The Attributes of Introversion That Enhance the Ability to Lead
by
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We accept the Thesis as conforming to the required standard.

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Abstract

The purpose of the present study was to consider the advantages of introversion in leadership and how these traits are often misunderstood qualities of weaknesses rather than strengths. The misunderstanding of the potential of introverts in leadership by themselves and other leaders was the research problem for this study. This study explored known leaders’ perspectives of the attributes of introversion that enhance their ability to lead, as examined by degree of introversion and extroversion, gender, and years of leadership experience. The participants completed an online questionnaire via SurveyMonkey. Both quantitative and qualitative data were collected. In the end, 25 anonymous responses were completed by known leaders in education and business settings. The results of this study revealed that many positive attributes of introversion have been identified in leadership and leaders possessed different views on the attributes of introversion across their degree of introversion and extroversion, gender, and years of leadership experience.
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Chapter 1: Problem to be Investigated

Purpose of the Study

By investigating known leaders’ perspectives of introversion, the purpose of the present study was to consider the advantages of introversion in leadership and how these traits are often misunderstood qualities of weaknesses rather than strengths. The primary goal of this study was to identify the attributes of introversion that enhance the introverted leader’s ability to affectively lead. The secondary goals of this study were to transform a common misunderstanding about the introvert as a leader, and also to improve the introverted leader’s confidence.

The results of this study may lead introverted leaders to gain the knowledge of how the strengths of their personality contribute in leadership. These leaders may become more effective in administrating their duties through understanding and developing these traits. The evidence of how the misunderstanding of the attributes of introversion may inspire society and organizations to pay more attention to introverts and create an unbiased environment for both introverts and extroverts to flourish. A consideration of introverts’ style of leadership would result in an accommodation of their particular needs, such as solitary spaces to work.

Research Problem

With the development of modern society, most people think they are living in the era of self-expression. In fact, there is limited space for the difference of personality today (Cain, 2012). People tend to associate success with personality type. Due to the preference for extroversion, introverts live in an extroverts’ world. Extroverted traits, such as being talkative, outgoing, or straightforward, have been overvalued in a world of extroverts (Cain, 2012). Cain (2012) pointed out, “Introversion-along with its cousins sensitivity, seriousness, and shyness-is now a second-class personality trait, somewhere between disappointment and pathology” (p. 32).
Therefore, many introverts often pretend to be extroverts on various occasions while struggling with social activities. Other introverts insist on their nature to be introverts, but they feel neglected and unconfident when working with extroverts. Introverts may deny the value of introversion and feel guilty about being introverts. They have encountered a number of doubts about introversion, so they tend to doubt themselves in a community in which extroversion has been valued (Cain, 2012). Current bias against introversion creates great obstacles for the personal development of introverts.

The misconceptions of introversion affect the success of introverted leadership. Farrell (2017) stated that introverts are not confident to be leaders because most leadership qualities are considered the characteristics of extroverts such as public speaking, sociability, and humour. Extroverts are considered natural born leaders (Kuofie, Stephens-Craig, and Dool, 2015). However, introverted qualities are deemed as weaknesses in a leadership role. According to the online survey of more than fifteen-thousand senior leaders conducted by Jones (2006), “65 percent viewed introversion as a barrier to leadership, and only 6 percent believed that introverts were more effective leaders than [extroverts]” (as cited in Grant, Gino, and Hofmann, 2011). Most senior leaders recognize the shortcomings, rather than the strengths of introverts. Introversion stereotypes, by both introverts and extroverts, result in a variety of challenges for introverts to be leaders. The misunderstanding of the potential of introverts in leadership by themselves and other leaders was the research problem for the present study.

Justification of the Study

Introversion is a personality trait, not a personality problem. Cain (2012) stated that nearly half of people throughout the world are introverted. Many people do not realize that there are these many introverts in the world because they tend to stereotype introverts as those who are
difficult to get along with and lack social skills. However, to generalize that all introverts live in their own world or all extroverts like crowded parties is incorrect. Sometimes, introversion is just a tendency to keep silent (Cain). Quiet is often the adjective that describes introverts, but it does not mean all introverts are quiet all the time. Moreover, Cain stated that introverts treat quiet as a source of energy. Introverts might talk all day, but they demand quiet time to reflect and refresh after socializing. Conversely, extroverts need socializing to rouse themselves after they are quiet (Cain). Extroverts and introverts use separate channels to gain energy. Laney (2002) pointed out that introverts are energized by the inward world and extroverts are energized by the outward world. The main difference between extroverts and introverts is their way of obtaining energy, which is neither good nor bad. Introversion is considered a preference instead of a personality issue (Kahnweiler, 2009). As the above research suggested, there are no right and wrong answers for being an introvert or extrovert. Comprehensive research on introversion is required to eliminate the current bias against introversion in society. Unbiased social context would create a more equitable and friendly environment for introverts’ development. Also, this desired environment would promote introverted leaders to be more confident in their workplace.

Introverts hold much potential to become good leaders. The contribution of introverts has been underestimated in a world of extroverts. Kahnweiler (2009) illustrated that introverts account for roughly 40% of executives. There are many examples of introverted leaders who display different introverted characteristics. For example, Barack Obama, the 44th president of the United States, inspired the public by his thoughtful words. Bill Gates, the founder of Microsoft, created business miracles by his persistence and curiosity. Mark Zuckerberg, the founder of Facebook, cares for his colleagues from his heart. These introverted leaders all
exemplify to different degrees some introverted strengths. In order to support a growing number of introverted leaders, summarizing the advantages of introversion in leadership is significant.

By exploring relevant literature, there has been an increase in research regarding introverts and introverted leaders in recent years. Stephens-Craig, Kuofie, and Dool (2015) demonstrated from the results from interviewing thirty-one mid to high-level leaders in different positions that introverts can become positive leaders by incorporating some extroverted qualities into their leadership skills. Furthermore, Stephens-Craig et al. (2015) tried to identify positive characteristics of introverts in relation to leadership roles. These characteristics include being detail-oriented, deep thinking, and strong decision making (Stephens-Craig et al.). However, to be an effective leader, introverts must compensate for extroverted characteristics such as public speaking and communication skills (Stephens-Craig et al.). Ferrell (2017) also stated that strengthening the absent characteristics of extroverted leadership is required to become an effective leader. Current research believes that introverts can be successful leaders based on the manifestation of certain extroverted characteristics. Although the possibility of being an effective leader for introverts has been confirmed, how the contribution of positive attributes of introversion determines the success of leadership needs further demonstration.

**Research Question and Hypotheses**

The research question for the present study was as followed: What do known leaders report as the attributes of introversion that enhance their ability to lead, as examined by degree of introversion and extroversion, gender, and years of leadership experience?

