important to understand the milieu that contributes to a 360 assessment and its success. The 360-feedback assessment is a complex process that focuses on gathering information about a focal recipient via multiple sources of raters (e.g. self, supervisor, peers, direct reports, internal customers, external customers) to accurately estimate a recipient’s performance. The 360-feedback process is complex and its success is not guaranteed to be the same across all types of organizations. This is due to factors and practices that have some direct and indirect impact on its final result and success. The aim of this section is to explore the general factors that contribute to the effectiveness of a 360-feedback tool, as well as the best practices of its implementation for
human resource development.

It was found across 360 studies that the success of a 360-feedback is dependent on numerous practices and factors. While no one study explicitly stated that 360 assessment success depends on certain factors and practices, my analysis of the findings of the suggests that there are four key factors and four key best practices that are essential for a successful 360 assessment process (Figure 1). The *best practices* are the strategies that are implemented by facilitators to increase the effectiveness of the 360-feedback process. The *factors* are the natural phenomena that directly and indirectly impact the effectiveness of the process. Granted, some factors are more controllable than others, and a few are challenging to control; however, it is the use of best practices that can adjust the impact of the factors (Table 1).

**360-Feedback Best Practices**

The best practices of implementing a 360-feedback are clustered in four categories: (1) 360-Tool Selection; (2) Developmental Orientation; (3) Assuring Confidentiality; and, (4) Facilitating the Feedback. The first best practice for facilitators and organizations using a 360-feedback is to select the most suitable tool for the leaders’ development that aligns with the organization’s vision and the leaders’ roles in that organization. The importance of selecting the appropriate tool is based on examining the questions of the tool to assure the suitability and alignment to address the particular purpose of its implementation.
It is often suggested that an organization consider creating its own 360-assessment tool to ensure its alignment and usefulness. However, if an organization decides to implement an existing 360-feedback tool, that organization needs to test whether the tool meets the criteria of fitting with leaders’ roles and organization goals (Atwater, 2007; 3D Group, 2013 & Lawrence, 2015).
# Table 1

**Studies Examining the Factors and Best Practices that Impact the Success of a 360-Feedback and Some Recommendations**

<table>
<thead>
<tr>
<th>Factors Impacting a 360-Success</th>
<th>Recommendations</th>
<th>Supporting Studies</th>
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</thead>
<tbody>
<tr>
<td><strong>360-Tool Design</strong></td>
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<tr>
<td>Numeric or Text Feedback</td>
<td>• Provide numeric feedback (e.g. Mean &amp; SD) to reduce recipients’ negative reactions; • Use simple words and understandable language, when structuring the questions; • Ensure the instructions are visible and easy to follow; • Organize questions in an order that reduces the negative order effect.</td>
<td>Dillman, et al. 2014; Kluger, et al. 1996, &amp; Atwater et al. 2005</td>
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<tr>
<td><strong>Organizational Culture</strong></td>
<td></td>
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<tr>
<td>Leniency Biases</td>
<td>• Create a climate of trust and support prior to implementing a 360-feedback program;</td>
<td>Brutus, 1998; Tang, et al., 2013, Atwater et al., 2007, &amp; Brown,</td>
</tr>
<tr>
<td>Hierarchical Systems</td>
<td>• Assure access to and engagement with the best practices.</td>
<td></td>
</tr>
<tr>
<td><strong>Participants’ Attitude</strong></td>
<td></td>
<td></td>
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<tr>
<td>Personal Characteristics</td>
<td>• Reduce any negative reaction to feedback through effective communication that negative feedback does not necessarily indicate that leaders exhibit unfavorable leadership behaviors, rather, it suggests ways to ensure their leadership behaviors are more visible and noticeable through multiple avenues;</td>
<td></td>
</tr>
<tr>
<td>Participants’ Cynicism</td>
<td>• Generate a climate of trust, transparency, and readiness for improvement.</td>
<td></td>
</tr>
<tr>
<td>Participants’ Culture</td>
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The next best practice of implementing a 360-feedback is to ensure the recipients that the purpose of utilizing the 360-assessment is for their development purposes only and not for evaluating their performance or putting these valued leaders on the spot. Facilitators have to pay attention to this particular practice for several reasons. First, when this practice is followed, it would increase the enthusiasm of leaders to participate in the development program. Also they
will be more open to the new experience of feedback. In addition, participants would be more likely to seek feedback over time (Lawrence, 2015; Vukotich, et al. 2014; McCarthy, 2001).

Another best practice is the assurance of confidentiality; facilitators must provide this assurance before starting the 360-feedback process with recipients. The recipients need to be assured that a 360-feedback result will not be shared by the facilitator with anyone other than with the individual recipient for whom the 360-feedback was conducted. The reason behind this is to ensure all recipients who participate in development that they have job security, regardless of the results. Confidentiality is particularly important with negative 360-feedback results to assuage fears that results will never be revealed to the heads of the institution. Likewise, an assurance of confidentiality protects leaders’ trust and charisma among followers, since results are never shared with their followers either. A study by 3D Group (2013) shared some of emotions that leaders have received negative feedback. After studying 211 companies across North America, they stated that some leaders reacted with a curiosity (e.g. What do my co-workers think of me?), fear (e.g. Will I get fired over this?), and even anger (e.g. I can’t believe they said that about me!). Moreover, facilitators need to clearly inform the heads of the organization that the results of the 360-feedback will not be shared with them even if they ask for it, and the right of sharing is only in the recipients’ hands (Lawrence, 2015; Vukotich, 2014 & Conine et al, 2016).

The last best practice of facilitating a 360-feedback involves providing recipients with a facilitating program, first of all, to help them understand the basic statistical terms and data and, secondly, to interpret those assessment results. In addition, the recipients receive support to utilize the results to help them develop their own improvement action plan (Atwater et al. 2005; Conine et al., 2016; Lawrence, 2015; Vukotich et al. 2014). As evidence of the positive effect of
a follow up facilitating program, Smither, London, Flutt, Vargas, and Kucine (2003) examined the effectiveness of executive coaching between two groups (executive coaching vs. no executive coaching). They found that both of the two groups benefited from the 360-feedback, but recipients who worked with 360-facilitators improved in their own personal development more than those who were not supported after the assessment.

Factors Impacting the Effectiveness of a 360-Feedback

Several factors—natural phenomena occurring in the work environment—can contribute directly or indirectly to 360-feedback effectiveness. Understanding the importance of these natural phenomenon and working through their potential effects on a 360-feedback can mitigate negative impacts of most of these situations. Factors fall into four categories: (1) 360-Tool Design (e.g. Question Design and Numeric or Text Feedback); (2) Organizational Culture (e.g. Hierarchical Systems and Leniency Biases); (3) Participants’ Attitude (e.g. Recipients’ Receptiveness, Personal Characteristics, Participants’ Cynicism, and Participants’ Culture); and, (4) Raters’ Selection Method (e.g. Anonymity, Random Selection, and Census), (Figure 1).

The first factor Tool Design, takes into consideration several essential factors related to the tool itself. The structure of the tool ideally minimizes misunderstanding of all the questions. This means questions are created using simple vocabulary words that recipients can understand easily and avoiding unpopular metaphors and phrases to assure that multiple meanings are not possible. In general, when question design fails to take these factors into consideration, the resulting poor design of a 360-assessment tool will lead to a measurement error and not capture an accurate estimation of leaders’ behavior. Also, the directions for how to answer the survey must be clear and placed prominently to be readily seen and understood (Dillman, 2014, & Kluger, et al. 1996).
In addition to the 360-feedback design, the type of data that a 360-tool provides, whether it is numeric or text, has a significant impact on the recipients’ reaction. The numeric feedback is more favorably received by the recipients when it is used to clarify their strengths and weaknesses, and is easier for them to remember (3D Group, 2013, Atwater et al. 2007 & Vukotich, 2014). An empirical study of the factors that may impact recipients’ reactions conducted by Atwater et al. (2005) found, “those receiving text format had more negative reactions than those receiving numeric format” (p. 540). As a result, those who received text feedback, which is anything other than numeric feedback, were the least likely groups to use the feedback to improve their behaviors.

Recognizing the impact of organizational cultures is a crucial factor impacting the effectiveness of a 360-feedback process. Leaders in an organization with a strong hierarchical system are least likely to accept and benefit from the 360-feedback, a phenomenon especially true among many leaders in a high level positions. One of the reasons these leaders generally do not accept 360-feedback is they maintain certain beliefs they had when they arrived at their current leadership positions. The beliefs are based on their experiences of leadership success they have enjoyed from their past, which reinforces their own beliefs in their continued success. The thinking is they are already successful, so why change (Tang et al. 2013)? As result, a large number of those leaders are more likely to resist 360-assessment tools and refuse to try a new set of unexperienced leadership behaviors (Atwater et al., 2007; Furnham, 2010, & Brown, 2001). As a consequence of the low degree of openness to new experiences, some of them have a lack of self-awareness and a high level of leadership derailment. Tang, Dai and Meuse (2013) investigated the relationship between leadership effectiveness and leaders’ positional level when they studied 523 managers in 17 different organizations across six countries: North America,
Europe, New Zealand/Australia, Asia, South America, and Africa. They found a high level of negative leadership behaviors (derailment) among the high level leaders. This significant gap showed up when managers in high management positions rated themselves much more positively while followers rated them much more negatively. This gap is an indication of low self-awareness among leaders in high positions. As a result of this rating discrepancy, it is more likely that the level of leadership derailment will increase along an organizational hierarchy. Tang et al. suggested that “it would be especially important for high-level managers to enhance their self-awareness to prevent derailment” (p. 338).

Another factor that could impact a 360-feedback result is Organizational Culture as viewed through the lens of bias. Brutus, Fleenor and London (1998) found peers rated each other more favorably in public sectors than in private sectors. After examining the 360 process across six types of organizations, Brutus et al. discovered that a leniency bias in participants’ ratings depended on the type of organizational culture. The field of education, which is in the public sector, showed a strong leniency bias in the feedback results compared to industry and other private sector organizations. The anomaly here was that the military, a public organization, had the lowest leniency bias. In addition, it was found that poor performing managers in private sectors tend to over-estimate their performance, while in public sectors good performers tend to under-estimate their performance. Overall agreement between leaders and followers is more objective in other industries, which may explain why the military feedback stands out for its low bias, than in educational institutions (Brutus, Fleenor & London, 1998). Knowing there is the potential for this leniency bias in education might be a reason to utilize best practices and work on trust, support, and transparency to minimize bias and achieve the most accurate feedback.
The third category of factors that impacts the effectiveness of a 360-feedback is related to the participants’ attitudes. Those are: recipients’ receptiveness to the 360-feedback; participants’ view of the benefit of a 360-feedback on their organizational change; participants’ personal characteristics; and participants’ culture. Based on the recipients’ receptiveness, it is more likely for leaders who are open to new experiences to accept engaging in the 360-feedback process and be evaluated, knowing the feedback is for their behavioral enhancement. Also, the degree of the leaders’ openness is correlated with their level of reaction toward the feedback. Smither et al. (2005) and Atwater et al. (2005) revealed that leaders who are open to new experiences reported fewer negative reactions when receiving negative feedback and were more willing to start planning for improvement immediately.

Organizations have to plan ahead before implementing a 360-feedback process to create a culture of openness and trust to benefit from a professional development that is based on a 360-feedback. Overeem et al. (2009) investigated with a qualitative study why a 360-degree feedback program did not work as expected for 109 consultants in eight Dutch hospitals. One of the main reasons was a lack of openness and receptiveness among half of the participants about receiving 360-feedback. One of the participants revealed resistance engaging effectively because, “It’s the big fear of any doctor: I am being watched and they are saying how badly I am doing. You should be able to get rid of that taboo” (p. 877). Therefore, implementing a 360-feedback on leaders with low openness to new ideas would probably be wasting money, time and effort, even when implementing it using best practices.

Participants’ cynicism as a part of participants’ attitude is one of the worst hindrance factors that impacts a 360-feedback usefulness for an organizational and leadership change. Participants’ cynicism is viewed by Atwater et al. (2000) as “a negative attitudinal phenomenon
composed of a belief on the part of an individual that his or her organization lacks integrity, and that principles, such as fairness, honesty, and sincerity, are often sacrificed to expediency, unscrupulous behavior, and self-interest” (p. 279). Atwater et al. investigated the relationship between participants’ cynicism about organizational change and the recipients’ behavioral change. The target population were police supervisors (sergeants, lieutenants and captains) with a sample size of 110 supervisors in a state police agency in the United States. They found that cynicism was significantly, negatively correlated with the commitment to make behavioral changes (rs = -.25 p < .05). This factor has to be addressed by organizations before implementing a 360-feedback. The process leading change starts from within the organization, within the participants themselves, not from outside.

Part of the participants’ attitude stems from the participants’ home culture (e.g. Middle East vs. the United States vs. Europe), which may limit some of the effectiveness of a 360-feedback process. The culture of the society where participants reside is clustered into two categories: high power distance culture and low power distance culture. Power distance is viewed by Shipper, Hoffman and Rotondo (2007) as the “degree of inequality among social levels and acceptance of authority” (p. 41). Two empirical studies investigated the impact of the cultural power distance on a 360-feedback effectiveness. A low rating of power distance culture means lower acceptance of authority and more individual decision-making, while a higher rating indicates a greater acceptance of the hierarchy of authority. Shipper (2007) examined the impact of power distance on 360-feedback usefulness across five countries (the United States, Ireland, Israel, Philippines, and Malaysia). The sample sizes from business companies studied were: Ireland (117) Israel (171) Malaysia (285) the Philippines (172) and the United States (2,287). The researchers categorized the United States as low/medium power distance culture; Ireland and
Israel as low power distance culture, and the Philippines and Malaysia as high power distance culture. They found that across all of the cultures, the 360 feedback created actionable knowledge. However, the 360-feedback was most effective creating behavioral change among leaders in cultures with low power distance compared to the leaders in cultures with high power distance.

Rating discrepancy can also be an indication of the recipients’ self-awareness. Low self-other rating discrepancy indicates high self-awareness, and high self-other rating discrepancy indicates low self-awareness (Kulas & Finkelstein, 2007). Eckert et al. (2010) studied the relationship between participants’ culture and the rating discrepancy among 4,019 managers from 31 countries via the Benchmarks from 2000 to 2006. They found the discrepancy of self-other rating exists across all of the cultures. However, it was higher across leaders in cultures with a high power distance compared to the leaders with low power distance.

The importance of all the factors in the Organizational Culture category and the Participants’ Attitude category, with the exception of the Participants’ Characteristics, is to understand these factors are generally out of the facilitators’ control. However, facilitators may limit the impact of these factors to increase the probability of the 360-feedback success by paying close attention to best practices and managing the other factors that are within their control, such as the 360-tool design and the raters’ selection method.

Although the factor of Participants’ Characteristics can be controlled by facilitators, these characteristics may also impact how recipients handle negative feedback and how they embrace action planning to make use of the feedback they have received. Smither, London, and Richmond (2005) examined “which personality predicts leaders’ reactions to multisource feedback and use of the feedback for development” (p. 181). The participants were 116 in
leadership position in an elite unit of the U.S. with an average age of 34 years old. They found that when leaders with the personality characteristics of cooperation, extroversion, empathy, and responsibility received negative feedback, there was about a six-month hiatus before they began using the feedback to set an improvement action plan. Moreover, once they initiated an action plan, leaders with these characteristics also sought additional feedback for leadership improvement. In so doing, they were recognizing the value of the feedback process enough to incorporate it into their longer-term leadership practices and become focused on continuous leadership development. This seems to indicate it takes time for participants’ personal characteristics to engage them in the longer-term process of change. Therefore, determining the success of a 360-feedback process cannot be based solely on the short-term result of a negative feedback and suggests that researchers and facilitators should not build a dichotomous decision about the effectiveness of a 360-feedback program after only a short implementation.

Facilitators may be able to reduce the timeframe between the impact of a negative 360-feedback and action steps among those participants by redirecting the recipients’ viewpoints. Helping recipients to see feedback from different perspectives can provide beneficial and immediate encouragement to recipients who may be too likely to perceive negative feedback as an evaluation. This new angle would be emphasizing that the negative feedback does not necessary indicate that they exhibit unfavorable leadership behaviors. Instead, it suggests that they need to exhibit those leadership behaviors in multiple ways to ensure their visibility and noticeability. Kouzes and Posner (2012) stated that “you get to be a leader in the eyes of others because of what you do” (p. 5). If recipients comprehend this different frame of mind, they will more quickly take action toward behavioral change.
The last category of factors that impacts 360-feedback effectiveness is the Raters’/Observers’ Selection Method. From a statistical view, raters’ selection method directly impacts the accuracy of a 360-feedback estimation of the leaders’ behaviors. The accuracy of the estimated result is either increased or decreased due to the value of the bound of error of estimation. This is guided by the degree of variability among the observers’ view of their leaders’ leadership behaviors. The degree of variability and the bound of error of estimation can be reduced to predict more accurate estimation by increasing the number of observers who evaluate a leader. Indeed, a large number of observers is better for a 360-feedback accuracy, yet census estimation of the behaviors would be the most effective way to provide a reliable and precise feedback (Bracken, et al. 2001). Another benefit of increasing the number of observers would be to increase the trustworthiness of the feedback, which, in turn, decreases the potential for results being skewed by raters’ social desirability motivations, on one side, or some raters’ bad intentions to abuse the final estimation, on the other. Social desirability is defined by Dillman (2014) as “the tendency to provide answers that put one in a good light with the person who asks the question; it is often motivated by wanting to make a good impression in a social interaction (or avoid a negative one)” (p. 99).

Part of the selection method, anonymous feedback is suggested by many empirical studies to increase the probability of providing an honest feedback. Antonioni (1994) investigated the impact of observers’ anonymity selection on 360-feedback. The participants were 38 managers and 238 observers from a large Midwestern insurance company. They divided the participants into two groups; 69% of participants were randomly assigned to use the anonymity procedure and 64% of participants were randomly assigned to use the accountability procedure. They found that “managers who received feedback from specific individuals in the
accountability procedure viewed the upward appraisal process more positively than did managers in the anonymity procedure” (p. 349). They suggested that “anonymity procedure appears to decrease subordinates’ potential to inflate ratings of their manager” (p. 354). Interestingly, London and Wohlers (1991) investigated what the observes’ thoughts would have been if the selection method had not been anonymous. They interviewed 53 observers and asked them, “Would you have rated your boss any differently if feedback had not been given to them anonymously?”; 24% of them said yes they would have provided different feedback. However, the anonymity of selection may not be favorable for some leaders, especially those who have some haters among their followers. Those leaders view anonymity of selection as a way that “offers cover for certain counterproductive behaviors” (Brutus, & Derayeh, 2002, p. 196), instead desiring to prevent being “stabbed in the back” by haters who have the opportunity answer anonymously.

