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Joseph D. Levy

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SELF-DETERMINATION THEORY AND FACULTY BEHAVIOR: A QUANTITATIVE
STUDY OF FACULTY LEADERS' USE OF ASSESSMENT EVIDENCE

Joseph D. Levy
Higher Education Leadership

Submitted in partial fulfillment
of the requirements of
Doctor of Education
Higher Education Leadership

College of Professional Studies and Advancement
National Louis University
June, 2020

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Submitted in partial fulfillment of the requirements of
Doctor of Education
in the College of Professional Studies and Advancement
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Joseph D. Levy
Higher Education Leadership

Approved:

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Dr. Bettyjo Bouchey, Chair, Capstone Committee
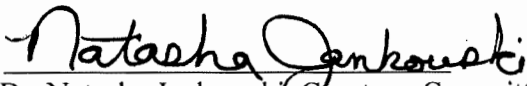
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February 26, 2020
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Date Approved

ABSTRACT

Despite assessment of student learning being essential work in higher education, a number of institutions have noted faculty could more effectively be using assessment results (Jankowski et al., 2018; Kuh et al., 2015; Metzler & Kurz, 2019; Suskie, 2014). This study applied Self-Determination Theory (SDT) as a theoretical framework to provide context for faculty behavior associated with assessment actions (Fuller et al., 2016; Ryan & Deci, 2000). Mostly quantitative data were collected via electronic survey of faculty program leaders at a single institution, National Louis University (NLU). Results indicated a significant and positive relationship suggesting an increase in meeting the collective SDT needs would be met with an increase in faculty program leaders use of assessment evidence. Implications for further research are provided, as well as recommendations for changes to be made at NLU for the betterment of faculty experience and assessment culture.

*Keywords*: assessment, faculty, behavior, assessment actions, Self-Determination Theory

ACKNOWLEDGEMENTS

I was first turned on to higher education as a possible career when an undergraduate career advisor (Lacey Kogelnik) recognized there must be something unique going on for a football-playing, Mathematics and English double-major to spend so much free time engaged in orientation, residence life, admissions, and student life. Advising or overseeing me in some capacity each year of my undergraduate journey, I credit Marc West for helping develop me as a student leader and stoking the fire for me to embark on a career in higher education. Much appreciation is also warranted for my major faculty advisors, Dr. Susan Penko in Mathematics and Dr. Dan Hoyt in English, for helping me navigate academics while recognizing and supporting my path to higher education administration.

Graduate school was my formal introduction to assessment of student learning, for which I can thank Dr. Dave McKelfresh for taking me under his wing, allowing me to sit in on (and join) committees, and feeding me as many assessment and evaluation-related projects as I was willing to take on (which was as many as he was willing to pass my way). Dave also sent me the job posting and served as a reference to help me land my first job out of graduate school and my first full-time assessment role. My other graduate school mentor was Dr. Mike Ellis, unabashedly pushing me to do more, work harder, and face challenges to continue learning and growing. These two gentlemen were steady refrains throughout my career asking when I was going to go after my doctorate. We shall see what they will start asking me now (probably how soon I will act on the recommendations from my chapter five).

While still talking academics, I have to give a shout out to some members of my program here at NLU who have been awesome classmates and colleagues: Rachel Abel, Lauren Kosrow, and Angela Vena. In addition to indulging in my nerdy course organization ideas, you all were a

great source of support as we navigated each term and spared my partner from even more class-related conversations and stories than she already heard (so she thanks you, too!).

Thanks to my stellar committee! Dr. Tiffeny Jimenez gave me incredible confidence for all things methods and analysis. Also serving as my supervisor, Dr. Michael Carr helped me to not let my job override my role as a student. Dr. Natasha Jankowski afforded invaluable assessment wisdom and generosity to serve as my outside expert. And Dr. Bettyjo Bouchey was more than my committee chair, but a confidant and champion from the seed of my research idea to my final chapter.

As I write these words, I need to acknowledge the Chicago Transit Authority, specifically the Brown Line. So much of my doctoral program was completed while riding on the train to or from work. For courses, I did all of my readings, most of my paper writing, and some of my discussion posts on the train. I even participated in a few Zoom meetings with faculty for class while on the train. The train was also my usual space to write, re-read, and edit my capstone. Thank you for maintaining a safe, clean, and orderly environment conducive to being productive on my commute. Unlike some of the other train lines given their seating configurations, the Brown Line was one where I could typically always get a seat and feel comfortable doing work without bothering or crowding other passengers. Thanks for being my mobile office!

Last, but definitely not least, I am indebted to my family. I owe so much to my Mom and Dad for raising me with love and always encouraging (and making possible) my academic pursuits. My siblings, Zach and Bethany, for being proud and not embarrassed or threatened by my academic achievements. My partner, Brittany, for being an all-encompassing (and daily) source of strength, patience, love, and anything else I may need. I'm constantly in awe of her spirit and approach to all things in life, offering a needed and valued complement in our

relationship and my daily life. A quick note to our kids, Natalie (3 years) and Lucas (7 months): you two won't understand this for a while and may never think you were cheated attention during my time in the program (which I worried about), but I am so happy to be done and can't wait to enjoy the rest of these early years for you both without having class or paper deadlines in the back of my head. And don't worry, you don't have to call me doctor: I'm just dad.

For Brittany, Natalie, and Lucas
(*My* motivation)

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Assessment of student learning is essential work in higher education (American Association for Higher Education [AAHE], 1992; Ewell, 2009; Council for the Advancement of Standards in Higher Education [CAS], 2015; Higher Learning Commission [HLC], 2014; Kuh et al., 2015; Suskie, 2014). Faculty have a responsibility to lead assessment work and use results for change, reflecting good assessment practice (AAHE, 1992; Angelo & Cross, 1993; HLC, 2014; Kuh et al., 2015; Maki, 2010; O'Dell, 2009; Provezis, 2010; Suskie, 2009, 2014; Wolverton, 1998). Yet, faculty at a number of institutions struggle with use of assessment evidence (Jankowski, Timmer, Kinzie, & Kuh, 2018; Kuh et al., 2015; Metzler & Kurz, 2019; Suskie, 2014).

Understanding the perspective of faculty program leaders can lead to more targeted and contextualized interventions or efforts to support their assessment work (Fuller, Skidmore, Bustamante, & Holzweiss, 2016; Kuh et al., 2015; Metzler & Kurz, 2018; Suskie, 2009, 2014). Support in assessment work has become an increasing priority given continued calls for assessment practice and faculty use of evidence for improvement from federal government, state government, regional accreditors, and specialized or professional accreditors (Ewell, 2009; Fischer, 2019; Jankowski et al., 2018; Kuh et al., 2015; Metzler & Kurz, 2018; Stitt-Bergh, Wehlburg, Rhodes, & Jankowski, 2019; Suskie, 2014). Connections and nuanced details from literature associated with faculty assessment behaviors underscore the relevance and urgency of this research.

The focus of this study is to better understand motivation and behaviors of faculty program leaders with respect to the use of assessment evidence. This study is applied to a single

institution, National Louis University (NLU). This chapter consists of two sections: an

institutional overview of NLU and an overview of this capstone research.

In providing institutional information, NLU's approach to defining, measuring, and

evidencing student success is presented alongside embedded assessment literature and higher

education landscape context. Organizational data opportunities and assessment relevance are

provided both for NLU as a preview of the literature review in the next chapter, as well as

context for parameters of the research. An overview of NLU's institutional type and culture also

helps contextualize the capstone research.

**Institutional Overview**

**Institutional type**. National Louis University (NLU) is a private, non-denominational,

four-year, medium-size, primarily non-residential, majority graduate student institution

(Carnegie Classification of Institutions of Higher Education, 2017, National Louis University

[NLU], n.d.-d). NLU has six primary locations: downtown Chicago, Goose Island, Lisle, North

Shore, Wheeling – all in Illinois – and Tampa, Florida. In addition to these locations, smaller

course sites throughout multiple states (e.g., Wisconsin, Iowa, Florida, Illinois) exist to offer in-

person opportunities for less than 50% of a program or to support a specific cohort's needs

(Levy, 2018c).

NLU was founded on the premise that quality education transforms individuals,

industries, and communities (NLU, n.d.-a). The institutional mission states: "National Louis

University provides access to quality higher education that nurtures opportunity for students

through innovative teaching, scholarship, community engagement, and service excellence."

(NLU, n.d.-c, para. 1). The vision of the institution is "preparing and advancing professionals

who transform communities" (Megahed, 2016, para. 1), which reinforces the strong emphasis on instruction, community engagement, and development. Institutional values consist of: excellence, respect, access, collaboration, passion, inquiry, innovation, and engagement (NLU, n.d.-c). NLU's mission and values serve as the backbone for strategic planning at the university (Templin, 2017), which is an encouraged practice (Ferrari, Cowman, Milner, Gutierrez, & Drake, 2009). Pillars of the strategic plan guiding institutional operation include academic excellence, unparalleled student service, financial stability, and partnerships (Megahed, 2016).

Mission-oriented private institutions, in particular, have a responsibility to the communities and benefactors of their purpose (Soo, 2010). This notion is explicitly articulated in NLU's (n.d.-c) mission and the collaborative combination of interventions, support, and associated encouragement which earned NLU the Community Engagement classification from the Carnegie Foundation for the Advancement of Teaching (2016). NLU is also designated as a Hispanic serving institution (HSI), indicating programs and services are designed specifically to support NLU's population of Latinx and Hispanic students (Rodriguez, 2018). Both of these external designations, aligned with NLU's mission and values, inform initiatives based on the needs for internal and external constituents (NLU, n.d.-c).

**Enrollment, persistence, and completion**. Total enrollment at NLU (including non-degree seeking students) is 9000 students: 4900 graduate (masters and doctoral) and 4100 undergraduate (NLU, n.d.-d). Demographics of NLU students are 79% female, 84% attending part-time, 51% African-American/Hispanic/Asian-Pacific Islander/Native American, with the average undergraduate age of 30 and 37 for graduate students. With 60% of NLU students receiving the Pell Grant (NLU, n.d.-d) and an 86% admissions acceptance rate from fall 2018

(National Center for Education Statistics, n.d.) – NLU is serving a population who may not have access to higher education elsewhere. From these enrolled students, the 2018-2019 academic year saw 72% undergraduate, 90% masters, and 85% doctoral students persist (NLU, n.d.-e). Considering completion for the 2018-2019 academic year, undergraduate students had a 48% graduation rate within four years, masters students had a 69% graduation rate within three years, and doctoral students had 51% graduation rate within six years.

**Academics.** Academic programs at NLU include programs in business and management, communications and writing, culinary arts, education, health and human services, hospitality management, and social and behavioral sciences (NLU, n.d.-b). These disciplines span 19 undergraduate majors, 30 master's programs, eight postgraduate education specialist credentials, and six doctoral programs (NLU, n.d.-a). While programs can be delivered face to face and blended or hybrid formats (some face to face, some online), NLU also offers approximately 17 fully online degree programs (Levy, 2018c; NLU, 2015; NLU, n.d.-a).

Academic programs are distributed among NLU's four colleges: the College of Professional Studies and Advancement (CPSA), Kendall College of Culinary Arts and Hospitality Management (Kendall), the National College of Education (NCE), and the Undergraduate College (UGC). UGC and Kendall exclusively contain undergraduate programs. CPSA consists of undergraduate and graduate programs, while NCE only offers graduate programs. Appendix A provides a listing of NLU's academic programs within each of the colleges.

**Faculty.** NLU has 160 full-time and 360 part-time faculty members (Levy, 2019). There are three faculty tracks: tenured/tenure-track, non-tenure track, teaching and learning leadership

track, and Distinguished Professor of Practice, where the latter is a non-ranked, non-tenure track position (NLU, 2013). Faculty ranks – which may or may not be tenure-track – include: instructor, assistant professor, associate professor, professor. Faculty members are not unionized at NLU, but responsibilities and promotion opportunities are outlined by track and rank. For example, the teaching and learning leadership track has an emphasis on teaching responsibilities and continuous improvement for pedagogical practices promoting student learning. Teaching and learning leadership faculty members are non-tenure track, but these faculty are eligible for multi-year contracts.

Faculty at private institutions tend to be more teaching oriented and are encouraged to have high-touch interactions with students (Cohen & Kisker, 2010; Pike & Kuh, 2005; Stimpert, 2004). A teaching and student success focus is certainly true for NLU's full-time and adjunct faculty, even beyond those in the teaching and learning leadership track (NLU, 2013). As institutional documents should guide operations (Tierney, 2002; Ferrari et al., 2009), it is telling that the mission, vision, values, strategic planning pillars, and tenure components all mention teaching and excellence in education (Megahed, 2016; NLU, 2013, n.d.-c).

From a cultural standpoint, NLU has a mix of faculty members who are new and those who have been with the institution for many years. For faculty members who have been with the institution since 2012, there is an element of relationship recovery between them and administration. In 2012, NLU terminated nearly half of full-time faculty due to financial issues (Straumsheim, 2013). As a result of these actions, the American Association of University Professors (AAUP) conducted an investigation and strongly criticized the institution's actions. Administrative leadership at NLU have made efforts to increase transparency and communicate

with faculty about the state of the institution by having administrators (including the president and provost) regularly attend open Faculty Senate meetings to provide updates and answer any pertinent questions from faculty, as well as holding monthly all-campus meetings (NLU, 2015). Beyond engaging and providing information in faculty meetings, NLU administrators have invited faculty leaders into quarterly Board of Trustees meetings and monthly executive leadership meetings for academic operations (Faculty Association of National Louis University, 2018; NLU, 2015).

Faculty turnover and retirements have occurred since 2012, resulting in a large percentage of the faculty body being made up of new faculty hires to fill existing positions and new ones given institutional growth in the past two years (Levy, 2018c). While lingering wariness may exist for some faculty members who have been with the institution since 2012, both the seasoned and newer faculty have been witness to administrator efforts for transparency and relationship building (Faculty Association of National Louis University, 2018; Levy, 2018c; NLU, 2015). As a result of institutional leadership's efforts to shape the faculty-administrator climate, faculty members and administrative staff currently have a respectful and collaborative relationship based on self-reported data across the entire faculty body in NLU's recent employee satisfaction questionnaire (Vlahakis, 2018).

Faculty occupy a powerful and flexible space within the NLU ecosystem. Full-time and adjunct faculty can be great partners with staff, as well as influential educators inside and outside of the classroom. Faculty need to be dynamic individuals given their many responsibilities and facets to their positions (Angelo & Cross, 1993; Association of American Colleges & Universities [AAC&U], 2006; Diamond, 2002; Kreiser, 2001). On top of faculty owning and

delivering the curriculum, an institution's governance structure can enable faculty members to participate in influencing the institution's culture and further contributing to student success.

**Governance**. Pierce (2014) described shared governance as infrastructure and process to make decisions, establish policies, and execute procedures according to defined roles and responsibilities. Heaney (2010) believed traditional shared governance included equal representation from institutional stakeholders and ample time given to consider the best course of action. Jones, Lefoe, Harvey, and Ryland's (2012) distributed leadership model is akin to shared governance with representation from key internal stakeholders, as well as infrastructure for undertaking initiatives and courses of action.

NLU operates in a shared governance framework (Pierce, 2014; Heaney, 2010), where faculty work collaboratively with administration through a committee structure made up of representative faculty members from across the institution to make recommendations and decisions about academic and policy-related matters (NLU, 2015). A shared governance framework stems from the overarching policy, strategy, and fiscal responsibility of the institution residing with the Board of Trustees (NLU, 2015). The board delegates to the president the responsibility for day-to-day operations and overall management of the institution, where the president is advised by faculty and administrative leadership.

Each college has their own structure reflecting shared governance, with different committees to address operations (Levy, 2018c; NLU, 2015). Centrally, the President's Cabinet includes administrative and academic leaders to lead the institution through a maintained focus on achieving the strategic plan and addressing critical academic and non-academic matters. Opportunities, issues, and regular processes flow through internal approval channels of college

committees and Faculty Senate, all collaborating with university leadership to ensure quality for institutional operations and overall student experience.

**Regulatory and Compliance**. External to an institution, the landscape of higher education can make for increased pressure on quality assurance from accreditation and regulatory bodies (Suskie, 2014). Higher education operates with a triad of regulatory bodies, where a working relationship exists between institutional accreditors, state governing bodies, and the federal government to ensure quality (Association of Specialized and Professional Accreditors, 2013). Where requirements are not met for any member of the triad, institutions can forfeit eligibility to obtain relied-upon funding and pertinent resources (Archibald & Feldman, 2011; Barr & McClellan, 2018).

*Regional accreditation*. NLU (2019) is accredited by the Higher Learning Commission (HLC), one of seven regional institutional accreditors recognized by the U.S. Department of Education (2018) and the Council for Higher Education Accreditation (2019). NLU maintains a clean record with no adverse actions for the institution (HLC, 2018). This latter point is quite a feat, given a majority of HLC institutions have some form of notice or sanction on their record (B. Gellman-Danley, personal communication, February 6, 2019).

*State approval agencies*. While regional accreditation covers overall institutional operations, state approval is required for locations of operation. NLU has primary locations in the state of Illinois and Florida (NLU, n.d.-a). Consequently, NLU (2015, 2019) is authorized to operate with a physical presence as a degree-granting institution and in good standing with the following state agencies:

- The Illinois Board of Higher Education (IBHE)

- The Florida Commission for Independent Education (CIE) of the Florida Department of

    Education

NLU's good standing with IBHE also enables online or distance learning in other states.

Online offerings in other states are possible due to NLU (2019) being a member of the National

Council for State Authorization Reciprocity Agreements (NC-SARA). States participating in

NC-SARA (2018) agree the quality assurance process of an institution's home state is enough to

garner approval reciprocity elsewhere. As such, NLU is authorized to offer distance education to

other NC-SARA member states because of NLU's good standing and compliance with IBHE.

Being part of NC-SARA enables NLU to enroll online students in other states, while also

elevating the institutional profile in the online education realm to prospective students, state

agencies, and other institutions.

*Federal compliance*. At the federal level, the U.S. Department of Education and the

Council for Higher Education Accreditation (CHEA) maintain databases of degree-granting

institutions and recognize accrediting bodies for higher education institutions and academic

programs (Association of Specialized and Professional Accreditors, 2013; Eaton, 2015). CHEA

and the U.S. Department of Education recognize HLC as a reliable authority in determining the

quality of education. All three of these entities engage and respond to one another due to mutual

reliance and function in order to make the triad of institutional quality assurance.

*Programmatic accreditors*. NLU (2015, 2019) maintains multiple programmatic

accreditations. Similar to regional accreditation, program or specialized accreditation provides a

standards-based framework of quality (Browne, n.d.; Harvey & Green, 1993). External

organizations set standards to be met in order for the program to earn a designation of quality or

to be offered in accordance with expectations for license or certification. The following is a list

of the external entities NLU is in good standing with across its various programs:

- The National Council for Accreditation of Teacher Education (NCATE), administered by

  the Council for the Accreditation of Educator Preparation (CAEP), has accredited

  National College of Education (NCE) as an entire college (Jessee, 2019)

- Teacher preparation programs at NLU, as well as experienced educator programs for

  Reading Specialist, Principal, Superintendent, School Psychologist, School Counselor

  and Technology Specialist, each have Specialized Professional Associations (SPAs)

  aligned to CAEP (2015) and NCATE content (Jessee, 2019)

- The International Assembly for Collegiate Business Education (IACBE) has accredited

  business and health programs at NLU (Eskew, 2019; Patel, 2019)

- The Council for Accreditation of Counseling & Related Educational Programs

  (CACREP) has accredited counseling programs at NLU (Eskew, 2019)

- The American Culinary Federation Education Foundation has accredited the culinary arts

  program, along with the baking and pastry program (Kendall College at National Louis

  University, 2019)

All external quality assurance entities – including programmatic accreditors – must

remain current with industry practice while balancing public and private expectations or

pressures placed on them, pressures which trickle down to institutions (Ewell, 2009; Gaston,

2018; Gellman-Danley, 2018). Unfortunately, institutional practice may not be as responsive to

change and industry concerns as required (Kuh et al., 2015; Metzler & Kurz, 2018; Suskie,

2014). Where institutional activity is not current in practice or best aligned with standards, the

institution can be placed on *monitoring* or *notice* by any one of these external quality assurance entities.

Using HLC's 19-state coverage and approximate 1000 institutional membership as an example, a majority of institutions have been placed on some form of monitoring or notice (B. Gellman-Danley, personal communication, February 6, 2019). While those marks can be for any operational aspect, the most commonly cited issue for HLC institutions (80% of cases) is poor assessment of student learning practices (B. Gellman-Danley, personal communication, February 6, 2019). This is not just an issue with HLC member institutions, either. Across regional accreditors, numbers have continued to increase for institutions receiving some form of follow up requirements (visits, reports) due to learning outcomes assessment deficiencies (Provezis, 2010). Additionally, years of national landscape data collected by the National Institute for Learning Outcomes Assessment (NILOA) also identify issues with assessment practice consistently being a top reported area of concern by provosts (Jankowski et al., 2018; Kuh et al., 2015). Issues with assessment of student learning matter since student learning and student success are of internal and external importance for an institution.

**Defining, measuring, and evidencing student success.** Just as external entities are concerned about student performance and success, achievement of student learning and student development are common internal indicators of institutional quality (Schindler, Puls-Elvidge, Welzant, & Crawford, 2015; Suskie, 2014; Woodhouse, 2002). As it could vary by institution, NLU's definition of student success underscores work associated with the strategic plan. NLU broadly defines student success as giving access and retaining students, students achieving program learning outcomes and obtaining new or better jobs, and students giving back to their

respective communities (A. Hilsabeck, personal communication, November 6, 2018). Success also includes student perception of support throughout their journey, including academic, professional, and personal facets.

NLU (2015) leadership work to meet student needs and support informed decision-making to guide the educational experience of students. The institution has several internal quality assurance mechanisms to support student success. For example, faculty and staff are expected to engage in processes to ensure consistency in quality and experience with respect to curriculum. Academic program review and programmatic assessment efforts are intended to help ensure general health metrics for academic programs, such as operational efficiency, curricular relevance, appropriate staffing, and achievement of student learning (Levy, 2018c).

