

Strengths Based Assessment: Predicting Student Success in an Online Graduate Leadership Program

Abstract

The CliftonStrengths assessment (Rath, 2007) is a widely-used inventory focused on identifying a person's top-five signature themes or talents. This research project, funded by the 2018 Association of Leadership Educators' Mini-Grant Program, sought to describe students' signature themes and evaluate the relationship between students' themes and a variety of student success indices in an online graduate leadership program. This research report describes the type and frequency of graduate students' themes and strength domains and provides recommendations about how to best serve online graduate leadership students across all strength domains to maximize their success in the online, graduate learning environment. A full report of the relationship between students' strengths and the indices of student success will be available at the annual conference.

Introduction

Graduate and online education in the United States has experienced a profound shift over the last several decades and one of the results has been a surge in novel graduate program initiatives and a mainstream acceptance of the scholar practitioner model of doctoral study (Boud & Tennant, 2006; Boyer, 1990; Servage, 2009). Further, a rich body of knowledge tells us that the adult scholar practitioner graduate student is qualitatively different than the typical undergraduate or nontraditional adult learner (Knowles, 1980; Knowles, Holton, & Swanson, 2015). However, the field is ripe for evidence-based best practices about how best to inspire and support these students through graduate academic programs. This research project serves as one such initiative and investigated students' CliftonStrengths top-five signature themes (formerly known as the Clifton StrengthsFinder) (Rath, 2007) and their relationship to a variety of student success indices in an online graduate leadership program.

In anecdotal conversations with fellow program faculty over the past several years, loose ideas emerged about potential relationships between students' CliftonStrengths top-five themes and their general performance in the program. For example, the faculty had noticed (albeit without any real data) that students with Strategic Thinking and Executing focused themes such as *learner* and *achiever* tended to thrive in the online graduate environment, whereas those with Influencing and Relationship Building focused themes such as *woo* (winning others over) and *positivity* seemed to take a greater number of leaves of absence and were less committed to the program in the latter portion of the plan of study (perhaps because of the limited opportunity to apply relationally-focused practices and in-person social interactions) (Rath, 2007; Rath & Conchie, 2009). A deeper and more nuanced understanding about how these students' themes either contribute to their achievements or their challenges in an online graduate leadership program is important because it informs the relatively uncharted territory of graduate leadership education.

The purpose of this research study was to describe online graduate leadership students' signature themes from the CliftonStrengths assessment and to evaluate the predictive nature of these

themes across a variety of student success indices. The aim of the research project is to subsequently determine how to best serve graduate leadership students across *all* strength domains to maximize their success in the online, graduate learning environment (Knowles et al., 2015; Rath & Conchie, 2009).

The research presented in this paper includes preliminary descriptive findings as part of a larger project, funded by the 2018 Association of Leadership Educators' (ALE) Mini-Grant Program. A full report of the project's findings will be available at the annual ALE conference.

Literature Review

The Scholar Practitioner Student – An Argument for Andragogy

The number and type of online education programs have steadily increased over the last several decades (Boud & Tennant, 2006; Boyer, 1990). This growth provides increased educational access for the traditional undergraduate learner, but also for the adult scholar practitioner. Adult scholar practitioner students come to the online classroom with a wide variety of goals including skill certification, degree completion, and graduate level degree attainment. However, the adult scholar practitioner graduate student is qualitatively different than the typical undergraduate or nontraditional adult learner (Granello, 2001; Knowles, 1980; Knowles et al., 2015). Those who come to the online graduate classroom are often career professionals seeking advancement in their field, or in some cases, a career change. Consequently, graduate leadership programs have the opportunity and obligation to train industry leaders how to apply theoretical and academic knowledge to their respective fields of practice. Fields such as business and nursing have begun training their graduates through a leadership lens. However, the conversation amongst leadership scholars is relatively new and ripe for a broad look at leadership education at the graduate level, namely how to best inspire and lead scholar practitioner students through graduate leadership academic programs (Friga, Bettis & Sullivan, 2003; Radzynski, 2005).