The hypothesis of the present study was that known leaders believe the attributes of introversion can enhance the ability to lead. The author of this study considered that thinking deeply, being creative, being patient, and being a good listener are some important attributes of
introversion that lead to effective leadership. The author expected that the participants would be at different degrees of introversion, different genders, and different leadership experience. Their understanding of the attributes of introversion would be different to help expand the understanding of the problem addressed early. The pattern of these different perceptions of the attributes of introversion in leadership may demonstrate the existence of misunderstanding of introversion among known leaders.

**Definition of Terms**

**Introversion.** The operational definition of *introversion* is a personality of a person who prefers solitary and inward activities. Introversion is an inherent preference or tendency. There are diverse levels of introversion. Introverts are likely to hold some extroverted traits. Introverts may act as extroverts in diverse settings, such as business, education, and family, which results in the misinterpretation of their personality.

**Ambiversion.** The operational definition of *ambiversion* is a term to describe a person whose personality is a mixture of equal proportions of introversion and extroversion. Sometimes, there is a blurred barrier to identify one’s personality. If the potential participants experienced difficulties to determine whether they are either introverts or extroverts, they are more likely to be ambiverts.

**Known leaders.** The operational definition of *known leaders* defined as individuals who are now in formal leadership position or were leaders for a period of time. The present study selected known leaders in both educational and business settings. Being different from common understanding of leadership, political leaders, leaders in non-profit organizations, or leaders in other forms of group context related to private life are not considered expected potential participants in this study.
**Introverted leaders.** The operational definition of *introverted leaders* in the present study is those leaders who be themselves define themselves as introverts. They may consider the results of personality tests such as Myers–Briggs Type Indicator (MBTI) to determine their personality types. However, this study emphasized utilizing self-reflection instead of test scores to confirm participants’ personality.

**Brief Overview of the Study**

The primary goal of the present study was to identify the attributes of introversion that enhance the introverted leader’s ability to affectively lead. The secondary goals of this study were to transform a common misunderstanding about the introvert as a leader, and also to improve the introverted leader’s confidence. The misunderstanding of the potential of introverts in leadership by themselves and other leaders was the research problem for this study. Known leaders, as research participants completed an online questionnaire including questions about themselves (degree of introversion and extroversion, gender, and years of leadership experience) and their views of the attributes of introversion that enhance their ability to lead. The participants’ choices and opinions on these questions were summarized and analyzed to identify what key attributes of introversion enhance their leadership abilities and how these traits are often misunderstood qualities of weaknesses rather than strengths.
Chapter 2: Background and Review of Related Literature

Introduction

This chapter explored related literature regarding and the attributes of introversion that enhance the introverted leader’s ability to affectively lead. This chapter has also explored literature that exposed the current bias against leaders possessing introversion-like traits. For ease of reading, this chapter has been categorized into three themes: (a) the positive traits of introverts, (b) the challenges of introverted leaders, and (c) the qualities of a more approachable workplace environment that is inclusive of both introvert and extrovert personality types.

The Positive Traits of Introverts

Stephens-Craig et al. (2015) examined mid to high-level leaders’ perceptions of introverted leaders. The problems Stephen-Craig et al. tended to address were the stereotypes of positive leadership models and the discrimination of introverted leaders. Stephen-Craig et al. identified positive traits of introverts in the area of introverted leadership. However, no hypothesis was clearly stated. Stephen-Craig et al. utilized qualitative interviews of thirty-one mid to high-level leaders in different occupations. Interviews were conducted face-to-face, by phone, and by written response. By investigating introverted leaders from the perspectives of other leaders, Stephen-Craig et al. found that most participants believed the possibility of being a positive leader is true for both introverts and extroverts. Also, the significance of presenting extroverted traits in leadership was emphasized by the participants.

Overall, Stephen-Craig et al. (2015) offered valuable information for future research into the characteristics of introversion. The conclusions of Stephen-Craig et al.’s research showed that introverts can be positive leaders. The findings of Stephen-Craig et al.’s research challenged the existing stereotypes of introversion in leadership in two distinct ways. Firstly, the high
proportion of participants believed both extroverts and introverts can be positive leaders, which demonstrated that the bias of introversion was inconspicuous among mid to high-level leaders (Stephen-Craig et al.). However, as the sample of Stephen-Craig et al.’s research focused on mid to high-level leaders who are more likely to be educated and have more opportunities to identify the potential of introverted leaders, their unbiased understanding of introversion was difficult to generalize. Secondly, the participants also mentioned the positive and negative characteristics of introversion and extroversion, which could be subjective due to the limited number of participants. Therefore, further research on the strengths and weaknesses of both introverted and extroverted leaders is needed in order to identify and summarize the contributions of introversion and extroversion in leadership.

Ferrell (2017) explored the strengths and weaknesses of both extroverts and introverts in leadership roles. The target audience of Ferrell’s study was librarians and library workers. The purpose of Ferrell’s study was to help individuals and organizations in developing leadership in order to achieve organizational goals. By understanding their personality preferences, Ferrell found that both extroverts and introverts possess the possibilities to become effective leaders in organizations. Also, Ferrell stated that successful leaders are required to strengthen the non-dominant characteristic of leadership. Maintaining a continuum of both extroversion and introversion is the way to be an effective leader, as Ferrell suggested. Furthermore, creating organizations with diverse personality characteristics and styles was encouraged.

Overall, Ferrell’s (2017) study was well-written with important messages that strengthened current understanding of the attributes of extroversion and introversion in leadership. Due to the perception of extroverts as more successful leaders, Ferrell concentrated on introversion in his study. As Ferrell stated, introverts’ positive attributes such as being
cautious and slower decision making, enabling them to be excellent in certain professions. Ferrell did not expand this research direction, but the effect of introversion in various professions or positions can be a valuable topic for more detailed research. Besides, the contribution of introverts’ strong listening and analytical skills toward the success of organizations was confirmed. Although Ferrell’s study focused on library administration, the results regarding the attributes of introversion can be transferred to diverse leadership roles in a variety of leadership contexts. Suggestions of future research were not clearly mentioned in Ferrell’s article. More research on the characteristics of introversion in leadership should be conducted.

**The Challenge of Introverted Leaders**

Marfo (2017) stated that the focus of her study was challenges faced in the workplace by introverted women in leadership roles. The purpose of Marfo’s study was to discover the ways to break through the current bias for introverted female leaders. Marfo initially stated that high-level leaders are almost always extroverts, indicating the underrepresentation of introversion in leadership positions. By illustrating the present achievements of promoting female leaders in the workplace, Marfo pointed out that today’s unbalanced distribution of introverts and extroverts in leadership needs to be changed, with a continued focus on equality across gender. Marfo believed that imitating extroverted behaviours enables introverts to be successful leaders when extroverted qualities are valued. Marfo also stated that the only way to balance introverts and extroverts in leadership is to eliminate the stereotype that extroversion is better than introversion when describing the successful leader.