A critical source of feedback informing program review, curriculum design, and program assessment is data pertaining to student learning and development (Jankowski & Marshall, 2017; Kuh et al., 2015; Suskie, 2009). Along with course and experience-embedded assessments at NLU, data concerning student learning outcomes incorporate feedback from alumni and employers (Levy, 2018c; NLU, 2015). Hearing from stakeholders about students beyond graduation adds to the institution's sense of whether or not students are leaving with the intended knowledge and appropriate skills to succeed in their respective fields. Alumni and employer feedback also ensures multiple perspectives are considered with respect to integrity of student learning and areas for institutional betterment.

NLU faculty program leaders and student affairs leaders are expected to produce annual reports on student learning (Levy, 2018c; NLU, 2015). Reports are written for academic programs, the overall university learning outcomes, general education learning outcomes, and

learning outcomes associated with student affairs services or co-curricular interventions. These data help inform decision-making and actions associated with curriculum, student interventions, resources, and betterment of environment for student success.

NLU is making strides to advance their assessment culture to better evidence student learning achievement as part of student success (A. Hilsabeck, personal communication, November 6, 2018). The institution has enhanced their university learning outcomes, implemented a streamlined approach to reporting across levels of the university, and encouraged more comprehensive documentation of assessment-related actions for change (L. Eskew, personal communication, October 17, 2018; Levy, 2018c; NLU, 2015). The streamlined approach to reporting across levels of student learning was especially helpful due to its combining data collection and analysis of university learning outcomes with reporting on program learning outcomes. Leveraging curricular alignment to report achievement of program learning outcomes, data was rolled up to university learning outcomes to showcase contributions from a given program and achievement across the institution. This streamlined reporting made for less faculty work and centralized assessment data to ease data manipulation (i.e., aggregation and disaggregation) across the institution.

While institutional improvements like streamlined reporting are worth celebrating, there is always room for institutional culture to grow. Assessment is a continuous process precisely because it is concerned with providing the best environment and interventions to promote student learning and success (Arum & Roksa, 2011; Jankowski et al., 2018; Kuh et al., 2015; Suskie, 2014). In NILOA's 2017 survey of provosts at 811 institutions (including NLU), one of the most reported student learning-related needs was an increase in use of assessment results (Jankowski

et al., 2018). While data-informed decision-making is expected from academic staff and faculty

leaders (Diamond, 2002; Kuh et al., 2015), using or acting on results remains a challenge for

many (Jankowski et al., 2018; Suskie, 2009).

Though some faculty and staff at NLU exhibit data-informed decision-making and

meaningful engagement in assessment, use of evidence for improvement could be more

consistently practiced across the university and actions could be better documented (Levy,

2018c). Using NLU's 2017-2018 assessment reports as an example, one college had only 33% of

program-level reports with complete results reported across intended program learning outcome

measures (i.e., majority of reports had omissions and missing data) and only 28% of its programs

were measuring university level outcomes at all; compare those results with another college

where 100% of its program-level reports had complete results and 91% of its programs measured

university learning outcomes (Levy & Eskew, 2018b). While that NLU college comparison only

considers assessment reporting, it becomes clear – despite the same expectations and processes

in place – assessment engagement could be more consistently and completely executed. More

consistency in report completion is good for the sake of the reporting process, but also enables

more accurate or increased use of evidence for improvement.

*Organizational data opportunities*. NLU leadership has an opportunity to better leverage

reporting, both in efforts of producing reports and use of their contents. Just as internal report

results can be used for data-informed decision-making or strategy (Kuh et al., 2015; Jones,

2014), external reports can be leveraged for improvement, too (Gaston, 2018; Levy, Hess, &

Thomas, 2018; Suskie, 2014). Beyond compliance or receiving good marks, external quality

assurance reports can be used for inspiration and guidance of areas to focus for betterment (Levy

et al., 2018). Moreover, regular reflection on this information or including it with other reporting mechanisms (e.g., assessment, program review, annual goal setting) can help maintain momentum and spirit of continuous improvement even when goals are met or concerns do not rise to the level of admonishment or penalty.

NLU faculty, staff, and administrators have multiple data sets available to them, as well as reports and recommendations from internal and external quality assurance mechanisms (Levy, 2018c; NLU, 2015). While internal systems and processes are advancing to enable more data connections, individuals could be sharing data more frequently and broadly than is current practice. Good stewards of data inform people of existing data and results, which can serve as a catalyst for collaboration in future data collection or improvement efforts (Kuh et al., 2015; Maki, 2010; Suskie, 2009).

Given systemic issues with reporting are not unique to NLU (Kuh et al., 2015; Madsen, McKagan, Martinuk, Bell, & Sayre, 2016; Maynes & Hatt, 2012; Metzler & Kurz, 2018; Wei & Pecheone, 2010), it is of little wonder why faculty and staff have trouble understanding the utility or actively engaging in reporting and use of assessment efforts for change. Furthermore, if inconsistent action results from familiar data and expected reports, there is even less chance ad-hoc or nuanced intervention-level concerns found in data would be appropriately addressed. Questions can arise as to when, how, and to whom such issues are surfaced or reported. Having a better understanding of what data are being utilized or how leaders prefer to receive data could not only help high-stakes and familiar reports to be reviewed, but also increase the likelihood of newly-discovered issues being considered for change.

*Assessment relevance.* Data stewardship for improvement cannot be mentioned without assessment due to an existing relationship between assessment, external quality assurance, and accountability (Ewell, 2009; Gaston, 2018; Kuh et al., 2015; Levy et al., 2018; Suskie, 2014). Unfortunately, there often are few people on campus with formal assessment training and experience (Jankowski & Slotnick, 2015; Levy, 2013; Nicholas & Slotnick, 2018). This lack of formal experience extends to institutional leadership, which makes prioritization and utilization of assessment data as a key performance indicator all the more difficult.

There are often not enough assessment professionals available to support the expected work. Sadly, full-time assessment professionals do not exist on all campuses (Nicholas & Slotnick, 2018). Where full-time assessment professionals do exist, they often exist in isolation, as evidenced by Nicholas and Slotnick's (2018) survey of 305 institutions where 55% of participating institutions have assessment offices made up of one professional. One person can only accomplish so much working across the institution to support and coordinate assessment activity. NLU has two full-time individuals dedicated to supporting institution-wide assessment, in comparison to other institutions with one or no employees with full-time assessment responsibility (Levy, 2018b; Nicholas & Slotnick, 2018).

Because typical faculty and staff do not have formal education or training in assessment (Jankowski & Slotnick, 2015; Levy, 2013; Nicholas & Slotnick, 2018; Suskie, 2014; Wei & Pecheone, 2010), a major part of being an assessment professional is facilitating and guiding assessment work with faculty and staff (Jankowski & Slotnick, 2015; Metzler & Kurtz, 2018). While some faculty or staff in NLU's colleges (CPSA, Kendall, NCE, and UGC) have part-time assessment responsibilities, there is a need for collaboration in assessment coordination to meet

the needs of training and education, as well as supporting all phases of the assessment process. Assessment professionals are expected to lead by influence rather than authority, as the faculty and staff in academic and student affairs areas doing assessment work answer to their respective supervisors and not to assessment professionals (Jankowski & Slotnick, 2015; Levy, 2013). This can complicate progress at institutions like NLU, especially where faculty or staff are not formally held accountable to do assessment work or where messages are inconsistent regarding purpose and value of assessment (Levy, 2018c; NLU, 2015). As inconsistent execution was demonstrated with different results of program-level assessment reports across colleges at NLU, assessment professionals without authority could only encourage faculty program leaders to resubmit or update incomplete reports (Levy & Eskew, 2018b). Training and further education on assessment – in general, as well as for institutional expectations – may also be necessary, but again, an assessment professional does not have the authority to require or compel cooperation.

As for those with authority, institutional leaders are unlikely to refute the importance of assessment work (Jankowski et al., 2018; Kuh et al., 2015; Nicholas & Slotnick, 2018). Indeed, NLU leadership believes assessment is of great importance and even connects assessment directly to the strategic plan with data-informed improvement as a critical enabler (Templin, 2018). However, there is a difference between believing something is important and acting or demonstrating something is important, with the latter impacting resource allocation and role modeling of decisions or actions.

Institutional leaders can positively impact assessment activity with their behaviors and decisions (Jankowski et al., 2018; Kuh et al., 2015; Nicholas & Slotnick, 2018). Modeling support for good assessment practice does not call for extraordinary behavior or exorbitant cost.

The following examples underscore the relevance and importance of assessment for faculty and staff: incorporating assessment as a standing meeting agenda item, ensuring assessment is a consideration in the budgeting and strategic planning process, formalizing connections of assessment to related efforts (e.g., program review, curriculum re/development), and providing professional development opportunities related to assessment. All of the aforementioned items could be reasonable and low-budget adjustments to existing structures and processes.

Quality, betterment, and student success should be what binds together the populations making up the NLU community. The actions of individuals operating within NLU's internal structure or in response to external influences gives the institution character and brings NLU's mission and strategic plan to life. In this way, initiatives and resource allocation for the institution can benefit from the guidance of data-informed efforts like assessment (Jones, 2014; Suskie, 2014). In light of information shared regarding NLU's institutional identity, infrastructure, and operations – including assessment culture – the next section discusses my capstone research situated at NLU.

**Capstone Research**

Through institutional acknowledgement (Jankowski et al., 2018; Kuh et al., 2015) and accreditation determination (B. Gellman-Danley, personal communication, February 6, 2019; Ewell, 2009; Gaston, 2018; Provezis, 2010), many institutions struggle with assessment work. A number of elements relate to and can impact assessment work (e.g., purpose, leadership, responsibilities, barriers and limitations), offering many options for possible research. And, from a psychometric perspective, one should first identify what needs to be measured before

determining the methodology and type of data needed to answer any research question (Nitko &

Brookhart, 2015).

      **Research focus.** This study is concerned with faculty program leaders and their use of

assessment evidence. Because there can be many aspects to examine with the faculty program

leaders themselves and assessment practices, this study has a specific focus to explore needs and

motivation of faculty behaviors. The research question guiding this quantitative study is:

      How does Self-Determination Theory help explain faculty program leaders' use of

      assessment evidence?

      Self-Determination Theory (SDT) proposes that when a person meets three basic needs

(competence, autonomy, relatedness), they can achieve optimal motivation and performance

(Cabot, 2016; Flaherty, 2018; Ryan & Deci, 2000; Stupnisky, BrckaLorenz, Yuhas, & Guay,

2018, Svinicki, 2016; van den Berg, Bakker, & ten Cate, 2013). Research has shown SDT can

provide insight on motivation, identifying contributing and detracting factors associated with

behaviors (Ryan & Deci, 2000; Stupnisky et al., 2018, Svinicki, 2016; van den Berg et al., 2013).

Given its utility in better understanding motivation, SDT is applicable for faculty program leader

assessment behavior and is used as a theoretical framework for this study (Fuller et al., 2016).

      For purposes of this study, *faculty program leaders* is a general category to represent the

varying titles of the faculty member(s) responsible for leading an academic program or

specifically responsible for assessment activity in said program. At NLU, faculty program

leaders may have different titles depending on the college (e.g., program chair, program director,

department chair), hence the desire for a single term for reference simplicity in this study (Levy,

2018c; NLU, 2013, 2015). The concept of *assessment evidence* aligns with NILOA's definition

from their Transparency Framework, where assessment evidence can be indirect or direct

measures and performance indicators whose data are analyzed and interpreted for an average

person, as well as contextualized to the environment and student learning measured (National

Institute for Learning Outcome Assessment [NILOA], 2012a). Likewise, NILOA's Transparency

Framework (2012b) defines *use* as leveraging assessment evidence to make changes in policies,

practices, and procedures to enable improvement through data-informed decision-making.

**Research relevance.** Research into faculty assessment behaviors is relevant to higher

education due to the prevalence of faculty at various institutions struggling with assessment work

(Jankowski et al., 2018; Kuh, Kinzie, Schuh, & Whitt, 2011; Kuh et al., 2015; Metzler & Kurz,

2018; Wehlburg, Rhodes, & Jankowski, 2019). Internal and external quality assurance entities

expect meaningful engagement in assessment practice (Ewell, 2009; Gaston, 2018; Suskie,

2014), where academic assessment of student learning should lead to action for change or

improvement (Angelo & Cross, 1993; Jankowski et al., 2018; Kuh et al., 2015; Metzler & Kurz,

2018; O'Dell, 2009). Given a number of barriers faculty may encounter with assessment (Angelo

& Cross, 1993; Ewell, 2009; Jankowski & Slotnick, 2015; Kuh et al., 2015; Maynes & Hatt,

2012; Suskie, 2014; Wei & Pecheone, 2010), assessment practitioners spend considerable time

and effort consulting with and motivating faculty in assessment work (Jankowski & Slotnick,

2015). As such, the more that is understood about faculty program leader engagement with

assessment, particularly in relation to use of assessment evidence, the more likely positive

change can occur for faculty, students, and the institution as a whole.

Thinking locally, NLU is charged with expanding and enhancing their assessment culture

as part of the strategic plan's data-driven action critical enabler (Templin, 2018). NLU was one

of the institutions that participated in NILOA's 2017 provost survey and, like the majority of

other institutions, admitted to needing to better support faculty in assessment engagement and

use of results for improvement (Jankowski et al., 2018). The need to better support faculty

engagement in assessment is not uncommon, as it matches national research (Madsen et al.,

2016; Metzler & Kurz, 2018; Wei & Pecheone, 2010) and some negative faculty commentary on

assessment (Gilbert, 2016, 2018; Worthen, 2018).

Despite challenging circumstances, assessment of student learning remains essential work

in higher education (AAHE, 1992; Ewell, 2009; CAS, 2015; HLC, 2014; Kuh et al., 2015;

Suskie, 2014). Faculty have a responsibility to lead assessment work – including use of evidence

for betterment – which informs and directly relates to their responsibility for curriculum,

instruction, and classroom learning (Angelo & Cross, 1993; Archambault & Masunaga, 2015;

AAC&U, 2006; HLC, 2014; Kuh et al., 2011; Kuh et al., 2015; O'Dell, 2009; Provezis, 2010;

Suskie, 2014; Wolverton, 1998). Coupling NLU leadership's charge to advance assessment work

with the desire to better support faculty program leader assessment work, it is important to better

understand what impacts the motivation of faculty program leaders for use of assessment

evidence.

**Methodology**. This study used a quantitative approach via survey research to look into

faculty program leaders' use of assessment evidence (Willis, Freitas, Inman, & Valenti., 2010).

The measure was a questionnaire adapted from two established instruments – one instrument

based on the SDT needs of competence, autonomy, and relatedness (Stupnisky et al., 2018); the

other instrument focusing on the use of assessment evidence (Jankowski et al., 2018) – with the

addition of some demographic questions and two open-ended questions allowing comments or

explanation of responses. A questionnaire allowed for quantifiable metrics around faculty program leader needs and self-reported behaviors in relation to use of assessment evidence. Such an approach enabled efficient capture of data with the intent of better understanding the assessment-related needs and behaviors of NLU faculty program leaders.

The sample was drawn from all faculty program leaders at NLU and aimed to consist of no less than 30 respondents. This purposeful sampling was intentionally planned with faculty program leaders for two reasons: a) academic assessment is most prevalent at NLU (Levy, 2018c; NLU, 2015) and b) academic assessment currently receives primary attention with respect to internal and external quality assurance for student learning (HLC, 2014; Kuh et al., 2015; Suskie, 2014). Faculty program leaders were the target population since they bear the ultimate responsibility to coordinate assessment activity for their area. To maintain focus on faculty program leader perspective, other assessment stakeholders (e.g., full-time faculty, part-time faculty, staff, students) were excluded. The amount of faculty program leaders at NLU is 73 people and the questionnaire was distributed to all of them. Though a small sample, the anticipated response rate should make the sample more than representative for the target population and allow for valid analysis (Creswell, 2014; T. Jimenez, personal communication, February 1, 2019). Indeed, as reported more in chapters four and five, the responses proved representative of the faculty program leader target population.

From the data collected in the survey, descriptive statistics were used to gain an overview of respondent demographics, SDT needs, and uses of assessment evidence. Correlations were used to identify potential relationships between the predictor variables of SDT needs (*competence, autonomy, relatedness*) and *SDT* overall with the outcome variable (*use of*

*assessment evidence*). Building off of the correlation results, regressions were used to mathematically model any relationships to make predictions for the outcome variable based on the predictor variables. Post-hoc analyses were also conducted to further explore the data with additional data objects. The results from the correlation and regression tests examined relationships between the variables, enabling variable associations to be reported in relation to the study's hypotheses:

- $H_1$ – Autonomy is associated with use of assessment evidence.

- $H_2$ – Competence is associated with use of assessment evidence.

- $H_3$ – Relatedness is associated with use of assessment evidence.

- $H_4$ – Self-Determination Theory is associated with use of assessment evidence.

The null hypotheses of no association between any variables can be rejected as a result of data interpretation from correlation and regression analyses.

  **Study significance**. This study looking into faculty program leaders' use of assessment evidence is significant because there is an existing tension between faculty and assessment work. It has been established assessment of student learning is essential (AAHE, 1992; Ewell, 2009; CAS, 2015; HLC, 2014; Kuh et al., 2015; Suskie, 2014) and faculty have a responsibility to use assessment results for change (AAHE, 1992; Angelo & Cross, 1993; AAC&U, 2006; HLC, 2014; Jankowski et al., 2018; Kuh et al., 2011; Kuh et al., 2015; Maki, 2010; O'Dell, 2009; Provezis, 2010; Suskie, 2009, 2014; Wolverton, 1998). In light of faculty responsibility and the importance of assessment work, further examination is needed given the phenomena of faculty across a number of institutions struggling to use assessment evidence (Jankowski et al., 2018; Kuh et al., 2015; Metzler & Kurz, 2019; Suskie, 2014).

Faculty face a number of barriers to assessment work (Kuh et al., 2015; Madsen et al., 2016; Maynes & Hatt, 2012; Metzler & Kurz, 2018; Wei & Pecheone, 2010). These barriers can include:

1. Faculty program leaders receiving mixed messaging about the purpose of assessment (Gilbert, 2016; Maynes & Hatt, 2012; O'Dell, 2009) or assessment's utility (Madsen et al., 2016; Worthen, 2018).

2. Faculty lacking knowledge, experience, and resources for assessment work (Maynes & Hatt, 2012; Suskie, 2014; Wei & Pecheone, 2010).

3. Faculty struggling to act or use assessment data for improvement (Jankowski et al., 2018; Kuh et al., 2015; Wei & Pecheone, 2010).

4. Faculty program leaders finding themselves limited or not empowered to use data for change at their institutions (Gilbert, 2018; Jankowski et al., 2018; Kreiser, 2001; Kuh et al., 2015; Madsen et al., 2016; Worthen, 2018).

5. Administration can lack transparency in faculty responsibility with data (O'Dell, 2009; Wei & Pecheone, 2010; West, 2017).

6. Faculty program leaders can have limited access to data (West, 2017).

There could be more exploration done at the root of these issues, which could have both internal and external influences on individuals. SDT could help go beyond institutional structures to understand faculty program leader needs and motivation (Fuller et al., 2016). Further exploring faculty program leader needs and use of assessment evidence can help provide insight to identify more specific aspects of support, process, or approach to address for betterment.

**Study implications.** This study looking into faculty program leaders' use of assessment evidence may have important implications for the assessment discipline due to its collection of and focus on faculty program leader perspectives, where assessment literature (e.g., AAHE, 1992; Ewell, 2009; Kuh et al., 2015; Metzler & Kurz, 2018; Suskie, 2009) is typically written from the viewpoint of or for the audience of assessment professionals, academic leadership, or institutional administration. While those populations are certainly stakeholders, faculty program leader voice and perspective is not necessarily present or completely considered. An intentional marriage of faculty perspective and assessment culture could help identify underlying issues, barriers, or limitations to address for improvement, as well as guide assessment professionals and administrators in collaboration with faculty program leaders.

Limited sample size from this study may prevent generalizable implications to broader knowledge on faculty and assessment culture, but this study does result in deep implications for practice at NLU. Opportunities exist to work with NLU college and faculty leadership, plus employees involved in assessment or faculty development to brainstorm improvements in light of results. In addition to areas to improve, positive aspects of assessment activity can be noted, too. Where perspectives and behavior demonstrates recommended practice – for faculty or assessment – such practices can be celebrated and explored for adoption across the university (AAHE, 1992; Angelo & Cross, 1993; AAC&U, 2006; O'Dell, 2009; Wei & Pecheone, 2010).

Beyond taking action, the results of this study can be disseminated to a number of audiences. Assessment-related people at NLU and administration should receive results, but the primary audience to be directly engaged would be faculty program leaders. Results can be shared via presentations, discussions, and collaborative strategy sessions. Effective sharing entails

customizing content and presenting it in familiar language and in relation to the needs and goals of the intended audience (Maki, 2010; Suskie, 2009). As such, findings can be presented in aggregate, but with detail and context to be applicable to each faculty program leader.

Outside of NLU, the results of this study may prove enlightening to the field of higher education. Assessment literature expects engagement and taking action as a result of assessment data (AAHE, 1992; Kuh et al., 2015; Maki, 2010; Suskie, 2009, 2014). As my capstone provides institutional data on NLU faculty program leaders' motivation and behaviors associated with use of assessment evidence, these results can help bridge the gap and better understand the tension between expected assessment activity and faculty behavior. The results should be presented from a case study perspective to be careful not to generalize results to a larger faculty population given the small sample size. Consequently, the results can prompt further research to extend the impact or encourage a larger study in order to have results which could be generalized to a broader faculty program leader population.

**Chapter 1 Conclusion**

This study seeks to apply Self-Determination Theory (Ryan & Deci, 2000) as a theoretical framework to provide context for faculty program leaders' use of assessment evidence. It is significant because, despite assessment's known importance, faculty across many institutions – including NLU – could use more support in making use of assessment evidence (Jankowski et al., 2018; Kuh et al., 2015). As such, the more that is understood about faculty behaviors and motivation, the better support can be provided to overcome or minimize existing barriers.