From a statistical perspective, based on London et al. (1991) and Antonioni’s (1994) study findings, the 24% who stated they would have provided less honest feedback would have significant changed the estimated mean if the feedback was not anonymous. As a result of the observers’ projected responses if the ratings had not been anonymous, a low rating discrepancy would be reported, effectively indicating a high leadership self-awareness, yet that was not the reality. Clearly combining anonymity with large numbers of participants decreases the variability and encourages the most honest feedback. Equally important to the statistical perspective is the importance of considering the recipients’ psychological needs of receiving trusted and representative feedback, especially because the feedback is for their development purposes. Therefore, leaders have to be allowed to select their preference way of learning since they are the one who meant to be benefited from the 360-feedback programs.
In summary of best practices and factors, there are four best practice (e.g. 360-Tool Selection, Assuring Confidentiality, Developmental Orientation, and Facilitating the Feedback) and four factors that impact the effectiveness of a 360-feedback, as well (e.g. 360-Tool Design, Organizational Culture, Participants’ Attitude, and Raters’ Selection Method). Some of the factors are natural phenomenon with little ability for control, such as Organizational Culture and Participants’ Attitude. The 360-Tool Design and the Raters’ Selection Method, though, are two controllable factors that impact implementing an effective 360-feedback process. Best practices are used by facilitators throughout the entire 360-feedback process to manage both hard to control, as well as controllable factors in order to achieve the most effect result.

The degree to which best practices are adopted and utilized by facilitators and to which they understand the natural phenomenon of factors will have an impact on the usefulness of a 360-feedback. Close attention and targeted use of best practice may mitigate some of the negative impacts of the factors that seem most out of control. Even controllable factors can be managed to a greater extent when facilitators pay close attention to best practices.

One indication that the factors are being managed to the best possible extent is when the 360-feedback process decreases the immediate negative reaction that might occur by leaders who receive negative feedback. The minimizing of negative feedback would be identified as an indicator of a 360 process success. There are two other key indicators of a successful 360-feedback process. First, the process activates leaders’ recognition of themselves as leaders and their impact on others and the organization, which is self-awareness. Secondly, the process encourages leaders to initiate and create their action plan for their own leadership improvement. (3D group, 2013; Shahin et al., 2011; Rai et al., 2013; Overeem et al., 2009; Thach, 2002; Shipper, 2007, Hageman, 2015; Vukotich, 2014; Lawrence, 2015; Van Velsor et al., 1993;
Northouse, 2015; Goleman et al., 2002, Kouzes et al., 2013 & Conine et al., 2016). Other indicators of a success 360-feedback appear after the 360-feedback process is completed and have a wider impact, affecting the entire organization. These emerge when participants express a future desire for leadership feedback, welcome additional personal development, and when the organization is satisfied with their training investment in the 360 process, believing they have gained more value than the money they paid for the process (Brinkerhoff, 2003; Smither, et al. 2005; Shahin et al. 2011 & Watson Wyatt Worldwide, 2002). These indicators are discussed in greater detail below.

The most popular indication of a successful 360-feedback process across many 360 studies is the evidence that leadership self-awareness increased. Leadership self-awareness refers to the leaders’ insights into their own leadership behaviors, actions, strategies, and weaknesses, as well as the recognition of the impact of their behaviors and actions on others. Since self-awareness is one of the most challenging steps toward changing one’s behavior, it often is not easily initiated on one’s own. This is the worth of a 360-feedback process because most of the time people cannot accurately assess their behavior on their own. That is why, when it is successful, the impact of 360-feedback process is often seen most readily in leaders’ self-awareness (Waldman, et al. 1998). So, leaders who go through a 360-feedback process—with an implementation of best practices and by managing the factors that contribute to its success—are more likely to accurately estimate their leadership behaviors and the impact of their actions and the decisions (Northouse, 2015; Goleman et al. 2002; Kouzes et al. 2013; Van Velsor et al. 1993 & Shipper, 2007).

Another indication of a 360-feedback process success is that it reinforces behavioral changes by raising leaders’ self-awareness. The extent of leaders’ awareness can be predicted
through the measurement of the gap between leaders’ perceptions of their leadership behaviors compared to how their followers perceive them (self-other discrepancies). Self-awareness initiates leaders’ efforts to close the gap in perception and is reinforced and enhanced by other behavioral changes, one of which is using the 360 reflection feedback. This reflection process can be completed with a 360-feedback facilitator to help the recipients understand the numeric feedback and create and help them design their own improvement plan (Rai et al. 2013; Smither et al. 2005; Atwater et al. 2000, & Kouzes et al. 2010). As a result of the leaders’ behavioral improvement their leadership performance and effectiveness increase as well.

A final indicator that a 360-feedback process is successful is a decrease in or a minimum amount of immediate negative reaction when a leader receives negative feedback. This success of minimizing immediate negative reaction reduces other negative effects, such as lower performance or lack of motivation to benefit from the feedback. An effective application of best practices during a 360 process will increase the probability of reducing the negative reaction; thus ensuring an immediate success of the 360 process. These best practices include assuring numeric feedback rather than text feedback because numbers are easier to accept and remember; guaranteeing confidentiality; certifying the feedback is not for performance purposes; and, using a large enough number of participants who are anonymous to raise the trustworthiness of the result (Kluger et al. 1996; Seifert et al. 2003; Atwater et al. 2005).

These are some of the primary indications of a 360-feedback process success. However, these indications mentioned above may not be considered as successes by some companies unless a return on training investment is also present (Brinkerhoff, 2003; Watson Wyatt Worldwide, 2002 & Shahin et al. 2011). Still other organizations may have their own determinations of what a successful 360-feedback process looks like. Watson Wyatt Worldwide
(2002) examined the relationship between 360-feedback programs and shareholder value among 750 large companies in the United States, Canada, and Europe. They reported that 360-feedback programs were associated with a decrease in market value by 10.6%. They built their indication of a successful 360-feedback based on increasing market value and, therefore, did not consider 360-feedback a success. However, when Shahin and Sheikhaboumasoudi (2011) investigated the relationship between job performance and sales based on 360-feedback process, they found that job performance of all the sales managers was enhanced which led to an increase of the department’s sales. Since the indications of a 360-feedback success vary across organization types, it is important for organizations to determine the alignment of a 360-feedback with their values and views of success. In order for organizations not to miss indicating the success of a 360-feedback process, they have to pay close attention to the implementation of the best practices of facilitating a 360-feedback, as well as managing the four factors that impact the final outcome of the 360 development program, as was discussed earlier.

**Linking the LPI 360-Feedback to the Factors and Best Practices**

The LPI-assessment tools were created by Kouzes and Posner in 1987 after years of intensive study of the best practices and most frequent leadership behaviors leaders engage in. They interviewed more than 10,000 people from different countries, organizations, and ethnicities to answer one question: What do leaders do when they are at their best? The result of answering this question was five top best practices that exemplary leaders do. Those five practices can be learned through the implementation of the Leadership Practice Inventory tools they created from this research. Today their Leadership Practice Inventory stands out as the must use in human resource development and research. While any type of 360 tool’s success is surrounded by
factors and best practices, as discussed above, the success of the popular LPI needs to be determined in relation to these as well.

One of the most important factors in a 360-feedback is how the tool was designed. Building on the importance of the design factor, the LPI design consists of 30 behavioral statements, which represent the five best practices of exemplary leaders to measure leaders’ leadership behaviors. All of those statements were carefully written, and are understandable by the participants. In addition, those 30 behavioral statements are well-organized in an orderly manner to avoid the possible order effect. Order effect occurs when respondents adjust their answers to the next question based on the previous one (Kouzes and Posner, 2013, & 1988). In addition, the LPI-instrument provides a unique numeric feedback system, with colored tables and figures, which would have a positive impact decreasing the possible negative reaction that caused by text feedback. The LPI measurement scale is a 10-point scale. However, the 10-point scale is not suggested by many studies, rather a scale with a range of 5-7 points is the more favorable by participants (3D Group, 2013; Dillman et al. 2014; Vukotich, 2014 & Atwater, 2002). More importantly, the LPI-assessment tools are valid (Vito, & Higgins, 2010). In addition, Kouzes, Posner & Biech (2010) stated that, the LPI tool is valid where “(it makes sense and results can be predicted based on other data) and reliable (statements are correlated and re-test results would be similar)” (p. 15).

In addition to the link between the LPI 360 tool and the factor of 360-Tool Design, there is also a link between the LPI, and its use around the world, and the factors of Organizational Culture. After reviewing 153 studies across 766 databases, it was found that the LPI tools have been implemented in a variety of organizations globally, such as military, law enforcement, federal departments, educational organizations, health care, sport organizations, business, non-
profit organizations, and more. The majority of its implementations were concentrated on educational sectors attributing for 42.4% of the studies, while 18.3% were in health care, and 12.4% in business. Surprisingly, all of those studies reported that the LPI-tools successfully benefited their leaders and organizations. This seems to indicate that the LPI-tools can be effective in a variety of organizational cultures and countries. However, this assumption needs to be tested since many empirical studies revealed that the success of a 360-feedback process is variable across organizations due to the factors and best practices discussed earlier.

Regarding the factors around Participants’ Attitude, some of the studies that used the LPI-tools as an instrument for development purposes revealed that the LPI-feedback tools were generally accepted and welcomed by leaders regardless of their personal demographic characteristics and attitude (Galuska, 2015, Brown, 2001, Ang, Koh, Lee, & Pua, 2016; Lindle et al. 2015 & Bilgin, et al. 2016). One study utilized the LPI-S to compare participants’ attitudes about their educational leadership behaviors in each of their cultures, the United States and Taiwan (Tang, Yin, & Min, 2011). The sample size was 50 educational leaders’ cultures in K-12 and higher education. They found that there was a significant impact of the participants’ cultures on the LPI results. These differences showed up mainly in three leadership practices: Modeling the Way, Inspiring a Shared Vision, and Challenging the Process. So, there is a possible impact of participants’ cultures on the result of an LPI-tool. That would raise the importance for each organization to test its effectiveness on their leaders instead of relying on its popularity and wide use.

Aligning with the Raters’ Selection Method, the online version of the LPI 360-assessment supports anonymity by allowing the observers to cover their identities if they prefer. Also, it supports random and non-random selection methods. Kouzes and Posner (2013)
suggested the five to 10 observers is sufficient to provide an acceptable estimation of their leaders’ leadership behaviors, whether the selection is random or not. In addition to the census selection method, the LPI 360-feedback has a unique feature allowing leaders who completed the online version to have an unlimited number of the LPI-Observer surveys without any extra charge. This feature would provide a reliable and representative measurement of a leader’s behaviors. The ease-of-use feature of the online LPI version means leaders do not need to have statistical background because LPI online version completes all calculations. Thus, leaders can easily review their feedback, including a colorful, graphic representation of the results.

Building on the factors and best practices that contribute to the success of a 360-feedback, one general question and five sub-questions for this study include:

How effective is the online LPI 360-feedback providing leaders’ insight into their own leadership behaviors in higher education?

1. How satisfied are higher education leaders with the LPI 360 facilitation process?

2. How effective is LPI 360-feedback as a tool for encouraging higher education leaders’ self-awareness?

3. How effective is LPI 360-feedback as a tool for encouraging higher education leaders’ self-development?
CHAPTER 3

METHODS

*The Leadership Challenge Model* consists of five practices that extraordinary leaders engage with most frequently. Those practices are: Model the Way, Inspire a Shared Vision, Challenge the Process, Enable Others to Act, and Encourage the Heart. The Leadership Practice Inventory is an instrument developed by Kouzes and Posner (1988) from this *Leadership Challenge* theoretical framework. The purpose of this study is to determine the effectiveness of the Leadership Practice Inventory (LPI 360) feedback for providing higher education leaders with insight into their own leadership behaviors in higher education.

**Research Design**

This study employs a mixed method approach, which uses a convergent parallel design. According to Creswell (2014), “The convergent design is useful for researchers who need to gather both forms of data while they are in the field; it intuitively makes sense because both forms are brought together; and it enables one to gain multiple pictures of a problem from several angles” (p. 37).

**The Rationale for Using a Mixed Method Approach**

This LPI 360 study was facilitated by the student researcher without inviting an LPI coach to facilitate it. Kirkpatrick (2006) emphasized the important of evaluating not only the outcome of a workshop but also the participants’ reactions in term of the quality of facilitation. He stated that “Reaction data were gathered via a questionnaire completed by each pilot participant at the conclusion of the workshop. Areas addressed included the quality of facilitation” (p.189). The qualitative approach does not measure the leaders’ reaction and satisfaction about the LPI facilitation process. Thus, a quantitative approach also was applied to
explore leaders’ reactions toward the LPI facilitation process. Then the qualitative and quantitative results were integrated to recognize the impact of the LPI facilitation process on the leaders’ experiences with the LPI 360-Feedback result. This mixed method gave justice to the evaluation of the LPI 360 and provides more robust interpretation about the leaders’ experiences (Figure 2).

Figure 2
Research design: Convergent mixed method design.
In terms of the qualitative phase, an in-depth data collection occurred through semi-structured interviews (Appendix C) and follow-up emails sent six weeks after leaders’ interviews (Appendix E). The semi-structured interviews explored how effective the implementation of the online LPI 360-feedback was on leaders’ personal insights into their own leadership behaviors. The objective of the follow-up emails was to discover how the participant leaders used the information they have learned about themselves via the LPI 360-feedback report for their own self-development. On the other hand, the quantitative data examined leaders’ experiences with the LPI facilitation process and how satisfied the leaders were. The Kano survey, which is explained in detail below, was used as the basis to collect and analyze the quantitative data (Appendix D).

According to Creswell and Clark (2015) “In the convergent design, after collecting both quantitative and qualitative data concurrently, the researcher analyzes the information separately and then merges the two databases. The analysis is conducted in order to merge the results by comparing the two data sets or to merge the data after the researcher transforms one of the data sets” (p. 214). In my study, the qualitative and quantitative data were analyzed separately, and then integrated to explore the effectiveness of LPI facilitation process on leaders’ experiences about the LPI 360-feedback results. Using a mixed method approach recognizes the effect of the LPI facilitation process on leaders’ experiences with the LPI 360 result. Otherwise this result using only one research approach would have been different without the discovery of additional data to provide more understanding of the LPI 360 effectiveness.

**Population, Sample and Site**

Since the deans and senior administrators, and faculty members are vital parts of a university’s success, the target population of this study included the deans and senior
administrators (leaders to be assessed) and, as observers, faculty members as well as deans and senior administrators in some cases, at both a mid-sized, public research university and a college located in the Upper Midwest of the United States. This was a convenience sample because the researcher was a Ph.D. candidate at the mid-sized institution and had an easy access to the college through friends who are faculty members at the college.

There were 14 deans and senior administrators at both the university and the college were selected to complete the LPI-Self Assessment. Males 43% and females 57%. The leaders’ job titles in the sample size, Vice President 14%, Associate Vice President 14 %, Provost 7%, Associate Provost 29%, Executive Director 14%, Dean 14%, and Associate Dean 7%.

Five to 10 observers for each academic dean answered the LPI-Observer Assessment to measure how they perceive the deans’ leadership behaviors. According to Kouzes and Posner (2003), five to 10 observers is suitable to assess a leader’s leadership behaviors. Leaders in this study were given the choice to select the observers they wanted. My philosophy was that since the reason of implementing the LPI 360-Feedback was to develop leaders, leaders had to be able to select the observers they want and trust.

Since this study focused on the deans’ and senior administrators’ experiences after they completed the online LPI 360-feedback process, their respective LPI 360 results were not part of the study. The additional contact via email six weeks after the interviews with each leader further aided the researcher to answer the research question: How effective is the use of LPI 360-feedback on the higher education leaders’ insight into their own leadership behaviors?

It was heavily emphasized that the researcher embraces and practices researcher ethics, since he interviewed high level people (deans and senior administrators). The researcher possesses experience from training programs regarding the ethics of conducting interviews,
including Human Subjects Institutional Review Board (HSIRB) program certification. In addition, the researcher sought the Human Subjects Institutional Review Board (HSIRB) approval to conduct the study at the targeted university.

Based on participants’ invitation, the researcher prepared an invitation package which consists of: an invitation letter, a sample how the LPI 360 Report looks like, a copy of the Theory and Evidence Behind the Five Practices of Exemplary Leaders and the LPI, a copy of the interview questions, a brief and precise description of the study, and an informed consent form. The goal of this pack was to increase the participants’ awareness about the study the tool that they were evaluated based on.

First, my adviser sent an invitation email to the deans and senior administrators, then I followed-up with those who expressed interest in participating with an email that contained the consent letter, links of a sample of an LPI report, the reflection materials that comes with the online LPI package, a journal discussion of the history of the LPI, and a study that shows the validity and reliability of the LPI tool. The participants were given three to four weeks to complete the LPI 360 survey and to reflect on their results using the reflection materials provided by the LPI company.

**Data Collection Method**

Three data collection methods were used: a semi-structured interview, emails, and Kano survey. Yin (2013) discussed the six foundational data collection methods of “documentation, archival records, interviews, direct observation, participant-observation, and physical artifacts” (p. 103). In this study, semi-structured interviews were used to understand in-depth the intended interview questions (Appendix C). Yin summarized the researcher’s duties when conducting semi-structured interviews stating that:
You have two jobs throughout the interview process: (a) to follow your own line of inquiry, as reflected by your case study protocol, and (b) to ask your actual (conversational) questions in an unbiased manner that also serves the needs of your line of inquiry” (p. 110)

Based on the Success Case Method of testing the effectiveness of a training program, facilitators should not evaluate participants’ usage of what they learn too soon. According to Brinkerhoff (2003), "People must be given some realistic time frame within which they will encounter enough opportunities to apply or experience the intervention with success. In other words, success must be given a chance" (Kindle Locations, 711-712). He suggested that trainees should be given at least six weeks before testing the effectiveness of a training program. Moreover, Smither, London, and Richmond (2005) found that sometimes determining the success of a 360-feedback process cannot be based solely on the short-term result, especially among leaders who received a negative feedback. This suggests researchers and facilitators should not make a dichotomous decision about the effectiveness of a 360-feedback program after only a short implementation. For this reason, follow-up emails were sent to leaders six weeks after their interviews to explore how leaders engaged with the self-development process in the interim (Appendix E).

Regarding the leaders’ experiences with the LPI facilitation process, the Kano Model was used to examine leaders’ perceptions of the LPI facilitation process and leaders’ satisfaction levels associated with each LPI facilitation feature. The LPI facilitation features are: (a) only leaders have access to their results (F01), (b) additional links of videos and journals attached to the leaders’ invitation email (F02), (c) the 360-feedback tool provided free of charge (F03), (d) leaders were able to select their observers (F04), and (e) observer responses consisted solely of
numeric feedback (F05). According to Kano, Seraku, Takahashi, and Tsuji (1984), the Kano model uses a questionnaire to understand customers’ preferences and priorities.

This study was conducted during December 2016 to December 2017. In order to apply the LPI 360 assessment, deans and senior administrators evaluated their own leadership behaviors via the LPI-Self, while the observers answered the LPI-Observer to evaluate their leaders’ leadership behaviors. As soon as the observers completing the LPI observer, leaders received emails to generate their LPI 360 results/reports and go through the LPI workbook. According to Kouzes and Johnson (2013), the LPI Workbook is a reflection book that helps leaders to make the most of leaders’ LPI feedback report.

After the deans and senior administrators reflected using the LPI Workbook, the researcher followed up with all of the deans and senior administrators with a semi-structured interview. During the interviews leaders were split into two groups:

1. Leaders who used the workbook during their reading thought the LPI 360 report, 36% (5/14) “Reviewed Materials”.
2. Leaders who did not use the LPI workbook and just went through the LPI report, 57% (9/14) “Did Not Review”.