In the late 1960s, Malcolm Knowles identified a new theory of education, distinguishing the adult learner from the typical adolescent or young adult learner. Andragogy, or “the art and science of helping adults learn” (Knowles, 1980, p. 43) sought to define and explain the needs of adult learners, distinct from the learning styles and motivations of the traditional student. Knowles defined five underlying concepts of the adult learner, specifically as someone who (1) has a unique and independent self-concept who can direct his or her own learning, (2) has a deep reservoir of life experiences, (3) has learning preferences and needs related to his or her changing social roles, (4) is interested in immediate application of new knowledge, and (5) has an internal rather than external motivation to learn (Knowles, 1980; Merriam, 2001). Adult students desire exercises that are tailored to tap into the richness of their lived experiences and reflect on the direct application of the concepts under study in their place of work (Hansman, 2001; Knowles, 1980; Merriam, 2001). As a result, while best practices created with an undergraduate leadership population in mind may work beautifully in traditional leadership programs, they may not cleanly translate to graduate leadership program models. The need for both empirical and conceptual research about how best to serve these uniquely motivated students will be increasingly important as the number and type of these graduate leadership programs increase.

Because scholar practitioners enter the virtual classroom with a varied set of goals, motivations, and life experience from which to draw upon, graduate programs benefit from a deeper understanding of the strengths, talents, and interests of the students in their classrooms. One such set of talents can be identified, and subsequently cultivated, by the CliftonStrengths assessment (Gallup Organization, 2018; Rath, 2007).

Strengths Based Assessment and Education

The CliftonStrengths assessment (Rath, 2007) is a widely-used leadership inventory, completed by nearly 18.1 million people worldwide (Gallup Organization, 2018) and is used both in practitioner and education settings. The assessment encourages individuals to discover patterns of thinking, feeling, and behaviors that when refined, can be developed into strengths or signature themes. The assessment and related supporting reports and coaching were built upon the principles of positive psychology (Seligman & Csikszentmihalyi, 2000; Seligman, Steen, Park, & Peterson, 2005; Snyder, Lopez, & Pedrotti, 2010) and designed to initiate a “strengths-based development process in work and academic settings” (Asplund, Agrawal, Hodges, Harter, & Lopez, 2014, p. 2).

The CliftonStrengths assessment is a web-based inventory comprised of 177 paired statements to which individuals report how accurate that statement describes them on a Likert-type scale. Participants have 20 seconds to respond to each statement. The inventory takes approximately 45-60 minutes to complete and respondents are immediately provided with a report of their top-five (out of a possible 34) CliftonStrengths themes. These 34 themes fall within four strengths domains:

- Strategic Thinking (analytical, context, futuristic, ideation, input, intellection, learner, strategic)
- Executing (achiever, arranger, belief, consistency, deliberative, discipline, focus, responsibility, restorative)
- Activator (command, communication, competition, maximizer, self-assurance, significance, woo)
- Relationship Building (adaptability, connectedness, developer, empathy, harmony, includer, individualization, positivity, relator)

Rath and Conchie (2009) and www.gallupstrengthscenter.com provide a full description and discussion of each theme and related strengths domains. The CliftonStrengths assessment has been examined in a number of reliability and validity studies both by Gallup, the developer of the assessment and externally (see Asplund et al., 2014). Acceptable, though varied reliability and validity across a variety of contexts has been established.

With the growing number of campuses nationwide that have adopted a strengths-based culture, the CliftonStrengths assessment has become more readily available for students. As a result, researchers continue to investigate the utility and limits of a strengths-based approach to education in the broader higher-education community. Although most research about students' strengths has been conducted with undergraduate students, several researchers have explored the relationship between graduate students' themes in a variety of graduate programs. For example, Janke et al. (2015) evaluated the top-five CliftonStrengths themes of 1,244 pharmacy students

across five Midwestern pharmacy institutions and found that the top-five themes were Achiever, Harmony, Learner, Responsibility, and Empathy. Although they found some small gender differences across these themes, they identified that the five themes were consistent among students at all five separate colleges of pharmacy, perhaps suggesting a common set of motivations or talents for students in this type of professional health program. It is unclear whether and how other health profession programs, or other non-health graduate programs students' themes and strengths domains are similar or different.