The quantitative nature of this study builds off of past quantitative research on faculty and Self-Determination Theory (Stupnisky et al., 2018), as well as use of assessment evidence at institutions of higher education (Jankowski et al., 2018).  The research is situated at a home site, National Louis University, in order to best translate results to actions for further research or environmental betterment. The provided institutional overview and cultural context will prove useful for interpreting results.

**Chapter 2: Literature Review**

This literature review begins addressing the relevance of research via topics of assessment as quality, assessment and faculty, and an overview of Self-Determination Theory (Ryan & Deci, 2000) as a theoretical framework with which to view faculty and assessment. The literature review concludes by describing the urgency of this research for higher education in general and, specifically, in relation to the assessment culture at NLU.

**Relevance of Research**

The relevance of this research is presented through a review of literature in three main domains. The first is the idea of assessment as quality, which describes specific elements of effective assessment practice, how assessment practice at NLU compares to those effective elements, and detail of existing external pressures for improvement. Next, the relationship between assessment and faculty members is explored, noting barriers for faculty engaging in assessment work and the existing barriers at NLU. Finally, Self-Determination Theory (Ryan & Deci, 2000) is discussed, presenting its applicability to motivation, faculty, and assessment.

**Assessment as quality.** Assessment of student learning can be defined as a process to plan, collect data, analyze and report results, then act to inform or improve student learning and development via interventions and operational effectiveness (Palomba & Banta, 1999; Upcraft & Schuh 1996). Assessment involves time, effort, and technology-related resources for faculty and staff in individual areas, divisions, and on behalf of the overall institution (Levy, 2017; Maki, 2010). Assessment results should be used to inform betterment for student learning and inform continuous improvement for an institution (Kuh et al., 2015; Palomba & Banta, 1999; Upcraft & Schuh 1996; Suskie, 2014). *Betterment*, as defined by Suskie (2014), pertains to continuous

improvement in order to best meet the needs of students and stakeholders. Suskie (2014) asserted

institutional leaders, faculty, and staff all have a responsibility for betterment, and Kuh et al.

(2015) argued data and evidence begs to be acted upon and used for improvement.

   While measures of quality can be dependent on institutional context (Browne, n.d.;

Harvey & Green, 1993; Patton, 2012), common themes of quality indicators often include

measurement or assessment of student performance, such as achievement or demonstration of

student learning outcomes and student development (Schindler et al., 2015; Suskie, 2014;

Woodhouse, 2002). Assessment, alongside efforts like program review and accreditation work,

can help ensure institutional leaders understand the needs of their students, align operations

accordingly, and ensure evidence to demonstrate meeting intended outcomes (HLC, 2014; Kuh

et al., 2015; Provezis, 2010; Suskie, 2014).

   ***Elements of good practice***. It is important to understand what good assessment practice

looks like. Stemming from the American Association for Higher Education's (AAHE) Principles

of Good Practice for Assessing Student Learning: assessment's purpose should be related to

student success, assessment should be embedded in institutional structures, faculty involvement

is necessary, resources should exist to support assessment practice, and assessment should lead

to use for betterment (AAHE, 1992). Each of these themes, aligning to multiple of AAHE's nine

principles, are explored in general and then in relation to practice at NLU.

   *Student success as assessment purpose.* Institutional leaders should have a vision for

what assessment is, who is involved, and what it should accomplish (AAHE, 1992; Baker,

Jankowski, Provezis, & Kinzie, 2012; Fuller & Skidmore, 2014; Kreiser, 2001; Kuh et al., 2015;

Stitt-Bergh et al., 2019). Accreditation requirements remain the most important factor prompting

assessment of student learning work as reported by provosts (Jankowski et al., 2018), followed

by institutional commitment to improve and meet student needs. For assessment practice to make

the most difference on campus and be most likely to lead to improvement, assessment needs to

begin with issues people care about and address the needs of students and institutional

stakeholders (AAHE, 1992). Approaching assessment with students and internal stakeholder

needs in mind can combat a culture of compliance – where people think assessment is conducted

only for external reporting purposes – as well as provide an opportunity for academic and

institutional leaders to underscore how assessment can further academic purposes of the

institution (Ewell, 2009; Kreiser, 2001; Kuh et al., 2015; Metzler & Kurz, 2018).

*Embedded assessment*. To contextualize its vision and purpose, assessment should be

aligned and embedded in related activities and processes at the institution (Baker et al., 2012;

Metzler & Kurz, 2018). Because assessment is vital to teaching and learning (AAHE, 1992;

Fuller & Skidmore, 2014), it should inform regular institutional processes such as program

review, strategic planning, and budgeting (AAHE, 1992; Baker et al., 2012; HLC, 2014; Kreiser,

2001). Such integration positions assessment alongside larger conditions and processes

promoting change at the institution (AAHE, 1992). In signaling how areas and processes can be

informed or impacted by assessment practice, assessment's relevance to the everyday work of

faculty and staff becomes apparent.

*Faculty involvement in assessment*. Though many faculty members can be involved,

academic assessment needs substantive faculty engagement and ownership (Baker et al., 2012;

HLC, 2014; Kuh et al., 2015; Provezis, 2010; Stitt-Bergh et al., 2019). As assessment informs

pedagogy and curriculum (Angelo & Cross, 1993; Cain, 2014; Suskie, 2009; Maki, 2010),

faculty members have a vested interest to be involved in assessment efforts, where their experience with students in the classroom can inform establishing criteria and determining appropriate methods for measuring student learning (AAHE, 1992; Arum & Roksa, 2011; Kreiser, 2001; Metzler & Kurz, 2018). Consequently, academic program leaders are integral in assessment given their responsibility for curriculum and program health (Kuh et al., 2015; Stitt-Bergh et al., 2019).

*Resource provision for assessment*. Institutional leaders should ensure assessment infrastructure (e.g., resources, staff) exists to protect assessment's vision at the institution and guide those involved in assessment work (AAHE, 1992; Arum & Roksa, 2011; Baker et al., 2012; Ewell, 2009). Adequate assessment staffing should exist and assessment-specific resources organized to meet needs, build capacity, and support assessment collaboration (AAHE, 1992; Ewell, 2009; Fuller & Skidmore, 2014; Kuh et al., 2015; O'Dell, 2009). Beyond support, institutional leadership should strive to instill an environment where faculty feel like active participants in the assessment process as opposed to being assigned or burdened with a task (Doyle, 2003; Kreiser, 2001; Levesque-Bristol et al., 2019).

*Use of assessment evidence*. Most important in the assessment process, assessment evidence should be applied and used in ways to improve student experience and institution performance (AAHE, 1992; Ewell, 2009; Kuh et al., 2015; Stitt-Bergh et al., 2019). Connecting assessment efforts to use is important since, for celebration or change, assessment's purpose is inseparable from use (AAHE, 1992; Fuller & Skidmore, 2014; Maki, 2010; Metzler & Kurz, 2018; Palomba & Banta, 1999; Upcraft & Schuh 1996). Even when student learning surpasses targets or expectations and actions are not necessitated by deficiencies or opportunities for

improvement, good assessment practice includes effective sharing of results as a form of use (Baker et al., 2012; Ewell, 2009; O'Dell, 2009).

  ***Assessment culture at NLU***. Assessment at NLU exhibits traits and practices which coincide with the aforementioned elements of good assessment practice (AAHE, 1992; Levy, 2018a, 2018c). Table 1 provides a summary of NLU assessment practice connections with elements of good assessment practice. Beginning with vision, data-informed continuous improvement is a critical enabler in NLU's strategic plan, which aids in keeping assessment practice relevant to institutional strategy (Templin, 2018). There is a university approach articulated for assessment practice emphasizing evidencing student learning and using data to inform continuous improvement, which is complemented by colleges having area-specific charges or expectations in place for their programs (Levy, 2018a, 2018c). Though many information sources exist, data pertaining to student learning are a critical source of feedback for curriculum management and best maintaining the classroom environment (Angelo & Cross, 1993; Suskie, 2009).

Table 1

*Elements of Good Assessment Practice at NLU*

| Element of Good Assessment Practice | NLU Assessment Culture |
|---|---|
| Student success as assessment purpose | • Data-informed continuous improvement part of strategic plan<br>• Articulated goal for continuous improvement concerned with student learning and creating a data-informed culture<br>• Provost charge to advance assessment culture to better evidence achievement of student learning |
| Embedded assessment | • Assessment of student learning included in program review<br>• Curriculum design includes consideration of assessment<br>• Colleges create space in meetings for assessment discussions |
| Faculty involvement in assessment | • Faculty program leaders are responsible for assessment and encouraged to involve other faculty<br>• Course-embedded measures afford opportunity for course faculty to contribute to program assessment efforts |
| Resource provision for assessment | • Provost Office provides assessment resources and staff support through teaching/learning, assessment, and accreditation areas<br>• University Assessment Council supplements college efforts to support assessment via resources and professional development<br>• Colleges and student affairs areas have people with assessment responsibilities and/or meetings where assessment is discussed |
| Use of assessment evidence | • University-wide assessment expectations complemented by college and area specific charges or goals<br>• Program review and assessment reports include *use* sections |

Fuller and Skidmore (2014) characterize an assessment culture as a thought or action system reinforcing what good assessment efforts look like. NLU leadership have worked to align

and embed assessment into related practices and processes by way of updating templates and

guidelines for institutional efforts like program review and curriculum design (Levy, 2018c).

Both assessment and program review reports ask for report writers to list data-informed changes

for betterment, so there is documented use of assessment evidence occurring. In addition to

university and college-wide assessment committees, colleges have regularly created space in

meetings for assessment discussion and collaboration between faculty program leaders and

general faculty.

Beyond space for faculty involvement, committees and meetings offer avenues for

resources and support. Complementing program or college-specific efforts, the University

Assessment Council offers guidance, resources, and coordinates professional development

opportunities related to assessment (Levy, 2018c). Additionally, the Provost Office offers its

Teaching and Learning team, plus its Assessment and Accreditation staff, as additional support

to meet institutional needs and provide resources for assessment-related activity across the

university.

Combined efforts from academic leadership and assessment professionals are helping

advance the assessment culture at NLU to better evidence student learning achievement as part

of student success (A. Hilsabeck, personal communication, November 6, 2018). Health and

sustainability of assessment culture matters for advancement of practice (Arum & Roksa, 2011;

Kreiser, 2001). As such, it is important NLU leadership remembers assessment is a continuous

process, making assessment an ongoing concern to ensure the best environment and

interventions are provided to promote student learning and success (Arum & Roksa, 2011;

Jankowski et al., 2018; Kuh et al., 2015; Suskie, 2014). Good internal practices can aid or

complement institutional leadership responding to external pressures related to value and improvement (Suskie, 2014).

*External pressures for evidence*. Common across both internal and external forms of quality assurance for higher education is a concern with student outcomes (Gaston, 2018; Kuh et al., 2015; Suskie, 2014). As skepticism of higher education grows, the U.S. Department of Education and state governments want more transparency into what students are gaining from their college experience (Ebersole, 2014; Fischer, 2019; Kuh et al., 2015). Amidst more requests than ever for student outcomes, past and current institutional practice may not be enough for what is needed (Metzler & Kurz, 2018).

The increasing pressure from external entities on student outcomes is likely not to go away; moreover, there has been more attention placed on evidence of action and impact of data-informed efforts for student learning (Ewell, 2009; Fischer, 2019; Kuh et al., 2015; Metzler & Kurz, 2018). External pressures increase the tension between assessment for accountability versus assessment for improvement (Ewell, 2009; Gaston, 2018). Balancing assessment activity to meet internal and external needs can prove problematic. For example, approaching assessment to prove an institution's worth has been known to lead to increased assessment activity through increased internal bureaucracy (Stitt-Bergh et al., 2019). More activity is not always the answer so much as appropriately demonstrating the purpose of assessment practice. Institutional leadership, faculty, and staff can find themselves in situations where vision or purpose of assessment for internal improvement is juxtaposed with actions signaling assessment for external accountability (Jankowski & Marshall, 2017).

While external requirements prompt assessment reporting for many institutions (Fuller, 2018; Jankowski et al., 2018; Metzler & Kurz, 2018; Stitt-Bergh et al., 2019), too many schools view assessment only for external reporting purposes (Jankowski & Marshall, 2017; Jankowski et al., 2018; Stitt-Bergh et al., 2019). Approaching assessment for external accountability reinforces a compliance mindset which allows external needs to take priority over internal needs (Ewell, 2009; Jankowski & Marshall, 2017; Kuh et al., 2015; Metzler & Kurz, 2018; Suskie, 2014). Too much focus of assessment and reporting based on external needs can lose faculty engagement by pushing top-down mandates (Ewell, 2009; Metzler & Kurz, 2018). External requirements and top-down approaches may also risk infringing upon academic freedom, shared governance, or undermining prior messaging about faculty ownership of assessment (Cain, 2014; Doyle, 2003; Ewell, 2009; Kreiser, 2001; Metzler & Kurz, 2018).

To be clear, the concepts of assessment for improvement and assessment for accountability do not have to be mutually exclusive (Ewell, 2009; Jankowski & Marshall, 2017). Good assessment practice can satisfy both internal and external needs (AAHE, 1992; Gaston, 2018; Levy et al., 2018; Suskie, 2014). The issue becomes perception as a result of intent versus impact. While an institution's leaders may *intend* for assessment's primary purpose to be for improvement, leadership stressing and speaking mostly about assessment in relation to external requirements can *impact* faculty perception of assessment's primary purpose to meet external needs (Jankowski & Marshall, 2017; Suskie, 2014).

As an institution with locations in multiple states and several programs with specialized accreditors (NLU, n.d.-a, n.d.-d, 2015, 2019), NLU administration, faculty, and staff are very familiar with external reporting. Unfortunately, messaging and history around regional, state, and

program assurance entities has instilled a culture where external needs can be prioritized over internal needs or process. Faculty, staff, and administrators' actions can be driven by external reports and feedback, looking to correct noted issues and feeling relieved when internally known areas of limitation or concern were not mentioned in such reports (Ewell, 2009; Gaston, 2018; Levy et al., 2018). Because responses to external quality assurance issues can bring about expedited institutional change, faculty can lose confidence or feel their voice diminished in governance processes (Cain, 2014; Kreiser, 2001; Metzler & Kurz, 2018), not to mention subvert messaging of intended purposes with respect to assessment (Gose, 2017; Kuh et al., 2015; Metzler & Kurz, 2018). When only concerned about satisfying external entities, opportunities can be missed to leverage programmatic or regional accreditation efforts as ongoing inspiration or focus for betterment based on institutional needs or self-determined areas for improvement (Gaston, 2018; Levy et al., 2018; Suskie, 2014).

NLU is among many institutions which could benefit from campus leaders better communicating expectations or providing resources to increase employee orientation toward student success and away from strictly compliance (Ewell, 2009; Fuller, 2018; Kuh et al., 2011). Academic leaders must pay more attention to quality teaching and student learning, role modeling these are priorities to faculty and staff (Kuh et al., 2011; Levesque-Bristol et al., 2019). Beyond assessment's sake, leadership prioritizing quality teaching and student learning is important to ensure alignment of institutional practice and priorities, like NLU's mention of quality education through innovative teaching in its mission (Jankowski & Marshall, 2017; Nicholas & Slotnick, 2018; NLU, n.d.c; Suskie, 2014). Intentional role modeling from academic

leaders can elevate the importance and clarify the relationship between quality teaching, student learning, and assessment (Kuh et al., 2011; Nicholas & Slotnick, 2018; Stitt-Bergh et al., 2019).

Knowing what good assessment should look like and its relation to assessment culture at NLU (AAHE, 1992; Levy, 2018c), it is worth further exploring a key stakeholder in assessment work: faculty. Given internal and external pressures can shape what assessment practice looks like, faculty relationship and responsibility to assessment work becomes increasingly important (Arum & Roksa, 2011; Cain, 2014; Kuh et al., 2011; Kuh et al., 2015; Sundre & Thelk, 2010; Suskie, 2014). The following section describes faculty responsibility with assessment, barriers they experience, and what those barriers look like within NLU's assessment culture.

**Assessment and faculty.**

*Faculty responsibility for assessment*. Assessment informs pedagogy and curriculum by measuring and evidencing student learning (Angelo & Cross, 1993; Cain, 2014; Suskie, 2009; Maki, 2010). Faculty have a responsibility for curriculum, instruction, and evidencing whether or not students are learning what is expected based on course objectives and student learning outcomes (Angelo & Cross, 1993; Arum & Roksa, 2011; Cain, 2014; Gold, Rhoades, Smith, & Kuh, 2011; Kuh et al., 2015; O'Dell, 2009; Suskie, 2014; Wolverton, 1998). There is compelling logic for faculty members to be involved in assessment knowing the utility of assessment as part of teaching effectiveness or meaningful engagement with pedagogy, aligning assessment with the nature and responsibilities of faculty.

Beyond compelling logic, many faculty-relevant entities have clearly articulated the need and responsibility of faculty to be involved in assessment. The American Association of University Professors (AAUP), American Federation of Teachers (AFT), and the National

Education Association (NEA) – the three most influential perspectives related to collective

faculty voice and policy – all agreed assessment is valuable and faculty members should be

engaged, if not owning and leading efforts (Cain, 2014; Gold et al., 2011; Kezar & Sam, 2010).

Aside from union and professional organizations, accreditors have also called for faculty

engagement in assessment (Ewell, 2009; HLC, 2014; Kreiser, 2001; Kuh et al., 2015; Provezis,

2010; Suskie, 2014).

Internal to institutions, provosts and deans agree faculty should be engaged in assessment

work (Diamond, 2002; Jankowski et al., 2018; Kuh et al., 2015). Even faculty members

themselves have shown not only a responsibility for assessment, but action and intention to be

strategic and effective in assessment work (Arum & Edick, n.d.; Arum & Roksa, 2011; Baker et

al., 2012; O'Dell, 2009). Supported by the Social Science Research Council, the Measuring

College Learning project has existed since 2013 to meet a need of bringing together and offering

opportunities for faculty members from different disciplines to talk learning outcomes,

assessment practice, and considerations for navigating issues with assessment practice (Arum &

Edick, n.d.). In totality, faculty responsibility for assessment work is endorsed and supported by

external entities, internal leadership, and peer faculty colleagues who want the best for student

learning and pedagogical practice in respective disciplines (Arum & Edick, n.d.; Baker et al.,

2012; Kuh et al., 2015).

Faculty involvement benefits assessment, as it reflects good assessment practice (AAHE,

1992; Baker et al., 2012; HLC, 2014; Kuh et al., 2015; Provezis, 2010; Stitt-Bergh et al., 2019).

Assessment carries inherent benefits for faculty (e.g., informing on effectiveness of curriculum,

providing evidence of student learning, collecting complementary data for strategic planning or

programmatic review), making faculty involvement not just a good thing to do but also self-serving (AAHE, 1992; Kuh et al., ,2015; Maki, 2010; Suskie, 2009, 2014). Engaging faculty in assessment can lead to improved teaching performance and practice – not to mention enhanced student learning – which makes both assessment experiences and faculty responsibilities more meaningful (Arum & Roksa, 2011; Cain, 2014; Kuh et al., 2011; Kuh et al., 2015; Sundre & Thelk, 2010; Suskie, 2014).

  ***Barriers for faculty with assessment***. Given the beneficial byproducts assessment affords faculty members who engage authentically, one might wonder why more literature does not exist with success stories and faculty prominently demonstrating assessment competency. While the benefits are real, a number of barriers associated with faculty involvement in assessment exist (Angelo & Cross, 1993; Cain, 2014; Doyle, 2003; Gold et al., 2011; Kuh et al., 2015; Maynes & Hatt, 2012; O'Dell, 2009; Slavit, Nelson, & Deuel, 2013; Suskie, 2014). Individual, structural, and social barriers prove to challenge faculty and institutional administrators alike, complicating institutional efforts to advance assessment practice.

  Firstly, most faculty lack formal training or preparation for assessment work (Angelo & Cross, 1993; Cain, 2014; Jankowski & Slotnick, 2015; Maynes & Hatt, 2012; Slavit et al., 2013; Suskie, 2014; Wei & Pecheone, 2010). Without experience, faculty may not know how best to engage in the work or realize the potential benefits of their involvement. Even faculty with experience in assessment can be intimidated by aspects of data collection, measurement, or analysis (Ewell, 2009; Koole et al., 2011; Slavit et al., 2013). Experienced or not, many faculty members find themselves at a loss for how to talk about data, what steps to take in the assessment process, or how to go about using results (Koole et al., 2011; Kreiser, 2001; Kuh et

al., 2015; Maynes & Hatt, 2012; Suskie, 2014). Consequently, faculty cannot simply be expected

to engage in assessment work without proper guidance and support (Angelo & Cross, 1993;

Cain, 2014; Ewell, 2009; Jankowski et al., 2018; Kuh et al., 2015; Slavit et al., 2013; Suskie,

2014).

Support, in general, may not come easy or natural for faculty members either. Teaching

can be perceived as a solitary practice (Gose, 2017). There can be a lack of community – not to

mention fear of inferiority – among colleagues, especially in relation to an area of unfamiliarity

or inexperience like assessment (Gose, 2017; Koole et al., 2011; Metzler & Kurz, 2018). Though

institutional leaders may provide assessment support knowing faculty are juggling other

responsibilities, faculty can be insulted when questioned by a non-subject matter expert or fellow

faculty member (Angelo & Cross, 1993; Doyle, 2003; Jankowski et al., 2018; Kreiser, 2001;

Kuh et al., 2015; Metzler & Kurz, 2018). Knowing faculty may have internal and interpersonal

perceptions which can impact performance and actions, faculty behaviors are worth considering

in determining appropriate methods to communicate and share resources for assessment work

(Ewell, 2009; Doyle, 2003; Slavit et al., 2013; Suskie, 2014).