Marfo’s (2017) findings offered important information regarding the current challenges introverted and female leaders need to encounter. They also provided specific approaches for introverts and women to be effective leaders. Marfo touched several common obstacles of being
an introverted leader, which is well supported by relevant examples and studies. However, Marfo’s study lacked in-depth discussion about each obstacle. Some of Marfo’s findings were superficial or have been demonstrated by many existing research studies. Overall, Marfo’s study was not remarkable as a result of covering too many aspects. In Marfo’s conclusion, she hoped that the number of introverted leaders will be increased through the recognition of their potential. Marfo’s expectations for introverted leaders indicated future directions of leadership. More research on developing introverted and extroverted traits in leadership needs to be conducted in order to achieve Marfo’s expectations.

Spark, Stansmore, and O’Connor (2018) examined whether introverts tend not to be in leadership positions in group settings as a result of their negative prediction about group situations. By investigating the behaviour of 184 business students in a group task, Spark et al. examined the relationship between participants’ forecasts of group activities and their engagement as leaders. Spark et al. indicated that introverts possess higher level of negative feelings than extroverts before participating in group settings. As Spark et al. found, introverts’ overestimation of the negative emotions due to engaging in social situations results in their inhibition. Spark et al. also found that introverts preferred not to emerge as leaders in group activities.

The findings of Spark et al.’s (2018) study were important for understanding what the barriers are for introverts to be leaders. Spark et al. identified that introverts’ negative emotions prior to participating in group activities are one of the factors that results in the underrepresentation of introverts in leadership. Therefore, introverts’ finding a way to adjust their detrimental initial approach to group activities, could be a technique to improve the participation of introversion in leadership. The obvious limitation of Spark et al.’s study is that
they used business students as the samples. The samples of Spark et al.’s study might be too specific, so the results of their study were difficult to generalize. Overall, Spark et al.’s study was valid and applicable. Spark et al. provided two directions for future research: (a) introverts are more likely to become leaders when they possess accurate affect regarding leadership activities, and (b) introverts, as they realize the importance of being leaders, are able to adjust their negative affect before group activities. These two recommended research directions are interesting and needed to be discovered in the near future. Spark et al. also proposed that more-detailed research should focus on exploring the effect of forecasted emotions on the emergence of introverts in leadership.

A More Approachable Workplace

Kuofie et al. (2015) tried to identify positive characteristics of introverts in relation to leadership roles. The purpose of Kuofie et al.’s study was designed to appeal for more attention to the stereotypes of desirable leaders and the value of introverted personality types in regard to leadership in the workplace. Initially, Kuofie et al. illustrated the current misconceptions of introversion, such as shyness and inability. Fortunately, positive traits of introverts, such as being detail-oriented, deep thinking, and strong decision making; has recently gained more academic attention (Kuofie et al.). Kuofie et al. also mentioned that the concept in which society holds a preference towards extroverts causes introverts to compensate for their insufficiencies in the workplace. Kuofie et al.’s findings lacked adequate evidence-driven support. In Kuofie et al.’s conclusion, they pointed out the needs for considerations of employees’ different personality types in order to promote creativity and productivity in the workplace. Also, they suggested the shift from extrovert-centric workplace to more comfortable workplace for both extroverts and introverts. Kuofie et al. proposed a new direction of research in the area of social and employee’s
perceptions of introverted leaders and how leaders can improve their organizations due to shifting perceptions.

Kuofie et al. (2015) provided an overview of introverted leaders, which introduced and summarized the current research situations regarding personality types, introversion, and introverted leaders. Overall, Kuofie et al.’s findings with regard to introverted leaders were important for building and advancing the knowledge of introversion. The results of Kuofie et al.’s study demonstrated the necessity of extroverted qualities in workplace and leadership, which could be interpreted as that positive introverted traits are not enough to support introverts to be effective leaders. Kuofie et al. found that workplaces in western countries preferred extroverts to introverts. This tendency indicated that introverts must compensate for extroverted characteristics. However, Kuofie et al.’s conclusions were very general, and failed to consider individual applications.

Dossey (2016) explored the characteristics of introverts and extroverts as well as the preference of these two personality traits in a work environment. The purpose of Dossey’s study was to examine the different working styles between introverts and extroverts in order to promote a friendlier workplace for people with both personality traits. Initially, Dossey illustrated that today’s trend of increased social media usage has resulted in a reduction of time for solitary activities. Dossey also demonstrated that introverts and extroverts hold distinctive preferences for both their work and home lives. In Dossey’s conclusion, he suggested that in most settings, the format used for collaborative work projects will need to be redesigned to be more inclusive of introverts’ preferences if the goal is to promote a friendlier work environment.

As Dossey (2016) stated in the conclusion section of his study, more private settings are required to fulfill introverts’ preference in the workplace. Also, Dossey stated that upon deep
examination, the two terms *introversion* and *extroversion* are too general to capture the complexity of the human personality. At the conclusion of his study, Dossey proposed further research in the area of human personality in an effort to create a more reasonable model instead of the dichotomy of *introversion* and *extroversion*.

Overall, Dossey’s (2016) study provided valuable information regarding introversion and extroversion. Dossey’s finding are clearly stated and supported by plenty of related research. One of Dossey’s findings that was especially relevant to the present study, was that introverted leaders with extroverted employees, were found to be the most effective. This is an interesting finding that offers a new research direction to be explored. A shortcoming of Dossey’s study was a lack of given empirical evidence regarding both the strength and the nature of the relationships between leaders and subordinates. Specific claims regarding aspects of the relationships noted above need to be further explored. Moreover, in formulating the context where the mix of personality traits find meaning, it was very informative that Dossey summarized existing research study findings, regarding introversion and extroversion in leadership, education, religion, health, and psychology.

**Conclusion**

There are limited numbers of studies related to introverted leadership. Most related studies concentrated on training introverted leaders. Farrell (2017) and Kuofie et al. (2015) stated that introverts need to compensate for extroverted characteristics in order to be effective leaders. Few studies discussed the misconception of introversion in leadership and how to transform this social issue. Kuofie et al. demonstrated that the misunderstanding of introversion is widespread. As Marfo (2017) mentioned, it is time to change current bias for introverts to be leaders. Very few studies have been conducted in the area of introverted traits, demonstrating the contribution
of introverted traits in leadership. To address this knowledge gap, the present study will investigate the attributes of introversion that enhance introverted leaders to affectively lead.
Chapter 3: Procedures and Methods

Description of the Research Design

The present study investigated known leaders’ perspectives of introversion. The potential participants completed an online questionnaire that asks for information about their degrees of introvertedness, gender, and years of leadership experience. Following the demographic information section, the participants were asked to quantify their perspectives about the importance of certain attributes of introversion that enhance the ability to lead using a rating scale from 1 to 10. Both quantitative and qualitative data were collected. The results of this study examined the positive attributes of introversion in an effort to transform the misunderstanding of introversion in leadership.