Strengths Based Advising

Strengths based advising (Schreiner & Anderson, 2005) is an advising framework used primarily in undergraduate education whereby the guiding belief is that students achieve “greater outcomes when they discover and develop their natural talents instead of solely mitigating their areas of weakness” (Soria, Laumer, Morrow, & Marttinen, 2017, p. 55). This model is predicated on the foundations of positive psychology (Seligman & Csikszentmihalyi, 2000; Seligman, Steen, Park, & Peterson (2005); Snyder, Lopez, & Pedrotti, 2010) and the idea that reactive advising—that is deficit remediation in higher education advising models is no longer adequate for meeting the needs of today’s learners. “When student weakness is the focus of attention, a vicious cycle of low expectations is initiated among students, faculty members, and staff alike” (Schreiner & Anderson, 2005, p. 21). The strengths based advising model is instead, a forward-looking framework whereby all students are encouraged to recognize their strengths and talents and build upon past successes to further develop with those strengths in mind. The basic elements of strengths based advising include first, an identification of students’ top talents, followed by a practice of encouraging students’ awareness and appreciation of those talents and strengths. Then advisors are encouraged to assist students to develop action plans related to an area in which they most want to achieve success. Further, students are to consider how their strengths will help them achieve those objectives. The response amongst scholars to the strengths based advising model has been generally positive, however few empirical studies exist about the *effectiveness* of strengths based advising on student success indices such as retention, graduation rates, and GPA. Soria et al. (2017) conducted one of the more thorough quasi-experimental studies about the effectiveness of a strengths based advising approach on student success outcomes. Specifically, they found that amongst 1,228 first year students at a large Midwestern University, first year students who experienced strengths based advising conversations were retained at higher rates after the first year, graduated in four years, and reported higher levels of engagement and academic self-efficacy compared to students who did not participate in strengths based advising conversations.

The majority of empirical work in the area of strengths based advising has been conducted with undergraduate students (see Soria, Lingren Clark, Coffin Koch, 2013; Soria, Roberts, & Reinhard, 2015; Young-Jones, Burt, Dixon, & Hawthorne, 2013). As a result, there is a void of literature about how a strengths based advising model might contribute to student persistence and success in graduate programs. To develop empirically based advising programs and to test their effectiveness towards improving student outcomes, researchers must first know the talent themes that scholar practitioner students bring to the classroom—that is how to meet them where they are in the advising conversation.

Methods

Data were collected from student records in an online graduate leadership program. The program began in 2011 and is a 60 credit hour, fully online program designed for adult scholar practitioner students who are interested in obtaining a terminal degree in the field of interdisciplinary leadership. The program is intended to be completed in 42 months (3.5 years), though most students complete the program in closer to 45 months (3.75 years). As of December 2017, 592 students had enrolled in the program. All 592 students are included in subsequent analyses.

Student records were available for all students who began the program between January 2011 and August 2017. Data were made available to the principal investigator in a deidentified manner and are presented in aggregate to protect the identity of the graduates and currently enrolled students. The project was approved by the principal investigator's Institutional Review Board.

Program Demographics

The program student sample was 47.9% female ($n = 284$) and 52.1% male ($n = 308$). A majority of the students (64.7%) self-reported their ethnicity as White ($n = 383$), 11.1% Black ($n = 66$), 3.4% Hispanic ($n = 20$), 3.2% Asian ($n = 19$), 1.7% American Indian ($n = 10$), 5.1% ($n = 30$) reported their ethnicity as 'Other,' and 10.8% of students ($n = 64$) declined to report their ethnicity.

At the time of data collection, 318 students were currently enrolled in coursework, 105 students had been dismissed or withdrawn from the program, and 159 students had graduated. Status for 10 students was not available.

CliftonStrengths Assessment

To understand the type and frequency of students' CliftonStrengths signature themes as well as the relationship between these themes and a variety of student success indices in the online graduate leadership program, data were collected from a variety of sources.