Faculty behavior can be a product of their agency (or lack thereof) with respect to

assessment. Though faculty members should be leading assessment efforts, individuals may find

themselves feeling at the mercy of administration or external entities commanding assessment

requirements or structure (Doyle, 2003; Ewell, 2009; Kreiser, 2001; Metzler & Kurz, 2018).

Faculty members may even misconstrue assessment practices as diminishing their academic

freedom (Cain, 2014; Kreiser, 2001; Metzler & Kurz, 2018). Other faculty members (and

institutional leaders, to be fair) could see assessment as a form of performance evaluation or

avenue for punishment (Cain, 2014; Doyle, 2003; Gose, 2017; Kreiser, 2001; Maynes & Hatt, 2012; Metzler & Kurz, 2018). While institutional practice cannot always be accounted for and good assessment practice preaches otherwise, mixed messaging and negative lived experiences can be strong factors of demotivation or limitations for faculty with respect to assessment work (Gilbert, 2016; Madsen et al., 2016; Maynes & Hatt, 2012; O'Dell, 2009; Worthen, 2018).

*Existing barriers at NLU*. Many of these same barriers exist at NLU among faculty program leaders. Like elsewhere, faculty program leaders at NLU are unlikely to have formal training or experience with assessment (Levy, 2018c). In an NLU survey about assessment needs and support conducted in the spring of 2018, faculty reported the area they are least knowledge among agreement statements was in relation to using assessment technology available to them (Levy & Eskew, 2018a). While faculty wanted to improve in nearly all aspects of assessment practice listed, the top two priorities or areas of urgency for improvement were taking action and sharing assessment results. Appendix B includes these results for reference.

When asked about options for assessment training and support in that same NLU spring 2018 survey, the top preference from NLU faculty was delivery just to their area as opposed to across their college or all of campus (Levy & Eskew, 2018a). Even with similar needs and priorities, faculty preferred to seek assistance and support within their areas. This latter point may reflect the isolated or solitary aspect of faculty (Gose, 2017; Koole et al., 2011). Concerns of what their peers might think or simply not thinking to include or involve others could also be impacting these preferences (Gose, 2017; Koole et al., 2011; Metzler & Kurz, 2018). Conversely, faculty could have also preferred training materials be customized in a discipline-

specific context to be most effective in building consensus within their area (Jankowski & Marshall, 2017; Koole et al., 2011).

Such individualized approaches to assessment is reflective of disparate assessment practices occurring across colleges within the university (Levy, 2018c; NLU 2015). Beyond professional development, individual assessment efforts are borne out in data collection, reporting, and even staffing. Each college has a different (or non-existent) amount of faculty or staff dedicated full-time to assessment. University leadership are consistent in charging faculty program leaders with responsibility for assessment in their programs. Program collaboration and support are not always consistent, however, as the number of full-time faculty per program varies and part-time faculty members are unlikely to be included due to equity considerations of assessment workload and the limits to contracted compensation. As such, faculty program leaders working by themselves on their assessment responsibilities can be common.

Though designated to lead assessment efforts for their program, faculty program leaders can still struggle with autonomy or empowerment in assessment work (Stupnisky et al., 2018). A lack of autonomy – real or perceived – can present as faculty program leaders feeling like they are unable to determine their approach to assessment beyond what is prescribed by the college (Faculty 1, personal communication, December 14, 2018), unable to change existing measures in their program due to academic and industry practices (Faculty 2, personal communication, August, 23, 2018), or unable to make changes to their curriculum because of other queued curriculum projects (Faculty 3, personal communication, April, 29, 2019). Being told to lead an effort and then not having the resources or authority to do so could prove frustrating or demotivating.

Knowing accreditation can be perceived as a primary purpose for assessment work (Ewell, 2009; Gaston, 2018; Suskie, 2014), autonomy can further be diminished if faculty program leaders believe external standards take priority over internal needs (Kuh et al., 2015; Levy, 2018c; Metzler & Kurz, 2018). With no internal accountability mechanisms (rewards or punishments) associated with assessment at NLU, there can be little extrinsic motivation from NLU for faculty engagement in assessment work (Levy, 2018c; NLU, 2015). A lack of accountability mechanisms contributes to assessment activity where behaviors of faculty program leaders fall into three categories: engagement due to the intrinsic motivation they may possess (where they feel competent and empowered), resigned action in accordance with compliance culture, or abstaining from involvement entirely (Cabot, 2016; Kuh et al., 2015; Suskie, 2014; Svinicki, 2016). While there are few NLU faculty program leaders who abstain from assessment work completely, the number of faculty program leaders merely complying or inauthentically participating is equally concerning (Levy & Eskew, 2018b).

There are a great many benefits for faculty leaders who engage in assessment activity (Kuh et al., 2015; Maki, 2010; Suskie, 2009, 2014). While faculty have a responsibility for assessment work, they also experience very real barriers to being successful (Angelo & Cross, 1993; Cain, 2014; Gold et al., 2011; Kuh et al., 2015; Maynes & Hatt, 2012; O'Dell, 2009; Slavit et al., 2013; Suskie, 2014). There is a relationship between assessment responsibility, engagement, and motivation which impacts quality of assessment activity for faculty (Baker et al., 2012; Cabot, 2016; Kuh et al., 2015; Suskie, 2014; Svinicki, 2016). While responsibility and engagement – including associated barriers – have been explored, the next section describes a

motivation theory which could provide context in order to better explain and support faculty

program leader assessment efforts.

    **Self-Determination Theory**. Self-Determination Theory (SDT) can provide context for

contributing and detracting factors associated with faculty behavior and is used as a theoretical

framework for this study (Fuller et al., 2016). Ryan and Deci (2000) indicate SDT can be

leveraged to understand motivation by considering internal mechanisms people use for

regulation of behavior. In other words, SDT can help explain motivation and behavior (Flaherty,

2018; Ryan & Deci, 2000; Stupnisky et al., 2018). As such, SDT could inform on faculty

behaviors and connections with assessment. Before exploring those connections, however, it is

important to better understand SDT.

    SDT outlines three basic needs (depicted in Figure 1) which form the basis for self-

motivation: *competence*, *relatedness*, and *autonomy* (Ryan & Deci, 2000; Stupnisky et al., 2018;

Svinicki, 2016; van den Berg et al., 2013). Connections or overlap between *competence*,

*relatedness*, and *autonomy* can exist, though connections among these SDT needs vary due to

environmental or personal circumstances. Examples of connections between the SDT needs are

provided when discussing SDT in relation to motivation, faculty, and assessment.

    Within SDT, *competence* is characterized as a need for someone to believe in their

knowledge, abilities, or skills (Ryan & Deci, 2000; Stupnisky et al., 2018; Svinicki, 2016; van

den Berg et al., 2013). Generally, people want to feel capable and able to perform tasks required

of them. Because optimal performance cannot be achieved without *competence*, individuals seek

to fulfill this need, especially for activities of interest or importance (Ryan & Deci, 2000;

Stupnisky et al., 2018).

*Relatedness* in SDT pertains to belongingness or connectedness; an individual's need to feel part of, accepted, and supported by a group or environment (Ryan & Deci, 2000; Stupnisky et al., 2018; Svinicki, 2016; van den Berg et al., 2013). People have a natural desire to be connected to activities and within communities. Even if someone tends to work fairly independently, there is a need to feel they belong in their discipline and have support available, should they need it (Gose, 2017; Stupnisky et al., 2018; van den Berg et al., 2013).

The final need in SDT, *autonomy*, is described as self-determination and having the power to exercise one's own will or be in control (Ryan & Deci, 2000; Stupnisky et al., 2018; Svinicki, 2016; van den Berg et al., 2013). Generally, people want to have control over their environment or circumstances. Faculty are no strangers to *autonomy*, with a very common example being their desire for control over their classroom (Stupnisky et al., 2018; Svinicki, 2016; van den Berg et al., 2013).

The three needs of SDT do not need to be met or addressed in a specific order (Ryan & Deci, 2000). However, the needs – individually and collectively – can contribute or take away from the well-being or functioning of an individual (Cabot, 2016; Ryan & Deci, 2000). Whether or not SDT needs are met can impact the behaviors and responses of individuals in certain situations (Cabot, 2016; Flaherty, 2018; Ryan & Deci, 2000; Stupnisky et al., 2018).
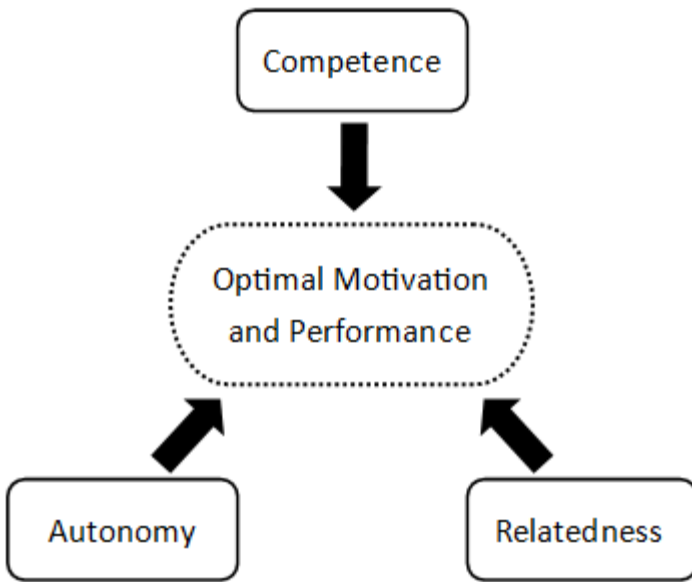
*Figure 1*. The needs of Self-Determination Theory in relation to behavior

**SDT and motivation.** Positive effects on motivation have been seen when the three needs of SDT are met (Flaherty, 2018; Stupnisky et al., 2018). Moreover, studies have shown people are optimally motivated when they feel competent, belonging and supported by a community, and in control of their environment (Levesque-Bristol et al., 2019; Ryan & Deci, 2000; Stupnisky et al., 2018; van den Berg et al., 2013). SDT can be used to better understand various aspects of intrinsic and extrinsic motivation exhibited by individuals (Ryan & Deci, 2000; Stupnisky et al., 2018).

Typically, intrinsic motivation tends to only apply for activities which are appealing or of value to individuals (Ryan & Deci, 2000). Because not all activities – including assessment – may appeal or be valued by faculty (Cain, 2014; Doyle, 2003; Ewell, 2009; Metzler & Kurz, 2018), SDT can be helpful in examining causes or contributors undermining intrinsic motivation

(Ryan & Deci, 2000). Thinking specifically about assessment, understanding and working to address faculty alienation or inauthenticity could impact the appeal of assessment to others (Ewell, 2009; Gose, 2017; Slavit et al., 2013). Institutional leaders who include assessment in strategy documents, prompt for data-informed decision-making, and reinforce philosophy or purpose of assessment can signal importance and increase the value of assessment work to faculty (Jankowski et al., 2018; Kuh et al., 2011; Kuh et al., 2015; Nicholas & Slotnick, 2018).

Choosing a singular aspect of intrinsic motivation with which to focus, as opposed to multiple, can still have positive effects. For example, while enjoyment and value are separate concepts, either can be an intrinsic motivator (Flaherty, 2018; Stupnisky et al., 2018). Applied to assessment, not all faculty have to enjoy assessment work, they just need to find it important or valuable since enjoyment and value have been shown to be equivalent for intrinsic motivation (Stupnisky et al., 2018). Combinations, like someone finding assessment enjoyable and of value, can prove even more powerful for intrinsic motivation (Heath & Heath, 2010). Applied to the SDT needs, while *competence* alone may not be much of an intrinsic motivator, its power increases when paired with *autonomy* (Ryan & Deci, 2000).

With respect to extrinsic motivation, it is important to know and understand the audience or population to be extrinsically motivated (Budwig, 2018; Cabot, 2016; Ryan & Deci, 2000). Simply providing rewards, punishments, or trying to instill guilt may only work in certain situations or with specific populations (Flaherty, 2018; Stupnisky et al., 2018). Because faculty engagement is not always meaningful or authentic, as seen with external requirements or a compliance mindset, accountability mechanisms may be minimally effective as extrinsic

motivation for assessment (Cabot, 2016; Ewell, 2009; Gose, 2017; Kuh et al., 2015; Slavit et al., 2013; Stupnisky et al., 2018; Suskie, 2014; Svinicki, 2016).

Extrinsic motivation gains the most traction with individuals who feel or desire *relatedness*, whether that is a sense of belonging with the community or to the purpose associated with the task or desired behavior (Ryan & Deci, 2000; Stupnisky et al., 2018; Svinicki, 2016). One's ability to internalize extrinsic motivation is a function of *competence*, where such internalization can fuel and increase autonomous motivation (Ryan & Deci, 2000; Stupnisky et al., 2018). As with intrinsic motivation, complementing elements – not to mention multiple SDT needs being met – can have increased effects on motivation (Heath & Heath, 2010; Ryan & Deci, 2000; Stupnisky et al., 2018).

***Examining faculty practice through an SDT framework***. The right kind of motivation matters in how faculty teach (Flaherty, 2018). Teacher motivation could be explained via SDT as a framework given its use in examining motivations of individuals (Ryan & Deci, 2000; Stupnisky et al., 2018). *Competence* and *relatedness* matter for instructors and subject matter experts, as faculty need to feel capable and related to their discipline or academic community (van den Berg et al., 2013). Classroom management calls for *autonomy* and *competence*, where faculty members are self-motivated to master their environment (Stupnisky et al., 2018; Svinicki, 2016; van den Berg et al., 2013) and expected to be capable in instruction and classroom management (Angelo & Cross, 1993; Cain, 2014; Gold et al., 2011; Suskie, 2014).

Resources impact motivation to teach (van den Berg et al., 2013). To ensure best performance and motivation, support should be provided to meet the needs of *competence*, *relatedness*, and *autonomy* (Ryan & Deci, 2000; van den Berg et al., 2013). Faculty have more

optimal motivation when basic needs are met (Stupnisky et al., 2018). Motivation is important to

faculty given it has been found to be a significant predictor of faculty enjoying teaching and

using best practices (Stupnisky et al., 2018; van den Berg et al., 2013).

Those who enjoy or value teaching tend to be the most effective faculty members at

teaching (Flaherty, 2018; Stupnisky et al., 2018). Though not all faculty enjoy teaching, faculty

members valuing or seeing their work as important can be just as motivating for behavior

(Stupnisky et al., 2018). Effectiveness can add to one's *competence*, just as value and importance

can stem from *relatedness* to the community of peers (Ryan & Deci, 2000; van den Berg et al.,

2013). Performance feedback related to teaching effectiveness can inform *competence* and

*relatedness*, where support can improve *autonomy* (van den Berg et al., 2013). The more needs

satisfied and supported, the more likely the individual is to be motivated and effective in

performance (Flaherty, 2018; Ryan & Deci, 2000; Stupnisky et al., 2018; van den Berg et al.,

2013).

***SDT connection to assessment***. The SDT basic needs (Ryan & Deci, 2000; Stupnisky et

al., 2018; Svinicki, 2016; van den Berg et al., 2013) coincide with aspects of assessment practice

(Fuller et al., 2016). *Competence*, as an SDT need (Ryan & Deci, 2000; Stupnisky et al., 2018;

Svinicki, 2016; van den Berg et al., 2013), can encompass knowledge of assessment's purpose

and processes, specifically knowing the importance of acting on results (Baker et al., 2012;

Ewell, 2009; Fuller & Skidmore, 2014; Kuh et al., 2011; Kuh et al., 2015; Maki, 2010; Metzler

& Kurz, 2018; Palomba & Banta, 1999; Stitt-Bergh et al., 2019; Upcraft & Schuh 1996). Lack of

assessment knowledge can be a barrier to faculty program leaders and assessment work, where

lack of *competence* could help explain issues with motivation or performance (Ryan & Deci, 2000; van den Berg et al., 2013).

The sense of belonging (or lack thereof) for faculty program leaders with assessment work can be framed by SDT's *relatedness* need (Ryan & Deci, 2000; Stupnisky et al., 2018; Svinicki, 2016; van den Berg et al., 2013). Even though faculty are expected to be involved and leading assessment efforts (Cain, 2014; Ewell, 2009; HLC, 2014; Gold et al., 2011; Jankowski et al., 2018; Kezar & Sam, 2010; Kreiser, 2001; Kuh et al., 2015; Metzler & Kurz, 2018; Provezis, 2010; Stitt-Bergh et al., 2019; Suskie, 2014), faculty program leaders may view their assessment efforts as too individualized to benefit from colleague collaboration (Gose, 2017; Koole et al., 2011). Alternatively, faculty may not see assessment as valuable based on their perception of the work or institutional culture (Jankowski et al., 2018; Kuh et al., 2011; Kuh et al., 2015; Nicholas & Slotnick, 2018). Even where aligned and motivated to engage in assessment, faculty program leaders can be stifled due to lack of support to carry out assessment work among other responsibilities (Angelo & Cross, 1993; Doyle, 2003; Ewell, 2009; Jankowski et al., 2018; Kreiser, 2001; Kuh et al., 2015; Slavit et al., 2013; Suskie, 2014). While resources may exist at the institution, faculty program leaders feeling their voice and perspective matters or is valued can impact *relatedness* (Kuh et al., 2015; Metzler & Kurz, 2018; Ryan & Deci, 2000; Stupnisky et al., 2018).

SDT's *autonomy* need (Ryan & Deci, 2000; Stupnisky et al., 2018; Svinicki, 2016; van den Berg et al., 2013) has a relevant association with assessment in general, but especially in light of faculty members concerned with assessment imposed upon them by administration, external entities, or even when viewed as some form of performance evaluation (Cain, 2014;

Doyle, 2003; Ewell, 2009; Gose, 2017; Kreiser, 2001; Kuh et al., 2015; Maynes & Hatt, 2012; Metzler & Kurz, 2018). Faculty program leaders may perceive or legitimately lack agency at their institution when it comes to engaging in assessment work the way they want, including selecting measures or using assessment evidence for change (Jankowski et al., 2018; Kreiser, 2001; Kuh et al., 2015; Levesque-Bristol et al., 2019; Madsen et al., 2016; Metzler & Kurz, 2018; Stupnisky et al., 2018). Institutional support and explicit empowerment from leadership can have a significant impact on faculty *autonomy* with respect to assessment actions and aiding mastery of environment (Baker et al., 2012; Kuh et al., 2011; Kuh et al., 2015; Levesque-Bristol et al., 2019; Madsen et al., 2016; Metzler & Kurz, 2018; O'Dell, 2009; Stupnisky et al., 2018).

SDT can shed light on motivation and behavior (Flaherty, 2018; Ryan & Deci, 2000; Stupnisky et al., 2018). As a theoretical framework, SDT has clear connections and implications for faculty in general and faculty program leaders (Cain, 2014; Ewell, 2009; Koole et al., 2011; Kuh et al., 2015; Ryan & Deci, 2000; Slavit et al., 2013; van den Berg et al., 2013), as well as context to explain good practices and real barriers to assessment work (Baker et al., 2012; Ewell, 2009; Fuller et al., 2016; Kuh et al., 2015; Maki, 2010; Metzler & Kurz, 2018; Stitt-Bergh et al., 2019). Application of SDT can be useful as institutional leaders work to address urgent and priority issues related to assessment evidence and faculty engagement in assessment work (Ewell, 2009; Fischer, 2019; Jankowski et al., 2018; Kuh et al., 2011; Kuh et al., 2015; Metzler & Kurz, 2018; Stitt-Bergh et al., 2019).

**Urgency of Research**

Both accreditors and institutional leaders report faculty program leaders need to be more effective in using assessment evidence (B. Gellman-Danley, personal communication, February

6, 2019; Ewell, 2009; Fischer, 2019; Jankowski et al., 2018; Kuh et al., 2011; Kuh et al., 2015;

Metzler & Kurz, 2018; Stitt-Bergh et al., 2019). Though faculty have a responsibility for

assessment (Angelo & Cross, 1993; Baker et al., 2012; Cain, 2014; Gold et al., 2011; HLC,

2014; Kuh et al., 2015; Stitt-Bergh et al., 2019; Suskie, 2014), they experience many barriers to

assessment work, impacting their engagement and effectiveness (Angelo & Cross, 1993; Cain,

2014; Doyle, 2003; Ewell, 2009; Jankowski & Slotnick, 2015; Koole et al., 2011; Kreiser, 2001;

Kuh et al., 2015; Maynes & Hatt, 2012; Slavit et al., 2013; Suskie, 2014; Wei & Pecheone,

2010). The more that is understood about faculty approaches and engagement with assessment,

the more likely interventions for betterment of faculty experience and assessment culture can

occur.

        For institutions looking to advance the use of assessment evidence, it is important to

consider the environment and behaviors of the people involved in the work. Motivating faculty

leaders to participate and engage in assessment work is not the issue at hand (Jankowski et al.,

2018; Kreiser, 2001); it is more a question of how and the extent with which faculty are engaging

(Ewell, 2009; Jankowski et al., 2018; Kuh et al., 2015). If faculty program leaders approach

assessment with a compliance mindset, they may not respond to internal needs given the focus

on external requirements (Ewell, 2009; Kuh et al., 2011; Kuh et al., 2015; Levesque-Bristol et

al., 2019; Slavit et al., 2013; Stupnisky et al., 2018; Suskie, 2014). Because there are a finite

number of faculty program leaders at an institution, failing to involve more faculty perspectives

can further burden or exhaust faculty leadership and limit actions to be executed (Kuh et al.,

2015; Metzler & Kurz, 2019; Slavit et al., 2013). Faculty program leaders also may not feel

empowered or know how to navigate proposing actions in accordance with changes or

improvements needed to best support student learning and continuous improvement (Jankowski et al., 2018; Kreiser, 2001; Kuh et al., 2015; Levesque-Bristol et al., 2019; Madsen et al., 2016; Metzler & Kurz, 2018; Stupnisky et al., 2018).