The time length of the interview was approximately 40-50 minutes. The interview was based on predetermined categories. Those categories were: self-development, background, personal insight, and reception. The researcher prepared an interview protocol. The interview protocol contained 15 open-ended questions. In addition, the Kano survey was completed by the leaders during the interview discussion.
Semi-Structured Interview Questions

Thus, the purpose of conducting the interviews was to understand in-depth how effective the LPI 360-feedback process was on eliciting leaders’ personal insights into their own leadership skills and behaviors. Regarding of how I developed the interview questions, some of the questions were created based on an intuitive feeling that a group of questions need to be asked before I move the interviewees to the personal insight section. However, the personal insight questions which the study was built around were driven from the Leadership Challenge website. According to the website “Leaders will gain deep insight into how they see themselves as leaders, how others view them, and what actions they can take to improve their effectiveness.” (the Leadership Challenge, n.d) All leaders were asked the same questions but they vary in terms of the extra questions that helped me to explore more about their experiences with the LPI results.

Open-Ended Questions

1. Have you received any 360 assessments before? (if YES) How do you compare it with the LPI? (if NO) Go to question 2.

2. How important is your development as a leader to you personally? Why?

Self-Development

3. Have you been able to use the LPI feedback and reflect using the LPI workbook? (if YES) Q4 (if NO) Why? Then Q6

4. Was the reflecting using the LPI workbook beneficial for your development as a dean? Why or why not? (if YES) Q5

5. What is the most beneficial part of the LPI workbook for deans to focus on?
6. Have you thought of any changes in your leadership behaviors as a result of the LPI feedback? If so, can you tell me more please?

**Background**

7. What personal (background) do you think of that helped you to understand the LPI 360 feedback you received?

**Others**

8. Did the LPI 360 feedback help you to know what your followers need from you? How?

**Personal Insight**

9. Did the LPI 360 tool help you to see how your leadership behaviors are perceived by others? What did you notice?

10. Did the LPI 360 feedback provide you with any surprising results regarding actions or behaviors that you were not aware of? What can you tell me about that?

11. Did the LPI feedback helped you to see behaviors that need correction or improvement? Can you tell me a little bit more?

**Receptive**

12. How receptive are you to receiving 360-feedback?

**Conclusion**

13. From your perspective, what can an institution do to help academic deans develop and enhance their leadership behaviors?

14. Is there anything that I haven't asked that you would like to add regarding your experiences with LPI 360 feedback?
The Kano model is one of the business tools that measures customers’ satisfaction levels with a product’s features, which depends on the level of functionality that is provided. The Kano model was developed by Professor Noriaki Kano in the 1980s. The Kano Model classifies customers’ needs, preferences, or perceptions about a feature into five categories: Must-have (M), Performance (P), Attractive (A), Indifference (I) and Reverse, which are explained below. These customer needs and preferences can be measured via the Kano survey (Benjabutr, n.d.; Li-Li, Lian-Feng, & Qin-Ying, 2011).

The design of the Kano survey’s question scales is a little bit different than other common survey scales, such as Likert scale. In the Kano survey, each question is measured by two types of scales. One scale explores customers’ feelings about a feature when it is included or present in the product or process, while the other scale tends to explore customers’ feelings if and when that same feature has not been included or is absent in the product or process. Both scales contain forced choice selection (i.e., Like it, Expect it, Do not care, Live with it, or Dislike it). A specific example of how the survey questions operate would be the following response statement from an actual feature in the LPI system: The LPI report is colorful. Researchers in this example might want to know where respondents categorize this colorful feature based on the five Kano categories (Must-have (M), Performance (P), Attractive (A), Indifference (I) and Reverse). So, the question asked would be: The LPI report was colorful; how did you like this? The survey itself would look like the one in Table 2 below. After collecting the data, the Kano evaluation table (Table 3) is used to determine how respondents would categorize the LPI colorful report feature.
Table 2

A Sample of the Kano Question Design and Scales

Q1.1 The LPI report was colorful, how did you like that? The presence of the colorful feature

- Like it
- Expect it
- Do not care
- Do not like, but I live with it
- Dislike it

Q1.2 What if the LPI report was black and white, how would like that? Absence of the colorful feature

- Like it
- Expect it
- Do not care
- Do not like, but I live with it
- Dislike it

Table 3

Original Kano Evaluation Table

<table>
<thead>
<tr>
<th>Presence</th>
<th>Dysfunctional (X)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Like</td>
<td>Q</td>
</tr>
<tr>
<td>Expect It</td>
<td>R</td>
</tr>
<tr>
<td>Don't Care</td>
<td>R</td>
</tr>
<tr>
<td>Live With</td>
<td>R</td>
</tr>
<tr>
<td>Dislike</td>
<td>R</td>
</tr>
</tbody>
</table>

Note: (M) Must-have; (P) Performance; (A) Attractive; (I) Indifferent; (R) Reverse & (Q) Questionable.

For instance, if a respondent selected “Like it” for Q 1.1 when he/she was evaluating the “presence” of the color feature for a report, Functional (Y), and he/she selected “Do not care” for Q1.2 if the colorful feature “absent”, Dysfunctional (X), the Kano Evaluation Table takes into consideration both responses to determine the value of the feature to the respondent. To analyze this answer, the Kano Evaluation Table is used to explore how this participant perceives the colorful feature based on the five Kano categories: (M) Must-have; (P) Performance; (A) Attractive; (I) Indifferent; and (R) Reverse. The intersection between the “Like it” Functional (Y), row and the “Don’t care” Dysfunctional (X) column, as shown in Table 3, reveals that this
respondent perceives the LPI colorful feature as an “Attractive” feature when it is included in an LPI report.

Then the analysis procedure is applied to all participants’ responses. The most frequent responses regarding each feature in a Kano category determine how the majority of the respondents feel or perceive about that category’s feature. After calculating the frequency of participants’ responses to all of a product’s or process’s features, the Customer Satisfaction Coefficient Equations are used to calculate the effect of each feature on participants’ satisfaction and dissatisfaction levels. The Customer Satisfaction Coefficient Equations are:

\[
\text{Equation (1): Level of Dissatisfaction} = \frac{P + M}{(A + P + M + I)} * -1
\]

\[
\text{Equation (2): Level of Satisfaction} = \frac{P + A}{A + P + M + I}
\]

The outcome of participants’ level of satisfaction and dissatisfaction ranged from 1 to -1, where 1 represents a high level of satisfaction and a feature that was well executed, and -1 represents a very low level of satisfaction and a feature was executed poorly (Figure 3).
Figure 3
Visualization of the leaders’ preferences of a feature and its relation to the level of satisfaction.

Source:

The *Must-have* category shows features that leaders expect to be included in the process, so those features do not increase leaders’ satisfaction level. If, however, those features were not present, the leaders would be extremely dissatisfied. The *Performance* category contains features that have a linear association with leaders’ level of satisfaction when they are present and a decrease if they are absent. The *Attractive* category represents features that affect a dramatic increase in leaders’ level of satisfaction when they are present, but the leaders would be neutral if these features were not included in the process. The *Indifference* category includes features that neither increase nor decrease the leaders’ satisfaction level if they were included (present) or excluded (absent) from the LPI facilitation process. The *Reverse* category discloses features that
reduced the leaders’ satisfaction because of their presence in the LPI facilitation process. Lastly, the *Questionable* category contains the selection that did not make sense. For example, a leader liked a feature to be included in the LPI facilitation process and also liked the same feature even if it was not included in the process.

Importantly, the original Kano Evaluation table (Table 3) was created to serve a business discipline but not an educational discipline. Thus, the original Kano Evaluation Table was not used, as defined above, for this study; but, I modified slightly some of the Kano Evaluation Table’s cells in order to fit my philosophy that learners are the center of the learning climate; this means paying attention to the leader’s/participant’s intended meaning and preferences in the learning climate while applying a 360-feedback.

**A Slight Revision of the Kano Evaluation Table**

The Kano Model was created for business industries to capture the voice of their customers to provide them with a product that fulfils most of their customers’ needs. However, adding more features to a product increases the product selling price. So, the Kano Model helps the product industries to recognize and prioritize the inclusion of features based on the customers’ priorities in relation to money. So, when customer respondents reflect an “Indifferent” feeling about the inclusion of a feature in a product, the interpretation of this result means the feature can be excluded from the product to reduce the manufacturing cost and retail price. However well the Kano Evaluation Table may work well to categorize customers’ needs into “Indifference” category, it is also debatable.

Two “Indifference” cells in the Kano Evaluation Table have been modified by Walden (1993). The author expressed some of the theoretical issues of Kano’s Methods and revised two “Indifference” cells to “Questionable”. He claims that logically a customer does not “Expect” a
feature to be in a product and at the same time “Expect” that feature not to be included. So, based on this conflicting feeling about the inclusion of a feature, Walden converted the interacted cell from “Indifference” to “Questionable”, representing a questionable selection during the data collection, as shaded by the orange color in Table 4. He applied the same logical claim to the evaluation of a feature given the interaction between “Does not like it but Live With it” in the Functional (Y) cell and “Does not like it but Live With it” in the Dysfunctional (X) noting that a conflict exists and the “Indifference” category cannot fully explain the data. Without understanding the data, Walden labeled the unclear data in the “Questionable” category instead.

I agree with Walden’s reasoning behind changing the two “Indifference” cells to reflect the need for the revised “Questionable” category. In addition to Walden’s revision, I added another revision to the Kano Evaluation Table and converted two “Indifference” cells to fit my philosophy of recognizing the unique needs of learners in a learning climate, especially when these participants are highly educated leaders.

Table 4
Revised Kano Evaluation Table

<table>
<thead>
<tr>
<th>Functional (Y)</th>
<th>Dysfunctional (X)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>“Presence”</strong></td>
<td><strong>“Absence”</strong></td>
</tr>
<tr>
<td></td>
<td>Like</td>
</tr>
<tr>
<td>Like</td>
<td>Q</td>
</tr>
<tr>
<td>Expect It</td>
<td>R</td>
</tr>
<tr>
<td>Don’t Care</td>
<td>R</td>
</tr>
<tr>
<td>Does Not Like, But Live With</td>
<td>R</td>
</tr>
<tr>
<td>Dislike</td>
<td>R</td>
</tr>
</tbody>
</table>

Note: (A) Attractive; (P) Performance; (M) Must-have; (I) Indifferent; (R) Reverse & (Q) Questionable.
Since this study applied a 360-feedback assessment tool, which may hold sensitive information about these higher education leaders from Deans to Vice Presidents, I also had to pay close attention to how I facilitated the LPI 360-feedback. This required me to recognize features that were perceived as “Does not like but Live With” Functional (Y) when they were included in the LPI facilitation process while at the same time the leaders categorized the feature as “Expect It” Dysfunctional (X) and did not want it to be included in the LPI process. The result of this interaction cannot be categorized as “Indifference” as shown in the original Kano Evaluation Table (Table 3) when the respondents are demonstrating high sensitivity that a feature should not exist as it did. Therefore, the “Indifference” cell was converted to “Reverse” to reflect the sensitivity of respondents to the inclusion of that feature. “Reverse” category represents that having a feature is not beneficial or satisfactory to the respondent. Respondents’ dissatisfaction was low enough that I recognized I should not have included that feature in the LPI facilitation process, as shaded by a blue color in Table 4.

In addition, an adjustment from “Indifference” cell from the original Kano Evaluation Table to “Performance” cell is noted in my revised table when higher education leaders want an LPI facilitation feature to be included “Expect” Functional (Y) and, at the same time, not including that feature would have been a minor inconvenience for them, as “Does not like but Live With” Dysfunctional (X). As a result, I should not have considered this type of feature as an “Indifference” given the situation that it did not align with the leaders’ preferences. A “Performance” instead of “Indifference” represents that the fulfilment of their needs by including that feature would increase their satisfaction level.

In summary, the philosophy that drives my point of view regarding the revisions to the category cells in the Kano Evaluation Table takes into consideration leaders’ preferences that
must not be ignored about how higher education leaders value and expect a learning climate to be engaging. Thus, when leaders did not feel comfortable with the inclusion of a feature in the LPI facilitation process, I categorized that feature into “Reverse” instead of “Indifference” representing that my hypothesis was not accurate about the benefit of including that feature. Also, if a leader expected a feature to be included in the LPI facilitation process Functional (Y): “Expect It”, and, while not having this feature is a minor inconvenience for him/her Dysfunctional (X): “Live With”; I categorized that feature into “Performance” instead of “Indifference” representing the presence of more of that feature would increase that leader’s satisfaction level. My philosophy is that an effective LPI facilitation process must contain features that leaders prefer in order to increase their satisfaction level about the facilitation process and to support and recognize the learning climate that aligns with leaders’ preference.

The Kano Survey (Instrument) in this Study

The Kano survey in this study examined leaders’ perspectives about the LPI facilitation process. The LPI facilitation process consisted of five features that I intentionally included during the implementation of the LPI 360-feedback. The survey reflected these facilitation features which were: (a) only leaders have access to their results (F01), (b) additional links of videos and journals attached to the leaders’ invitation email (F02), (c) the 360-feedback tool provided free of charge (F03), (d) leaders were able to select their observers (F04), and (e) observer responses consisted solely of numeric feedback (F05). So, the purpose of conducting the Kano survey was to examine leaders’ perceptions of these five LPI facilitation process features.

In terms of the Kano survey question scales applied in this study, three scales measured each LPI facilitation process feature/question. The first scale measured leaders’ feelings or
perceptions when a specific feature is included and “present” in the LPI facilitation process, while the second scale measured leaders’ feelings about the same feature if it was not included and “absent” in the LPI facilitation process; the third scale measures how important it is to include each particular feature in the LPI facilitation process (Appendix D). The first and second scales both have five scale points or levels. Leaders were asked to select one of the levels for each feature from both the presence and absence scales, representing their best feelings at the data collection time. Below are the levels that correspond to both the presence and absence scales for each of the LPI facilitation features:

The first scale measures leaders’ feeling of the presence of a feature:

- I really liked it.
- I expect this feature to be a basic requirement.
- I am neutral about having this feature
- I wasn’t thrilled with this feature, but I can live with it.
- I disliked this feature; it should be eliminated

The second scale measures leaders’ feeling if a feature was absence:

- I would really like to not have this feature.
- My basic expectations would be to not have this feature.
- I would be neutral about the lack of this feature.
- Not having this feature would be a minor inconvenience for me.
- I would find the absence of this feature a major problem for me.

The third scale measured how important it was to include a feature in the LPI facilitation process. This scale’s range is from 1 “Not Important” to 10 “Extremely Important.”
The rationale of including the LPI facilitation features to the Kano survey is explained below except for one feature. This feature is “The 360-feedback tool provided free of charge” (F03). I had to provide the LPI 360 license to the leaders free of charge because I could not recruit leaders to volunteer for my study and then request them to pay $170 for an LPI 360 license.

**LPI Facilitation Feature 1: Only Leaders Have Access to Their Results**

The first feature added to the LPI facilitation process was that only leaders could access their LPI 360 information to generate a report. The only exception was if a leader gave me specific permission to generate it for him/her. While the LPI system does not provide a standard option for leaders to generate their own reports, as the LPI system was designed to be facilitated through one individual, I figured out how to have the higher education leaders get their own reports as an alternate administrator. This confidentiality for these higher education leaders in using a self-growth process like the LPI 360 tool seemed essential since other research has proven that in order for a 360-feedback process to be effective, leaders’ 360 results have to be confidential and not shared with others (Vukotich, 2014; 3D Group, 2013; Conine Jr. et al., 2016; Lawrence, 2015; & Nowack, 2012).

**LPI Facilitation Feature 2: Additional links of videos and journals included with the invitation to participate**

An additional facilitation feature of the LPI 360 process is attaching links to videos and journals to the leaders’ invitation email. The attached links were a sample of an LPI report, the reflection materials that comes with the online LPI package, a journal discussion of the history of the LPI, and a study that shows the validity and reliability of the LPI tool. The purpose of adding the additional links to the LPI facilitation process was to introduce the LPI tool to the leaders and
increase their sense of its trustworthiness. There was no study reviewed that drove my decision to add the additional link feature to the LPI facilitation process. I hypothesized that making the additional links regarding the LPI validity and reliability available should be one of the participants’ rights in order to trust the instrument which evaluated their leadership behaviors.

**LPI Facilitation Feature 4: Leaders Able to Select their observers**

Leaders in this study were given the choice to select the observers they want. My philosophy was that since the reason of implementing the LPI 360-Feedback was to develop leaders, leaders had to be able to select the observers they want and trust. Leaders participated in this study to lead about and develop their leadership behaviors, so, it was their rights to select the observers they wanted and trusted to help them through this learning journey.

**LPI Facilitation Feature 5: Observer Responses Consisted Solely of Numeric Feedback**

The last facilitation feature that was included in the LPI 360 facilitation process was “Observer responses consisted solely of numeric feedback” (F05). As the facilitator, I have the opportunity to create the standard LPI assessment with the 30 behavioral statements (Appendix F) or to add extra open-ended questions to leaders’ LPI survey. I did not add any extra open-ended questions because Atwater (2005) found that “those receiving text format had more negative reactions than those receiving numeric format” (p. 540). He suggested that providing numeric feedback would reduce leaders’ negative reaction when they received negative feedback.

**A Follow-up Open-Ended Question**

Leaders were contacted six weeks after their interviews to explore whether and how they applied the knowledge gained through the LPI 360-feedback process for their self-development. The follow-up question was: Are there any new experiences or insights you would like to add or
share regarding your participation in the LPI 360? For instance, have you experienced any progress on the leadership behaviors that you attempted to work on after you discovered via the report of the observers’ LPI rating? Are there any new behaviors that you noticed among your observers after the completion of the LPI 360?

**Validity, Reliability and Trustworthiness**

The researcher ensured the trustworthiness during this study by “being reflexive through personal biography, and both the ethical and political considerations of the author” (Creswell 2012, p. 1419). Since the research is not a native English speaker he sought some help in the form of a research assistant to understand the full meaning of the participants’ responses when needed. In addition, the researcher used multiple validation strategies in this study. A *bracketing* strategy was applied to avoid the researcher’s own bias. The researcher set aside his experience during the interview and engaged with self-reflective process to be a part of the data. Also, during the analysis process the researcher focused on the data to make it speak for itself. In addition, *peer debriefing* strategy took place in this study. The researcher showed his adviser and committee members the codes, categories and themes during the analysis stage to ensure the accuracy and reduce the probability of the researcher’s bias. The committee members read and reviewed each chapter during the writing process. In addition, *triangulation* strategy utilized where the researcher interviewed all of the 14 higher education leaders, which is considered to constitute multiple sources of information (Creswell, 2012).

In terms of the Kano survey there was no specific reliability test conducted, but I have followed up with my adviser. She worked with me to check the questions’ structure, to eliminate design issues, for instance, the language and clarity of questions. In addition, I asked 10 of my
colleagues to complete the Kano survey in order to examine its items’ clarity as well as my ability to analysis the data via Excel software.

**Brief Background**

A mixed method approach requires both quantitative and qualitative analyzing skills. In terms of the quantitative data, I am a certified statistician and my second major is applied statistics. I have experience analyzing data for Ph.D. candidates, as well as work experience as a teacher assistant under a professor at the university for his Data Analysis II course. During this semester’s work, I also tutored small groups of Ph.D. students to understand statistical tools such as multiple regression, linear and non-linear Mixed model, and Hierarchical Linear Model. This prepared me well to understand the Kano equations from a statistical perspective as well as to analyze the Kano data. Regarding the qualitative data, I am an NVivo certified expert. NVivo is one of the most advanced qualitative data analysis software. An NVivo expert certificate requires some level of programing knowledge and advanced qualitative research skills. Earning this certification further helped me to utilize the technology for more in-depth qualitative analyses and to discover patterns that may not be disclosed easily when analyzing qualitative data by hand.