Students completed the CliftonStrengths assessment (Gallup Organization, 2018) as part of the online orientation program. The orientation occurred during the first two weeks of the students' time in the program. For students who began the program prior to January 2015, the top-five themes were collected from a program level database whereby students' strengths were reported via administrator access to Gallup's CliftonStrengths reports. Beginning in January 2015, students self-reported their top-five strengths in an orientation program discussion board assignment. The researchers reviewed these discussion board assignments and recorded students' self-reported top-five strengths. Upon completion of the mining of discussion board assignments for collection of students' CliftonStrengths, a second researcher reviewed 45% of the data for interrater reliability and accuracy. The review resulted in an interrater reliability of .95, a level of agreement appropriate for this sample size and scope of study.

Student Success Variables

Indices of student success were collected through comprehensive program student records. Student indices of success include GPA, status in the program (active, withdrawn/dismissed, graduated), time to candidacy, candidacy outcome (pass on the first attempt, pass on the second attempt, did not pass on the second attempt), candidacy score (measured on a continuous scale from 0 (unacceptable) – 4 (exceptional)), dissertation defense scores (measured on a continuous score from 0 (unacceptable)- 25 (exemplary)), time to dissertation defense (in months), and defense outcome (pass, no pass). Data analysis is ongoing and results related to the relationship between students' strengths and student success will be presented at the ALE conference.

Results

The following section presents preliminary results from the research, specifically a detailed description and categorization of the students' CliftonStrengths themes and strength domains.

One of the primary objectives of the research project was to determine the frequency and type of CliftonStrengths themes across online graduate leadership students. Across all students for which at least one CliftonStrengths theme was reported, there were a total of 2,733 individual top-five themes. Across all students, each of the 34 possible CliftonStrengths themes was reported at least once. The most frequently occurring themes among all students were *learner* ($n = 311, 47.1\%$), *achiever* ($n = 255, 38.6\%$), *strategic* ($n = 185, 28\%$), *relator* ($n = 169, 25.6\%$), and *responsibility* ($n = 147, 22.3\%$). The least frequently occurring themes were *consistency* ($n = 19, 2.9\%$), *command* ($n = 23, 3.5\%$), *adaptability* ($n = 27, 4.1\%$), *empathy* ($n = 28, 4.2\%$), and *includer* ($n = 28, 4.2\%$). See Table 1 for a summary of the frequency of all students' top-five themes.

Table 1

Frequency and Total Percentage of CliftonStrengths Themes Across All Students

Theme	Frequency	% of Total	Theme	Frequency	% of Total
Consistency	19	2.9%	Developer	56	8.5%
Command	23	3.5%	Restorative	61	9.2%
Adaptability	27	4.1%	Context	63	9.5%
Empathy	28	4.2%	Ideation	70	10.6%
Includer	28	4.2%	Positivity	70	10.6%
Self-Assurance	34	5.2%	Belief	71	10.8%
Deliberative	35	5.3%	Intellection	94	14.2%
Significance	35	5.3%	Futuristic	99	15.0%
Discipline	36	5.5%	Individualization	100	15.2%
Focus	38	5.8%	Connectedness	101	15.3%
Woo	45	6.8%	Arranger	102	15.5%
Harmony	47	7.1%	Input	125	18.9%
Communication	49	7.4%	Responsibility	147	22.3%
Competition	50	7.6%	Relator	169	25.6%
Analytical	53	8.0%	Strategic	185	28.0%

Maximizer	53	8.0%	Achiever	255	38.6%
Activator	54	8.2%	Learner	311	47.1%
			Total	2733	100%

The researchers collapsed each instance of the 34 themes ($n = 2,733$) into their respective domains (Executing, Influencing, Relationship Building, Strategic Thinking). Figure 1 illustrates the frequency of individual themes organized by domain. The most commonly occurring domain was Strategic Thinking (36.6%) and the least common was Influencing (12.55%).