In addition to faculty-specific issues, anyone involved in assessment work can face barriers and limitations to practice (Maki, 2010; Kuh et al., 2015; Suskie, 2009, 2014). There is certainly overlap related to lack of resources, knowledge or experience, and low levels of using assessment evidence among faculty, but assessment professionals and staff alike are having to respond to increased calls for accountability and evidence of assessment processes and results while combating a compliance mindset (Ewell, 2009; Fischer, 2019; Jankowski et al., 2018; Kuh et al., 2011; Kuh et al., 2015; Metzler & Kurz, 2018). Motivation is both a challenge and opportunity assessment professionals navigate and work to appropriately instill with faculty and staff across campus (Fuller et al., 2016; Jankowski & Slotnick, 2015; Ryan & Deci, 2000). Unfortunately, adding infrastructure and process to guide and support assessment work can be interpreted as adding busywork and bureaucracy or even have a demotivating effect for faculty and staff (Metzler & Kurz, 2018; Stitt-Bergh et al., 2019; Wei & Pecheone, 2010).

In response to external accountability pressures, desire for more use of assessment evidence, and barriers to assessment practice, there is a compelling need to understand faculty program leader experiences with assessment sooner rather than later. Self-Determination Theory (SDT) could be utilized to differentiate and examine faculty program leader motivations (Fuller et al., 2016). Understanding assessment experiences of faculty program leaders matters since perceptions or interpretations of behavior could result in inaccurate characterizations of laziness, lack of concern, or shirking responsibilities (Ewell, 2009; Kreiser, 2001; Ryan & Deci, 2000;

Slavit et al., 2013). Examining motivation through SDT, Ryan and Deci (2000) found

environments supporting *competence*, *relatedness*, and *autonomy* fostered greater motivation for

action, manifesting in commitment, effort, and high-quality performance. There is an opportunity

to apply SDT to assessment leadership (Fuller et al., 2016), where faculty program leader

perspective is not as represented as general faculty members, provost-level perspectives, or

assessment professionals (Jankowski et al., 2018; Kuh et al., 2015; Metzler & Kurz, 2018).

At NLU, action is needed in order to meet strategic plan initiatives for data-driven

continuous improvement and institutional leadership's aim to advance assessment practices (A.

Hilsabeck, personal communication, November 6, 2018; Jones, 2014; Templin, 2018). Faculty

program leaders have shared they need support with respect to taking action with assessment

evidence, along with lacking knowledge or experience in/with navigating assessment-related

resources (Levy & Eskew, 2018a). Lack of competence can be further amplified by faculty

program leaders feeling *autonomy* is limited or hindered on multiple fronts (Stupnisky et al.,

2018; van den Berg et al., 2013). The longer assessment-related support and *competence* needs

go unmet, the harder the process can be for faculty program leaders to be accountable for

meaningful assessment activity and use of evidence for their programs (Levy, 2018c; Kuh et al.,

2011; Ryan & Deci, 2000; Stupnisky et al., 2018).

**Chapter 2 Conclusion**

A number of issues and priorities for faculty program leaders engaging in assessment –

and specifically using assessment evidence – exist for many higher education institutions

(Gaston, 2018; Fuller et al., 2016; Jankowski et al., 2018; Kuh et al., 2011; Kuh et al., 2015;

Levesque-Bristol et al., 2019; Metzler & Kurz, 2018; Stitt-Bergh et al., 2019). National Louis

University shares several traits and complications for faculty and assessment work as

documented in the literature, while also possessing some unique environmental circumstances to

navigate (Levy, 2018c; Levy & Eskew, 2018a). Further research and exploration is needed.

## Chapter 3: Methodology

What follows are the methods for a quantitative research study surveying faculty program leaders' behavior with respect to assessment-related action. The research question and hypotheses are presented, along with participant information. Instrumentation is described, detailing the variables and how they will be measured. Procedures for data collection are provided, as well as a description of the planned data analysis process as a precursor for the analysis and results chapter.

**Research Question and Hypotheses**

This study applies Self-Determination Theory (Ryan & Deci, 2000) as a theoretical framework to provide context for faculty behavior associated with assessment actions. The research question is:

How does Self-Determination Theory help explain faculty program leaders' use of assessment evidence?

Self-Determination Theory (SDT) provides a construct to help explain motivation and behavior (Flaherty, 2018; Ryan & Deci, 2000; Stupnisky et al., 2018; Stupnisky, Hall, Daniels, & Mensah, 2017; Svinicki, 2016; van den Berg et al., 2013). SDT outlines three basic needs which form the basis for self-motivation: *competence*, *relatedness*, and *autonomy*. The context of these three basic needs in SDT is relevant for the associated hypotheses for this study:

- $H_1$ – Autonomy is associated with use of assessment evidence.
- $H_2$ – Competence is associated with use of assessment evidence.
- $H_3$ – Relatedness is associated with use of assessment evidence.
- $H_4$ – Self-Determination Theory is associated with use of assessment evidence.

The null hypothesis assumes there is no association between any individual SDT needs (*autonomy*, *competence*, *relatedness*) or overall SDT as predictor variables and use of assessment evidence as the outcome variable. As a quantitative study, resulting analyses are used to disprove the null hypotheses (Creswell, 2014; Field, Miles, & Field, 2012). As it is far easier to disprove a hypothesis than to prove one, disproving the null hypothesis lends more credibility to the alternative hypotheses about associations between SDT individual or collective needs and use of assessment evidence.

This study included two-tailed statistical tests to identify potential relationships. Conducting a two-tailed statistical test looks at both tails or ends of the data distribution (Field, et al., 2012). Analysis of the data would shed light on any associations between predictor variables and outcome variable. The hypotheses are non-directional, meaning they do not assume or hypothesize individual SDT needs (*autonomy*, *competence*, *relatedness*) or overall SDT increase or decrease faculty program leader use of assessment evidence. Given non-directional hypotheses, data from a two-tailed test can leverage an increase in faculty program leader use of assessment evidence based on individual SDT needs or overall SDT (positive tail) or a decrease in faculty program leader use of assessment evidence based on individual SDT needs or overall SDT (negative tail) to disprove the null hypotheses.

While some SDT research has demonstrated that an increase in *autonomy*, *competence*, and *relatedness* has led to an increase in motivation and specific behavior of teachers and faculty members (Ryan & Deci, 2000; Stupnisky et al., 2018; Stupnisky et al., 2017; Svinicki, 2016; van den Berg et al., 2013), those studies were not measuring behaviors in the context of higher education institutional assessment. As this study seeks to fill the gap of SDT being used as a

framework to better understand faculty behaviors associated with use of assessment (Fuller et al., 2016), examining the relationships between the variables should shed light on their associations.

A quantitative approach was selected intentionally for this study. In applying SDT to faculty behavior with assessment for the first time, it is useful to collect SDT-related quantitative data similar to past research applying SDT to faculty motivation and behavior for reliability comparisons (Stupnisky et al., 2018). Because assessment can be understood or defined differently at the individual or organization-level (Kuh et al., 2015; Suskie, 2014), it helps to bound practice and frame responses with an existing framework and quantitative instrument (Jankowski et al., 2018). Quantitative data can measure any existing relationship between the variables of the study and, when interpreted with hypotheses, afford associated relationships and initial data to inform future research (Field et al., 2012).

**Participants**

The sample target was all faculty program leaders at National Louis University (NLU), the home site of the study. For purposes of this study, *faculty program leaders* is a general category that represents the diversity in titles of the faculty member(s) with an explicit responsibility for assessment activity of an academic program. (Levy, 2018c; NLU, 2013, 2015). With 73 faculty program leaders at NLU, all were invited to respond to the questionnaire.

**Instrumentation**

The measure for the study was a questionnaire adapted from two established instruments with the addition of some demographic questions and two open-ended questions allowing comments or explanation of responses. The first instrument that was adapted for this study was intended to capture data for the SDT needs: *autonomy*, *competence*, and *relatedness*. Stupnisky

et al. (2018) used a 12-question instrument with four questions per SDT need. With respect to reliability, the *autonomy* subscale consisted of four items (α=.76), the *competence* subscale consisted of four items (α=.81), and the *relatedness* subscale also had four items (α= .87). More descriptive statistics from the Stupnisky et al. (2018) study can be found in Appendix C.

To exemplify item grouping by SDT need from the Stupnisky et al. (2018) study, below are the four questions for the *autonomy* subscale:

1. I have a sense of freedom to make my own choices

2. My decisions reflect what I really want

3. My choices express who I really am as a teacher

4. I do what really interests me

Item language in the instrument for my study was slightly modified to pertain to the use of assessment evidence. Specifically, a variation of the phrase *in using assessment evidence* was added to questions to narrow participant focus on assessment context only. These questions as described, and the full instrument used for this study, can be found in Appendix D.

The other content drawn from an established instrument was a question taken from a survey of provosts the National Institute for Learning Outcomes Assessment (NILOA) conducted in 2009, 2013, and 2017 (Jankowski et al., 2018). While a full copy of the instrument can be found in Appendix E, question eight asked respondents to indicate the extent assessment evidence was used for a variety of internal and external purposes (e.g., reporting needs, curricular changes, institutional improvement, policy modification, strategic planning). In past reporting, the question's data were examined for significant differences as interval-scaled items

using an analysis of variance, as well as categorical items with chi-square tests checking for

robustness.

The NILOA questionnaire content was useful, but not all of the possible responses

applied for this study (Jankowski et al., 2018). The NILOA questionnaire was administered to

provosts, whose purview extends beyond that of a faculty program leader. To avoid faculty

program leaders potentially responding to a question for which they do not know the answer or

requiring the additional scale option of *not applicable*, three responses were removed from the

overall question. The responses removed included use of assessment evidence for *regional*

*accreditation*, t*rustee/governing board deliberation*, and *other*. For the first two responses,

assessment evidence from some programs could indeed be used for regional accreditation or

trustee/governing board purposes, but those would be circumstantial (e.g., not typical for

programs) and beyond the control of the faculty program leader, such as the case of regional

accreditation where the narrative and evidence included is determined by accreditation staff.

While the *other* response option could be useful since the list is not exhaustive, the responses

already included represent use cases from past NLU faculty program leader efforts (Levy &

Eskew, 2018b) and mirror this option being the least use case as found in NILOA landscape

survey results, which already included NLU provost responses (Jankowski et al., 2018). This

modified question as described, and the full instrument used for this study, can be found in

Appendix D.

The demographic questions for this study were intentionally selected to provide

contextual information on faculty program leader culture at NLU. Faculty program leaders were

asked to indicate the degree level they serve since there are different curriculum and competency

expectations for these students (Levy, 2018c; NLU, 2015). Different student learning

expectations across degree levels could translate to different faculty program leader use of

assessment evidence. Time employed at NLU could yield insight with respect to familiarity of

institutional culture. Likewise, time employed in role as faculty program leader could inform on

expectations and practices in the role. As stated, the full instrument for this study can be found in

Appendix D.

In addition to researcher review of questionnaire content adaptation, the instrument was

piloted at a neighboring institution. With the assistance of an assessment professional there, eight

faculty program leaders responded to the questionnaire and then discussed their experience.

Overall, the faculty program leaders who piloted the instrument did not have trouble answering

the questions as they were presented, seeing the intent and purpose of the questions in relation to

assessment work and faculty roles. These faculty program leaders had minor comments and

suggestions for improvement regarding readability and clarity of questions (e.g., adjusting

subordinate clauses in questions #9-10, using *positive feelings* instead of *warm feelings* for

question #12), which led to minor word adjustment or phrasing changes to the questionnaire

prior to deployment to NLU faculty program leaders.

**Procedures**

Procedures for this study began with asking for cooperative support from the Dean's

Office per college to send a pre-announcement message to faculty program leaders.

Communication was directed to academic leadership in the Dean's Office for the College of

Professional Studies and Advancement, Kendall College of Culinary Arts and Hospitality

Management, the National College of Education, and the Undergraduate College (NLU, n.d.-a).

The Dean's offices were contacted to clarify the intent of data collection and to gain their support in announcing the questionnaire to faculty program leaders. This Dean's Office outreach occurred in June 2019, to which each college agreed to support the study,

The next procedure was obtaining approval from NLU's Institutional Research Review Board (IRRB). IRRB protocol must be followed and approval obtained in order to conduct doctoral-level research at NLU (2015). IRRB protocol includes successfully completing Collaborative Institutional Training Initiative (CITI Program) coursework requirements. After completing CITI training in July 2019, my IRRB submission for approval was completed in August 2019 and final approval from IRRB was obtained on September 20, 2019. Consequently, support emails from the college Dean's Offices pre-announcing the study were sent October 2-3, 2019.

Faculty program leaders were contacted about the study via email. Communication from the Dean's offices about the study, as well as questionnaire participation invitations, all contained informed consent information. Consent was technically provided by participants at the beginning of the questionnaire, as the actual instrument's overview page – created with guidance from IRRB approval – contained purpose of the study, confidentiality and anonymity information, along with ability to consent for participation. Questionnaire results were explained as intended for research purposes, but could also provide insight into and offer support for NLU's campus culture for faculty program leaders. Even though respondents were assured of anonymity, the idea of results being used to improve assessment resources and support for faculty program leaders hopefully encouraged honesty and candor in responses.

An email campaign to individually invite questionnaire participation was used with settings enabled to ensure anonymity of the respondents. Survey Gizmo™, the platform where the questionnaire was built and distributed, has features to mask respondent identification information (including email address) while sending unique links to each respondent (Hillmer, 2018). Survey Gizmo's email campaign reminder feature made it possible to send follow up emails to partial or non-respondents to encourage participation, all without making any such email addresses known to the researcher so as to maintain respondent anonymity.

The email campaign to faculty program leaders consisted of three messages over the course of a month, all coming from the Higher Education Leadership program on behalf of the researcher. An initial invitation was sent on October 10, 2019, with a first reminder sent approximately one week later (October 16, 2019), and a final reminder sent approximately one week after the first reminder (October 22, 2019) – two weeks after the initial invitation. Given Survey Gizmo's mailing capabilities, the reminder emails were only sent to respondents who had not responded or only partially completed the questionnaire, all while maintaining anonymity and not allowing the researcher to know which emails were being contacted when or who had or had not responded (Hillmer, 2018). Full text of the email invitations can be found in Appendix F.

The questionnaire was delivered and available to respondents electronically. The faculty program leaders invited to participate could complete the questionnaire by phone, tablet, or computer at any location where the internet was available. The instrument was intended to be completed individually and independently. Total time to take the questionnaire should not have exceeded seven minutes. Respondents should have been able to reasonably complete the questionnaire in one sitting, but instrument features enabled respondents to pause their response,

if needed, and access the questionnaire again later, picking up where they left off. As part of the email campaign, and the consent form at the beginning of the questionnaire, respondents had contact information if they were interested in receiving a copy of their responses or overall results. Data collection started October 10, 2019 and concluded November 1, 2019, with the last response recorded on October 30, 2019.

**Data Analysis**

Data analyses for this study occurred in several steps. This section provides operational definitions for the variables as they are used in the study. With variables defined, the descriptive statistics conducted are described. Correlations are described for their general utility and application in this study. As the final step to the data analysis, regressions are also described for utility and application in this study.

**Variable definitions.** Before talking about data analyses for this study, it is important to describe how the predictor and outcome variables were operationalized for analysis. Predictor variables, referred to as independent variables in experimental research, are variables being measured or manipulated to predict the outcome variable, or dependent variable in experimental research (Field et al., 2012). The predictor variables are each of the SDT needs (*competence, autonomy, relatedness*), where the respective four subscale questions per SDT need make up each respective variable. Responses for the subscale questions were converted to numeric values in the following manner:

- A response of *Very much* was converted to a numeric value of 4

- A response of *Quite a bit* was converted to a numeric value of 3

- A response of *Some* was converted to a numeric value of 2

- A response of *Not at all* was converted to a numeric value of 1

The numeric subscale values from responses were summed for each predictor variable (e.g., Q1-4 values summed to make the *autonomy* variable, Q5-8 values summed to make the *competence* variable, Q9-12 values summed to make the *relatedness* variable). This was a similar variable construction process followed in previous studies using these SDT-related questionnaire items (Stupnisky et al., 2018; Stupnisky et al., 2017). The combined Q1-12 values summed made the overall *SDT* predictor variable.

The outcome variable was made up of the 16 subscale questions to make an overall *use of assessment evidence* variable. Responses for the subscale questions were converted to numeric values similar to the response conversion for the predictor variables:

- A response of *Very much* was converted to a numeric value of 4

- A response of *Quite a bit* was converted to a numeric value of 3

- A response of *Some* was converted to a numeric value of 2

- A response of *Not at all* was converted to a numeric value of 1

All subscale question response values were summed for the overall *use* outcome variable. As discussed later with regressions, individual subscale questions were to be possibly explored as individual outcome variables where descriptive statistics or correlations warranted. If used, these individual outcome variables would be secondary (and exploratory) in analysis compared to the overall *use* outcome variable.

**Descriptive statistics**. Descriptive statistics were used to gain an overview of respondents based on the demographic question responses. Data were also explored for the values of SDT needs (e.g., mean scores of SDT needs per respondent) and uses of assessment

evidence (e.g., top and bottom three uses reported by respondents). As part of the descriptive statistics, reliability analysis via Cronbach's alpha (Field et al., 2012; Glen, 2014) was also conducted on the adapted SDT subscale questions to compare this instrument with past research (Stupnisky et al., 2018).

       **Correlations**. Correlations were used to identify potential relationships between the predictor and outcome variables. Correlations indicate if relationships exist between variables, the direction of those relationships, and indicate the strength of those relationships (Field et al., 2012). The use of correlations helped to determine if the null hypothesis could be rejected as to whether a relationship exists between the predictor variables of individual SDT needs (*autonomy*, *competence*, *relatedness*) and overall *SDT* with the outcome variable of overall *use of assessment evidence*.

       With multiple correlation techniques available, Kendall's tau was best suited for this study. Kendall's tau is a correlation technique used for discrete and categorical-ordinal data, which were the data for this study (Field et al., 2012). Kendall's tau is also an appropriate technique if data are non-parametric in nature, which is more common in analyses with small samples (like the sample for this study). Carrying over from descriptive statistics, the Shapiro-Wilk test was used to examine for normal distribution of the data, where normally distributed data shows 95% of values within two standard deviations from the mean of the entire data set (Field et al., 2012). While data were revealed to be not normally distributed and, in fact, non-parametric in nature (more on this in Chapter 4), Kendall's tau would have still been an appropriate correlation technique given this study's sample size and type of data collected.

**Regressions**. Descriptive statistics and correlations can inform whether regression assumptions are met. Data assumptions for regression needed to be tested to determine best analysis path forward (Field et al., 2012). Regressions actually consist of similar concepts behind correlations, but regressions advance the insight from the relationship of variables to allow for measurement and estimation of values based on an existing relationship between variables.

Four data assumptions for regression were tested. One of the data assumptions, normal data distribution, was already mentioned as a descriptive statistic used to determine correlation technique (Field et al., 2012). The additional data assumptions measured for regression included homoscedasticity (equal variance throughout groups of the data), whether a linear relationship existed between variables, and independence of data observations (Field et al., 2012; Statistics Solutions, 2019a). When assumptions are violated, resulting analysis can contain errors or otherwise be misleading for interpretation or drawing conclusions unless the proper analysis techniques are used. For this study, data proved non-parametric in nature, but proper analyses had been anticipated and were used to regress variables where a significant correlation existed.

Where significant correlations existed, non-parametric regressions were used to mathematically model relationships to make predictions for the outcome variable of *use of assessment evidence* based on the predictor variables of individual SDT needs (*autonomy*, *competence*, *relatedness*) or *SDT* overall (Field et al., 2012). Building off of correlation results, regression results further informed on variable associations relating to the hypotheses:

- $H_1$ – Autonomy is associated with use of assessment evidence.

- $H_2$ – Competence is associated with use of assessment evidence.

- $H_3$ – Relatedness is associated with use of assessment evidence.

- $H_4$ – Self-Determination Theory is associated with use of assessment evidence.

The correlations and regressions to this point treated the aggregated responses to all 16 subscale questions of the *use of assessment evidence* section of the questionnaire as one *use* outcome variable. In order to best understand faculty program leader use of assessment evidence behaviors, correlations and regressions were conducted as post-hoc analyses to examine any significant relationships between SDT needs (*autonomy*, *competence*, *relatedness*) or *SDT* overall with each individual *use of assessment evidence* subscale question item as its own variable instead of the combined *use* outcome variable. These individual *use* item analyses were exploratory in nature and not primary considerations for rejecting any of the null hypotheses. However, these individual *use* item analyses afforded further examination of variable relationships where initial correlation or regressions of the overall *use* outcome variable and predictor variables were not significant.

A construct table (Jimenez, 2019) is provided in Appendix G to help conceptualize and summarize relevant aspects of this study. The constructs are defined as the respective variables and presented alongside their respective instrument questions. Mention of the types of analyses (correlations and regressions) in relation to the respective variables are also provided. Figure 2 below provides a portion of the construct table for reference.

| Construct Defined | Operationalization/Definition | Subscales/Subareas | Measurement Tool & Questions |
|---|---|---|---|
| **Self-Determination Theory (SDT)** | SDT is a theoretical framework to understand motivation through the consideration of three basic needs being met: competence, relatedness, and autonomy.<br><br>For purposes of this study, the framework is not just to understand any person's motivation, but to understand the motivation of faculty program leaders in relation to use of assessment evidence. | **Autonomy** subarea made up of four questions<br><br>**Competence** subarea made up of four questions<br><br>**Relatedness** subarea made up of four questions | (Survey adapted from Stupnisky, BrckaLorenz, Yuhas, & Guay, 2018)<br><br>Which best describes how often you feel the following?<br>    Very much (4)<br>    Quite a bit (3)<br>    Some (2)<br>    Not at all (1)<br><br>**[Autonomy]**<br>1. I have a sense of freedom to make my own choices in using assessment evidence.<br>2. My decisions related to use of assessment evidence reflect what I really want.<br>3. My choices related to using assessment evidence express who I really am as a faculty program leader.<br>4. I do what really interests me when using assessment evidence.<br>**[Competence]**<br>5. I have confidence in my ability to do things well when using assessment evidence.<br>6. I am capable at using assessment evidence.<br>7. I can completely achieve my goals related to using assessment evidence.<br>8. I can successfully complete difficult tasks associated with using assessment evidence.<br>**[Relatedness]**<br>9. The people associated with assessment whom I care about (students, colleagues, etc.) also care about me.<br>10. I am supported by the people associated with assessment whom I care about (students, colleagues, etc.).<br>11. I am close with people associated with assessment who are important to me (students, colleagues, etc.).<br>12. I experience warm feelings with the people associated with assessment with whom I spend time (students, colleagues, etc.). |

*Figure 2*. Portion of construct table (Jimenez, 2019)

All analyses were conducted using R and RStudio. R is an open-source coding language and environment for conducting statistical analyses and graphics-related work (The R Foundation, n.d.). While R is able to provide a variety of tests, analyses, and techniques, the interface can be bare and difficult to navigate without experience. RStudio (2018) is an open-source environment designed to integrate and support development work using R. Adding to R's prompt window, RStudio contains a console for syntax editing and code execution, as well as history, environment tracking, plotting, and help tools. To make use of R and RStudio, code was written and executed to run analysis for collected data.