In addition, I am certified with a Master Six Sigma black belt for quality management. Through my Six Sigma courses, I have learned to recognize many business tools for measuring the quality of products and processes. This knowledge enabled me to select one of the business tools for measuring customer satisfaction and adapt it for application in the educational field, specifically the Kano Model used in this research. Furthermore, I am a beginner programmer using C++ and a professional Excel user, skills which have empowered me to create my own Excel Kano calculation to analyze and visualize the Kano data.
Data Analysis Procedures

Two types of leaders’ experiences were focused on in this study: (a) leaders’ experiences with the LPI facilitation process and (b) leaders’ experiences with the LPI 360-feedback results/reports. The LPI facilitation process contains five features that I intentionally applied during this study. Leaders’ experiences with the LPI 360 results revealed the effect of the LPI on leaders’ personal insight into their leadership behaviors and self-development. The integration of the qualitative and quantitative results has provided more robust interpretation of the leaders’ perceptions of the effect of the LPI 360-feedback tool than either study method alone could (Figure 4).

Figure 4
The analysis framework for leaders’ experiences.
Qualitative Data Analysis: The Semi-Interview Analysis: Personal Insights

Thematic analysis was used to analyze both the semi-interviews and the follow-up questions.

**Recording, managing the data and storing data.** The method by which participants interviewed determined by the preference or choice of the participant either via Skype, phone or face-to-face interview, and based on their availability. The researcher let the participants knew that the interview was a recorded and their answers were confidential. The interviews took place in a location of the observers’ choosing. A recording device recorded the interviewees’ responses. A QuickTime Player was used to record the interviews. All of the recorded files were labeled with the code of the participants including his/her demographic information, the date, and the interview length. In addition, all of the recorded interviews transcribed using the TranscribeWreally website to reduce the cost and time of transcription. However, the researcher doubled checked with a research assistant who checked spelling and grammar and understanding of the full meaning of their responses. Then the transcriptions were imported for analysis into NVivo v.11 program. The researcher secured all of the data files (e.g. audio record, transcription and NVivo project file) and stored them on a password-protected computer. Also, the researcher saved three copies of all of the files including the dissertation on his computer, his WMU Google account, and one in an external hard drive.

**Organizing the data.** Two analysis procedures were followed though the analysis phase. First, all of the interview transcripts were read as a holistic/whole case, to explore the important findings based on significant patterns of difference between participants. The second procedure was, the transcribed questions organized from general (e.g., Have you received any 360 assessments before?) to specific (e.g., Was the reflecting using the LPI workbook beneficial for
your development as a dean? Why or why not?). Each type of question that shares one characteristic were organized on a page though NVivo program. For example, question one for all of the participants was in one file since they have the same characteristic (e.g., Question 1: Have you received any 360 assessments before?). Then, the researcher read through each type of question across all of the participants easily to create open codes for meaning information and memos for each type of question.

**Immersion in the data.** In order for the researcher to immerse himself in the data, Marshall and Rossman (2011) suggest reading and rereading the data many times. After reading through the transcript carefully and the researcher started writing memos and looked for open codes that contains significant information which aligns with the research question as suggested by Gay, Mills and Airasian (2012).

**Coding the data.** After immersion in the data, the researcher searched for patterns shared by the codes or common ideas in order to generate categories and themes (Yin, 2013). The open codes represented three types of information as suggested by Creswell (2012), including “information that researchers expect to find before the study; surprising information that researchers did not expect to find; and information that is conceptually interesting or unusual to researchers” (Location 3556-3558) Next, the researcher carefully read through the open coding and sorted them into categories and then themes. After the categories emerged the researcher organized them and identified the central category because it was the start point of the interpretation. According to Strauss and Corbin (1998), central category has the “ability to pull the other categories together to form an explanatory whole” (p. 143).
Quantitative Data Analysis Procedures (Kano Survey: Leaders’ Experiences with the LPI Facilitation Process Features)

Excel was used to calculate the Kano survey data. The Kano model classifies customer preferences into these five categories: Must-have (M), Performance (P), Attractive (A), Indifference (I) and Reverse (R). In terms of analyzing the survey data, the revised Kano evaluation table (Table 4) was used to identify the frequency of leaders’ responses in each of these Kano categories. The manner of sorting a feature into a cumulative Kano category depended on highest frequency in each feature. In cases of almost equality of frequency among Kano categories, in order to determine which category in which to identify the cumulative data, the principle of Left Most Win Rule was applied: Must-have > Performance > Attractive > Indifferent (Figure 4) (Benjabutr, n.d.; Kano et al., 1984; Li-Li, Lian-Feng, & Qin-Ying, 2011).

Figure 5
Visualization of the Left-Most Win Rule: Must-have > Performance > Attractive > Indifferent.
Source:
In terms of the calculation of the satisfaction and dissatisfaction levels, the Customer Satisfaction Coefficient equations were used. According to Sauerwein (1996), “The Customer Satisfaction Coefficient states whether satisfaction can be increased by meeting a product requirement, or whether fulfilling this product requirement merely prevents the customer from being dissatisfied” (p.10). The Customer Satisfaction Coefficient equations used in this study were:

\[ \text{Equation (1): Level of Dissatisfaction} = \frac{P + M}{(A + P + M + I) \times -1} \]

\[ \text{Equation (2): Level of Satisfaction} = \frac{P + A}{A + P + M + I} \]

The leaders’ level of satisfaction and dissatisfaction ranged from 1 to -1, where 1 represents a high level of satisfaction and a feature that was well executed, and -1 represents a very low level of satisfaction and a feature was executed poorly.

In terms of the third scale which examined the extent of importance of each feature, leaders’ responses on the 10-point scale were averaged. The average ranged from 1 “Not Important” to 10 “Extremely Important”. In terms of presenting the Kano results, a table of frequency for the LPI facilitation features was conducted and created by Excel software. It presented the frequency of leaders’ responses as well as the level of satisfaction and dissatisfaction associated with each LPI facilitation feature.

**Qualitative Data Analysis: The Follow-Up Questions Analysis: Self-Development**

The Thematic Analysis Method was used to analyze the follow-up questions (emails) using the same procedures explained previously in the semi-interview analysis section. In order to determine leaders’ self-development, the Success Case Method created by Brinkerhoff (2003) was employed to test the success of the LPI 360-feedback implementation. Brinkerhoff suggests
that facilitators should not evaluate the outcome of a training program too soon. According to Brinkerhoff "People must be given some realistic time frame within which they will encounter enough opportunities to apply or experience the intervention with success. In other words, success must be given a chance" (Kindle Locations, 711-712). He suggested that trainees should be given at least six weeks before testing the effectiveness of a training program. In addition, he stated that the normal expected success of a training program follows the rule of 20, 60, 20, in relation to the trainee usage of knowledge learned. This rule means 20% of the trainees are expected not to use much of the knowledge or skills learned through the training, a “low usage” category. The middle category, “medium usage”, is where 60% of trainees generally fall, representing most trainees will use some of the knowledge and skills from the training. The remaining 20% fall into the “high usage” category, which represents the trainees who use the majority of the knowledge and skills learned.

The determination of the LPI 360-feedback success in terms of leaders’ self-development in this study uses the Normal Training Success Rule 20%,60%,20% and compares this standard to the observed usage ratio of the actual LPI 360 outcome. Leaders contacted six weeks after their interviews via emails to determine their longer-term usage of knowledge gain in the LPI 360 feedback implementation process. Leaders who did not do anything with what they had learned from the LPI 360-feedback results were categorized into the low usage, while leaders who still were attempting to do something with the 360-feedback knowledge were categorized into the medium usage category, and leaders who reported activity and actions with what they had learned from the LPI 360-feedback results were categorized into the high usage category. The results are presented in a table and compared with the standard rule to show the expected usage ratio with the observed usage ratio (Table 5).
Table 5

*Expected Results Versus Actual Results*

<table>
<thead>
<tr>
<th></th>
<th>Brinkerhoff’s Normal Results of Trainings</th>
<th>LPI 360-Feedback (n=13)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>20% Low usage</td>
<td>60% Medium usage</td>
</tr>
<tr>
<td>Brinkerhoff’s Normal</td>
<td>2.6 # (%)</td>
<td>7.8 # (%)</td>
</tr>
<tr>
<td>Results of Trainings</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Integration of Qualitative and Quantitative Data (Mixed Method)**

The purpose of this study was to determine the effectiveness of the Leadership Practice Inventory (LPI) 360-feedback for providing higher education leaders with insights into their own leadership behaviors. The purpose of the Mixed Method phase “integration” was to recognize the effect of the LPI facilitation process on the leaders’ experiences with the LPI 360-feedback results. This integration would help to give more justice to the evaluation of the LPI 360 tool and provide a robust interpretation to the leaders’ experiences with the LPI 360-feedback result. The interviews codes were sorted based on their relation to the LPI facilitation features. In other words, each positive and negative experience discovered during the interviews were linked directly to the related specific LPI facilitation feature. The integration results from cross-tabulating this data were presented in a table in order to simplify and visualize the relationships between the codes and the five LPI facilitation features.

**Summary**

The purpose of this study was to determine the effectiveness of the Leadership Practice Inventory (LPI) 360-feedback for providing academic leaders with insight into their own leadership behaviors in higher education. This chapter explains the population, sample and site, as well as how the data will be collected and analyzed. In addition, this chapter describes the critical roles of trustworthiness and requirements for data storage that the researcher needs to pay
close attention to during the study. The researcher provided significant and rich interpretation to the significant findings across the data collected.

This study employs a mixed method approach, which uses a convergent parallel design. In summarizing this research process, leaders were invited to the study through my adviser, known otherwise as the “Gate Keeper” or connection. Then I contacted them via email, with an invitation that contained the consent letter and some additional links about the LPI tool. Leaders who agree to participate were assigned to complete an LPI 360 assessment. They were allowed to assign their observers. I was the administrator and I was accountable for sending reminder emails to the observers who did not complete the LPI-Observer. When observers completed their surveys, I immediately informed the leaders, asked them to generate their report, sent to them the LPI reflection materials (e.g. LPI workbook/LPI Handouts, LPI Vision Book, LPI Practice Book, and Development Planner), and then scheduled a one-on-one interview discussion (Qualitative phase). During the interview, the Kano survey was conducted to measure leaders’ satisfaction levels about the five LPI facilitation features (Quantitative Phase). Importantly, the quantitative results represent only the leaders in the study, my sample, and is not able to be generalized to the population of higher education leaders. After six weeks from leaders’ interviews, leaders were contacted to answer one follow-up question. The follow-up question explored how leaders used what they had learned throughout the LPI 360-feedback process. The qualitative and quantitative data were analyzed separately. Then the qualitative and quantitative results were integrated to recognize the impact of the LPI facilitation process on the leaders’ experiences with the LPI 360-Feedback result. This mixed method gives justice to the evaluation of the LPI 360 and provides more robust interpretation about the leaders’ experiences.
CHAPTER 4

RESULTS

The purpose of this study was to determine the effectiveness of the Leadership Practice Inventory (LPI) 360-feedback for providing academic leaders with insight into their own leadership behaviors in higher education. Building on the factors and best practices that contribute to the success of a 360-feedback, three areas were investigated in this study: (a) How the LPI 360-feedback was facilitated, (b) evaluating the effect of the LPI 360-feedback on higher education leaders’ self-awareness, and (c) its effect on their self-development.

The overall research question and three sub-questions guiding this study included: How effective is the online LPI 360-feedback providing leaders’ insight into their own leadership behaviors in higher education?

1. How satisfied are higher education leaders with the LPI 360 facilitation process?
2. How effective is LPI 360-feedback as a tool for encouraging higher education leaders’ self-awareness?
3. How effective is LPI 360-feedback as a tool for encouraging higher education leaders’ self-development?

Population, Sample and Site

The target population of this study includes the deans and senior administrators at two higher education institutions, a public research university, and a college located in the Upper Midwest of the United States. Fourteen higher education leaders participated in this study, of which males comprised 43% and females 57%. The leaders’ job titles in the sample size were as follow, Vice President 14%, Associate Vice President 14%, Provost 7%, Associate Provost 29%, Executive Director 14%, Dean 14%, and Associate Dean 7%.
Data Analysis and Results

Two types of leaders’ experiences were focused on in this study: (a) leaders’ experiences with the LPI facilitation process and (b) leaders’ experiences with the LPI 360-feedback results/reports. The LPI facilitation process contains five features that I intentionally applied during this study. Leaders’ experiences with the LPI 360 results revealed the effect of the LPI on leaders’ personal insight into their leadership behaviors and self-development. The integration of the qualitative and quantitative results has provided more robust interpretation of the leaders’ perceptions of the effect of the LPI 360-feedback tool than either study method alone could (Figure 6).

**Figure 6**
The analysis framework for leaders’ experiences.
Leaders Experiences with LPI Facilitation Process Features (Quantitative)

The data for leaders’ experiences with the LPI facilitation process features were collecting via the Kano survey to examine the effect of the five facilitation features on leaders’ level of satisfaction with the facilitation process (e.g. only leaders have access to their results, leaders select their observers, etc.) The revised Kano Evaluation Table (Table 6) was used to determine how the leaders perceived the presence or absence the five LPI facilitation features.

Table 6
Revised Kano Evaluation Table

<table>
<thead>
<tr>
<th>Functional (Y) “Presence”</th>
<th>Dysfunctional (X) “Absence”</th>
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<td>R</td>
</tr>
<tr>
<td>Live With</td>
<td>R</td>
</tr>
<tr>
<td>Dislike</td>
<td>R</td>
</tr>
</tbody>
</table>

Note: (A) Attractive; (P) Performance; (M) Must-have; (I) Indifferent; (R) Reverse & (Q) Questionable.

Kano Evaluation Table

The Functional (Y) column explores how leaders feel about or like the presence of a feature in the LPI facilitation process, and the Dysfunctional (X) column explores how leaders would have felt if the same feature had not been included in the facilitation process.

The Kano Evaluation Table contains: (M) Must-have; (P) Performance; (A) Attractive; (I) Indifferent; (R) Reverse; (Q) Questionable. The Must-have category shows features which leaders expect to be included in the process, so those features do not increase leaders’ satisfaction level. If, however, those features were not present, the leaders would be extremely dissatisfied. The Performance category contains features that have a linear association with
leaders’ level of satisfaction when they are present and a decrease if they are absent. The
Attractive category represents features that affect a dramatic increase in leaders’ level of
satisfaction when they are present, but the leaders would be neutral if these features were not
included in the process. The Indifference category includes features that neither increase nor
decrease the leaders’ satisfaction level if they were included (present) or excluded (absent) from
the facilitation process. The Reverse category discloses features that reduced the leaders’
satisfaction because of their presence in the facilitation process. Lastly, the Questionable
category contains the selection that did not make sense. For example, a leader liked a feature to
be included in the facilitation process and like the same feature not be in the process. The Kano
equations listed below were used to be calculated the level of satisfaction associated with each
LPI facilitation process feature.

\[
\text{Equation (1): Level of Dissatisfaction} = \frac{P + M}{(A + P + M + I) * -1}
\]

\[
\text{Equation (2): Level of Satisfaction} = \frac{P + A}{A + P + M + I}
\]

The leaders’ level of satisfaction and dissatisfaction ranged from 1 to -1, where 1 represents a
high level of satisfaction and a feature that was well executed, and -1 represents a very low level
of satisfaction and a feature was executed poorly (Figure 7). The level of importance for having a
feature in the facilitation process was also collected. It ranged from 1 “Not Important” to 10
“Extremely Important”.

**Figure 3**
Visualization of the leaders’ preferences of a feature and its relation to the level of satisfaction.
Source:

**Kano Result**

During the interviews leaders were split into two groups:

1. “Reviewed Materials”: Leaders who used the workbook during their reading of the LPI 360 report, 36% (5/14), and
2. “Did Not Review”: Leaders who did not use the LPI workbook and just went through the LPI report, 57% (9/14)

As a result, leaders’ views about one feature of the facilitation process (F02) varied based on their “Material Review Status”, showing a sign of Simpson’s Paradox, which states “if two or more contingency tables are collapsed into one, the resulting table may show a relationship between variables different from those shown by any of the original tables” (Hintzman, 1980, p.
In order to separate out the differences, F02 cells were partitioned based on “Material Review Status”. In this section, four features will be interpreted, F01, F02, F04 and F05. But F03, which is “The LPI 360 license was provided free of charge”, will not be interpreted because I could not recruit leaders for this study and then ask them to pay $170 for an LPI 360 license.

**Feature 1: Only Leaders Have Access to their Results**

Research has proven that in order for a 360-feedback process to be effective, leaders’ 360 results have to be confidential and not shared with others (Vukotich, 2014; 3D Group, 2013; Conine Jr. et al., 2016; Lawrence, 2015; & Nowack, 2012.) Thus, in order to increase the level of confidentiality among leaders in the present study, they were allowed to generate their own reports.

Based on the Kano result, higher education leaders perceived F01 “Only leaders have access to their results” as a *Must-have* feature to be included in an LPI 360-Feedback process, with an average level of importance 8.4 out of 10 (Table 7). On the other hand, the absence of or not including feature F01 in the LPI facilitation process would have dramatically decreased the leaders’ satisfaction level by about 93%.

<table>
<thead>
<tr>
<th>Feature</th>
<th>M</th>
<th>P</th>
<th>A</th>
<th>I</th>
<th>R</th>
<th>Importance Level</th>
<th>Preference Category</th>
<th>Dissatisfaction Level if Not Included</th>
<th>Satisfaction Level if Included</th>
</tr>
</thead>
<tbody>
<tr>
<td>F01</td>
<td>6</td>
<td>7</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>8.43</td>
<td>M*</td>
<td>-0.93</td>
<td>0.5</td>
</tr>
</tbody>
</table>

*Note: * Following the Left-Most Win Rule.

**Feature 2: Additional Links of Videos and Journals Attached to the Leaders’ Invitation Emails**

An additional facilitation feature of the LPI 360 process is attaching links to videos and journals to the leaders’ invitation email. Leaders’ perspective of the additional links feature
varied based on whether or not they reviewed the LPI workbook when they read through their LPI 360 report. So, leaders’ “Material Review Status” was added as an independent variable to partition F02 cells to avoid the Simpson’s Paradox issue (Table 8).

Table 8
Facilitation Features, Preference Category, Dissatisfaction and Satisfaction Level

<table>
<thead>
<tr>
<th>Facilitation Features</th>
<th>Review Status</th>
<th>M</th>
<th>P</th>
<th>A</th>
<th>I</th>
<th>R</th>
<th>Preference Category</th>
<th>Dissatisfaction Level if Not Included</th>
<th>Satisfaction Level if Included</th>
</tr>
</thead>
<tbody>
<tr>
<td>F02</td>
<td>Yes</td>
<td>0</td>
<td>3 (60%)</td>
<td>2 (40%)</td>
<td>0</td>
<td>0</td>
<td>P</td>
<td>-0.6</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>0</td>
<td>0</td>
<td>2 (22%)</td>
<td>7 (78%)</td>
<td>0</td>
<td>I</td>
<td>0</td>
<td>0.22</td>
</tr>
</tbody>
</table>

As shown in Table 8 only 22% (2/9) of the leaders who did not review the materials felt that having the additional links was important to them, while 78% (7/9) felt indifferent about the F02 feature. So, those 78% leaders’ satisfaction level would not have been affected by including or excluding the additional links (Figure 8).