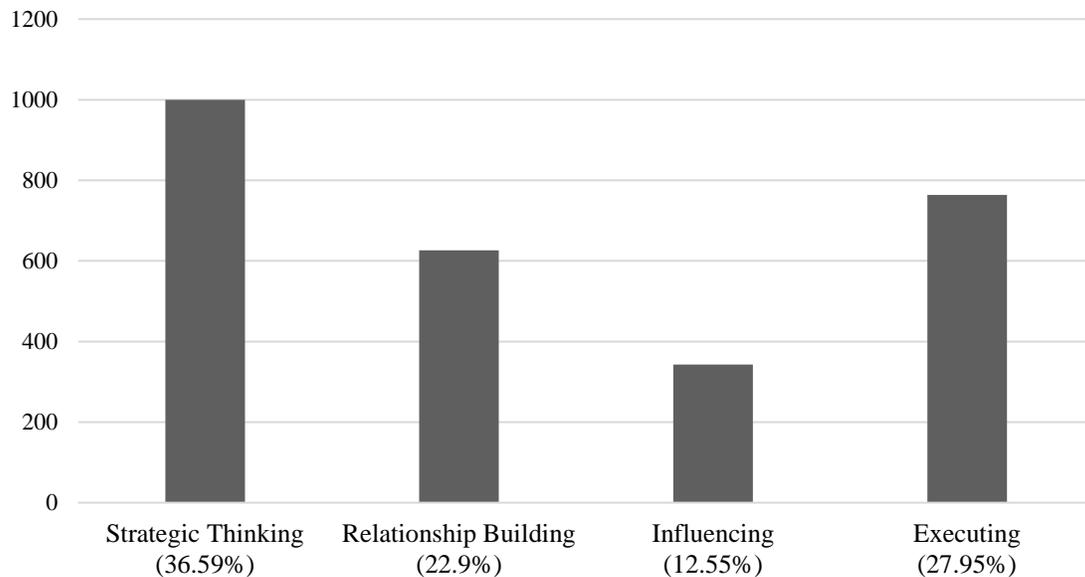


Figure 1. Frequency of individual themes occurrences per strength domain

The researchers also calculated the most commonly represented strength domain for each student. For example, across an individual student's top-five themes, at least two themes belonged to one domain (the most commonly occurring domain for that student). In some instances, two most common domains were calculated, should four of the student's themes collapse into two separate domains. This process resulted in 720 total top individual student domains (across 592 total students). Figure 2 illustrates the most commonly occurring top domains across all students. The most common top domain across all students was Strategic Thinking (44.8%). The least common was Influencing (10.6%).