**Chapter 3 Conclusion**

The methods for this quantitative research demonstrate a relationship between the research question and hypotheses with the instrument designed and adopted for this study. Procedures included informing and surveying willing faculty program leaders as participants. As data analysis for two-tailed statistical tests were described, the resulting data from correlations and regressions should shed light on associations between Self-Determination Theory needs (*autonomy*, *competence*, *relatedness*) and *SDT* overall as predictor variables with *use of assessment evidence* as the outcome variable.

## Chapter 4: Analysis and Results

In seeking to apply Self-Determination Theory (SDT) as a theoretical framework to provide context for faculty behavior associated with assessment actions (Fuller et al., 2016; Ryan & Deci, 2000), data were collected via electronic survey of faculty program leaders at National Louis University (NLU). Considering faculty behaviors with assessment through the lens of SDT, this study's research question is:

How does Self-Determination Theory help explain faculty program leaders' use of assessment evidence?

To inform on this research question, mostly quantitative data were collected and analyzed, and qualitative, open-ended questions were asked pertaining to thoughts or comments related to closed-ended question responses.

This chapter describes analyses and corresponding results from the data collected. An overview is provided for the data cleaning process and respondents. Quantitative data analysis is described, including descriptive statistics, correlations, regressions, and post-hoc analyses. Description of the qualitative data analysis is also provided. Additional study context of delimitations and limitations are presented before a conclusion summarizing the overall results.

The results are presented in relation to the hypotheses for the study:

- $H_1$ – Autonomy is associated with use of assessment evidence.
- $H_2$ – Competence is associated with use of assessment evidence.
- $H_3$ – Relatedness is associated with use of assessment evidence.
- $H_4$ – Self-Determination Theory is associated with use of assessment evidence.

Reporting the analyzed data alongside the hypotheses sets up the next chapter's discussion, implications, and conclusions in relation to the overarching research question and study as a whole.

**Data Cleaning**

The questionnaire collected data from October 10, 2019 through November 1, 2019. Once the data collection was complete, questionnaire data were downloaded from Survey Gizmo™ via its online interface. RStudio was used as data were loaded into the R console for cleaning, which took place in three steps. The first step in the cleaning process involved dropping incomplete and non-essential data from the data set. So as not to inflate the sample size, incomplete responses where less than 80% of the questionnaire was completed were removed from the data set to be analyzed (two respondents). Data not essential for analysis were also dropped from the data set. Non-essential data included a notation explicitly stating the instrument was presented in English, an automatically assigned session ID per respondent, start time of response, and date of response submission.

The second step in data cleaning was to adjust the question responses for analysis purposes. This included removing any errant symbols or characters which were downloaded with response text (e.g., *Graduate â€" Masters* instead of *Graduate – Masters*). The most important part of this step was to replace text responses with numbers corresponding to scale values (e.g., replace *Very much* with 4). Once this was complete, it was necessary to convert those numbers from character values to numeric values for R classification and analysis purposes.

The third step was creating and assigning objects in R. Within the R environment, assigning content or values to objects can be required in order to execute certain commands or

forms of analysis (The R Foundation, n.d.). Object creation included the individual SDT needs

(*autonomy*, *competence*, *relatedness*) and SDT overall (*SDT*) as predictor variables, as well as

use of assessment as an overall outcome variable (*use*). Objects were also created for

demographic questions to help facilitate descriptive analysis and data exploration.

When conducting analyses within R, further shaping or manipulating of data may be

required. Likewise, additional objects or versions of existing objects may need to be created for

respective analyses. Though further shaping of data took place during the analysis process, this

initial data cleaning made it possible to read the usable data set for analysis and reporting

purposes.

**Respondents**

While 73 faculty program leaders were invited to participate in this study, 38 faculty

program leaders clicked on the email invitation to access the questionnaire. Two respondents did

not meet the threshold of 80% completion of the questionnaire; their responses consisted of

agreement to the consent form but no responses to any of the actual instrument questions. These

two partial respondents were dropped from the data set as part of the data cleaning process,

leaving 36 respondents (49% of total) as the official sample.

To better understand the respondents, analysis of the demographic questions was

conducted as a form of descriptive statistics. Analysis of the demographic questions may not

always reflect a sample size of 36 due to questions not being required. Specifically, one faculty

program leader did not respond to indicate whether their program had specialized or

programmatic accreditation, while another faculty member did not respond to indicate how long

they have been employed at NLU. Table 2 below provides results of the demographic questions

in relation to data provided by respondents.

Table 2

*Respondent demographics*

|  |  | Count | Percent |
|---|---|---|---|
| Which best describes the degree level for which you primarily serve? | Undergraduate | 11 | 31% |
|  | Graduate – Masters | 21 | 58% |
|  | Graduate - Doctoral | 4 | 11% |
|  |  |  |  |
| Does your program have specialized or programmatic accreditation? | Yes | 22 | 63% |
|  | No | 13 | 37% |
|  |  |  |  |
| How long have you been employed at NLU? | Less than 1 year | 1 | 3% |
|  | 1-2 years | 5 | 14% |
|  | 3-4 years | 10 | 29% |
|  | 5 years or more | 19 | 54% |
|  |  |  |  |
| How long have you been in your current role at NLU? | Less than 1 year | 1 | 3% |
|  | 1-2 years | 12 | 33% |
|  | 3-4 years | 10 | 28% |
|  | 5 years or more | 13 | 36% |

Of the respondents, the majority (69%) primarily serve in graduate programs, with 58%

in master's degree programs. The majority (63%) of respondents serve programs with

specialized or programmatic accreditation. With respect to time employed, the majority (54%)

have been employed at NLU for five years or more, with a fairly distributed amount of

experience in their current role except for the respondent in their role less than one year. Given

these findings, the typical respondent is an NLU faculty program leader likely possessing

multiple years' experience at NLU and in their role as a faculty program leader, primarily

serving a master's graduate program with specialized or programmatic accreditation. The

distribution of these demographic attributes are representative of NLU's faculty program leader

population of faculty who typically have been with the institution for multiple years (56% faculty

program leaders with 5 years or more total time), as well as NLU's academic portfolio being

majority (71%) graduate programs (Levy, 2018c, 2019; NLU, n.d.-b).

**Quantitative Data Analysis**

Data analysis for this study consists of four parts. First, descriptive statistics are provided

for the data set. Second, correlations are used to identify potential relationships between

variables. Third, after checking assumptions for regression of significantly correlated

relationships, respective individual SDT needs (*autonomy*, *competence*, *relatedness*) and overall

*SDT* predictor variables are regressed on *use of assessment evidence* as the outcome variable.

Fourth, post-hoc analyses are provided in order to further examine object and variable

relationships.

**Descriptive statistics.** Before the main analyses of correlations and regression,

descriptive statistics were used to glean a high-level understanding of particular data objects.

Exploration of respondent demographics was previously mentioned and contained in Table 2. In

addition, descriptive statistics were examined for the frequency SDT needs were experienced,

extent uses of assessment evidence were employed, and replicability of the SDT variables in

relation to previous research.

*SDT needs*. Respondents could indicate the frequency they experienced each SDT need

(*autonomy*, *competence*, *relatedness*) by responding to related subscale questions. Responses,

converted to numeric values, were summed for each SDT need across their respective subscale

questions (e.g., Q1-4 responses summed for *autonomy*). Given each SDT need could have a total numeric value of 16 per respondent, the average *autonomy* score per respondent was 10.56, average *competence* score was 12.14, and average *relatedness* score was 12.17. In relation to assessment, faculty program leaders experience *relatedness* the most frequently, followed closely by *competence*, and then *autonomy*.

    ***Assessment uses***. Respondents could indicate the extent student learning assessment evidence was used for various purposes. The object of *use* was explored to identify the top and bottom three uses of assessment evidence as reported by faculty program leaders. Similar to questions for SDT needs, responses were converted to numeric values and summed for respondents. While the overall *use* variable was summed across all subscale question prompts and responses, individual subscale question prompts were summed across respondents. Where each individual use subscale question prompt could have a total numeric value of 4 per respondent, the average score per respondent are sorted in decreasing order in Table 3.

Table 3

*Assessment use averages according to extent reported by respondents*

| Assessment Use | Average per Respondent |
|---|---|
| Program review | 3.56 |
| Program accreditation | 3.36 |
| External accountability | 3.14 |
| Institutional benchmarking | 3.03 |
| Learning outcomes revision | 2.92 |
| Curriculum modification | 2.83 |
| Program improvement | 2.83 |
| Development of assessment measures approaches | 2.75 |
| Strategic planning | 2.72 |
| Communicating educational effectiveness to external entities | 2.67 |
| Institutional improvement | 2.36 |
| Academic policy development or modification | 2.36 |
| Supporting achievement of equity goals | 2.33 |
| Co-curricular improvement | 2.31 |
| Professional development for faculty and staff | 2.14 |
| Resource allocation and budgeting | 1.78 |

Reviewing Table 3, the top three uses of assessment reported by faculty program leaders were for *program review*, *program accreditation*, and for *external accountability*. The bottom three uses of assessment as reported by faculty program leaders were for *resource allocation and budgeting*, *professional development for faculty and staff*, and *co-curricular improvement*. The top three uses of assessment evidence based on NLU faculty program leader responses matched three of the top five uses according to a recent landscape questionnaire (Jankowski et al., 2018). Similarly, NLU faculty program leader responses indicating the bottom three uses of assessment evidence were also all three among the bottom five categories from the same landscape

questionnaire. As such, category and extent NLU faculty program leaders use assessment

evidence does not appear unique in relation to national trends.

    ***Replicability***. Exploratory analysis of the individual uses of assessment prompts can be

informative, but the SDT-related prompts needed to have acceptable replicability as compared to

past research as a measure of instrument reliability. Cronbach's alpha (α) is a statistical test to

examine the relationship between items as a group and can be considered a measure of internal

consistency and scale reliability (Field et al., 2012; Glen, 2014). A high alpha value validates

instrument reliability. The SDT items of *autonomy*, *competence*, and *relatedness* have been

grouped and measured in previous studies. Since the instrument for this study was a modified

version of past instruments and the SDT-related items grouped in a similar fashion, an acceptable

(or higher in comparison) alpha value across *autonomy*, *competence*, and *relatedness* was

desired.

Table 4

*Reliability of SDT needs of instrument compared to previous research*

| Variable | Cronbach's α Reliability | Stupnisky et al. (2018) Cronbach's α Reliability |
|---|---|---|
| Autonomy | 0.92 | 0.76 |
| Competence | 0.79 | 0.81 |
| Relatedness | 0.92 | 0.87 |

    When interpreting Cronbach's alpha, 0.70 is adequate, 0.71-0.80 is acceptable, 0.81-0.90

is good, and any value above 0.90 is excellent in terms of reliability (Field et al., 2012; Glen,

2014). Comparing Cronbach's alpha per SDT variable against past research, *autonomy* and

*relatedness* had higher values than past research. The value for *competence* was just below past

research ($\alpha = 0.79$ compared to $\alpha = 0.81$), but still an acceptable value. It is promising the three

SDT variables each have acceptable (or better) Cronbach's alpha values compared to previous

research on the original instrument; these results signify a reliable instrument despite question

modifications for this study.

Though not directly comparable to past research, Cronbach's alpha was also calculated

for the overall *SDT* predictor variable and the *use* outcome variable. For *SDT*, $\alpha = .89$, which

validates reliability for the variable. Reliability for *SDT* makes sense given it is the collection of

values from the individual SDT needs (*autonomy*, *competence*, *relatedness*) and each of them

had acceptable Cronbach's alpha values. For *use*, $\alpha = .91$, which validates reliability for the

variable. While this result is good for the variable, reliability for *use* also adds to the consistency

and reliability of the instrument as a whole.

**Correlations.** Correlations were used in this study's analysis to determine if the null

hypotheses can be rejected with respect to associations or relationships existing between

individual SDT needs (*autonomy*, *competence*, *relatedness*) or overall *SDT* predictor variables in

relation to the *use of assessment evidence* outcome variable (Field et al., 2012). Considering the

small sample size for this study, there was a strong likelihood data may not be normally

distributed (Field et al., 2012). Normality can impact both correlation and regression (Field et al.,

2012; Statistics Solutions, 2019b). Normality in data distribution can also determine which

appropriate method or approach should be used to calculate correlations.

*Testing for normality*. The Shapiro-Wilk test can be used to examine normal data

distribution, where a significant p-value of .05 or less suggests non-normality in data distribution

(Field et al. 2012). The Shapiro-Wilk test was used for the predictor variables of individual SDT

needs (*autonomy*, *competence*, *relatedness*) and *SDT* overall. The results were not significant –

suggesting normal data distribution – for *autonomy* ($p$=.143), *relatedness* ($p$=.141), and *SDT*

($p$=.406). However, *competence* had a significant result ($p$=.013). The results of the Shapiro-

Wilk tests suggest data – at least for the *competence* predictor variable – may not be normally

distributed, implying data should be treated as non-parametric in nature.

With non-parametric data, Spearman's rho and Kendall's tau are methods most

appropriate to use for correlations (Akoglu, 2018; Field et al., 2012; Statistics Solutions, 2019a).

Of the two, Kendall's tau is best for small sample sizes, as well as ordinal data with several

instances of equivalent values (Akoglu, 2018; Statistics Solutions, 2019a). Because predictor and

outcome variable data are all reported in scores of 1-4, there are ample instances of equivalent

values across questions and responses. As such, Kendall's tau was used as the correlation

method.

*Testing for relationships*. In using Kendall's tau ($\tau$), like other correlation tests, the

correlation coefficient provides the strength of relationship between the movements of two

variables (Field et al., 2012; Statistics Solutions, 2019a). Kendall's tau specifically indicates the

strength of dependence which exists between two variables. Correlation coefficients between .10

and .29 represent a small association or dependence between variables, between .30 and .49

represents a medium dependence, and .50 or higher represents a large dependence. The results of

Kendall's tau correlation tests of individual SDT needs and overall *SDT* predictor variables with

the *use* outcome variable are listed in Table 5.

Table 5

*Kendall's tau correlation tests for predictor variables with outcome variable*

| Variable | Correlation τ | p-value |
|---|---|---|
| Autonomy | .24 | .054 |
| Competence | .34 | .064 |
| Relatedness | .24 | .052 |
| SDT | .30 | .013* |

*\*Significance at p < .05*

Based on the results of the correlation tests using Kendall's tau as the method, predictor

variables of *autonomy*, *competence*, and *relatedness* have positive dependence or relationship

with the *use* outcome variable, but these relationships are not statistically significant. With no

significant relationship between the individual SDT needs as predictor variables and the *use*

outcome variable, further analysis by way of regression should not be conducted (Field et al.,

2012). Consequently, the null hypotheses cannot be rejected for $H_1$, $H_2$, and $H_3$. Practically

speaking, a positive relationship exists between individual SDT needs and use of assessment by

faculty program leaders, but the lack of significance means it is unlikely an increase of

*autonomy*, *competence*, or *relatedness* is met with an increase in use of assessment evidence by

faculty program leaders.

The final predictor variable, *SDT*, has a positive and statistically significant dependence or relationship on the *use* outcome variable. The *SDT* predictor variable and the *use* outcome variable are positively correlated with medium strength, $\tau(34) = .30$, $p = .013$. As a result, further analysis can be conducted to model the relationship between the *SDT* predictor variable and *use* outcome variable with regression to best respond to hypothesis $H_4$ (Field et al., 2012). As a reminder, people are optimally motivated, with positive impacts on behaviors and responses in certain situations, when all SDT needs are met (Cabot, 2016; Flaherty, 2018; Levesque-Bristol et al., 2019; Ryan & Deci, 2000; Stupnisky et al., 2018; van den Berg et al., 2013). Consequently, significance in the correlation between *SDT* and *use* means it is likely a collective increase in all of the SDT needs is met by an increase in faculty program leader use of assessment evidence.

In light of *SDT* being the only predictor variable with a significant relationship with the *use* outcome variable, it is worth showing the dependencies and relationships between the predictor variables. As literature and past research describes the relationship between these individual needs as part of SDT (Ryan & Deci, 2000; Stupnisky et al., 2018; Svinicki, 2016; van den Berg et al., 2013), results from this study point to significant, positive dependencies of varying strengths between the individual SDT needs (*autonomy*, *competence*, *relatedness*) and *SDT* overall. Figure 3 below is a correlation matrix or correlogram displaying the dependencies of predictor variables and the outcome variable. Correlations where $p > .05$ are considered insignificant and corresponding boxes are blank. Numerical value of the correlation coefficients ($\tau$) are stated, where color intensity is proportional to the size of the correlation coefficients. The correlogram's legend explains correlation coefficient values in relation to their corresponding colors. Variables are listed via hierarchical clustering order, where lesser correlation values are

clustered in the upper left of the plot and progress to higher correlation values clustered in the lower right.
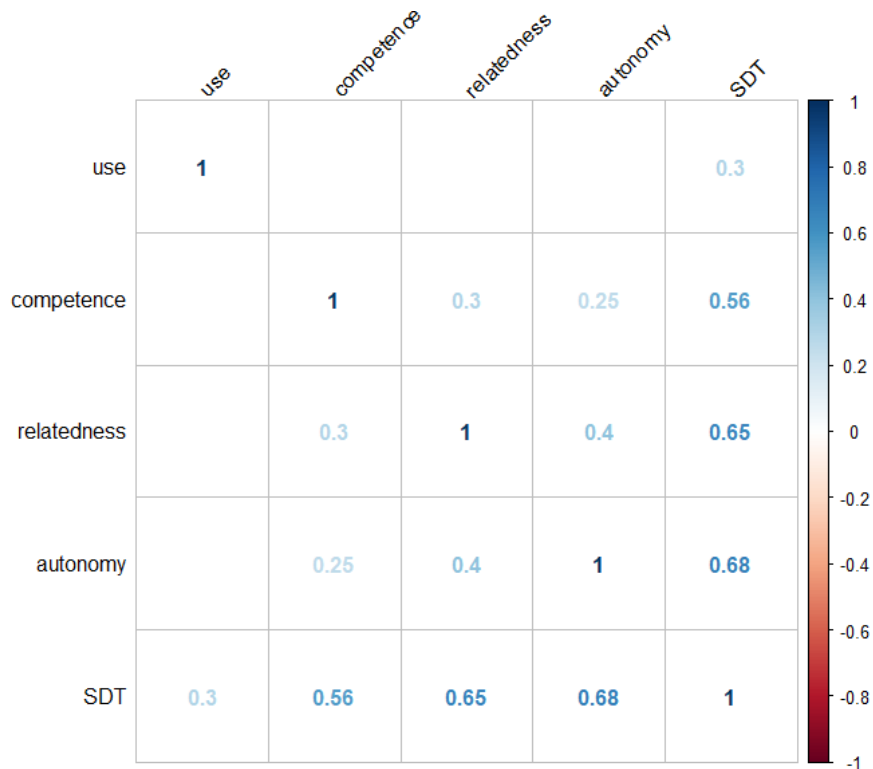


*Figure 3*. Correlogram of predictor and outcome variables

The results from Table 5 of predictor and outcome variable relationships are reflected in Figure 3, with *SDT* and *use* having the only significant relationship between predictor and outcome variables (see far left column and first row of correlogram). Unlike Table 5, Figure 3 portrays the dependencies or relationships between the predictor variables themselves. One might have assumed that statistically significant relationships exist between the individual SDT needs in relation to SDT overall given *SDT* as an object is the collective values of the individual

needs (*autonomy*, *competence*, *relatedness*). Seeing statistically significant relationships exist

between *autonomy*, *competence*, and *relatedness* confirms such an assumption, as well as

reinforces Self-Determination Theory literature asserting a relationship between these needs

(Ryan & Deci, 2000; Stupnisky et al., 2018; Svinicki, 2016; van den Berg et al., 2013). Knowing

relationships exist between the individual SDT needs, there is added weight in the representation

of the significant relationship of *SDT* predictor variable and *use* outcome variable.

  **Regression.** Similar to correlations, regressions focus on relationships between variables

(Field et al., 2012). A regression provides further mathematical insight by measuring and

estimating values between the related variables. The extent data meet the assumptions of

regression can determine what analyses should be conducted next. Knowing appropriate analysis

options, regressions can be used to mathematically model the relationship between variables.

Since only the *SDT* predictor variable and *use* outcome variable had a significant dependence or

relationship based on correlation tests, only the *SDT~use* relationship would be regressed.