On the other hand, leaders who used the LPI workbook while reading through their LPI reports perceived the addition links (F02) as an important feature for them. Around 60% of these leaders perceived including this feature as a “Performance”, in that providing more of this feature would have increased their satisfaction level. Moreover, around 40% of leaders who reviewed materials perceived including the F02 feature as “Attractive”, which indicates that the additional links feature dramatically increased those leaders’ satisfaction level about the LPI 360-feedback process. Finally, including the additional links feature had a high effect increasing leaders’ satisfaction level. However, if this feature had not been included, it is estimated that leaders’ satisfaction level may have decreased almost 60% (Figure 8).
Feature 4: Leaders Able to Select their Observers

Leaders in this study were given the choice to select the observers they wanted. My philosophy was that since the reason for the implementation of the LPI 360-feedback is to develop leaders, leaders need to be able to select who they trust to help them with this learning process.

Kano results for this study revealed that 64% (9/14) of the higher education leaders perceived that “Leaders ability to select their observers” as a “Performance” feature, with an importance level of 7.4 out of 10. Performance features have a linear association with leaders’
satisfaction levels, so given more opportunity for self-selection increases leaders level of satisfaction linearly. It was estimated that F04 has an effect of increasing the leaders’ satisfaction level of the LPI 360 process by 64% (Table 9). However, if this feature had not been included in this LPI 360-feedback study, leaders’ level of satisfaction may have decreased 71%.

Table 9
Facilitation Features, Preference Category, Dissatisfaction and Satisfaction Level

<table>
<thead>
<tr>
<th>Feature</th>
<th>M</th>
<th>P</th>
<th>A</th>
<th>I</th>
<th>R</th>
<th>Importance Level</th>
<th>Preference Category</th>
<th>Dissatisfaction Level if Not Included</th>
<th>Satisfaction Level if Included</th>
</tr>
</thead>
<tbody>
<tr>
<td>F04</td>
<td>1</td>
<td>9</td>
<td>0</td>
<td>4</td>
<td>0</td>
<td>7.36</td>
<td>P</td>
<td>-0.71</td>
<td>0.64</td>
</tr>
</tbody>
</table>

**Feature 5: Observer Responses Consisted Solely of Numeric Feedback**

The last facilitation feature that was included in the LPI 360 facilitation process was “Observer responses consisted solely of numeric feedback” (F05). As the facilitator, I have the opportunity to create the standard LPI assessment with the 30 behavioral statements (Appendix F) or to add extra open-ended questions to leaders’ LPI survey. I did not add any extra open-ended questions because Atwater (2005) suggested that providing numeric feedback would reduce leaders’ negative reaction when they received negative feedback.

In fact, the results of the Kano analysis for this study rejects Atwater’s suggestion, while close to 57% (8/14) of leaders were not satisfied with the numeric report, only 29% (4/14) of the leaders were satisfied. I could not calculate leaders’ dissatisfaction level since the Kano equations do not include “Reverse” into the equation (Table 10). The interpretation of the satisfaction levels is not complete because the Reverse category was not included in the Kano equation. So, the satisfaction level that was calculated represents just leaders who are in the P, A,
and I categories. The take away from Feature 5 was that the majority of the leaders in this study did not agree with the studies that suggested only using a numeric report as a preferred option.

\[
Level of Dissatisfaction = \frac{P + M}{(A + P + M + I) * -1}
\]

\[
Level of Satisfaction = \frac{P + A}{A + P + M + I}
\]

Table 10
Facilitation Features, Preference Category, Dissatisfaction and Satisfaction Level

<table>
<thead>
<tr>
<th>Feature</th>
<th>M</th>
<th>P</th>
<th>A</th>
<th>I</th>
<th>R</th>
<th>Importance Level</th>
<th>Preference Category</th>
<th>Dissatisfaction Level if Not Included</th>
<th>Satisfaction Level if Included</th>
</tr>
</thead>
<tbody>
<tr>
<td>F05</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>8</td>
<td>4.57</td>
<td>R</td>
<td>-0.5</td>
<td>0.67</td>
</tr>
</tbody>
</table>

Leaders’ Experiences with Their LPI 360-Feedback Reports (Qualitative)

One of the primary expected benefits of using the LPI 360-Feedback is to provide leaders with personal insights into their own leadership behaviors. According to the Leadership Challenge website, “Leaders will gain deep insight into how they see themselves as leaders, how others view them, and what actions they can take to improve their effectiveness” (The Leadership Challenge, n.d.). Thus, the purpose of conducting the interviews was to understand in-depth how effective the LPI 360-feedback process was on eliciting leaders’ personal insights into their own leadership skills and behaviors.

Category 1: Personal Insight

Four topics were focused on during the interview to explore the effect of the online LPI 360-Feedback on higher education leaders' personal insight (Table 11):
1. Whether or not the LPI 360-Feedback shows how higher education leaders’ leadership behaviors were perceived by others.

2. Recognition of behaviors that are needed to correct or improve leaders’ leadership behaviors.

3. Whether the online LPI 360-Feedback helped higher education leaders to discover what their followers need from them.

4. Whether or not the LPI 360 disclosed actions or behaviors that leaders were not aware of.

Those four sub-questions formed the four sub-categories associated with the *Personal Insight* category.

### Table 11

*Personal Insight and the Patterns Among 13 Leaders*

<table>
<thead>
<tr>
<th>1. Personal Insight</th>
<th>L1</th>
<th>L2</th>
<th>L3</th>
<th>L4</th>
<th>L5</th>
<th>L6</th>
<th>L7</th>
<th>L8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Perceived by others.</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>1.2 Behaviors need improvements.</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>-</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>1.3 Followers needs</td>
<td>Y</td>
<td>LT</td>
<td>LT</td>
<td>Y</td>
<td>N</td>
<td>-</td>
<td>LT</td>
<td>LT</td>
</tr>
<tr>
<td>1.4 Behaviors not aware of.</td>
<td>N</td>
<td>LT</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>-</td>
<td>Y</td>
<td>N</td>
</tr>
</tbody>
</table>

**Continue…**

<table>
<thead>
<tr>
<th>1.</th>
<th>L9</th>
<th>L10</th>
<th>L11</th>
<th>L12</th>
<th>L13</th>
<th>Yes</th>
<th>Little bit</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>100%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>1.2</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>92%</td>
<td>0%</td>
<td>8%</td>
</tr>
<tr>
<td>1.3</td>
<td>Y</td>
<td>Y</td>
<td>LT</td>
<td>LT</td>
<td>Y</td>
<td>42%</td>
<td>50%</td>
<td>8%</td>
</tr>
<tr>
<td>1.4</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>50%</td>
<td>8%</td>
<td>42%</td>
</tr>
</tbody>
</table>

Note: Y (Yes); N (No); LT (A little bit)

- Questions were not answered due to the limited time L6 had.

**Sub-category 1.1: LPI 360-feedback helped leaders to see how their leadership behaviors are perceived by others.** The primary reason of implementing a 360 process is to show the self/other discrepancy scores. So, it is not surprising that all of the participants in this study shared that the LPI 360 feedback provided them with information about how their
leadership behaviors were perceived by their observers. The surprising part, however, was how the participants responded to the discovery of the self/other-discrepancy and how they reacted to the information.

Three clusters emerged during the analysis phase in response, with sub-category 1.1 representing the leaders' attitudes toward the discrepancy: (a) anger, (b) confusion, or (c) appreciation. In addition, leaders who were confused when they discovered the variance between their views about themselves compared to their observers' view were partitioned into two emerged sub-clusters of how they reacted to the confusion: (a) leaders who decided to seek an answer, and (b) leaders who did not show signs of seeking an answer (Figure 9).

![Figure 9: Visualizations of the effect of the LPI 360 on leaders’ personal insight and leaders’ reactions toward the discovery.](image)

Only one leader showed some signs of anger when discussing the self/other discrepancy. That leader stated, “That kind of bothers me because it's, like, why can’t people just have those conversations? You know, it is kind of an abrasive way to find out somebody's not happy with you.” Separate from this leader’s isolated reaction, around 31% (4/13) of leaders developed a feeling of confusion regarding the discrepancy. Of those, 50% (2/4) decided to seek answers,
while the other 50% did not show signs of willingness to seek answers. The most significant leaders’ reaction toward the discrepancy as perceived by others was gratitude instead. Around 61% (8/13) of the higher education leaders in this study appreciated the self/other-discrepancy they received.

A leader who was sorted into the appreciation cluster stated that:

There were other areas where I thought that the 360 could be beneficial to me. So, yeah, there were areas where I thought I was doing a wonderful job and others didn't see it the same way. That's helpful information to have.

Another leader expressing his appreciation stated that:

I cringed a little bit [hahahaha], thinking about what people are saying. But nobody uses this opportunity to take potshots or rate me a really low. I think people get an honest appraisal, and I really appreciate that. Well it is a little bit hard to see it on paper.

Regarding the leaders who felt a little confused and attempted to seek answers, a leader shared that:

I have told that I am a good leader I was pleased to see that they also think I am encourages the heart. But I am really disturbed by this, that somehow that their lowest were my highest. So, that is a real disconnect that I have to figure out.

**Sub-category 1.2: The LPI 360-feedback helped leaders recognize behaviors that need improvement.** Intuitively, since all leaders agreed that the LPI 360 feedback helped them to see how their leadership behaviors were perceived by others, they would be more likely to recognize some of the leadership behaviors that needed correction or enhancement. So, almost 92% (11/12) agreed that the LPI 360 feedback helped them see some behaviors that needed improvement.
Interestingly, some leaders who will be stepping down soon from their leadership roles due to their ages wished that they had known about the LPI 30 behavioral statements when they started their leadership positions. Other leaders were pleased that they had the opportunity to complete the LPI 360-feedback, since they are still new at their leadership role. One leader shared:

I am pretty senior. I am almost done with my career. It is probably not that high on my list. Although I think I am always interested in learning and improving. So, I think if this was early in my career, it would be really important at that time.

Another leader who was promoted to a new leadership position perceived the LPI 30 behavioral statements as a baseline for her journey in her new role and stated that:

Last year I had a title change to***. That is also changed in some ways the expectations of what I am to do, and how I am to function in the big picture. So, this was really important to me so that I had a baseline and a place to start. I want to continue to develop as a leader.

While 92% agreed that the LPI help them to recognize the behaviors that need improvement, only one leader stated "No" because she received extremely highly positive observers’ ratings. She expressed her disappointment stating that “I don't know if they were just quick really [She waved her right hand up and down with little expression on her face], not putting much effort into that or just wanted to be nice.” This leader could not recognize behaviors that needed improvement. She stated that “Not from the observers because the observers scored me higher than my own rating of the questions, and I said, ahh yeah, I could do more of that, I could do that better.” That leader was just trying to recognize what needed to be adopted from the 30 behavioral statements for her job. She concluded that "I was reading
through the questions in and self-assist, and said, oh yeah, this is something I should do more. The big surprise is that my colleagues thought that I was doing fine on those."

**Sub-category 1.3: The LPI 360-feedback helped leaders to know what their followers need from them.** In general, one of the primary objectives of implementing a 360-feedback is to open a window for leaders to see what their followers need from them. Helping leaders recognize what their followers need would make it more likely that they would develop themselves and move toward forming an effective team. In terms of the LPI 360-feedback, around 42% (5/12) of the higher education leaders found the LPI 360 report helped them discover what their followers needed from them, while 50% (6) stated it only helped a little bit.

Forty-two percent of leaders shared a clear-cut example of what their followers needed from them. A leader shared that:

There is one on here about showing appreciation, but I realized that we don't always have time to have parties or award ceremonies. So, I have already started to say good job more or telling people keep up the good work. Just trying to find little ways to make them feel more appreciated, when we cannot have a big formal celebration. So, it shows you what they are asking for.

Another leader who is almost one year at the leadership position offered:

Yes, it did. They are looking for a person to model when it comes to the strategic planning and assessment. They are looking for the inspired vision, which is interesting because each department has a vision, and then student affairs has a vision, and so it's really them looking for a shared vision at the bigger level. So, they're looking to me to help them with that.
However, almost 50% (6/12) of the study participants stated that the LPI report helped only a little bit to recognize what their followers needed from them. Some of the root cause of this lack to recognize the needs refers to three emerged problems: (a) lack of the open-ended questions in the LPI report, (b) receiving overwhelmingly high positive feedback, and (c) low observers’ responding rate. Based on the lack of open ended-questions a leader stated that:

Here the qualitative part I think would be helpful where it's not clear to me that some of my team members want me to spend more time talking about the future of higher education or the mission and vision of our unit. Maybe they do. But maybe they have a lot of other ideas about what they need and want for me. Maybe they want to me to be responsive on email or something.

Another leader shared that "I guess qualitative data would be helpful in that.

What’s skewing those numbers to such a degree?" Due to the lack of open-ended questions in the LPI report, a leader decided to meet with her team to learn more about what they needed from her. She stated that:

I think a little bit. There is this area that I was in sixes and I think there is a four, but I'm not sure I understand what that is? So, forget which one it was. What can we learn when things don't go as expected? Because I'm thinking I just didn't get that. So, I really have to understand what is going on there?

Regarding the second root cause problem of the lack of recognizing observers needs is referred to the high positive feedback that leaders received. A leader shared that:

I don't know I guess I want to spend some more time with it and going into more detail and think about it. Because I have scanned, I have read through it, I was pleased overall
with the feedback, which was overwhelming like positive, as far as what followers needs from me. Though, I guess I would want to know more from them.

Lastly, only one leader stated that the LPI report did not provide her with information about what her followers need from her due to the low observers’ responding rates. She shared that “Well I think it would have maybe been more so if I have more participants, I'm not pretty sure. They are 5 [observers responded] and I think, I gave you 10 names. So, that's half of my responses.”

**Sub-category 1.4: LPI 360-feedback helped to discover actions or behaviors that I was not aware of.** Almost 58% of the interviewed leaders stated that the LPI 360-Feedback helped them to discover some actions and behaviors that they were not aware of. A leader shared what was discovered with some frustration stating that “There is one that is really surprising and disturbing to me is: Clear about her philosophy of leadership!! Like I said, I think I'm really direct.” Similarly, another leader shared that:

This one has me a little worried too: *Publicly recognizing people who make a commitment.* One of my staff thought I was awful, somehow, they didn't get recognized for something. And that is totally against my beliefs and I hope my behavior. But obviously there is something happened here that they didn't feel recognized for the work they have done. That surprises me.

Another leader shocked when the LPI 360 report showed her that her followers perceived her as a controlling person. She shared that:

There was one that says: *Gives people a great deal of freedom and choice in deciding how to do their work.* I was like, I am not sure where that comes from! That suggested, I
am controlling [hahahah] This is where when I said, what does that mean? I need to learn more about those scores!

**Follow-Up Question Results**

Based on the *Success Case Method* of testing the effectiveness of a training program, facilitators should not evaluate the outcome of a training program too soon. So, the 13 leader participants were contacted six weeks after their interviews to answer a follow-up question. They were not notified that they would be asked whether they applied what they learned or not. I just asked them during the interview for a follow-up interview, if necessary.

In terms of indicating the success of a workshop, Brinkerhoff’s (2003) stated that the normal success of a training program follows the rules of 20% (low usage of the skills learned), 60% (medium usage of the skills learned), and 20% (high usage of the skills learned). The results of the follow-up emails and interviews illustrated that 38% (5) leaders into the low usage category, around 8% (1) into the medium usage category, and 54% (7) into the high usage category (Table 12).

**Table 12**

*Expected Results versus Actual Results*

<table>
<thead>
<tr>
<th>Brinkerhoff’s Normal Results of Trainings</th>
<th>20% Low usage</th>
<th>60% Medium usage</th>
<th>20% High usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>LPI 360-Feedback (n=13)</td>
<td>Expected</td>
<td>Observed</td>
<td>Expected</td>
</tr>
<tr>
<td></td>
<td>2.6</td>
<td>5 (38%)</td>
<td>7.8</td>
</tr>
</tbody>
</table>

**Low Usage Category**

Around 38% of the leaders in this study did not use the skills they learned during the LPI 360-feedback process and fall within the low usage category. A leader responded to the
Follow-up question stating, “Thank you for the note. I have no new experiences or insights to add. Thank you for asking.” Similarly, a leader stated, “Thanks for the follow-up question, but I don’t have anything new to report since March.”

Medium Usage Category

Around 8% (1/13) were categorized as medium usage, since he is still attempting to follow-up with his followers. He responded, “I really haven't been able to think about this since we talked at the end of March. My plan is to sit down and have a discussion with the four people who report to me and talk about the results and where I can be more effective.”

High Usage Category

Almost 54% of the participated leaders in this study were within the high usage category. However, those leaders vary in term of how they benefited from the LPI participation. Based on their responses to the follow-up emails, three sub-categories emerged explaining what leaders did: (a) discussed their feedback with their observers, (b) became more conscious of their leadership behaviors, and (c) are seeking more leadership development opportunities.

Discussed their feedback with their observers. According to the LPI Handouts by Kouzes and Posner (2013), “Research has shown that people are more likely to honor their commitments when they share them with others” (p. 29). Around 15% (2/13) of the leaders met with their observers and discussed their feedback. A leader shared that:

I did have a discussion with my observers about helping me improve in the areas of weakness, especially in areas where I thought I was strong…Some new insights were gained and I am working on one especially hard thanking and giving recognition to the staff that they felt was going unnoticed.

Another leader responded that:
Shortly after I completed the LPI 360, I was also hearing from a couple staff members that they would welcome hearing more of my vision for the college I serve...The visionary part of leadership was one of my lower scoring areas. I prepared a handout and at one of our all-staff meetings, I shared my vision for the college. I would say it was well-received…I also became more aware, along with visioning skills, of a desire to be more inspiring.

**Became more conscious of their leadership behaviors.** Around 31% (4/13) of the leaders did not discuss their results with their followers, rather they started leading with more consciousness of what they were lower at in the LPI 360 report. A leader shared that “My insight would be that the individuals that I lead vary greatly in their attitudes toward my leadership. I have tried to be more cognizant of their individual needs and take more time for emotional support.” In addition, a leader revealed that:

> I have been conducting sessions with all of the 5 offices that report to *** We are in the process of visualizing a reorganization of our department, removing the silos and reducing replication of services while realigning staff with their strengths or building new opportunities. This process has required developing leadership strategies among the staff in discussing the changes we hope to implement. Consequently, leadership skills are being developed in a broader base than in my position alone. That is an unexpected but good outcome.

Lastly, a leader shared that:

> Again, the combination of the LPI and the HDMI brain mapping activity has been very helpful. I have consciously made an effort to focus on areas that were identified in both assessments as areas where I could use some improvement…I have made a conscious
effort to speak more about the value of what we do in higher education, at the university, and within my unit. And, even though I received very positive feedback about my public praise of others, I’ve tried to redouble my efforts on that front as it seemed like a good reminder and opportunity to do so.