Description of the Sample

The potential participants for the present study were selected from leaders in education and business. The potential participants were chosen from a variety of settings including universities, primary and secondary schools, and corporations. Leaders were defined as those who are supervising or have supervised at least two subordinates. These leaders included introverts, extroverts, or ambiverts. The author of present study expected that the sample size of the research would be large enough to support or reject the hypothesis of this study. The three criteria for every potential participant were that: (a) each is currently in a leadership role or formerly a leader in an education or business setting, (b) each is willing to participate in this study, and (c) each is willing to complete the questionnaire.

The author of present study recruited the potential participants from Google search engine. By using some key words such as US food company, secondary schools in BC, Chinese universities, etc., the author selected leaders in various business corporations and educational
institutions. The author sent invitation emails to these leaders. The author also sent invitation messages to his friends who are in leadership roles or were leaders in education or business through social media including Facebook, Messenger, and WeChat. After receiving the responses from the potential participants, referrals from these initial participants were another method to expand the total number of participants. The nominated participants can quit the present study at any time without notice.

**Description of the Instruments Used**

The participants were given an online questionnaire asking for demographic information as well as their opinions of the attributes of introversion that enhance the ability to lead. The participants were expected to complete this survey via the SurveyMonkey website. The information of participants’ self-declared *degree of introversion and extroversion, gender,* and *years of leadership experience* was asked in Part A of the questionnaire. In Part B of the questionnaire, the participants rated the importance of attributes related to introversion that enhance leadership. The participants needed to choose a score on a scale from 1 to 10 for each quality to reflect their opinions of how these qualities influence the success of leadership. A score of 1, on the left of the scale, indicated a perspective of *not important.* A score of 10, on the right of the scale, indicated a perspective of *very important.*

Also, the participants were encouraged to provide additional qualitative information regarding each attribute of introversion in leadership in an open-ended comment box after each attribute of introversion in Part B. Participants must complete Part A for their data to be used in the study.

**Explanation of the Procedures Followed**
The author of present study looked for potential participants from Google in October of 2018. He summarized potential participants’ contact information into an MS Excel spreadsheet. The participants received invitational emails that describes the author’s information, the purpose of the present study, specific criteria for participating in this study, and instructions to access the questionnaire in November of 2018. A consent form was attached in each invitational email. The author also sent invitation messages to his friends who are in leadership roles or were leaders in education or business through social media including Facebook, Messenger, and WeChat. The content of the messages was the same as the invitational emails. Eligible participants were asked to read the information letter before starting the questionnaire questions.

The participants completed the questionnaire via the SurveyMonkey website. A link to the questionnaire was provided to the participants in the invitational email. The questionnaire was closed in December 9th of 2018. The participants’ responses were anonymous in order to protect participants’ privacy. The data from the questionnaire were collected and analyzed after all questionnaires were gathered in December 10th of 2018. In February of 2019, the findings and data of the present study were available for the participants who are interested.

**Discussion of Validity**

In the present study, the participants were asked to identify their personality types by self-reflection. The data regarding the participants’ self-reported *degrees of introversion and extroversion* was difficult to be verified and judged. In order to maintain the validity of this study, the participants were allowed to refer to the results of personality tests such as the Myers-Briggs Type Indicator (MBTI) to determine their personality types if necessary.

Moreover, due to the voluntary nature of this study, the potential participants may acquire more relevant knowledge about the advantages of introversion in leadership and the
misunderstanding of introverted leadership than those leaders who were not interested in participating in this study. Therefore, the results of this study were possible to be affected by participants’ prior knowledge. To reduce the distraction from existing knowledge, the participants were encouraged to think deeply and critically based on their leadership experience to answer the questions in the questionnaire.

**Description and Justification of the Statistical Techniques**

After the completion of the questionnaire, the quantitative data (numeric and categorical data) of the questionnaire was organized into an MS Excel spreadsheet by SurveyMonkey. Then, the demographic information in Part A of the questionnaire was sorted into several categories. *Introvert, ambivert, and extrovert* will be three categories for participants’ degree of introversion and extroversion; *males, females, and prefer not to disclose* will be three categories for participants’ gender; and *0 to 5 years, 5 to 10 years, 10 to 25 years, and more than 25 years* will be four categories for participants’ leadership experience. In Part B, participants’ quantitative data (responses for their perspectives/reasons regarding each of the attributes of introversion that enhance their ability to lead) was summarized in an MS Word document. All related quantitative data was imported into the SPSS statistical program for analysis. In addition, an MS Word included the details of the qualitative data of participants’ comments on the attributes of introversion in leadership.

According to the data, the SPSS generated three pie charts for each demographic variable, indicating the structure of research population. Three clustered bar charts were generated to illustrate participants’ perspectives regarding each of the attributes of introversion. Another three clustered bar charts illustrate the means of participants’ rating scores of how these qualities influence the success of leadership. In addition, three box plots indicate the median and
range of each group of participants’ responses on leadership qualities. These figures indicate the differences of participants’ perspectives on the attributes of introversion in leadership according to their degree of introversion and extroversion, gender, and years of leadership experience. The qualities of introversion were summarized to show whether or not introversion is an advantage in leadership. Through comparison, the patterns of participants’ opinions in different categories were summarized in order to discover whether the qualities of introversion are misunderstood in leadership.
Chapter 4: Results and Findings

Introduction

The present study intended to explore the advantages of introversion in leadership and how these traits are often misunderstood qualities of weaknesses rather than strengths. In an effort to support introverted leadership, the author of this study conducted an online questionnaire to answer the following research question: What do known leaders report as the attributes of introversion that enhance their ability to lead, as examined by degree of introversion and extroversion, gender, and years of leadership experience?

On December 9th, 2018, the online questionnaire received 25 anonymous responses from known leaders in education and business settings. These 25 responses were all completed and in a manner for them to be valid as evidence to be analyzed in the present study. The online questionnaire consisted of both quantitative and qualitative data, which has been summarized in the following section.

Quantitative Data

Figure 1 below summarizes the gender of the research participants. Males accounted for 68% and females accounted for 28% of these participants. Out of 25 participants, one participant did not want to disclose his or her gender.
Figure 1. Pie chart of the number of participants for each gender.