  *Assumptions*. Because regression consists of similar concepts to correlations, the

parametric testing already conducted is valuable information (Field et al., 2012; Statistics

Solutions, 2019a). The Shapiro-Wilk test was used to examine normal data distribution. While

the Shapiro-Wilk test indicated normal data distribution for *SDT* as a predictor variable, this

assumption – and more – needed to be tested for the *SDT~use* relationship. Figures 4-7 provide

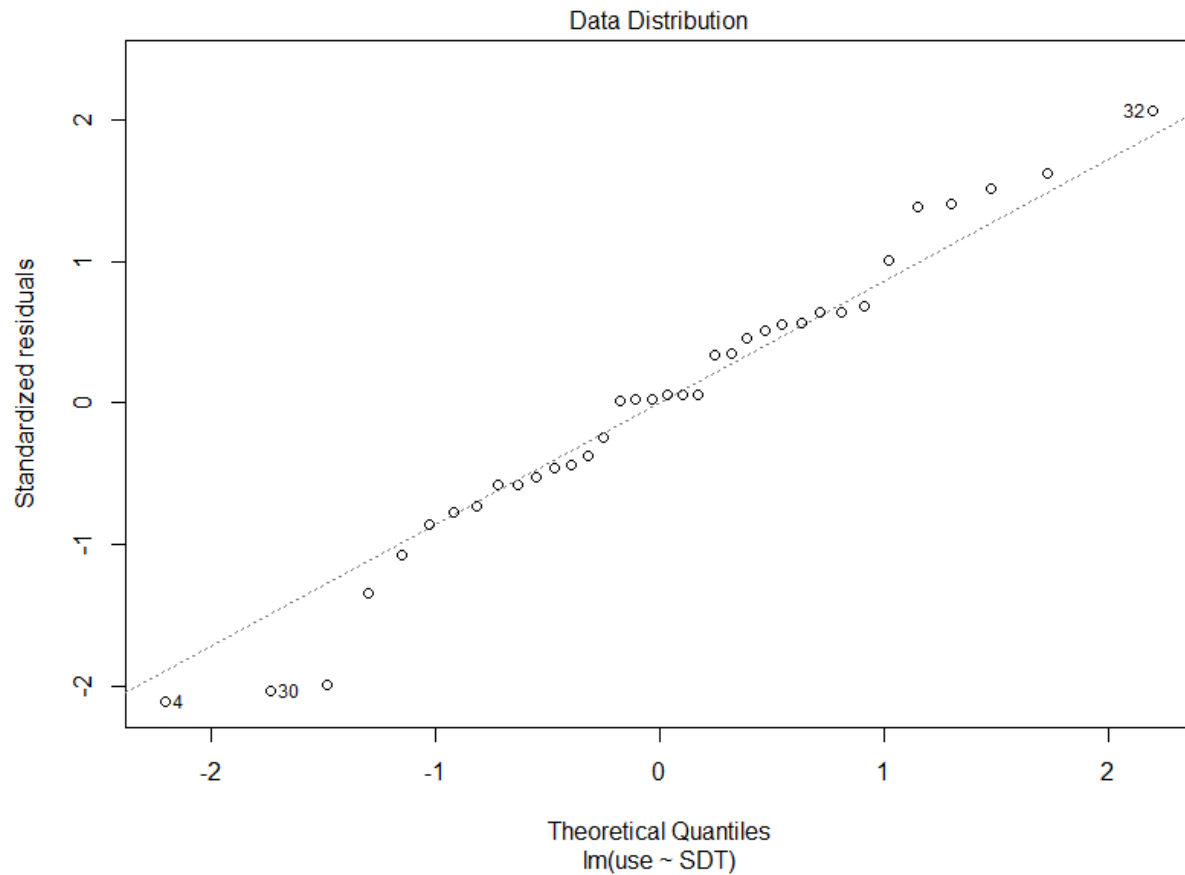plots of four assumptions for regression tested for the *SDT~use* relationship.

*Figure 4*. Assumption of normal data distribution for *SDT~use*

Normality in data distribution is an assumption of regression (Field et al., 2012, Kim, 2015). Examining the linear model of *SDT~use*, the dotted line in Figure 4 is an ideal, normal distribution. The line represents the relationship between residuals (difference between observed values and modeled values) and quantiles (points where proportions of data naturally grouped). While the data are fairly normal in their distribution, the residuals appear to deviate from the diagonal line in both upper and lower tails of the data, meaning the upper and lower quantiles have data with larger values (further spread) from the normal distribution. Majority of the data

lie along the ideal distribution line, so the deviations may just be the result of some outliers

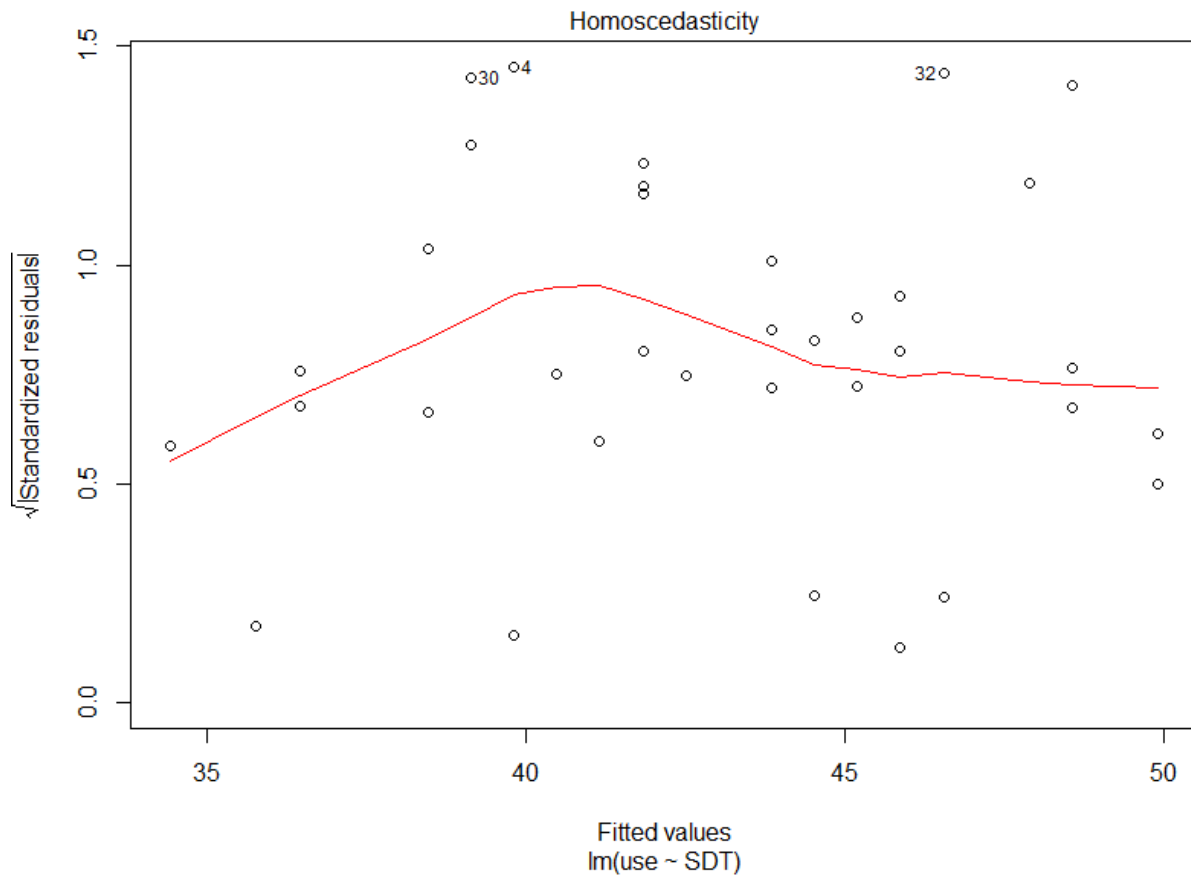affecting a perfectly straight line representing normal distribution.



*Figure 5*. Assumption of homoscedasticity for *SDT~use*

Homoscedasticity is another assumption of regression (Field et al., 2012; Kim, 2015).

Homoscedasticity represents equal variance or spread of residuals in relation to the modeled or

fitted values. Random and equal variance of *SDT~use* in Figure 5 would be represented by two

things: a fairly horizontal red line and relatively similar variability plot points in relation to the

red line. While some heteroscedasticity (non-uniform variance) exists in the middle of the range

– causing the upward and downward angle in the middle of the line – the spread around the red

line does not noticeably vary. Clearly satisfying one condition, with small variation in the other

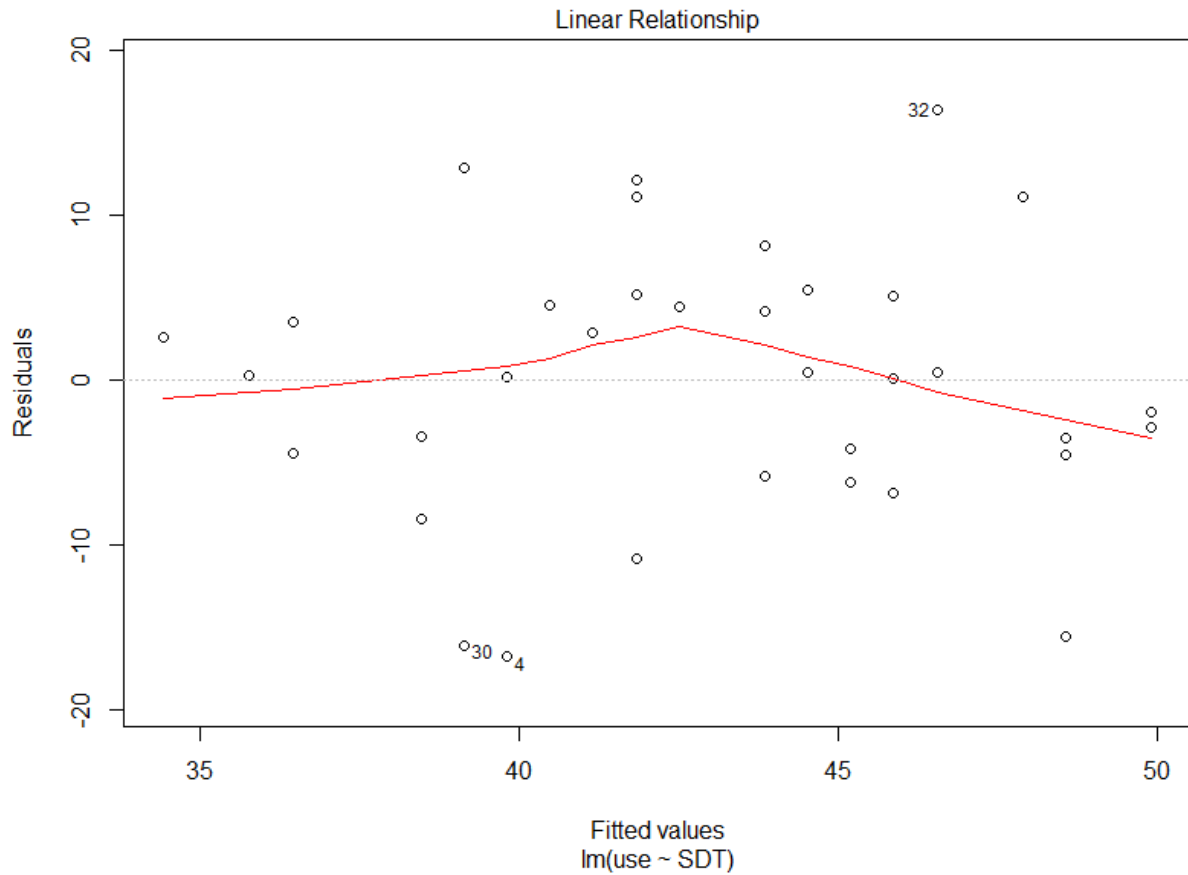is likely good enough for the assumption to be met (Kim, 2015).



*Figure 6*. Assumption of linear relationship for *SDT~use*

A linear relationship is an assumption of regression (Field et al., 2012; Kim, 2015).

Figure 6 tests the assumption of a linear relationship between *SDT* predictor variable and *use*

outcome variable. The plot consists of residuals (difference of observations and modeled data)

and the modeled or fitted data from the *SDT~use* relationship. The red line attempts to show a

pattern among the spread of data, where the ideal is relatively shapeless and similarly distributed

around the 0 line. The red line here shows the data, overall, are relatively shapeless and similarly

distributed around the 0 line. However, like Figure 5, there is a small upward and downward

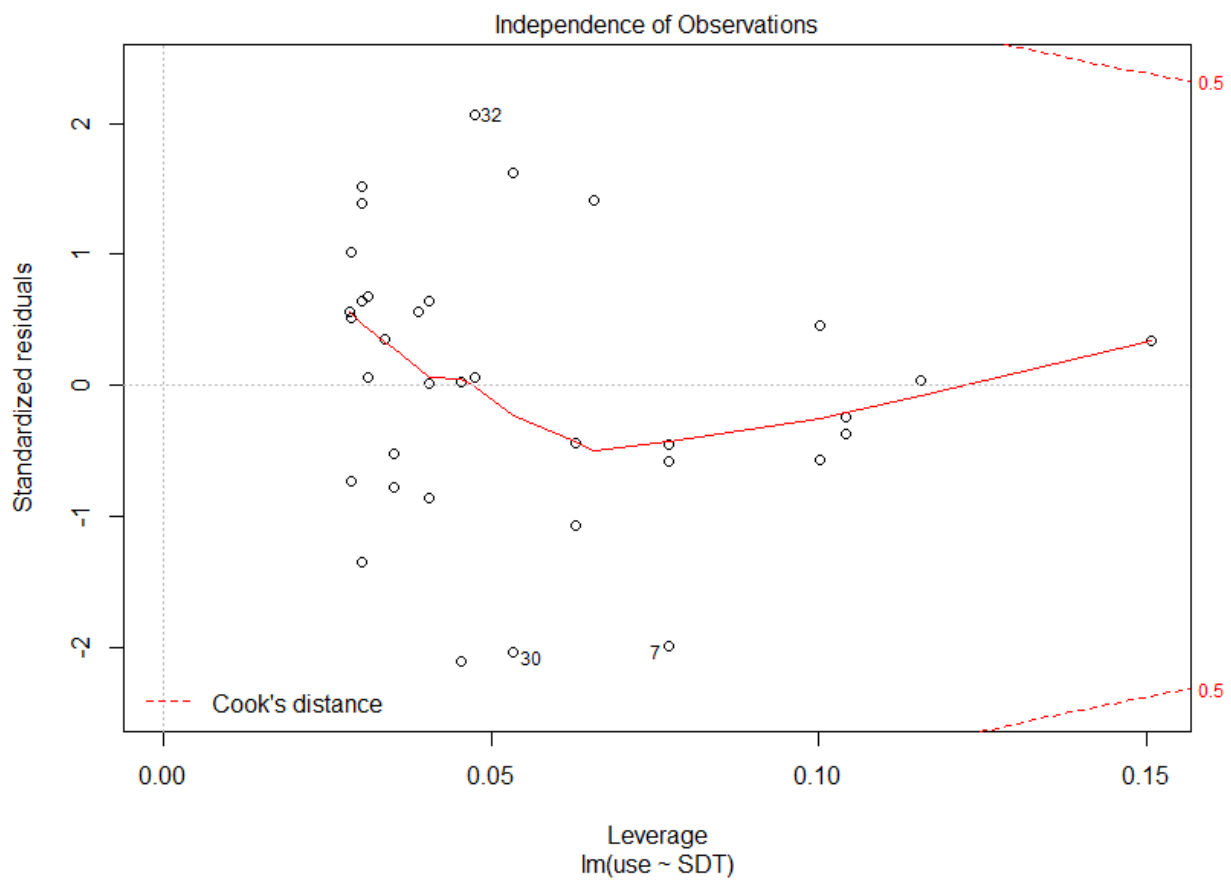trend of data concentrated in the middle of the x-axis.



*Figure 7.* Assumption of independence of observations for *SDT~use*

Independence of observations is the final assumption of regression examined in this study (Field et al., 2012; Kim, 2015). The point of Figure 7 is to identify any influential outliers in relation to linear regression. Data can have extreme values or outliers, but such points may not be influential in shaping the regression line. Patterns and the curvature of a red line are not relevant in this plot; what matters is whether any data points are contained in the upper or lower right corner of the plot. Presence of data within the dotted line space of the plot would indicate cases which could be influential in relation to the regression line. No cases appear in the upper or lower right corner, meaning outliers are not likely influential against the regression line.

Of the four assumptions tested, normal distribution (Figure 4) and independence of observations (Figure 7) were the clearest in being met. Homoscedasticity (Figure 5) and a linear relationship (Figure 6) had some variation to them which raised some uncertainty of the assumption being met. Two factors further complicating the execution and interpretation of these assumption tests are the small sample size and the non-parametric nature of the individual SDT needs (*autonomy*, *competence*, *relatedness*) data in relation to *use of assessment* data. While not the same as *SDT~use* data, the individual SDT needs objects of *autonomy*, *competence*, and *relatedness* are contained within the overall *SDT* object. Complications aside, when assumptions of regression are not met, results should not be generalized beyond the included population of the study (Field et al., 2012). This study was not seeking to generalize findings beyond the included sample, but less than absolute certainty in testing of assumptions was still worth noting. Extending the non-parametric correlation testing, a non-parametric regression method was used to conservatively model the *SDT~use* relationship (Field et al., 2012; Mangiafico, 2016).

*Non-parametric linear regression*. In modeling a relationship between variables, linear regression focuses on distribution of outcome values in relation to predictor values (Field et al., 2012). This distribution depends on the type of data and assumptions of regression to make it appropriate to model a relationship between variables. Given a non-parametric approach was preferred, the Kendall-Theil Sen Siegal approach was used (Mangiafico, 2016).

Kendall-Theil Sen Siegal (Theil Sen) non-parametric linear regression is a non-parametric approach to linear regression for one predictor and one outcome variable (Mangiafico, 2016). The Theil Sen computes all the lines between each pair of predictor and outcome points, then uses the median of the slopes of those lines. The modified and preferred Siegal method yields a slope and intercept for the regression or fit line, along with a p-value for the slope.

While linear regression typically produces an r-squared value, which measures how closely fitted data are to the fit line (Field et al., 2012), the Siegal method does not produce a comparable value. Instead, the Siegal method produces the mean absolute deviation (MAD), an average of the distance between each predictor and outcome data point in relation to the average of all data points for the outcome relationship (Mangiafico, 2016). Small MAD values are preferred; the larger the MAD value, the more variability and spread in the data (Field et al., 2012; Mangiafico, 2016).

When *SDT* predictor variable and *use* outcome variable are regressed with the Siegal method of the Theil Sen non-parametric regression approach, a significant result was obtained: *SDT* has a statistically significant and positive relationship with *use* (MAD = 0.46, $p<.001$), with a residual standard error of 8.32 on 34 degrees of freedom. The intercept of the regression line,

or value of β(0), is 26.91, which means when overall *SDT* is 0 based on questionnaire numeric scale, overall *use* should be 26.91. The slope of the regression line, or value of β(1), is 0.34, which is the positive change in *use* per unit change for *SDT*.

The significant relationship and mathematical modeling of *SDT~use* makes it possible to make predictions about these variables. Extending the significant relationship of *SDT~use* from the correlation test, the null hypothesis can be rejected for $H_4$. These correlation and regression results mean it is statistically likely that an increase in meeting the collective needs (*autonomy*, *competence*, *relatedness*) for Self-Determination Theory is met with an increase in faculty program leader use of assessment evidence.

**Post-hoc analyses.** While the hypotheses for this study have been addressed, several post-hoc analyses were conducted to further examine peculiarities of the data. Because use of assessment evidence was considered as a singular outcome variable, an additional analysis examined if relationships exist between individual SDT needs and overall *SDT* predictor variables with the top three and bottom three uses of assessment evidence as individual outcome variables. With demographic data collected on the respondents, another analysis examines if any demographic objects have influential relationships to individual SDT needs or overall *SDT* predictor variables, or with the *use* outcome variable. Finally, taking the respondents as representative for faculty program leaders at the institution, data were exactly doubled to see if an increase in respondents would impact the outcomes of the correlation and regression tests among predictor and outcome variables.

*Individual use correlations*. In light of NLU faculty program leader responses corresponding with uses reported in NILOA's landscape questionnaire (Jankowski et al., 2018),

objects were created for each of the top three (*program review*, *program accreditation*, *external accountability*) and bottom three (*resource allocation and budgeting*, *professional development for faculty and staff*, *co-curricular improvement*) uses of assessment evidence for data exploration. The Shapiro-Wilk test was used for each, with all of the individual *use* objects suggesting non-normality in data distribution. Similar to the original analyses, Kendall's tau method for correlations was used given the non-parametric nature of the data. Correlation tests were conducted for top and bottom three *use* objects as outcome variables in relation to the individual SDT needs and collective *SDT* predictor variables.

Of the 24 possible relationship combinations of predictor variables with the top and bottom three *use* outcome variables, only four relationships were significantly correlated. A positive, statistically significant relationship exists between *competence~external accountability* and *SDT~external accountability*. A positive significant relationship also exists between *autonomy~co-curricular improvement*. Finally, a positive and significant relationship exists between *relatedness~resource allocation*.

Taking the correlation results further, Kendall-Theil Sen Siegal non-parametric linear regression was used for *competence~external accountability*, *SDT~external accountability*, *autonomy~co-curricular improvement*, and *relatedness~resource allocation*. Regression did not yield a statistically significant relationship for *autonomy~co-curricular improvement*, but statistically significant relationships were found for *competence~external accountability* (MAD $= 0.00$, $p<.001$, RSE $= 1.38$, $df(34)$; $\beta(0) = 4$, $\beta(1) = 0$), *SDT~external accountability* (MAD $= 0.00$, $p<.001$; RSE $= 1.13$, $df(34)$; $\beta(0) = 3.5$, $\beta(1) = 0$), and *relatedness~resource allocation* (MAD $= 0.00$, $p=.00311$, RSE $= 0.9852$, $df(34)$; $\beta(0) = 1$, $\beta(1) = 0$). Unfortunately, a slope of

zero nullifies a linear relationship since an increase in predictor variables (*competence*, *SDT*, *relatedness*) would not change the associated values for *external accountability* or *resource allocation and budgeting*, respectively. Correlation is as far the relationships can be soundly calculated for *competence~external accountability*, *SDT~external accountability*, *autonomy~co-curricular improvement*, and *relatedness~resource allocation*.