**Seeking more leadership development opportunities.** In addition to the high usage category, around 8% (1/13) shared their next steps to extend their knowledge about leadership. A leader stating that “Thanks for the message. Actually, I’ve been looking at various leadership conferences since our interview to enhance my skills.”

**Quantitative and Qualitative Integration (Mixed Method)**

The purpose of the quantitative and qualitative integration was to identify the effect of the LPI facilitation process on the leaders’ experiences with the LPI 360-feedback results. This integration would help to give more weight to the evaluation of the LPI 360 tool and provide a robust interpretation to the leaders’ experiences with the LPI 360-feedback result. A cross tabulation was used to link and present the effects (Table 13).

**Facilitation Feature 1: Only Leaders Have Access to Their Results vs. Its Effect on Leaders Experiences**

The first feature added to the process was that only leaders could access their LPI 360 report to generate it, unless they gave permission to the researcher to generate it for them. The purpose of implementing this feature in this study was to assure the leaders’ confidentiality of their responses throughout the study. The implementation of this feature played an important role because leaders felt confident knowing their reports would not be shared with anyone, even their supervisors.
In average leaders rated the importance of having this feature in the LPI facilitation process as 8.43 out of 10; representing an extremely important feature. In addition, not including this feature, F01, would have an impact of decreasing the leaders’ satisfaction level by 93%. The interviews revealed how including F01 positively effecting leaders’ experiences.

Positive Effect 1.1: Feeling safe. During the interview, a leader shared his impression about the importance of having a confidential feature like F01 during the implementation of the LPI 360-feedback:

You want to make sure that the information that is gathered is confidential because, you know, I don't share any personnel files with anybody. You have to make sure that this information is generic in nature and cannot be used by a third party.

Another leader shared that “I think people in management positions don't want something to come back to haunt them.” Therefore, including this facilitation feature increased leaders’ confidentiality and “Feeling Safe.”
Table 13
Cross Tabulate, Facilitation Features vs. Negative Effect and Positive Effect

<table>
<thead>
<tr>
<th>ID</th>
<th>Facilitation Features</th>
<th>Preference Category</th>
<th>Positive Effect</th>
<th>Negative Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>F01</td>
<td>Confidential Feature</td>
<td>M*</td>
<td>1.1 Feeling safe.</td>
<td>-</td>
</tr>
<tr>
<td>F02†</td>
<td>Additional links of videos and journals your invitation to participate.</td>
<td>I</td>
<td>2.1 Trusting the Provided Feedback.</td>
<td>-</td>
</tr>
<tr>
<td>F02‡</td>
<td>Additional links of videos and journals your invitation to participate.</td>
<td>P</td>
<td>4.1 Ability of including external groups.</td>
<td>4.3 Receiving overwhelmingly positive feedback</td>
</tr>
<tr>
<td>F03</td>
<td>The 360-Feedback tool free of charge.</td>
<td>A</td>
<td>4.2 Having a discussion with their teams.</td>
<td>-</td>
</tr>
<tr>
<td>F04</td>
<td>Able to self-select your observers.</td>
<td>P</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F05</td>
<td>Observer responses consisted solely of numeric feedback.</td>
<td>R</td>
<td></td>
<td>5.1 Confusion.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5.2 Misinterpretation the result.</td>
</tr>
</tbody>
</table>

Note: * Following the Left-Most Win rule.
† Leaders who did not review the LPI workbook
‡ Leaders who did review the LPI workbook
- No effect was Recorded
Facilitation Feature 2: Additional Links of Videos and Journals were Attached to the Leaders’ Invitation Emails vs. Its Effect on Leaders Experiences

The attached links were a sample of an LPI report, reflection materials that comes with the online LPI package, a journal discussing the history of the LPI, and a study showing the validity and reliability of the LPI tool. The purpose of adding the additional links to the LPI facilitation process was to introduce the LPI tool to the leaders and increase its trustworthiness.

Feature 2 cells were partitioned based on leaders’ material review status (review vs. did not review). Leaders who reviewed the LPI workbook were highly satisfied with this feature and perceived the additional links of videos and journals feature as “Performance,” as presented previously on Table 8.

Including Feature 2 in the facilitation process affected leaders’ experiences with LPI 360-feedback positively. It increased leaders’ trust of the provided results, regardless of the nature of the feedback (positive or negative).

Positive Effect 2.1: Trusting the provided 360-feedback. The interview revealed further explanation of how the important the additional links were. A leader shared that:

knowing also that this [LPI 360] has been a long established…and that they collected the data and used that for some comparative stuff that was also reassuring I think, because it is not some fly-by-night somebody was testing out, or somebody throws up in the internet, but there are a lot of research has been done into this to come up with these dimensions, that they believe are important and they have honed the assessment tool for some time.

Similarly, another leader stated, “Again this idea of why you can trust it [LPI 360 report] just reminds you that it is not some fly-by-night.”
Facilitation Feature 4: Leaders Able to Select Their Observers vs. Its Effect on Leaders Experiences

Since the objective of the implementation of the LPI 360 was a developmental not an evaluating purpose, leaders were given the opportunity to select who they trusted to be part of their learning process. Kano results revealed that 64% of the higher education leaders perceived the self-selection as a “Performance” feature, with an importance level of 7.4 out of 10 and a level of satisfaction of 64%. Two positive effects were discovered during the interviews due to the including of feature 4: (a) the ability of including external groups, and (b) the ability to have a discussion after with the raters. One negative effect occurred with one leader where her observers provided her with overwhelmingly positive feedback.

**Positive Effect 4.1: Ability of including external groups.** The interviews revealed that because of Feature 4 some leaders had the opportunity to assign colleagues from their previous jobs as “Others”, to compare their perceptions with their “Direct report.” In addition, applying the self-selection features enabled a leader who was new in his leadership position, just three months, to select some observers from his previous leadership role, since he did not have enough observers in his current position. This leader stated that:

Well one of the things that I like about this tool is the 360 aspects of getting people at different parts of the system. For me getting my previous administrators who were above me in the college and also people who reported to me.

In addition, a leader expressed one of his wishes to add more observers if he had a chance to engage with another LPI 360-feedback, since he had the opportunity to select the observers he wanted:
The one thing I guess I would have liked more of it and this goes back to the question about self-selecting your respondents. I would have loved to have had [some of the external stakeholders]. I work a lot with faculty with chairs with the other dean's and associate dean's other associate provost and in a lot of ways they are a lot of my external stakeholders, and I would love to have had some of them.

**Positive Effect 4.2: Enabling leaders to have a discussion with their teams.** Due to the implementation of the self-selection, leaders were able to follow-up with their teams to discuss their result and learn more about their followers’ needs. A leader who received negative feedback on some of the leadership behaviors that she did not pay attention to, decided to clarify some of the confusion by meeting with her observers for further information beyond the LPI 360 report. The leader stated that with a little surprising emotion:

I'm not sure I understand what that is? What can we learn when things don't go as expected? Because I'm thinking, I just didn't get that. So, I really have to understand what is going on there. How do I interpret this in the context of what I do? I need to have that conversation with my staff, so I can say okay can you explain more to me about what that means?

Another leader stated that:

They knew that I was taking this because they were invited to participate. So, it would probably be helpful for me to review the results with them for the benefit of our office and to help me be better at working with them and achieving the mission of this department.
Moreover, a leader responded to the follow-up email stating, “The visionary part of leadership was one of my lower scoring areas. I prepared a handout and at one of our all-staff meetings, I shared my vision for the college. I would say it was well-received.”

**Negative Effect 4.3: Receiving overwhelmingly positive feedback.** One leader ran with the overwhelmingly positive feedback issue, she expressed her disappointment stating that “I don’t know if they were just quick really [She waved her right hand up and down with little expression on her face], not putting much effort into that, or just wanted to be nice.” This leader could not recognize behaviors that needed improvement. She stated that “Not from the observers because the observers scored me higher than my own rating of the questions, and I said, oh yeah, I could do more of that, I could do that better.” That leader was just trying to recognize what needed to be adopted from the 30 behavioral statements to her job. She concluded that “I was reading through the questions in and self-assist, and said, oh yeah, this something I should do more. The big surprise is that my colleagues thought that I was doing fine on those.”

**Facilitation Feature 5: Observer Responses Consisted Solely of Numeric Feedback vs. Its Effect on Leaders Experiences**

The LPI system allows LPI facilitators/administrators to either create the standard LPI with the 30 behavioral statements or add some open-ended questions. I followed Atwater’s (2005) suggestion, which is that providing numeric feedback would reduce leaders’ negative reaction when they received negative feedback.

However, the Kano result rejected Atwater’s suggestion, where 57% (8/14) of the leaders were not satisfied with the numeric feedback. Having only numeric feature not only decreased leaders’ satisfaction level but also caused: (a) confusion and (b) misinterpretation the LPI 360 results.
Negative effect 5.1: Confusion. The interview revealed that 50% (6/12) of the participated higher education leaders stated that the LPI report helped them only a little bit to recognize what their followers needed from them, while 8% (1/12) stated “No” the report did not. Leaders attributed their inability to understand what their followers need from them to the lack of open-ended questions in the 360 report. A leader shared that “They were so inconsistent that's all that I learned. I went from 10 to 3.” Another leader considered the lack of open-ended questions as a major limitation of the LPI report:

The other major limitation for me really was the lack of feedback other than numerical.

So, it would be really nice to have some ability to get comments and more in-depth kind explanation of why people select this certain number.

In addition, a leader argued that if there were open-ended questions would solve some of the confusion stating that:

Here the qualitative part I think would be helpful where it's not clear to me that some of my team members want me to spend more time talking about the future of higher education or the mission and vision of our unit. Maybe they do. But maybe they have a lot of other ideas about what they need and want from me. Maybe they want to be responsive on email or something… I appreciate feedback but there's something about this process. That individuals can give you negative feedback without being accountable to that or having an avenue to fix it with any one individual.

Moreover, a leader shared that:

There is this area that I was in sixes and I think there is a four, but I'm not sure I understand what that is? What can we learn when things don't go as expected? Because I'm thinking I just didn't get that. So, I really have to understand what is going on there?
Negative effect 5.2: Misinterpretation of the result. The term “misinterpretation” refers to leaders who may have some negative thoughts (e.g. personal issues or any types of racism) toward their observers because they rated their leaders much lower than expected. A leader shared that with a little frustration:

I guess qualitative data would be helpful in that. What skewing the numbers in such a degree! I am a qualitative researcher, so I want to know what is happening underneath that. What are the different variables that would cause one person to respond so dramatically differently than another?

Another leader revealed that:

It could be possibility, because I wonder about this person who rated me that way. They perceive your interactions based on their perspective that could be perceived as a negative appraisal of me or as a bias of my own.

Lastly a leader stated that:

There was probably one observer who rated me kind of lower in stuff, so I did myself kind of paying attention to that a little more, I was wondering who that person was! But I didn't fret about it too much.

Brinkerhoff’s Normal Training Results vs. Leaders’ Reactions Toward Self/Other-Discrepancy

The purpose of this integration is to investigate the association between the 20%, 60%, 20% rule (Table 12) and leaders’ reaction toward the feedback they received (Figure 9). Leaders reactions toward their observers’ rating varied, where 8% (1/13) developed feeling of anger, feeling of confutation 31% (8/13), and 61% (4/13) of the leaders appreciated the feedback regardless of its nature whether it was a negative or a positive.
Though leaders vary in terms of their reactions toward the self/other-discrepancy, their reactions did not hinder their using what they learned from the LPI 360-feedback (Figure 10). The high usage category consists of 54% (6/13) of the participated leaders regardless of their previous reactions toward the discrepancy. Around 50% (4/8) of the leaders who appreciated the discrepancy were into the high usage category. Also, one leader who developed an anger feeling, and 50% (2/4) of the leaders who developed a feeling of confusion were into high usage category.

On the other hand, the low usage category contains both leaders who appreciated the discrepancy and those who developed a feeling of confusion during their LPI 360 reports review. Leaders who appreciated the LPI 360 feedback and did not use what they learned around 38% (3/8), and leaders who was confused about the meaning of the discrepancy and did not use what their learned 50% (2/4). The visualization of those relationship (Figure 10) suggested that among the participated leaders in this study, there was no associations between leaders’ initial reactions towered the discrepancy and their usage of what they learned from the LPI 360-feedback process.
Figure 10

Brinkerhoff’s normal training results vs. leaders’ reactions toward self/other-discrepancy.
Brinkerhoff’s Usage Categories vs. Higher Education Leaders’ Job Title

The sample size in this study contains: Vice President 14%, Associate Vice President 14%, Provost 7%, Associate Provost 29%, Executive Director 14%, Dean 14%, and Associate Dean 7%. Some studies found that lack of openness to receive a 360 feedback and to change leadership behaviors were associated with high position leaders (Atwater et al., 2007; Brown, 2001; Furnham, 2010 & Tang et al. 2013). Thus, the purpose of this examination was to discover the association between Brinkerhoff’s usage categories and leaders’ job titles among the participated leaders in this study. Importantly, the quantitative data provided in this study was not maximized (using Maximum Likelihood Estimation equations), and so the findings represent only the leaders who participated in this study.

Based on (Figure 11), leaders were spared across the Brinkerhoff’s usage categories without showing any clear cluster of a job title than another across the three usage categories, which may suggest that leaders’ job titles and positions do not have a clear association between higher education leaders’ job title and their usage level of the LPI 360-feedback.

Low usage category contains a variety of leadership positions, starting from Associate Vice President to Dean position. In addition, high usage consists of all leadership position roles with a high percentage of Associate Provosts 15%. Despite leaders’ leadership positions in this study, they engaged with the self-development step to further improve their leadership skills to be more effective. Thus, the finding of this integration did not align with Atwater (2007), Brown (2001), Furnham (2010) and Tang (2013) findings.
Figure 11

Brinkerhoff’s usage category vs. leaders’ job title.
Findings Applied to Research Questions

The purpose of this study is to determine the effectiveness of the Leadership Practice Inventory (LPI) 360-feedback for providing higher education leaders with insight into their own leadership behaviors. Three sub-questions drove this study: (a) how satisfied are higher education leaders with the LPI 360 facilitation process? (b) how effective is LPI 360-Feedback as a tool for encouraging higher education leaders’ self-awareness? And (c) how effective is LPI 360-Feedback as a tool for encouraging higher education leaders’ self-development?

Sub-Question 1: How Satisfied Higher Education Leaders are with the LPI 360 Facilitation Process?

There were five LPI facilitation features were implemented to facilitate the online LPI 360-feedback: (a) only leaders have access to their results (F01), (b) additional links of videos and journals attached to the leaders’ invitation email (F02), (c) the 360-feedback tool provided free of charge (F03), (d) leaders were able to select their observers (F04), and (e) observer responses consisted solely of numeric feedback (F05).

Kirkpatrick (2006) emphasized the important of evaluating not only the outcome of a training program on trainees, but also the participants’ reactions in term of the quality of facilitation. In terms of the LPI facilitation process in this study, the Qualitative-Quantitative Integration section revealed that in general, leaders were highly satisfied with the inclusion of F01, F02, F03 and F04 to the LPI facilitation process. Those four features caused positive effects on leaders’ experiences and learning. Unfortunately, leaders were not satisfied with the numeric report feature (F05) and, sadly, the inclusion of this feature negatively affected 57% of the leaders in this study.
Regarding the emerged effect which associated with each LPI facilitation feature, creating an opportunity for leaders to generate their reports by themselves (F01) has a positive effect on leaders’ level of confidentiality, where their 360 reports would not be shared with anyone. In addition, when leaders were provided with additional links of videos and journals attached to their invitation emails (F02), they trusted the LPI items (30 behavioral statements), because they understood the LPI was research-based, and dependable in its validity and reliability. On this basis, they accepted and trusted the scores they received. Though the LPI 360 license were provided for free because of the study (F03), they perceived this feature to be “Attractive” and hoped their institutions provided them with a free access to an LPI 360 for their development. Moreover, enabling leaders to select their observers (F04) helped them to conduct follow-up discussions with their observers, as well as opened an opportunity for other leaders to include some external observers. Including external observers were beneficial more for one of the leaders who had just three months in his leadership position. However, there was one negative incident happened due to the observers’ self-selection feature. A leader who select just two observers received overwhelmingly positive feedback and that leader stated, “I don't know if they were just quick really [She waved her right hand up and down with little expression on her face] not putting much effort into that, or just wanted to be nice.” (Qualitative-Quantitative Integration section)

Regarding effect of (F05), where the observer responses consisted solely of numeric feedback, it was the biggest failure in this LPI facilitation process. According to the data, two major issues occurred due to the lack of open-ended questions in the LPI report: (a) caused some confusions among some leaders, (b) led some leaders to misinterpret the self/other discrepancy.
Some leaders translated the discrepancy as a personal issue or biased based on some types of racism. A leader shared that:

I think that sometimes people view you as having biases that you may not be aware of. They may see that you show favor for one or more the other beyond the work and could be perceived as personal. And if I'm not aware of that, or if I don't pay attention to that possibility, that could be challenging…(For example,) I wonder about this person who rated me that way. [Looking at her results.] They perceive your interactions based on their perspective that could be perceived as a negative appraisal of me or as a bias of my own.

**Sub-Question 2: How is an LPI 360-Feedback Effective for Higher Education Leaders’ Self-Awareness?**

Four topics were focused on during the leaders’ interviews to explore how effective the LPI 360-feedback is on leaders’ personal insight or self-awareness: (a) whether or not the LPI 360-Feedback shows how higher education leaders’ leadership behaviors were perceived by others (Sub-category 1.1), (b) recognition of behaviors that are needed to correct or improve leaders’ leadership behaviors (Sub-category 1.2), (c) whether the online LPI 360-Feedback helped higher education leaders to discover what their followers need from them (Sub-category 1.3), and (d) whether or not the LPI 360 disclosed actions or behaviors that leaders were not aware of (Sub-category 1.4).

According to the data, the provided self/other-discrepancy scores in the LPI 360 report helped all the participated leaders to discover how their leadership behaviors were perceived by their followers. Though leaders’ reaction toward the discovery varied (e.g. angry, appreciated, confused), around 92% of them recognized the leadership behaviors which needed some level of
improvement. The rest of the leaders, 8% (1/13), received overwhelmingly positive feedback, which hindered their recognizing what needed to be improved. Despite the overwhelmingly positive feedback, leaders benefited from the LPI 360 report by just reading through the 30 behavioral statements. A leader who received high positive rate stated that:

Not from the observers because the observers scored me higher than my own rating of the questions, and I said, oh yeah, I could do more of that, I could do that better... I was reading through the questions in and self-assist, and said, oh yeah this something I should do more. The big surprise is that my colleagues thought that I was doing fine on those.

In addition, the online LPI 360-feedback was effective in terms of showing 42% of the leaders what their followers needed from them. However, around 58% stated only a little bit due to three root cause problems: (a) Lack of the open-ended questions in the LPI report, (b) received high positive feedback and (c) low observers’ responded rate (Sub-category 1.3). Lack of comments or open-ended questions was one of the facilitation problems (Qualitative-Quantitative Integration section). A leader stated that:

Here the qualitative part I think would be helpful, where it's not clear to me that some of my team members want me to spend more time talking about the future of higher education or the mission and vision of our unit. Maybe they do. But maybe they have a lot of other ideas about what they need and want for me. Maybe they want to be responsive on email or something.