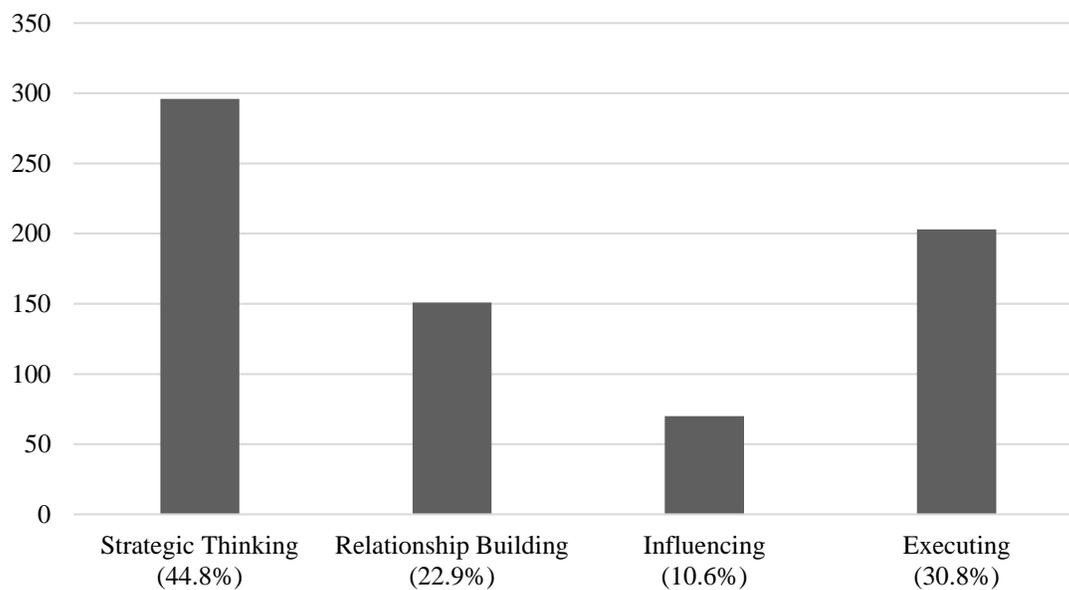


Figure 2. Most commonly occurring strength domain(s) for each student. Because some students had more than one commonly occurring domain, the percentages add up to more than 100%.

Discussion

Although not prescriptive, the CliftonStrengths assessment provides individuals with a general sense of their natural talents and strengths themes (Rath & Conchie, 2009). The results of this study suggest that students in an online graduate leadership program have top-five themes that fall into the Strategic Thinking and Executing domains (64.6%) at a higher rate than the Relationship Building and Influencing domains (35.4%). In fact, the sample trends so heavily in the Strategic Thinking domain that no theme from Strategic Thinking appears in the bottom 14 most common themes. In other words, all eight of the Strategic Thinking themes appear in the top 20 reported themes in the online graduate leadership program. Likewise, no theme from the Influencing domain appears in the top 17 most common themes. All eight of the Influencing themes appear in the bottom 17 reported themes.

Based on the preliminary, albeit important descriptive findings of this study, it is clear that scholar practitioner students who apply to, and who are subsequently accepted to an online graduate leadership program most commonly have themes in the Strategic Thinking domain and least commonly in the Influencing domain. The Relationship Building and Executing themes tend to be more evenly split throughout the distribution. Interestingly, however, the top ten most common themes across all participants evenly divide into the Strategic Thinking ($n = 4$), Executing ($n = 3$), and Relationship Building ($n = 3$) domains, suggesting a balance between the occurrence of these themes across students in the program. However, the top two themes of *learner* (a Strategic Thinking theme) occurred in 47.1% of students' top-five themes and *achiever* (an Executing theme) occurred in 38.6% of students' top-five themes.

Rath and Conchie (2009) describe themes that fall into the Strategic Thinking domain as focused on what *could* be. People who exhibit themes in this domain absorb and analyze information and help teams make better decisions. They may be detail focused and thoughtful about learning

everything they can about a situation with a forward-looking goal in mind. Similarly, those whose strengths fall primarily into the Executing domain “know how to make things happen” (Rath & Conchie, 2009, p. 24). They will work tirelessly to make an idea or process a reality. In thinking about the top strengths of students in the program, it makes logical sense that adult scholar practitioner students may pursue an advanced degree where they can stretch these strength domains. For example, a student with a great desire to learn and continuously improve (*learner*) and with stamina to work hard and with an appreciation of being productive and busy (*achiever*) feels quite descriptive of the type of student who might pursue an advanced graduate degree.

The bottom three themes of *consistency* (an Executing theme) occurred in 3.1% of students’ top-five themes, *command* (an Influencing theme) occurred in 3.5% of students’ top-five themes, and *adaptability* (a Relationship Building theme) occurred in 4.1% of students’ top-five themes. People who exhibit themes in the Influencing domain like to take charge and speak up. They may help a team reach a broader audience and are “always selling the team’s ideas inside and outside the organization” (Rath & Conchie, 2009, p. 25). On the other hand, those whose themes fall primarily into the Relationship Building domain create cohesion between people or groups through a variety of individualized and group approaches. In thinking about the least common strengths of students in the program, it again makes logical sense that those whose strengths fall primarily into the Influencing and Relationship Building domains may feel challenged by the structured nature of the program, in addition to a lack of obvious opportunities to stretch those outward facing strengths, such as *woo* or *empathy*, both of which require varied interactions with others.