Figure 2 below illustrates the years of leadership experience participants possessed. Participants with 0 to 5 years of leadership experience were the largest group, making up 40% of the 25 participants. The second largest group was participants with 10 to 25 years of leadership experience (32% of the total participants). 16% have been leaders for 5 to 10 years, and only 12% (three participants) possessed more than 25 years of leadership experience.
Figure 2. Pie chart of the number of participants for each category of years of leadership experience.

Figure 3 below represents participants’ self-reported degree of introversion and extroversion. 60% of the total participants identified themselves as extroverts, while introverts and ambiverts each accounted for 20% of the total participants.
Figure 3. Pie chart of the number of participants for each category of levels of introversion and extroversion.

Figure 4 below displays participants’ perceived importance regarding ten designated leadership qualities across their gender. The majority of participants either highly or moderately agreed that these ten leadership qualities are the attributes of introversion. Overall, there is no distinctive difference across participants’ gender. Males and females possessed slightly different views with respect to the attributes detail oriented and focused. More females viewed these two leadership qualities as attributes of introversion.
Figure 4. Clustered bar chart of the number of participants considering these ten leadership qualities as attributes of introversion across participants’ gender.

Figure 5 below displays participants’ perceived importance regarding ten designated leadership qualities across their years of leadership experience. Participants with different leadership experience had slightly different perspectives on each leadership quality. Half of the participants with 0-5 years of leadership experience possessed neutral feelings regarding the attribute observant as an attribute of introversion, while all of these participants with 5-10 and more than 25 years of leadership experience highly agreed that observant is an attribute of introversion. Similarly, most of the participants with 0-5 years of leadership experience remained neutral in the attributes trustworthy and modest again. However, these two leadership qualities were highly considered as attributes of introversion by most of the participants in the other three categories of leadership experience.
Figure 5. Clustered bar chart of the number of participants considering these ten leadership qualities as attributes of introversion across participants’ years of leadership experience.

Figure 6 below displays participants’ perceived importance regarding ten designated leadership qualities across their degree of introversion and extroversion. There is a slight difference across participants’ degree of introversion and extroversion. Extroverted participants chose high degree more than moderate degree for nine leadership qualities except for the attribute self-aware. Introverted participants chose high degree more than moderate degree for six leadership qualities. Most introverted participants were neutral for the attributes detail-
oriented, focused, creative, and self-aware.

Figure 6. Clustered bar chart of the number of participants considering these ten leadership qualities as attributes of introversion across participants’ gender.

Figure 7 below illustrates the mean scores of participants’ rating the importance of leadership qualities across their gender. A score of 1 indicates a perspective of not important and a score of 10 indicates a perspective of very important. Overall, the mean scores of participants’ rating the importance of these ten leadership qualities are all above 5. Due to only one participant in the category of prefer not to disclose, the columns for this category indicate only one participant’s rating scores for each leadership quality instead of the mean scores. There is no notable difference across gender.
Figure 7. Clustered bar chart of the mean scores of participants’ rating the importance of leadership qualities across their gender.

Figure 8 below illustrates the mean scores of participants’ rating the importance of leadership qualities across their years of leadership experience. It is interesting that the mean scores of participants with 5-10 years of leadership experience are mostly lower than the other three categories, while the chart clearly indicates that the attribute modest has the lowest mean scores out of ten leadership qualities.
Figure 8. Clustered bar chart of the mean scores of participants’ rating the importance of leadership qualities across their years of leadership experience.

Figure 9 below illustrates the mean scores of participants’ rating of the importance of leadership qualities across their degree of introversion and extroversion. The attribute trustworthy received the highest mean scores in three categories. As reflected in Figure 9, the Introvert group rated it slightly lower than both the Ambivert group and the Extrovert group. The attributes detail oriented, focused, self-aware, and sensible received very similar mean scores from 6 to 8 with introverts rating the lowest and extroverts rating the highest.
Figure 9. Clustered bar chart of the mean scores of participants’ rating the importance of leadership qualities across participants’ levels of introversion and extroversion.

Three box plots indicating the rating scores of importance of ten leadership qualities were created in SPSS (see Appendix D, Appendix E, and Appendix F). The author of present study removed outliers in three original box plots for the ease of understanding and reading.

Figure 10 below indicates the rating scores of the degree-of-importance of leadership qualities across participants’ gender. Again, it is important to note that only one participant accounted for the gender of prefer not to disclose. As reflected in Figure 10, participants’ rating scores for the attributes creative, modest, self-aware, and sensible were very wide. The spread of the box plots for the attributes listening skills, focused, and trustworthy is smaller than the other leadership qualities, indicating that participants’ scores on these three qualities were more
consistent. No significant difference is displayed across gender. *Females*, overall, rated the attribute *creative* lower than males.

*Figure 10.* Box plot of rating scores of importance of leadership qualities across participants’ gender.

Figure 11 below indicates the rating scores of the degree-of-importance of leadership qualities across participants’ *years of leadership experience*. The box plots for participants with 5 to 10 *years of leadership experience* almost have the lowest medians among all groups. As the box plots for the attributes *listening skills, focused, thoughtful, observant,* and *trustworthy* showed, the spread of rating scores from participants with 5 to 10 *years leadership experience* is very wide, while the spread of rating scores of the other three groups is narrow. As reflected in Figure 11, the rating scores of the attribute *modest* are the lowest among the scores of the other leadership qualities.
Figure 11. Box plot of rating scores of importance of leadership qualities across participants’ gender.

Figure 12 below indicates the rating scores of the degree-of-importance of leadership qualities across participants’ degree of introversion and extroversion. It is important to note that the number of extroverts were triple that of introverts and ambiverts (also known as neutrals). The box plots for extroverts does not clearly show a wide range of ratings scores of extroverts due to the high proportion of extroverts in the present research. As Figure 12 shows, the rating scores of introverts is very consistent. The box plots for ambiverts present a wide range of rating scores for several leadership qualities (creative, observant, and sensible).
Qualitative Data

In Part 2 of the questionnaire, participants were asked to consider how important effective leaders should possess the ten designated attributes and rate these attributes from 1 to 10. After each attribute, participants were encouraged to provide open-ended responses to explain the reason of their rating scores. Just 2 out of 25 participants provided qualitative responses in this section.