Regarding the flexibility of the LPI system, the LPI facilitator/administrator account was designed to allow administrators to add open-ended questions in addition to the 30 behavioral statements. The LPI system provides a list of open-ended question that administrators can chose
from to add into the standard LPI survey. During the interview, I sought some of the leaders’ opinions about the LPI open-ended question list; they all agreed with the provided questions:

1. What is the one thing you most want this person to be aware of in the way he/she leads?

2. Of all the things this leader does, what do you want him or her to continue doing and make sure not to change?

3. What would you like to see this person start doing or do more of in order to become a better leader?

4. In order for this person to become a better leader, what would you like to see him or her do less of or stop doing altogether?

5. If you were to select only one item from the LPI on which you most wanted this person to focus his or her attention, which item would it be?

6. What three adjectives best describe this person's leadership?

7. What three words best describe the impact this person has on you?

Lastly, the LPI 360-feedback helped almost 58% of the higher education leaders to discover some actions and behaviors that they were not aware of (Sub-category 1.4). The rest of the leaders 42% did not add any feature comments rather than stating “No” without providing any feature justification.

**Sub-Question 3: How is an LPI 360-Feedback Tool Effective for Leaders’ Self-Development?**

Self-development in this study refers to leaders’ behavioral change or working toward the change/improvement. Leaders were followed with a follow-up question after six weeks after their interviews to discover how they used the LPI 360-feedback for their development. Based on
the *Success Case Method*, Brinkerhoff hypothesized that a normal success of a training program shows that 20% of the trainee did not or low usage of what they have learned (low usage of the skills learned), 60% (medium usage of the skills learned), and 20% (high usage of the skills learned).

Compared to the normal success 20% (low), 60% (medium), 20% (high) rule; the LPI 360-feedback’s success would be considered above the normal success where its impact exceeded the expected 20% (high) to reaching 54% of the leaders into (high usage) category, and 8% were into (medium usage) category. However, around 38% of the leaders were into the (low usage) category, showing a little bit higher than the expected 20% low usage (Table 12).

Fortunately, the success of the LPI 360-feedback in this study was not associated with a group of leaders than another in terms of the leaders’ reaction toward the observers’ rating. Around 54% of the Leaders in this study started working toward their leadership development (self-development) regardless of the negative or positive feedback and feeling they experienced.

In addition to the success of the LPI 360-feedback, the majority of the leaders in this study engaged with a self-development process despite their leadership position and job title (Figure 11). In fact, this finding came to disagree with some of the 360 studies’ findings. Tang (2013) found that leaders maintain certain beliefs they had when they arrived at their current leadership positions without working toward improving their leadership behaviors. The Qualitative-Quantitative Integration section results revealed that among leaders in this study, there was no association between leaders’ job title and their level of engagement in a leadership self-development. That is an ensuring sign of the LPI 360-feedback success among higher education leaders.
In terms of how leaders engaged with the self-development six weeks after their interviews, leaders varied on their approaches. Around 15% of the leaders discussed their feedback with their observers to gain more in-depth understating of what their followers wanted from them. In addition, almost 31% of the leaders started to interact with their followers and apply what their learned through the LPI 360-feedback more consciously. Lastly, 8% started seeking more leadership development opportunities for their further learning (Qualitative-Quantitative Integration section).

**Summary of Findings**

The purpose of this study is to determine the effectiveness of the Leadership Practice Inventory (LPI) 360-feedback for providing higher education leaders with insight into their own leadership behaviors. The effectiveness of the online LPI 360-feedback were examined via two angles: providing leaders with a personal insight into their own leadership behaviors and then encouraging leaders to take an action toward their improvement using what they have learned about themselves through the LPI 360-feedback. In order to give justice to the LPI evaluation and to draw a robust conclusion about the effectiveness of the LPI 360 implementation, the facilitation process and how it affected leaders’ experiences were examined.

The integration of qualitative and quantitative results illustrated that leaders were satisfied with four LPI facilitation processes. They were satisfied with level of confidentiality in this study, where only they have access to their results (F01); that makes some of the leaders to develop a feeling if safety where their results would not be shared with anyone. In addition, the additional links of videos and journals attached to the invitation email (F02) increased the credibility of the LPI result among the participated leaders. Moreover, leaders benefited from the observers’ self-selection feature, where it enabled them to include external groups to the
evaluation process, as well as being able to follow-up with their observers for more information about the LPI report (F04). However, there was one negative incident occurred to one leader due to the self-selection. That leader who select only two observers received an overwhelmingly positive feedback which hindered her to know what her followers needed from her.

One facilitation feature that was not as beneficial as expected was observer responses consisted solely of numeric feedback (F05). Unfortunately, the lack of open-ended questions in the observer responses caused confusion (e.g. what does that mean?) and misinterpretation to the observers’ rating scores (e.g. referring the low rate to a personal or racism issue).

In terms of leaders’ personal insight, the interviews revealed that the online LPI 360-feedback provided higher education leaders with insight into their own leadership behaviors. All leaders agreed that the LPI 360-feedback helped them see how their leadership behaviors were perceived by others. Similarly, the LPI 360 report enabled leaders to recognize which leadership behaviors needed correction or improvement. In addition, almost 42% of the leaders recognized what their followers needed from them. However, around 50% of the leaders did not recognize much due to the lack of open-ended questions in the LPI 360 report. Lastly, the LPI 360-feedback helped 50% of the leaders to discover some the actions and behaviors those leaders were not aware of.

Regarding the effectiveness of the LPI 360 in the long term for self-development, leaders were contacted six weeks after their interviews to explore how they used what they had learned thought the LPI 360-feedback process. The follow-up results revealed that 54% of the leaders fell into a high usage category as determined by Brinkerhoff’s Normal Training Success Theory. The leaders who were in the high usage category did so regardless of their reactions (e.g. anger, confusion and appreciation) during their review of the LPI 360-feedback reports. Moreover, the
majority of the leaders in this study engaged with the self-development step despite their job titles.

In terms of how leaders used the LPI results for their self-development, leaders varied on their way of approaching this step. Around 24% met with their followers they assigned, to learn more about their observers’ needs. Similarly, almost 24% of the leaders started to lead and interact with their followers more consciously, and 8% started to search for more leadership development opportunities. While 8% still planning to meet with their followers. The rest of the participated leaders 38% did not report any signs of using or attempting to engage with the self-development in future.
CHAPTER 5
DISCUSSION

In order for academic leaders to fulfill the needs of their organizations and thrive through time, they have to embrace a unique set of leadership skills and behaviors to accomplish the real work that is called for in their positions. According to Bowman (2002), academic leaders need “well-honed communication skills, problem-solving skills, conflict-resolution skills, cultural management skills, coaching skills, and transition skills” (p. 161). These skills do not necessarily come naturally for all leaders in all leadership positions.

One of the most effective methods of raising leaders’ self-awareness is the utilization of reflective processes to work on one’s own self-growth. A 360-feedback process is one of those reflective methods which encourages leaders to become more conscious of the impact of their actions and decisions on others (Atwater et al., 2005; Hageman, 2015; Kouzes and Posner, 2012; Rai et al., 2013; Shahin et al., 2011; Shipper 2007; Smither et al., 2005; Thach 2002).

One of the most popular 360-feedback processes for leadership development is the LPI 360. However, the popularity of the LPI 360-feedback is not enough reason for it to be adopted for higher education without assurance that it aligns with a higher education organization’s specific vision and goals. Most of the LPI studies bound in the current literature utilized the LPI tool assuming its suitability for an organization and to its success without testing the effectiveness based on the recipients’ perspectives. Therefore, the aim of this study is to determine the effectiveness of the Leadership Practice Inventory 360-feedback assessment for providing higher education leaders with insight into their own leadership behaviors in higher education.
Key Findings

There are three findings discussed in this study regarding the utilization of the LPI 360 feedback with higher education leaders. The first finding revealed the leaders’ experiences with the LPI facilitation process. The second finding exhibited the leaders’ experiences with the LPI 360 report in terms of its effect on their personal insights into their own leadership behavior. The third finding disclosed the leaders’ experiences with the LPI 360 result with regard to its impact on their self-development.

Regarding the first finding about the LPI facilitation process, there were five LPI facilitation features utilized to implement the online LPI 360-feedback in this study. These are: (a) only leaders have access to their results (F01), (b) additional links of videos and journals attached to the leaders’ invitation email (F02), (c) the 360-feedback tool provided free of charge (F03), (d) leaders were able to select their observers (F04), and (e) observer responses consisted solely of numeric feedback (F05). The feature (F03) about the LPI 360 license being provided to leaders free of charge is not discussed further because requesting payment after people volunteered their participation could not be done. The integration of qualitative and quantitative results showed that leaders were satisfied with four of these LPI facilitation features. Leaders were satisfied with level of confidentiality where only they have access to their results (F01) and that made some of the leaders feel safe that their results would not be disclosed to supervisors or human resources personnel. Also, the additional links of videos and journals attached to the invitation email (F02) increased the level of credibility of the LPI feedback and assured them the feedback was scientifically based. Moreover, leaders benefited from the observers’ self-selection feature which enabled leaders to choose and include external groups into their LPI 360 evaluation process, as well as to be able to follow up with observers for more information about
what was contained beyond the numeric feedback in the LPI report (F04). However, one feature
was not beneficial to the leaders as it was expected to benefit the leaders. This feature was the
“observer responses consisted solely of numeric feedback” (F05). Unfortunately, the lack of
open-ended questions in the LPI survey caused confusion (e.g. “what does that mean?”) and
misinterpretation in terms of the self/other discrepancy by reading more into a personal rating
than was intended (e.g. gender/race differences).

The second finding was discovered during semi-structured interviews that were
conducted immediately after leaders reviewed their LPI 360 reports. These interviews focused on
four topics and were designed to explore the leaders’ experiences with the LPI 360 report in
terms of its effect on their personal insights into their own leadership behavior. These topics
were: (a) whether or not the LPI 360-Feedback shows how higher education leaders’ leadership
behaviors were perceived by others, (b) recognition of behaviors that are needed to correct or
improve leaders’ leadership behaviors, (c) whether the online LPI 360-Feedback helped higher
education leaders to discover what their followers need from them, (d) whether or not the LPI
360 disclosed actions or behaviors that leaders were not aware of.

The result of the thematic analysis revealed that the online LPI 360-feedback had
provided higher education leaders with insights into their own leadership behaviors. All leaders
agreed that the LPI 360-feedback helped them to see how their leadership behaviors were
perceived by their observers. In addition, the LPI 360 report enabled leaders to recognize which
leadership behaviors needed correction or improvement. Also, leaders were able to identify
where they needed to begin their leadership improvement plan by looking at the lowest rated
behavior. Furthermore, around 42% of the leaders recognized what their followers needed from
them. However, nearly 58% of the leaders recognized only a little bit of what their followers

needed from them. This was due to a failure which was associated with the implementation of the LPI facilitation feature where the “Observer responses consisted solely of numeric feedback” (F05). Leaders commented that numeric feedback was lacking to explain the needs of their followers in relation to what they could do to satisfy those needs. Lastly, the LPI 360-feedback helped nearly 50% of the leaders to discover some of the actions and behaviors that leaders were not aware of, and the remaining respondents did not reveal any further information than stating “no”. So, overall in this finding, it was discovered that it is important for LPI facilitators to design the LPI 360-feedback questionnaire based on leaders’ preferences (e.g., numeric report versus a report with a mix of numeric and open-ended questions).

The leaders in this study were contacted again six weeks after their interviews via emails to explore whether and how they applied the knowledge gained through the LPI 360-feedback for their self-development. The third finding revealed in these follow-up emails that 54% of the leaders fell into a high usage category as determined by Brinkerhoff’s Normal Training Success Theory. The leaders who were in the high usage category did so regardless of their reactions (e.g. anger, confusion and appreciation) during their review of the LPI 360-feedback reports.

Moreover, the majority of the leaders in this study engaged with the self-development step regardless of their job titles.

Leaders who were into the high usage category varied based on their ways of approaching the self-development phase. Around 24% of these high usage leaders met with their team members to learn more about their feedback and needs. Similarly, the other nearly 24% of these leaders started to lead and interact with their followers more consciously, and 8% started to search for more leadership development opportunities. In terms of the leaders who fell into the middle usage category, 8% were still planning to meet with their followers. The remaining 38%
of the leader participants in this study fell into the low usage category. They did not report any signs of using or attempting to engage with the self-development process in future.

**Study Findings and Current Literature**

Some of the findings derived from the integration of the qualitative and quantitative results both aligned with and dissented from some of the current literature. Based on the LPI facilitation process, the LPI facilitation feature “where leaders were able to select their observers” (F04) aligned with some of the studies in the literature review. Conversely, the impact of including the LPI facilitation feature which is “Observer responses consisted solely of numeric feedback” (F05) in this study disagreed with what some of the literature suggested regarding a leader preference for numeric feedback versus a mix of numeric and qualitative feedback. Additionally, regarding the study and its link to current literature, the effect of social desirability based on the anonymous selection of observers and the leaders’ positions also addressed findings in literature.

**LPI Facilitation Feature 4: Able to Self-Select your Observers**

Since the objective of the implementation of the LPI 360-feedback was to develop leaders’ leadership behaviors, not to evaluate their leadership performance, leaders were given the opportunity to select who they trusted to be engaged with them during their learning and development process. Fortunately, around 71% of all the leader participants were satisfied with the inclusion of this feature, while the remaining 29% did not care about it. The inclusion of this feature enabled leaders to follow up with their observers as well as opened up an opportunity for leaders to include additional external observers. However, one negative incident occurred which aligns with one of the concerns that the literature pointed out regarding the application of self-selection. This concern was that self-selection may decrease the potential for an accurate result
due to the social desirability motivation of observers, especially when the number of observers is low. Social desirability is defined by Dillman (2014) as “the tendency to provide answers that put one in a good light with the person who asks the question; it is often motivated by wanting to make a good impression in a social interaction (or avoid a negative one)” (p. 99). A leader who selected just two observers in this study received overwhelmingly positive feedback and stated “I don't know if they were just quick really [She waved her right hand up and down with little expression on her face] not putting much effort into that, or just wanted to be nice” (Qualitative-Quantitative Integration section). However, in this study another leader also assigned just two observers and did not experience an overwhelmingly positive feedback. So, the concern about social desirability skewing the result due to the implementation of a self-selection may or may not happen and may depend more on the level of trust between leaders and their observers.

**LPI Facilitation Feature 5: Observer Responses Consisted Solely of Numeric Feedback**

The last LPI facilitation feature that was included in the LPI facilitation process was “Observer responses consisted solely of numeric feedback” (F05). As the facilitator, I had the opportunity to create the standard LPI assessment with the 30 behavioral statements or to add extra open-ended questions to leaders’ LPI survey. One of the factors of success that I learned for the literature was that a 360-feedback design and the type of data that a 360-tool provides (e.g., numeric or text) would have a significant impact on the recipients’ reactions. These studies listed below showed numeric feedback is more favorably received by the recipients when it is used to clarify their strengths and weaknesses, and is easier for them to remember (3D Group, 2013, Atwater et al. 2007 & Vukotich, 2014). An empirical study of the factors that may impact recipients’ reactions conducted by Atwater et al. (2005) found, “those receiving text format had more negative reactions than those receiving numeric format” (p. 540).
The Kano result in my study, however, revealed the opposite preference among participating leaders. Around 57% of the leaders in this study were not satisfied with the numeric report while only 29% agreed with literatures’ recommendation. Unfortunately, the lack of open-ended questions in the LPI survey caused confusion (e.g. “what does that mean?”) and misinterpretation in terms of the self/other discrepancy by reading more into a personal rating than was intended (e.g. gender/race differences). Based on the results above, the suggestion is for LPI facilitators to allow leader-driven preferences to be reflected in the LPI 360 survey design in higher education. Fortunately, the LPI system allows LPI facilitators to select and add questions from the LPI system’s list of questions as well as custom-design and add specific open-ended questions. Another LPI system flexibility allows LPI facilitators to custom-design specific questions for one leader or a specific sub-group of leaders within an entire facilitation group.

Related to the findings about the open-ended questions, during the interview process, I asked some of the leaders their opinions about the LPI open-ended question list; they all liked the provided questions and suggested they be added to their surveys if they had the opportunity to take it again. The leaders in this survey stated the first four questions from the complete LPI question list were the most preferable questions. These are listed below:

1. What is the one thing you most want this person to be aware of in the way he/she leads?

2. Of all the things this leader does, what do you want him or her to continue doing and make sure not to change?

3. What would you like to see this person start doing or do more of in order to become a better leader?
4. In order for this person to become a better leader, what would you like to see him or her do less of or stop doing altogether?

5. If you were to select only one item from the LPI on which you most wanted this person to focus his or her attention, which item would it be?

6. What three adjectives best describe this person's leadership?

7. What three words best describe the impact this person has on you?

**LPI Anonymity**

Anonymity is one of the most important features that has to be added to a 360 process in order for observers to provide honest feedback and the LPI 360 system provides this feature. A few studies showed that anonymity of selection may not be favorable for some leaders, especially those who have some haters among their followers. Those leaders view anonymity of selection as a way that “offers cover for certain counterproductive behaviors” (Brutus, & Derayeh, 2002, p. 196), instead desiring to prevent being “stabbed in the back” by haters who have the opportunity answer anonymously.

The semi-interview revealed some alignment with Brutus and Derayeh’s findings. A leader who got frustrated due to a low observers’ rating when receiving the anonymous feedback stated, “I appreciate feedback, but there's something about this process that individuals can give you negative feedback without being accountable to that or having an avenue to fix it with any one individual” (Qualitative-Quantitative Integration section).

This suggests the importance of creating a foundation for healthy conversations between leaders and their team members/observers in higher education before engaging in an LPI 360 feedback. That foundation might open an avenue for observers to deliver their voice and their needs for greater longer-term effectiveness.
**Leaders’ Position**

Regarding the higher-level positions of leaders, a few studies found that leaders generally do not accept 360-feedback. The reason is they already maintain certain beliefs they had when they arrived at their current leadership positions and believe they know what they are doing to be successful and do not need to change. The beliefs they carry into a new leadership position are based on their experiences of leadership success they have enjoyed from their past; these reinforce their own beliefs in their continued success (Tang et al. 2013). As result, a large number of those leaders are more likely to resist 360-assessment tools and refuse to try a new set of unexperienced leadership behaviors (Atwater et al., 2007; Furnham, 2010, & Brown, 2001).

The higher education leaders in this study, however, were highly receptive to receiving a 360-feedback except one leader, who expressed less receptiveness. The leaders’ positions consisted of Vice President, Associate Vice President, Provost, Associate Provost, Executive Director, Dean, and Associate Dean. According to the finding of this study, around 54% of the leaders effectively engaged in the self-development process and expressed continued desire to utilize what they had learned through their LPI 360 process regardless of their positions or job titles (Chapter 4, Figure 11).

**Recommendations for Further Research**

This study focused on examining the effectiveness of the online LPI 360-feedback for leaders in two higher education institutions. The participants were invited to this 360-feedback study voluntarily. All of the participants responded they benefited from the experience and hoped other colleagues joined this developmental opportunity. The research recommendations below were driven from the challenges I faced during the implementation of this study.
A challenge that I faced initially was recruiting participants to volunteer for the 360-developmental process. One of the hindrances may have been related to participants’ lack of receptiveness to receiving a 360-feedback. So, overall, I recommend other researchers explore what an institution can do to encourage less receptive leaders to join a 360-feedback process.