This paper contributes to the larger body of research about the scholar practitioner as well as strengths-based research generally. Specifically, these findings create an interesting comparison to the findings from Janke et al., (2015). The two samples (1,244 pharmacy students from five programs across the Midwest v. 592 online graduate leadership students) share three top-five themes (*achiever*, *learner*, and *responsibility*). However, the pharmacy students in Janke et al.’s (2015) study exhibited two top-five themes that occurred relatively low on the list of common themes from online leadership graduate students (*empathy* occurred as the fourth least common theme and *harmony* as the 12th least common theme). This interesting juxtaposition suggests that there may be several themes that are common across *all* students who pursue graduate education, though several themes may be discipline or context specific. Further research and comparisons across types of graduate programs will provide additional insight about this phenomenon.

While these findings are descriptive, ongoing analyses will provide details about whether and how students’ top-five themes and strengths domains are predictive of success in the online graduate leadership program. Good care should be practiced in interpreting these findings as they are not prescriptive. Practitioners should avoid making admissions or judgment decisions based on students’ themes and instead, design support structures to encourage all students across each strength domain. However, these findings provide interesting insight about the students who are attracted to online graduate leadership education.

Future Research and Analyses

Future research, much of which will be conducted in the latter portion of this study's analyses, will focus on the predictability of students' themes on student success indices. For example, faculty in the program have discussed in passing, that students with strengths in the Influencing and Relationship Building strength domains seem to have more trouble than other students in the latter portion of the program. Early in the program, students take classes as a cohort—a built in support structure as they work through the first several years in the program. The latter 18 months of the program require a significant written dissertation project whereby students work independently and without that initial cohort support structure. Perhaps students with Influencing and Relationship Building themes who inherently rely on human interaction are less compelled, or less excited about the individual (and sometimes isolating) work of the dissertation and thus, less likely to finish the program. Future analyses will investigate these potential relationships.

Should predictive relationships between CliftonStrengths themes and student success exist, the program has an opportunity to create evidence-based supports to provide initial and ongoing encouragement for students, based on their top-five themes. A strengths based advising model (Schreiner & Anderson, 2005; Soria et al., 2017) is one potential approach to support scholar practitioner students with strength-specific skill sets and advising across the curriculum. The future analysis of existing data will give the researchers a good sense of when students with specific strengths excel or struggle in the program. An individualized advising approach will help inform and potentially remedy some of these student challenges.

Limitations

Although this study contributes to the body of literature about the characteristics of adult scholar-practitioner students in online graduate leadership programs, several limitations must be considered. The first is related to the preliminary nature of the research project's findings. Data collection and analysis is ongoing. As a result, the common themes and strengths domains may shift slightly as additional participants are added to the data over the coming months. Another potential limitation is the self-reported nature of students' CliftonStrengths themes. While the researchers have no reason to believe that students reported inaccurate themes, it is possible that students could have done so for a variety of reasons including a dissatisfaction with their top-five themes. Students from this study came from one graduate leadership program. It is possible that the unique nature of the online interdisciplinary nature of the graduate leadership program limits the generalizability of the study's findings. However, research about adult learners generally suggests some common themes across scholar practitioners (Knowles, 1980; Knowles et al., 2015) and thus, some generalizability of findings may be appropriate to other, similarly situated programs.

Conclusion

This research project is informed by the Association of Leadership Educators' mission to strengthen and sustain the expertise of professional leadership educators in two primary ways. First, as graduate leadership education is a relatively new field, this project provides insight about how to best educate and serve these scholar practitioner students (Boud & Tennant, 2006;

Friga et al., 2003; Servage, 2009). Second, as the number of online programs continues to increase, this project informs graduate educators about some of the potential factors that might impact student success in online programs generally, and specifically a graduate online leadership program.

This research is intended to both ultimately help leadership educators understand the relationship between students' strengths and their performance across a variety of formative and summative measures in an online graduate leadership program and inform curriculum and assessment practices to better serve our students from an andragogical perspective. As the number of graduate and online leadership programs continues to grow, these findings can be shared to establish a more collaborative capacity for programmatic assessment and best practices across the larger leadership education community.

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