One participant mentioned that the importance of creativity depends on the types of leaders. This participant also noted that being modest is more about leadership style. She felt leaders must be authentic. Another participant noted, “Modesty helps people to progress”. He also noted that having good sense of self-awareness enables leaders to think more clearly and differently. Furthermore, he reported that being trustworthy is an important quality for leaders. He also stated that observant leaders can find others’ concerns in time and make better communication with others.
Conclusion

In the present chapter, all of the responses from known leaders in education and business have been summarized. Three pie charts illustrate the demographic information of 25 participants in the present study. Six bar charts and three box plots indicate participants’ perceived importance regarding ten designated leadership qualities and rating scores of the degree-of-importance of leadership qualities. Moreover, participants’ open-ended responses, which explain the reason of their rating scores, have been included and analyzed.
Chapter 5: Summary and Conclusions

Brief Summary of the Study

The purpose of the present study was to consider the advantages of introversion in leadership and how these traits are often misunderstood qualities of weaknesses rather than strengths. The common misunderstanding of the leadership potential of introverts was the focus of this study. The present study concentrated on the following research question: What do known leaders report as the attributes of introversion that enhance their ability to lead, as examined by degree of introversion and extroversion, gender, and years of leadership experience?

To explore the research question of the present study, the author looked for potential participants (known leaders in business and education) from the Google search engine in October of 2018. In November of 2018, more than 300 participants were sent either invitational emails or messages from the present author. Eligible participants were asked to complete the questionnaire via the SurveyMonkey website. A link to the questionnaire was provided to the participants in the invitational email or message.

By December 9th of 2018, the online questionnaire received 25 anonymous responses from known leaders in education and business settings, and the survey was closed. Of those 25 participants, just 2 provided qualitative responses.

Discussion

Research population. The author of the present study attempted to find equal number of participants for each gender grouping in this study. There were four options for participants to describe their gender in the online questionnaire: male, female, prefer not to disclose, and other (see Appendix C). Most participants selected either male or female, while 1 out of 25 participants chose prefer not to disclose. However, at the time of searching potential participants, there were
more male leaders than female leaders in business and education on websites. In the end, male leaders accounted for approximately 70% of the total number of 300 potential participants. Expectedly, 68% (17 out of 25) of the participants were male, and 28% (7 out of 25) were female (see Figure 1).

The spread of participants’ reported number of years of leadership experience is more balanced than both gender, and degree of introversion or extroversion (see Figure 2). There were an adequate number of participants in each subcategory of years of leadership experience; participants in each subcategory were not more than half of the total participants, with the smallest subcategory (more than 25 years of leadership experience) making up 12% of the participants.

The author of the present study selected the potential participants from a Google search with the intension of a having global reach and maintaining a blind view on their degree of introversion and extroversion. In total, 15 participants declared themselves as extroverts, 5 declared themselves as introverts, and 5 declared themselves as ambiverts (also known as neutrals). This imbalanced proportion in the participant group of declared introverts, extroverts, and ambiverts, with the extrovert being the most common, indicates that extroversion attributes are still dominant in cultures across the globe.

**Attributes of introversion.** Participants were asked to indicate their perceived importance about the ten designated qualities as attributes of introversion: listening skills, detail-oriented, focused, creative, thoughtful, observant, trustworthy, modest, self-aware, and sensible. Very few participants chose low degree to describe their perceived importance regarding these ten qualities as attributes of introversion. This data indicate that all of these ten qualities are, to some extent, the attributes of introversion. The attribute of listening skills was widely considered
an attribute of introversion as 18 participants chose high degree on it. It is a quality strongly associated with introversion. Followed by detail-oriented, focused, thoughtful, observant, and sensible; more than half of the total participants highly agreed these qualities as attributes of introversion. These qualities are also visibly exhibited in introverts. Being self-aware is the most controversial quality that 13 participants were in the middle for this quality. It means that this quality might not be only the attribute of introversion.

There is no remarkable difference of participants’ view regarding the attributes of introversion across gender. Participants with different gender reported very similar opinions on these attributes of introversion. However, being detail-oriented and focused were two controversial qualities that more males remained neutral and more females highly accepted they are attributes of introversion. Males and females might specialize in different types of leadership occupations, which results in their slightly different thoughts on these two qualities.

Participants with 0 to 5 years of leadership experience reported neutral feelings regarding many qualities as the attributes of introversion, while those qualities were highly identified by participants with more than 25 years of leadership experience. This difference indicates that leaders increase their recognition of the importance of these attributes of introversion with the growth of their leadership experience. Unexperienced leaders seem to be more likely to overlook the attributes of introversion due to their lack of experience of relationships with introverts or knowledge of introversion. Therefore, experienced leaders are found to play a significant role in creating a friendlier environment for the development of introverted leaders.

It is interesting to note that many extroverted participants highly reported these ten qualities as true attributes of introversion; however, introverted participants had more moderate perspectives. Interestingly, not one introverted participant felt that being creative is an important
attribute of introversion, while most extroverted participants chose *high degree* for this attribute. Introverts and extroverts hold diverse opinions regarding many attributes. This diversion indicates that the ways extroverts view introverts, and introverts view themselves, are completely different. Moreover, the findings of this present study do not demonstrate that most extroverted leaders possess the bias against introversion. In fact, many introverted leaders reported that they are somewhat unconfident or uncertain of their own attributes.

**Leadership qualities.** The hypothesis of the present study was that known leaders believe the attributes of introversion can enhance the ability to lead. Participants’ self-reported results in this study did support the hypothesis. According to participants’ perceived importance on the ten leadership qualities, the mean scores of participants’ regarding all 10 attributes are above 5 (on a 10-point scale), with 1 representing *not important* and 10 representing *very important*. This finding indicates that these ten qualities are important in leadership to different degrees. These important leadership qualities are also the attributes of introversion, demonstrating that introverts can become effective leaders by developing their own attributes. The findings of this present study indicate that introverts do not need to act more extroverted to cater to those people with the preference of extroversion for leadership; these introverts already embody many valuable leadership qualities.

Out of these ten leadership qualities, being *trustworthy* was found to be the ‘most’ important; with being *modest* found to be the ‘least’ important. One participant mentioned the importance of being *trustworthy* in leadership in his qualitative responses. Therefore, all findings being considered, being *trustworthy* is the most important quality in leadership.
Another participant stated that being *modest* is more about leadership style. According to participants’ qualitative responses, being *modest* is a precious attribute. However, this attribute might not be a significant factor to measure the effectiveness of a leader.

From the findings, there is no distinctive difference of participants’ perspectives of the importance of these ten leadership qualities across *gender*. Fewer *females* believed that being creative is an important leadership attribute than *males*. This difference was possibly because of participants being from diverse types of leadership roles and diverse industries. A creative leader is important in certain industries, such as art, design, and technology. In other more production-oriented industries such as manufacturing objects from pre-designed protocols, in which a constant standard or system is followed, being *creative* might not be deemed as important as other leadership qualities.

Overall, participants in the collective group with *0 to 5 years of leadership experience* gave the lowest ratings of importance on all 10 leadership qualities compared to the other 3 categories based on *years of leadership experience*. It is understandable that participants in this group could not give high scores for these leadership qualities because they did not possess enough leadership experience to prove the importance of these qualities. They were probably uncertain of these leadership qualities as a result of their lack of leadership experience. In contrast, overall, participants in the collective group with *more than 25 years of leadership* gave the highest ratings of importance on all 10 leadership qualities.