In addition to the early research challenges, there was a number of observers who contacted me to drop their names from the observers’ list and asked me not to tell their leaders. Reducing the number of observers that a leader assigned may affect the sufficiency of the 360-feedback result. Additionally, some other observers who did not ask to be dropped from the study provided non-honest feedback to their leaders. The recommendation for other researchers regarding these observer issues is to discover what a higher education institution can do to encourage and increase the level of safety among observers to provide honest and beneficial feedback for their leaders.

Moreover, since both the literature and the higher education leaders in this study suggested that building a culture around the 360-feedback may increase its effectiveness. What this study did not discover was what a supportive, healthy 360 culture in higher education should look like. Therefore, lastly, I would recommend other researchers study how to create a supportive and emotionally safe leadership culture in which to implement an effective 360-feedback that includes all leaders of any position or job title.
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Appendix A

Requesting Participation Letter
Dear Dean,

My name is Abdulrahman Alajlan and I am Ph.D. Candidate in Western Michigan University. I am writing to ask you to be part of a qualitative research study on the effectiveness of the Leadership Practice Inventor (LPI 360) in higher education as a leadership developmental tool. This is part of the requirements for a doctoral degree in Educational Leadership. I hope you will agree to participate.

Participating in this study will include:

An interview conversation that should last approximately 40-60 minutes and that will be conducted after completing the LPI 360-feedback process and the reflection materials. Prior to this conversation, I will submit the interview questions to you, and schedule an appointment to discuss them. This conversation will be recorded by a tape recorder, and I will also be taking written notes. If needed, a follow up meeting may occur which will allow me to check for accuracy of my notes and to ask any follow up questions I had after reviewing the transcripts of our first meeting.

Participation in this study is completely voluntary and there is no penalty for not participating or for withdrawing from the study. If you agree to participate in this study, your identity will be kept strictly confidential. Your name, college and the university name will not appear in the study. Your stories and answers will be referenced by a pseudo name. All transcripts will be kept on a CD-ROM in a secured office in the researcher’s home.

Please contact me by replying by email to sgc1156@wmich.edu or by mail to 3645 Kenbrooke, Kalamazoo, MI 49006. Or you may feel free to contact me by phone at (269) 365-2356.

Sincerely,

Abdulrahman Alajlan
Appendix B

Informed Consent
Consent Document
Western Michigan University
The Department of Educational Leadership, Research and Technology

Principal Investigator: Nancy Mansberger
Student Investigator: Abdulrahman Alajlan
Title of Study: The Effectiveness of Using the Leadership Practice Inventory on Leaders’ Insight into Their Leadership Behaviors in Higher Education.

You have been invited to participate in a research project titled "The Effectiveness of Using LPI 360-Feedback on Deans’ Insight into Their Leadership Behaviors in Higher Education.” This project will serve as Abdulrahman Alajlan’s Ph.D. Dissertation for the requirements of the degree of Doctor of Philosophy Educational Leadership, Research, and Technology. This consent document will explain the purpose of this research project and will go over all of the time commitments, the procedures used in the study, and the risks and benefits of participating in this research project. Please read this consent form carefully and completely and please ask any questions if you need more clarification.

What are we trying to find out in this study?

The purpose of this study is to determine the effectiveness of the Leadership Practice Inventory (LPI) 360-feedback for providing academic deans with insight into their own leadership behaviors in higher education. We are trying to find how the online version of the LPI 360-feedback process and its reflection materials can be more adaptable for use in the higher education for self-leadership development, and how this tool fits the deans’ leadership Position’s rules.

Who can participate in this study?

The population of this study is academic deans in higher education. The criteria of selection is academic leaders who are currently holding a dean’s position. There are no criteria for how long the academic dean should be in the Position.

Where will this study take place?

This study will take place at Western Michigan University. After you complete the online version of the LPI 360-feedback process and the reflection materials you can select your preference method for the interview, either via Skype, phone or face-to-face. In addition, you can any place, day and time based on your availability. It is preferred that the interview is conducted after you finish the reflection martials.

What is the time commitment for participating in this study?

The expected time of involvement will be divided in three phases. The first is the completion of the LPI 360 survey. It is expected that a dean can complete the LPI survey, which consists of 30 behaviors statements, in 10 minutes. The second phase starts after the observers compete their survey. The dean then will download his/her the compiled statistical results obtained from the completed surveys of the observers selected by you, as well as the materials designed to help the deans examine the result and make use of the identified actions and behaviors. We do not know how much time will be needed in the second phase; the necessary time would be unique for each participating dean. The third and last phase is the interview of the
participating dean by the student investigator. The interview protocol consists of 15 questions; the expected time of the interview is between 30-60 minutes.

What will you be asked to do if you choose to participate in this study?
1- Complete the LPI-Self tool
2- Select 5-10 or more observers who you lead in your unit, and ask them to complete the LPI-Observer tool.
3- After receiving the LPI 360 result, you will need to complete the reflection phase via the documents that you will receive from the Leadership Challenge company’ website.
4- Then you will be interviewed to learn from your experience regarding the 360-feedback process, how this leadership development method can be more adaptable for use in the higher education.

What information is being measured during the study?
The study is designed to investigate the responses and perceptions of college Deans regarding the usefulness of the LPI-360 evaluation process. The LPI-360 “Self” and the LPI-360 “Observer” tools will be employed, though the data collected by these tools will not be used or collected by the researchers in this study. The LPI-360 tools collect observational and self-report data on the leaders’ use of five leadership practices categorized as Model the Way, Inspire a Shared Vision, Challenge the Process, Enable Others to Act, and Encourage the Heart. These categories of leadership practices will be measured by participants’ responses to 30 leadership behavioral statements which characterize the five practices. Again, this study will not collect or use any of the data collected by the LPI-360 process.

What are the risks of participating in this study and how will these risks be minimized?
There are no known risks in this study. Any risk associated with your results obtained by LPI-360 has been controlled. Only you will see or receive the results of the LPI-360, you will receive their results from the company directly via your personal account on the commercial LPI-360 website. The researcher may ask you about any observed discrepancy between the “Self” and the “Observer” statistical results, and you will have the choice not to answer this question.

What are the benefits of participating in this study?
Your participation may help to reveal how the LPI 360-feedback process is suitable and effective in the higher education culture, as well as for the academic deanship. In addition, this study may help higher education institutions recognize what elements make the LPI 360-feedback process more adaptable for use on academic deans’ leadership development. Lastly, this study may contribute to filling the gap in the area of determining the success of 360-feedback in higher education. More modestly, you may also receive some of the personal benefits of participation in a 360-review that have been observed in studies on the LPI-360 and other 360-review instruments.

Are there any costs associated with participating in this study?
There is no cost associated with the participation in this study. The researcher will pay the cost the online LPI 360-feedback process.
Is there any compensation for participating in this study?
There is no compensation for participating in this study.

Who will have access to the information collected during this study?
The investigators will have sole access to the interview data collected in this study, only. You will have access to your own LPI-360 information obtained during this study.

What if you want to stop participating in this study?
The success of this is highly dependent on participation in the study throughout the three (3) phases to completion, due to the small sample size. Though we hope you will agree to participate for the complete study, you may choose to stop participating in the study at anytime for any reason. You will not suffer any prejudice or penalty by your decision to stop your participation. You will experience NO consequences either academically or personally if you choose to withdraw from this study. The investigator can also decide to stop your participation in the study without your consent.

Should you have any questions prior to or during the study, you can contact the primary investigator, Abdulrahman Alajlan at 269-365-2356 or abdulrahmansaa.alajlan@wmich.edu. You may also contact the Chair, Human Subjects Institutional Review Board at 269-387-8293 or the Vice President for Research at 269-387-8298 if questions arise during the course of the study.

This consent document has been approved for use for one year by the Human Subjects Institutional Review Board (HSIRB) as indicated by the stamped date and signature of the board chair in the upper right corner. Do not participate in this study if the stamped date is older than one year.

I have read this informed consent document. The risks and benefits have been explained to me. I agree to take part in this study.

Please Print Your Name

------------------------------------------------------------
Participant’s signature                      Date
Appendix C

Interview Protocol
The Outcomes of the LPI 360-Feedback

Open Questions

15. Have you received any 360 assessments before? (if □ YES) How do you compare it with the LPI-assessment process you applied in this study? (if □ NO) Go Q2

16. (if □ NO) Can you please explain your first impression regarding the participation of this 360-assessment process?

17. How important is your development as a leader to you personally? Why?

Self-Development

18. Have you been able to use the LPI reflection materials (e.g. LPI workbook, Development Planner, & Practice Book)? (if □ YES) Go Q5
   (if □ NO) Why? Then Q7

19. Was reflecting using the LPI materials beneficial for your development as a leader?
   Yes□ NO□
   Why or why not?

20. Have you thought of any changes in your leadership behaviors because of the LPI feedback? Yes□ No□
   If Yes, can you tell me more please? If No, is there any reason that related to the LPI-process?

21. From your perspective, what is the most beneficial part of the LPI-assessment tool or its materials for leaders to focus on in Higher Education?

Background

22. What personal (background) do you think of that helped you to understand the LPI 360 feedback report that you received? (I mean is there a need for leaders to have some basic knowledge of STAT or Leadership Phrases).

Others:

23. Did the LPI 360 feedback help you to know what your followers need from you? How?

Personal Insight

24. Did the LPI 360 tool help you to see how your leadership behaviors are perceived by others? What did you notice? (Did you notice any self-discrepancy)

25. Did the LPI 360 feedback provide you with any surprising results regarding actions or behaviors that you were not aware of? What can you tell me about that?

26. Did the LPI feedback helped you to see behaviors that need correction or improvement? Can you tell me a little bit more?

Conclusion

27. From your perspective, what can an institution do to help academic leaders develop and enhance their leadership behaviors?

28. Is there anything that I haven't asked that you would like to add regarding your experiences with LPI 360 feedback?

Thank you for participating in this interview. If necessary, may I contact you for a follow up interview or to clarify some of your responses?
Appendix D

Kano Survey
We intentionally applied some features in the Facilitating process please let us know How You Feel about them? I am looking forward to hear your comments about them.

**How do you Feel about the 360-Feedback Process Features?** The Importance Scale Ranges From 1- *NOT important at all* To 10- *Extremely Important.*

<table>
<thead>
<tr>
<th>Date:</th>
<th>Presence of this Feature</th>
<th>Absence of this Feature</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I really liked it!</td>
<td>I thought this feature to be a basic requirement.</td>
</tr>
<tr>
<td></td>
<td>I am neutral about having this feature</td>
<td>I was not thrilled with this feature, but I can live with it.</td>
</tr>
<tr>
<td></td>
<td>I disliked this feature; it should be eliminated</td>
<td>I would really like to not have this feature.</td>
</tr>
<tr>
<td></td>
<td>My basic expectations would be to not have this feature</td>
<td>I would be neutral about the lack of this feature.</td>
</tr>
<tr>
<td></td>
<td>Not having this feature would be a minor inconvenience for me</td>
<td>I would find the absence of this feature a major problem for me.</td>
</tr>
</tbody>
</table>

1- Dr. Mansberger’s email contains this statement "Your results will remain confidential. Neither Abdurahman nor I will see or have access to the results of these surveys".

2- You were provided additional links to videos and journals discussing the LPI 360 Assessment Tool in your invitation to participate.

3- The 360-Feedback tool was offered for your self-assessment free of charge.

4- You were able to self-select your observers.

5- Observer responses consisted solely of numeric feedback.

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Appendix E

The Follow-up Email

(Six weeks After Leaders Interviews)
Hi Dr. ***,

*Your participation to the LPI 360 Study has added valuable information which has led us to discover some new patterns* regarding the effect of using the LPI 360 in higher education. We really appreciate the time you offered for this study. Though this study is going to be end very soon, **there is one follow up question** which can be answered either by *replying to this email* or by a *very short face to face interview*, if you prefer. Please let me know your preference.

**The question is:**
After our interview on MM/DD, is there any new experiences or insights you would like to add (share) regarding your participation in the LPI 360?
For example, have you experienced any progress on the leadership behaviors that you attempted to work on after you discovered via the report of the observers’ LPI rating? Any new behaviors that you noticed among your observers after the completion of the LPI 360?)
Appendix F

The Standard LPI Items

(LPI Sample)
### MOST FREQUENT

<table>
<thead>
<tr>
<th></th>
<th>PRACTICE</th>
<th>SELF</th>
<th>AVG +/-</th>
<th>M +/-</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.</td>
<td>Treats others with dignity and respect</td>
<td>Enable</td>
<td>10</td>
<td>9.6</td>
</tr>
<tr>
<td>11.</td>
<td>Follows through on promises and commitments he/she makes</td>
<td>Model</td>
<td>10</td>
<td>9.0</td>
</tr>
<tr>
<td>3.</td>
<td>Seeks out challenging opportunities that test his/her own skills and abilities</td>
<td>Challenge</td>
<td>10</td>
<td>8.9</td>
</tr>
<tr>
<td>1.</td>
<td>Sets a personal example of what he/she expects of others</td>
<td>Model</td>
<td>10</td>
<td>8.7</td>
</tr>
<tr>
<td>2.</td>
<td>Talks about future trends that will influence how our work gets done</td>
<td>Inspire</td>
<td>10</td>
<td>8.6</td>
</tr>
<tr>
<td>23.</td>
<td>Makes certain that we set achievable goals, make concrete plans, and establish measurable milestones for the projects and programs that we work on</td>
<td>Challenge</td>
<td>10</td>
<td>8.4 - 7.0 -</td>
</tr>
<tr>
<td>28.</td>
<td>Experiments and takes risks, even when there is a chance of failure</td>
<td>Challenge</td>
<td>9</td>
<td>8.4</td>
</tr>
<tr>
<td>4.</td>
<td>Develops cooperative relationships among the people he/she works with</td>
<td>Enable</td>
<td>8</td>
<td>8.4</td>
</tr>
<tr>
<td>9.</td>
<td>Actively listens to diverse points of view</td>
<td>Enable</td>
<td>9</td>
<td>8.2</td>
</tr>
<tr>
<td>13.</td>
<td>Searches outside the formal boundaries of his/her organization for innovative ways to improve what we do</td>
<td>Challenge</td>
<td>8</td>
<td>8.2</td>
</tr>
<tr>
<td>24.</td>
<td>Gives people a great deal of freedom and choice in deciding how to do their work</td>
<td>Enable</td>
<td>10</td>
<td>8.1 - 9.0 -</td>
</tr>
<tr>
<td>6.</td>
<td>Spends time and energy making certain that the people he/she works with adhere to the principles and standards that we have agreed on</td>
<td>Model</td>
<td>9</td>
<td>8.1</td>
</tr>
<tr>
<td>8.</td>
<td>Challenges people to try out new and innovative ways to do their work</td>
<td>Challenge</td>
<td>9</td>
<td>7.9</td>
</tr>
<tr>
<td>19.</td>
<td>Supports the decisions that people make on their own</td>
<td>Enable</td>
<td>8</td>
<td>7.9</td>
</tr>
<tr>
<td>22.</td>
<td>Paints the “big picture” of what we aspire to accomplish</td>
<td>Inspire</td>
<td>6</td>
<td>7.9 + 8.0 +</td>
</tr>
<tr>
<td>7.</td>
<td>Describes a compelling image of what our future could be like</td>
<td>Inspire</td>
<td>7</td>
<td>7.8</td>
</tr>
<tr>
<td>26.</td>
<td>Is clear about his/her philosophy of leadership</td>
<td>Model</td>
<td>8</td>
<td>7.6</td>
</tr>
<tr>
<td>21.</td>
<td>Builds consensus around a common set of values for running our organization</td>
<td>Model</td>
<td>9</td>
<td>7.4 - 8.0</td>
</tr>
<tr>
<td>30.</td>
<td>Gives the members of the team lots of appreciation and support for their contributions</td>
<td>Encourage</td>
<td>8</td>
<td>7.4</td>
</tr>
<tr>
<td>18.</td>
<td>Asks “What can we learn?” when things don’t go as expected</td>
<td>Challenge</td>
<td>8</td>
<td>7.3</td>
</tr>
<tr>
<td>17.</td>
<td>Shows others how their long-term interests can be realized by enlisting in a common vision</td>
<td>Inspire</td>
<td>7</td>
<td>7.3</td>
</tr>
<tr>
<td>27.</td>
<td>Speaks with genuine conviction about the higher meaning and purpose of our work</td>
<td>Inspire</td>
<td>6</td>
<td>7.2</td>
</tr>
<tr>
<td>5.</td>
<td>Praises people for a job well done</td>
<td>Encourage</td>
<td>6</td>
<td>7.1</td>
</tr>
<tr>
<td>15.</td>
<td>Makes sure that people are creatively rewarded for their contributions to the success of projects</td>
<td>Encourage</td>
<td>5</td>
<td>7.1 + 8.0 +</td>
</tr>
<tr>
<td>10.</td>
<td>Makes it a point to let people know about his/her confidence in their abilities</td>
<td>Encourage</td>
<td>9</td>
<td>7.0 - 7.0 -</td>
</tr>
<tr>
<td>29.</td>
<td>Ensures that people grow in their jobs by learning new skills and developing themselves</td>
<td>Enable</td>
<td>8</td>
<td>6.8</td>
</tr>
<tr>
<td>12.</td>
<td>Appeals to others to share an exciting dream of the future</td>
<td>Inspire</td>
<td>9</td>
<td>6.4 - 6.0 -</td>
</tr>
<tr>
<td>20.</td>
<td>Publicly recognizes people who exemplify commitment to shared values</td>
<td>Encourage</td>
<td>5</td>
<td>6.0</td>
</tr>
<tr>
<td>25.</td>
<td>Finds ways to celebrate accomplishments</td>
<td>Encourage</td>
<td>6</td>
<td>5.9</td>
</tr>
<tr>
<td>16.</td>
<td>Asks for feedback on how his/her actions affect other people’s performance</td>
<td>Model</td>
<td>7</td>
<td>5.0 - 7.0</td>
</tr>
</tbody>
</table>

### LEAST FREQUENT
Appendix G

HSIRB Approval Letter
Date: January 31, 2017

To: Nancy Mansberger, Principal Investigator
    Abdulrahman Alajlan, Student Investigator for dissertation

From: Amy Naugle, Ph.D., Chair

Re: HSIRB Project Number 16-12-12

This letter will serve as confirmation that your research project titled “The Effectiveness of Using the leadership Practice Inventory on Deans' Insight into Their Leadership Behaviors in Higher Education” has been approved under the expedited category of review by the Human Subjects Institutional Review Board. The conditions and duration of this approval are specified in the Policies of Western Michigan University. You may now begin to implement the research as described in the application.

Please note: This research may only be conducted exactly in the form it was approved. You must seek specific board approval for any changes in this project (e.g., you must request a post approval change to enroll subjects beyond the number stated in your application under “Number of subjects you want to complete the study”). Failure to obtain approval for changes will result in a protocol deviation. In addition, if there are any unanticipated adverse reactions or unanticipated events associated with the conduct of this research, you should immediately suspend the project and contact the Chair of the HSIRB for consultation.

Reapproval of the project is required if it extends beyond the termination date stated below.

The Board wishes you success in the pursuit of your research goals.

Approval Termination: January 30, 2018