It is interesting that *introverts* rated the importance of these ten leadership qualities slightly lower than *ambiverts* and *extroverts*. This finding might indicate that *introverts* own the nature of being moderate. Only for being *thoughtful* and *modest*, the mean scores of introverted participants’ rating the importance of these leadership qualities were higher than extroverted...
participants. The opinions of *introverts, ambiverts, and extroverts* were quite different on several leadership qualities. Overall, it is surprising to the author of the present study that extroverted leaders highly affirmed that these attributes of introversion are important leadership qualities. However, introverted leaders were not very confident of these attributes as important leadership qualities.

**Limitations**

There were several limitations to the present study. In this study, participants were asked to reflect on their own degrees-of-introversion and extroversion. One limitation would be that the data regarding the participants’ self-reported degrees-of-introversion and extroversion was difficult to be verified and judged. It is possible that participants did not provide accurate rating scores for this question due to their stereotype of introversion or extroversion or their lack of self-knowledge. As a result of a common perception of a preference of extroversions in the world, some introverts tend to act like extroverts, which may result in the misjudgement of their own degrees of introversion and extroversion. Therefore, participants’ bias of introversion may be one of the reasons why 60% of the total participants in this study declared they are *extroverts*.

Another limitation of the present study is that several categories of participants are very small. For example, only 3 out of 25 participants had *more than 25 years of leadership experience*. Therefore, the findings based on these small categories probably represent participants’ individual thoughts, which may be difficult to be generalized.

Furthermore, there are limitations for global leaders to participate in the present study. The potential participants of the present study were expected to be those leaders in education and business around the world. When the author of this study recruited the potential participants from a Google search, he noticed that the results were more likely to be those corporations or
educational institutions in North America because Google produced relevant website information based on user’s location. Language barrier is also a limitation to enable global leaders to participate in this study when the only language option for the questionnaire was English. The author of this study did find many English-speaking leaders in non-English-speaking countries to maintain the variety of participants’ regions. Additionally, the author recognized that email communication, which is the main interactive way in this study, is not popular in certain countries. This might lead to the low response rates of participants in those countries in which email is not common. Therefore, due to these reasons above, it is important to note that leaders in North America might account for a large proportion of the total participants in this study, but because the country-of-origin was not asked for in the questionnaire, it is impossible to be certain.

Suggestions for Further Research

Although introverted leadership has been valued by the public in recent years, the relevant research related to this area is still limited. In 2012, the book by Susan Cain, *Quiet: The power of introverts in a world that can’t stop talking*, was published. The author of this book became a famous person in the area of introversion. Since then, the fixed mindset of introversion had been slowly transformed on a global scale. More academic or non-academic research regarding introversion and introverts’ potential has been conducted. However, introverted leadership is a brand-new field, which requires strong knowledge base for people to understand. The present study aimed to provide a broad understanding of the attributes of introversion in leadership. Further research may focus on more specific situations and settings, such as the influence of introverted leaders in schools, the participation of introverted leaders in creative industries, and how introverted leaders work optimally while on extroverted teams. As the
present study did not receive many qualitative responses, another recommendation would be that further research could utilize different research methods, such as interviews and focus groups, to gather more contextualized information regarding participants’ understanding of introversion in leadership.

**Conclusion**

The majority of the participants in the present study reported that these ten attributes of introversion (listening skills, detail-oriented, focused, creative, thoughtful, observant, trustworthy, modest, self-aware, and sensible) are important qualities in leadership. The impact of introverted qualities in leadership roles has been recognized in this study. The message coming from this present study is that introverts should concentrate on developing their own authentic attributes to be effective leaders rather than developing inauthentic extroverted-like traits. More concentration and encouragement on introverted leadership is required to transform the current unbalanced distribution of introverts and extroverts in leadership roles. This present study also found that there was a slight difference regarding the attributes of introversion in leadership across participants’ gender, years of leadership experience and levels of introversion and extroversion. To continue to enlighten the leadership world about the many powerful strengths of the introverted leader, more research on introverted leadership should be conducted to fill this knowledge gap. Furthermore, corporations or educational institutions would be wise to create a more welcoming environment for the professional development of introverted leaders. With the unbiased environment for both introverts and extroverts in place, there will be room for the evolution of the introverted leader on the global stage.
References


APPENDIX A

Consent Form

Consent Form for the Study Titled: The Attributes of Introversion That Enhance the Ability to Lead

Principal Investigator
Yuan Song, Student Researcher
Master of Education
Vancouver Island University

Supervisor
Bonita Davidson, PhD.
Department of Education
Vancouver Island University
bonita.davidson@viu.ca

I am a student in the Master of Educational Leadership program at Vancouver Island University (VIU). My research project, entitled “The Attributes of Introversion That Enhance the Ability to Lead”, aims to consider the advantages of introversion in leadership and how these related traits are often misunderstood as qualities of weaknesses rather than strengths. I hope that my research will support introverted leaders to lead affectively, while transforming a common misunderstanding about the introvert as a leader.

The sampling criteria for every potential participant are that: 1) each is currently in a leadership role or formerly a leader in an education or business setting, 2) each is willing to participate in this study, and 3) each is willing to complete the consent form and online questionnaire.

If you would be willing to participate in my research, you will be asked to complete an online questionnaire via the SurveyMonkey website. Questionnaire data will be stored on SurveyMonkey’s servers located in USA, and thus is subject to SurveyMonkey’s data privacy policies and foreign legislation. For information on SurveyMonkey’s privacy policy, see www.surveymonkey.com/mp/legal/privacy-policy/.

The online questionnaire includes questions about the demographic information as well the attributes of introversion that enhance the ability to lead. The online questionnaire is expected to take five to fifteen minutes. Your degree of introversion, your gender, and your years of leadership experience will be asked in the questionnaire.

The nature of this online questionnaire is completely anonymous. Further, I will be sending invitation letters to at least 300 known leaders around the world. From this, the risk of your questionnaire responses being identifiable is extremely unlikely.

All the questionnaire responses will be stored in my SurveyMonkey account. Only I will be able to access this account by the unique password. After the data collection, the electronic data will...
be on my password-protected laptop. The data on the SurveyMonkey website and in my laptop will be stored for one year, which I expect will be December 20, 2018. I will not collect any personally identifiable information, including Internet Protocol (IP) addresses.

The research findings will be used in my Master thesis, published on VIUSpace, presented at VIU Master Conference as well as at CSSE (Canadian Society Study of Education) Conference. Next year, the results of this study will be available online as part of my final thesis on VIUSpace, see viurrspace.ca/handle/10613/3277. By searching my name on this web page, you will be able to find this research study.

Your participation is completely voluntary. You may withdraw from the study at any time, for any reason, up until you toggle the ‘submit’ button at the end of the questionnaire. Once the questionnaire has been submitted, it will not be possible to withdraw your responses.

I, Yuan Song, promise to adhere to the procedures described in this consent form.

If you have any concerns about your treatment as a research participant in this study, please contact the VIU Research Ethics Board by telephone at 250-740-6631 or by email at reb@viu.ca.
Hello,

Welcome to this academic research study!

My name is Yuan Song and I am a student in the Master of Educational Leadership at Vancouver Island University (VIU). I am requesting your participation in an online questionnaire regarding introverted leadership on SurveyMonkey. This online questionnaire will take 5 to 15 minutes.

My research, entitled ‘The Attributes of Introversion That Enhance the Ability to Lead’ aims to consider the advantages of introversion in leadership and how these traits are often misunderstood qualities of weaknesses rather than strengths. I hope that my research will support introverted leaders to affectively lead and transform a common misunderstanding about the introvert as a leader.

The eligibility criteria are that potential participants: 1) is currently in a leadership role or formerly a leader in an education or business setting, 2) is willing to participate in this study, and 3) is willing to complete the consent form and online questionnaire.

An information letter that gives you detailed information and instructions about this study will be presented at the beginning of the questionnaire. Please read it carefully before starting the questionnaire questions. If you consent to participate in this study, please check the box below and click “Next” button to continue the questionnaire.

Next year, the results of this study will be available online on VIU space, see viurrspace.ca/handle/10613/3277. By searching researcher’s name on this web page, you will be able to find this research study.

Please feel free to invite other educational or business leaders to participate in this study by forwarding this email to them.

If you have questions, please contact me. If you have any concerns about your treatment as a research participant in this study, please contact the VIU Research Ethics Board by telephone at 250-740-6631 or by email at reb@viu.ca.

If you meet the criteria, please complete and submit the online questionnaire by simply clicking the link below. Please note that the deadline to submit the questionnaire is December 10th, 2018.
https://www.surveymonkey.com/r/DZZXDS6

With sincere gratitude for your participation,

Yuan Song

MEDL Student Researcher
Faculty of Education
Vancouver Island University
APPENDIX C

Questionnaire

* Information and Consent Letter

Welcome to this academic research!

Principal Investigator: Yuan Song
Email: song19930708@gmail.com
Supervisor: Dr. Bonita Davidson
Email: bonita.davidson@viu.ca

I am a student in the Master of Educational Leadership program at Vancouver Island University (VIU). My research project, entitled “The Attributes of Introversion That Enhance the Ability to Lead”, aims to consider the advantages of introversion in leadership and how these related traits are often misunderstood as qualities of weaknesses rather than strengths. I hope that my research will support introverted leaders to lead affectively, while transforming a common misunderstanding about the introvert as a leader.

The sampling criteria for every potential participant are that: 1) each is currently in a leadership role or formerly a leader in an education or business setting, 2) each is willing to participate in this study, and 3) each is willing to complete the consent form and online questionnaire.

If you would be willing to participate in my research, you will be asked to complete an online questionnaire via the SurveyMonkey website. Questionnaire data will be stored on SurveyMonkey’s servers located in USA, and thus is subject to SurveyMonkey's data privacy policies and foreign legislation. For information on SurveyMonkey’s privacy policy, see www.surveymonkey.com/mp/legal/privacy-policy/.

The online questionnaire includes questions about the demographic information as well the attributes of introversion that enhance the ability to lead. The online questionnaire is expected to take 2 to 5 minutes. Your degree of introversion, your gender, and your years of leadership experience will be asked in the questionnaire.

The nature of this online questionnaire is completely anonymous. Further, I will be sending invitation letters to at least 300 known leaders around the world. From this, the risk of your questionnaire responses being identifiable is extremely unlikely.
All the questionnaire responses will be stored in my SurveyMonkey account. Only I will be able to access this account by the unique password. After the data collection, the electronic data will be on my password-protected laptop. The data on the SurveyMonkey website and in my laptop will be stored for one year, which I expect will be April 1st, 2020. I will not collect any personally identifiable information, including Internet Protocol (IP) addresses.

The research findings will be used in my Master thesis, published on VIUSpace, presented at VIU Master Conference as well as at CSSE (Canadian Society Study of Education) Conference. Next year, the results of this study will be available online as part of my final thesis on VIUSpace, see viuspace.co/handle/10613/3277. By searching my name on this web page, you will be able to find this research study.

Your participation is completely voluntary. You may withdraw from the study at any time, for any reason, up until you toggle the ‘submit’ button at the end of

☐ By checking this box, you confirm that you have read and understand the information provided above, and hereby consent to participate in this research.
### Part 1 Demographic Information

1. Please indicate your gender.
   - Male
   - Female
   - Other (please specify)

2. How many years have you been in a leadership role?
   - 0-5
   - 5-10
   - 10-25
   - 25+

3. Where on the introversion/extroversion spectrum do you most identify?

<table>
<thead>
<tr>
<th>1 (very introverted)</th>
<th>10 (very extroverted)</th>
</tr>
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<tbody>
<tr>
<td>[ ]</td>
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</table>
## Part 2 The Attributes of Introversion

To what degree do you consider each of the following as an attribute of introversion?

<table>
<thead>
<tr>
<th>Attribute</th>
<th>High</th>
<th>Medium</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good listening skills</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Detail-oriented</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Focused</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Creative</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Thoughtful</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>Observant</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Trustworthy</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Modest</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Good sense of self-awareness</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Sensible</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
Part 2 The Attributes of Introversion

How important do you feel that effective leaders should possess each of the following attributes?

1. Good listening skills
   1 (not important) 10 (very important)

   Reasons (optional)

2. Detail-oriented
   1 (not important) 10 (very important)

   Reasons (optional)

3. Focused
   1 (not important) 10 (very important)

   Reasons (optional)
### 8. Modest

<table>
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<th>1 (not important)</th>
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Reasons (optional)

### 9. Good sense of self-awareness

<table>
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<tr>
<th>1 (not important)</th>
<th>10 (very important)</th>
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Reasons (optional)

### 10. Sensible

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<th>10 (very important)</th>
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</table>

Reasons (optional)
APPENDIX D

Box Plot of Rating Scores of Importance of Leadership Qualities Across Participants’ Gender with Data Outliers
APPENDIX E

Box Plot of Rating Scores of Importance of Leadership Qualities Across Participants’ Years of Leadership Experience with Data Outliers
APPENDIX F

Box Plot of Rating Scores of Importance of Leadership Qualities Across Participants’ Levels of Introversion and Extroversion with Data Outliers