Though regressions were not viable, the *SDT~external accountability* correlation adds further detail to rejecting the null hypothesis of $H_4$, where a significant relationship between *SDT* predictor variable and overall *use* outcome variable was already established. However, the *competence~external accountability* relationship added nuance to not being able to reject the null hypothesis of $H_2$., as did the *autonomy~co-curricular improvement* relationship for the null hypothesis of $H_1$ and *relatedness~resource allocation and budgeting* relationship for the null hypothesis of $H_3$. While *competence*, *autonomy*, and *relatedness* predictor variables and overall *use* outcome variable did not have respective significant relationships, all three of these correlation relationships could be areas for further research or inquiry of faculty program leader use of assessment evidence.

**Influence of demographics**. Because identity-related aspects of respondents might influence responses, it was worth examining if relationships exist between demographic data with the individual SDT needs or overall *SDT* predictor variables, or with the *use* outcome variable. Objects were created for the demographic questions: degree level primarily served (*deg*), whether their program has specialized or program accreditation (*specaccred*), length of time employed at NLU (*totaltime*), and length of time in current role at NLU (*roletime*). The Shapiro-Wilk test was used for each, with all of the demographic objects suggesting non-

normality in data distribution. Like all correlation tests so far, Kendall's tau method was used

given the non-parametric nature of the data. Correlation tests were conducted between each

respective demographic object with the individual SDT needs and overall *SDT* predictor

variables, as well as *use* outcome variable.

Of the 20 possible relationship combinations of demographic objects with predictor and

outcome variables, none were significantly correlated. This result does not necessitate any

further analysis with regressions due to the lack of significant correlations. While relationships

do not exist between these demographic objects and the predictor or outcome variables, it is

worth noting – with the exception of *specaccred* – the demographic objects were all significantly

correlated with one another. It seems plausible a relationship might exist between *totaltime* and

*roletime*, but it is interesting that there is a relationship between *deg* with *totaltime* and *roletime*,

respectively. These results suggest likely relationships between time at NLU, time in role, and

degree level which one serves. There does not seem to be any likelihood of relationship,

however, between specialized or programmatic accreditation with time at NLU, time in role, or

degree level which one serves.

*Difference of doubling data*. Because this study's small sample size posed threats to

reliability and normality of data (Field et al., 2012), it raised a question of whether significance

of relationships or other data peculiarities would change if there were more respondents to

increase the data set. With the existing sample (36) being representative of the full NLU faculty

program leader population (73), doubling the data to approximate full NLU faculty program

leader population seemed more sensible for post-hoc tests than creating or adding test data.

Artificially increasing data is not typically a recommended practice for data analysis since it can

trick significance values and confidence intervals to shrink, as well as run the risk of magnifying

existing errors or data discrepancies (Caffo, 2015; Field et al., 2012). Resampling to capture

more data would be the preferred practice to increase the data set. However, as this post-hoc

analysis is exploratory in nature and not impacting the main analysis which corresponds to the

study's hypotheses, and NLU faculty program leaders are finite pool of respondents I could not

necessarily increase, doubling the data was an acceptable practice for further exploring the data.

It was worth exploring, as doubling the data resulted in many more statistically

significant relationships between objects and variables. Before discussing what changed, an

important aspect which remained the same was the suggestion of non-normality in the data.

Since non-normality was in the original data, and the data set was exactly doubled, non-

parametric methods were used for both correlations and regressions.

*Correlations*. Using Kendall's tau method, there were positive, statistically significant

relationships between all predictor variables with *use* outcome variable. The original data set

only had *SDT~use* as a significant relationship, while correlation tests with doubled data yielded

statistically significant relationships with *autonomy~use*, *competence~use*, *relatedness~use*, and

*SDT~use*. This is quadruple the amount of significant relationships than with the initial data set

(four compared to one). Such a result suggests more data are likely to yield more dependencies

or relationships where increases in *autonomy*, *competence*, and *relatedness* individually – and

collectively as *SDT* – are met with increases in faculty program leader use of assessment

evidence.

*Regressions*. Because each predictor variable relationship to the *use* outcome variable

was significant, all could be regressed. Again, Kendall-Theil Sen Siegal non-parametric linear

regression approach was used. Each predictor variable relationship to the *use* outcome variable was significant, with *SDT~use* having the least amount of deviation, followed by *autonomy~use*, *relatedness~use*, and *competence~use*. Like correlations, this is quadruple the amount of significant relationships than with the initial data set (four compared to one). These results suggest more data help further mathematically model relationships and make predictions around how increases in *autonomy*, *competence*, and *relatedness* individually – and collectively as *SDT* – can be met with increases in faculty program leader use of assessment evidence. For reference, full values of doubled-data regressions of predictor variables, as well as individual uses and demographic objects, are displayed in Table 6.

Table 6

*Doubled-data regression results for variables and objects*

| Regressions | MAD | p-value | RSE | *df* | β(0) | β(1) |
|---|---|---|---|---|---|---|
| Predictor variables | | | | | | |
|     *SDT~use* | 0.46 | <.001 | 8.20 | 70 | 26.91 | 0.34 |
|     *autonomy~use* | 0.97 | <.001 | 8.73 | 70 | 35 | 0.29 |
|     *competence~use* | 1.30 | <.001 | 8.76 | 70 | 34.43 | 0.24 |
|     *relatedness~use* | 1.18 | <.001 | 8.55 | 70 | 34.10 | 0.24 |
| Individual uses | | | | | | |
|     *autonomy~co-curricular improvement* | 0.16 | <.001 | 0.97 | 70 | 2 | 0 |
|     *competence~external accreditation* | 0 | <.001 | 1.36 | 70 | 4 | 0 |
|     *competence~program accreditation* | 0 | .023 | 1.13 | 70 | 4 | 0 |
|     *relatedness~co-curricular improvement* | 0.09 | .004 | 0.97 | 70 | 2 | 0 |
|     *relatedness~external accountability* | 0 | <.001 | 1.06 | 70 | 3 | 0 |
|     *relatedness~resource allocation* | 0 | <.001 | 1.15 | 70 | 1 | 0 |
|     *SDT~co-curricular improvement* | 0 | <.001 | 1.11 | 70 | 3.5 | 0 |
|     *SDT~external accountability* | 0 | .004 | 0.97 | 70 | 2 | 0 |
| Demographics | | | | | | |
|     *autonomy~deg* | 0 | .005 | 0.65 | 70 | 2 | 0 |
|     *competence~totaltime* | 0 | .003 | 1.03 | 70 | 3.5 | 0 |

*Individual uses.* Looking at the top and bottom three individual *use* responses correlated with predictor variables, there were a total of eight, positive, significant relationships: *autonomy~co-curricular improvement*, *competence~external accountability, competence~program accreditation*, *relatedness~co-curricular improvement*, *relatedness~external accountability*, *relatedness~resource allocation*, *SDT~co-curricular improvement*, and *SDT~external accountability.* These results doubled the amount of significant relationships than with the initial data set (eight compared to four). When regressed, all eight relationships had significant p-values, but slopes of zero nullified linear relationships (see Table 6). Still, the doubled amount of correlated variables and objects suggest more data for this study yields more significant and modeled relationships.

*Demographics.* When using correlation tests for demographic objects with the individual SDT needs (*autonomy*, *competence*, *relatedness*) and overall *SDT* predictor variables and *use* outcome variable, there were two significant relationships – a negative relationship for *autonomy~deg* and a positive relationship for *competence~totaltime*. This is double the original amount of significant relationships from correlation tests of demographics with predictor and outcome variables (two compared to zero). When regressed, both relationships had significant p-values, but slopes of zero nullified linear relationships (see Table 6) Again, the increase in significant relationships from correlation tests suggest further inquiry with a larger data set is warranted, especially when the *autonomy~deg* correlation result with doubled data produced the first negative relationship involving a predictor variable in all the combination of tests and analyses conducted of objects and variables.

The results from the doubled data, post-hoc analyses were enlightening. Across the board for correlations and with some regressions, it seemed more data (a bigger sample) increased the likelihood and amount of significant dependencies or relationships between variables. Because a small sample size can impact statistical significance and variable influence (Akoglu, 2018; Field et al., 2012; Statistics Solutions, 2019b), results suggest future research or inquiry should strive to obtain larger samples.

**Qualitative Data Analysis**

While the core of this research is quantitative in nature, there were qualitative data collected from the respondents. These qualitative data were collected in the form of open-ended questions in which respondents could expand on their responses to the questions in a given section of the instrument or offer other comments they wished to express. Summaries of the qualitative responses are provided in Table 6, with Appendix H containing the full text of all of the qualitative responses matched accordingly to sentiment and coded theme for each respondent.

Table 7

*Themed qualitative responses from the questionnaire*

| Instrument Section | Theme | Count | Sentiment |
|---|---|---|---|
| SDT questions | Instrument critique | 3 | N/A |
| | Explaining response | 1 | 100% positive |
| | Thoughts on NLU culture | 3 | 50% positive, 50% negative |
| Use questions | Instrument critique | 3 | N/A |
| | Explaining response | 2 | 50% positive, 50% negative |

All of the qualitative data represents 10 respondents or 28% of the respondent sample. Considering the context of response representation, the data from explaining response and thoughts on NLU culture could be paired with the quantitative data to best make meaning from the results to explain faculty program leader use of assessment evidence. Additionally, the instrument critique responses can inform reflection on further research or inquiry needed as a result of this study.

**Additional Study Context**

    **Delimitations.** Delimiters are intentional boundaries created or chosen by a researcher which should be disclosed so as to define the parameters of a research study (Creswell, 2014). There are three delimiters associated with this study. First, the population was intentionally narrowed to faculty program leaders. Student affairs or co-curricular assessment – along with the involved faculty, staff, or students in that work (Maki, 2010; Suskie, 2009) – were not included since academic assessment is more prevalent at NLU (Levy, 2018c; NLU, 2015) and both internal and external quality assurance for student learning primarily focuses on academics and substantive faculty involvement (HLC, 2014; Kuh et al., 2015; Suskie, 2014). While other full-time or adjunct faculty members may be involved in academic assessment, faculty program leaders are the ones responsible for assessment of student learning for their area (Levy, 2018c; NLU, 2015). Because not all programs can count on additional faculty support, given additional faculty participation is not consistent across programs or an explicit requirement, the population was narrowed to only faculty program leaders.

    Second, exploring faculty program leader use of assessment evidence was primarily limited in scope to quantitative data, as opposed to use of a qualitative approach or mixed

methods. Whether or not the null hypotheses were rejected by reporting an association between faculty program leader use of assessment evidence, the quantitative data cannot be used to fully explain *why* or *how* associations exist. A qualitative or mixed methods approach could allow more narrative as to *how* or *why* the central phenomena occurs (Creswell & Poth, 2018). However, a first measure or application of SDT to use of assessment evidence for faculty with a quantitative approach can measure to detect any existing relationships. Measuring associations between variables not only quantifies the existence of a relationship, but also affords reliability in measurement with a past study (Field et al., 2012; Stupnisky et al., 2018). These initial quantitative data can be used to establish a *what,* which can inform further or future research of quantitative or qualitative methods to better understand *how* or *why* surrounding faculty use of assessment evidence.

The third delimiter was only sampling faculty program leaders from one institution, in this case, NLU. While data could have also been collected from faculty program leaders at other institutions, bounding to NLU enables a familiar environment to pilot application of SDT to faculty behavior with assessment. Knowing data came from faculty program leaders within the same institution, the results of the study lend themselves to opportunity for concrete intervention and application of results for action, more so than might have been possible if collecting data from multiple institutions. Additionally, determining appropriate roles across institutions equivalent to the definition of faculty program leaders at NLU could prove time consuming and difficult for drawing implications.

**Limitations.** Limitations are conditions or influences which exist as restrictions or fall outside the control of the researcher which should be disclosed as potential shortcomings to be

considered alongside the research (Creswell, 2014). There are three limitations for this study.

The biggest limitation was the small sample size and its uniqueness to NLU (Field et al., 2012).

A small sample size can complicate correlations, regressions, or generally calculating

significance (Akoglu, 2018; Field et al., 2012; Statistics Solutions, 2019b). Small sample size as

a complication turned out to be true for this study, preventing conducting certain forms of

analysis which proved insightful with previous research (Stupnisky et al., 2018; Stupnisky et al.,

2017), such as structural equation modeling between variables – a technique not recommended

for data sample sizes below 200 (Field et al., 2012). Limited sample size and non-parametric data

also restricted forms of analysis which might have allowed further examination of relationships

between the variables, such as analysis of variance and t-tests (Field et al., 2012). This limitation

was considered and accounted for in the data analysis approach.

Aside from analysis constrictions, the limitation of a small sample size can also prevent

results from being generalized to a larger population (Field et al., 2012). By study design, this

limitation was not a concern since the results could still be applied to NLU; however, it would

have been desirable if results were generalizable to a larger population. Regardless, interpretation

and implications from the results are limited to NLU faculty program leaders in the following

chapter.

The second limitation was the indirect measure or self-reported nature of responses given

the questionnaire format. Validity can always be a concern when relying on self-reported

responses (Field et al., 2012), as faculty program leaders may feel inclined to report more use of

assessment evidence than may actually be occurring. Likewise, faculty program leaders may not

respond honestly for the SDT-related *autonomy*, *competence*, or *relatedness* questions. The

promise of anonymity, delivered and reiterated as a message in all forms of communication about the study – including the instrument's opening informed consent page – should have helped to lessen likelihood to falsely respond. Moreover, indicating the results can lead to improvement of assessment culture at the institution – including resources and support for faculty – likely encouraged honest participation from the respondents.

The third limitation was the researcher's perspective and bias informed by professional experience. I recognize I am an employee at NLU, serving as one of two full-time staff dedicated to supporting assessment activity across the institution. In this role, I interact with faculty program leaders on assessment work and have access to their assessment reports, program review reports, and other documentation demonstrating their behaviors and actions associated with assessment. While my institutional knowledge and personal bias cannot completely be removed, a primarily quantitative approach with anonymity of respondents and a set analysis process helps to limit the extent my bias and perspective impact the results of the study. For example, conducting a two-tailed statistical test helped bypass my assumptions of faculty program leader behaviors since a two-tailed test measures for any relationship between variables – positive or negative in direction – where I may have otherwise had my own assumption for a relationship to exist with a particular direction. Use of results for interpretation and drawing conclusions in close ties with literature and cited sources should also help minimize chance of opinion from institutional knowledge or personal bias from coloring interpretation.

**Chapter 4 Conclusion**

Given the data collected and analyses conducted, conclusions can be drawn from the results with respect to the hypotheses, which were:

- $H_1$ – Autonomy is associated with use of assessment evidence

- $H_2$ – Competence is associated with use of assessment evidence.

- $H_3$ – Relatedness is associated with use of assessment evidence.

- $H_4$ – Self-Determination Theory is associated with use of assessment evidence.

Of these hypotheses, a null hypothesis – no association exists – held true for $H_1$, $H_2$, and $H_3$, given significant relationships did not exist for *autonomy*, *competence*, or *relatedness* predictor variables with the *use* outcome variable. It is worth mentioning post-hoc analyses of top and bottom three uses of assessment evidence yielded *competence~external accountability*, *SDT~external accountability*, and *autonomy~co-curricular improvement* having significant relationships via correlations, but null hypotheses could not be rejected because the primary analysis focus of the study - and the specific variables identified in the hypotheses - were based on the overall *use of assessment evidence* outcome variable.

Given analysis results, the null hypothesis can be rejected for $H_4$, meaning there is indeed an association between Self-Determination Theory and faculty program leader use of assessment evidence. There is a significant and positive relationship suggesting the likelihood that an increase in the collective SDT (*autonomy*, *competence*, and *relatedness*) is met with an increase in faculty program leaders use of assessment evidence. While post-hoc analyses of demographics did not have an influence on the variables of the study and there were only four significant relationships between all of the individual SDT needs and all of the individual uses of assessment evidence (*competence~external accountability*, *SDT~external accountability*, *autonomy~co-curricular improvement*, *relatedness~resource allocation and budgeting*), there

were implications for further research, as well as applications for practice, with respect to the

positive dependency of overall SDT with faculty program leader use of assessment results.

The post-hoc analyses were worth running given the additional correlation and regression

relationships surfaced with the results. Aside from the aforementioned demographic and

individual use results, the doubling of data proved informative. With data doubled, every

correlation analysis (and some regressions) of the study resulted in at least double the amount of

significant relationships between variables or objects, which presents a strong suggestion for

larger sample size as an application in future research. It should be noted that doubling the data

would not necessarily increase the amount of significant relationships – having more data does

not necessarily equate to more significance or influence among data objects.

Though hypotheses were addressed in this chapter, more interpretation and meaning-

making will be provided in the next chapter. Discussion will center around the extent the results

can answer the study's research question: How does Self-Determination Theory help explain

faculty program leaders' use of assessment evidence? Results will be paired with literature for

further discussion and implications.

**Chapter 5: Discussion and Implications**

Results from this study relate to NLU faculty program leaders' behavior with respect to assessment-related action. Using Self-Determination Theory (SDT) as a theoretical framework, discussion is framed around this study's research question:

How does Self-Determination Theory help explain faculty program leaders' use of assessment evidence?

The hypotheses for the study were addressed in the previous chapter, with only one null hypothesis being rejected: $H_4$ – Self-Determination Theory being associated with use of assessment evidence. With the hypothesis and research question context, this chapter discusses the results of the study so as to make meaning for suggested actions and implications for further research or inquiry.

The chapter provides discussion and interpretation of results for SDT and use of assessment evidence separately, then in concert given the significant relationship of overall *SDT* predictor variable and the *use* outcome variable. Implications for action are provided, as well as caution for consideration with application of results. Instrumentation and methodology are also discussed, with suggestions for improvement or approach for future inquiry and research. A personal reflection from the researcher is offered before providing a concluding summary for the study.

**Needs of Self-Determination Theory**

Though statistically significant relationships did not exist between individual SDT need predictor variables (*autonomy*, *competence*, *relatedness*) and the *use* outcome variable, it is important to discuss the significant relationships which did exist between the individual SDT

needs and *SDT* overall. Provided below, Figure 3 from Chapter 4 illustrated each individual SDT need as positively and significantly correlated with each other and with *SDT* overall. This study's results of SDT variable relationships illustrate and reinforce SDT literature citing connections between the needs (Ryan & Deci, 2000; Stupnisky et al., 2018; Svinicki, 2016; van den Berg et al., 2013).
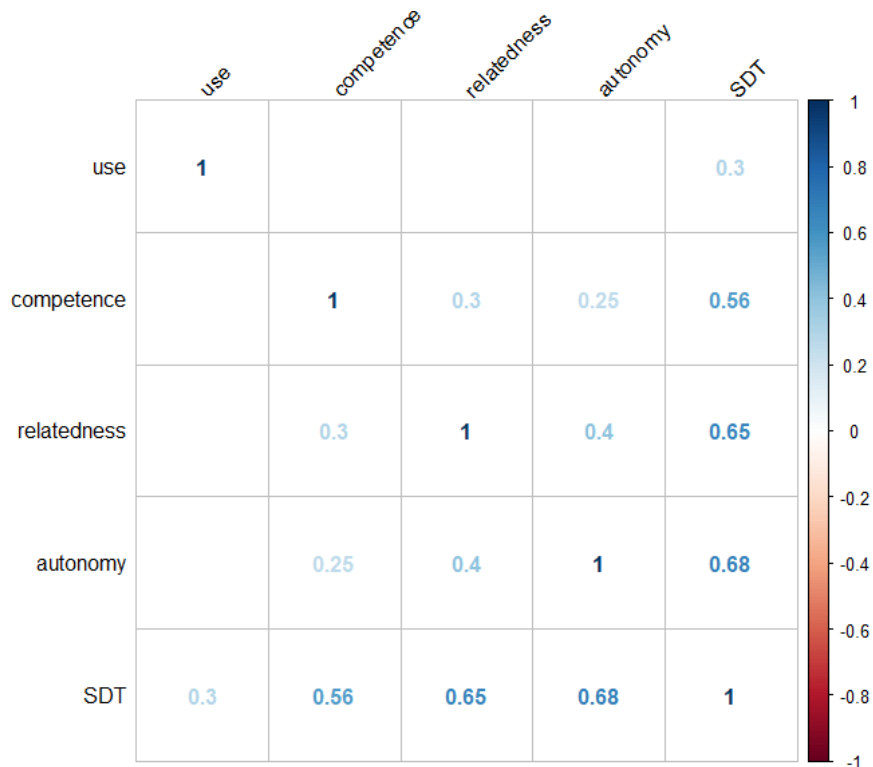


*Figure 3*. Correlogram of predictor and outcome variables

Based on responses from NLU faculty program leaders, the need of *relatedness* is met the most frequently, followed closely by *competence*, and then *autonomy*. The *relatedness* result aligned with 2018 survey data of NLU faculty where 92% of respondents indicated somewhat agree, agree, or strongly agree that they feel supported in completing their assessment work

(Levy & Eskew, 2018a). Faculty connection to assessment work is reinforced in messaging

around assessment, delivered in university and college-level committees, as well as regular area-

specific meetings. Such institutional and college-level infrastructure contributes to faculty

*competence*, though previous faculty responses noted room for improvement and desire for more

capacity (Levy, 2018a, 2018c; Levy & Eskew, 2018a). Additionally, while faculty program

leaders have assessment responsibility, *autonomy* has been established as an area of need to be

better met, where some existing institutional tensions – which extend beyond assessment – exist

for faculty program leaders (Levy, 2018c; Levy & Eskew, 2018b; NLU 2015).

Qualitative data from NLU faculty program leaders in this study provide additional detail

in relation to the results of individual SDT needs being met, as well as culture at NLU. As

referenced in Appendix H, Respondent 14 thought it necessary to explain, "there is variation in

my relationships with assessment related people; for the most part, I do feel positive."

Respondent 18 articulated their perception of the culture by sharing, "My perception is that NLU

sustains a highly supportive culture of continuous improvement in its progressive use of

assessment results toward enhancing program quality." Both comments have a positive sentiment

and relate to the most frequently met SDT need of *relatedness* from a sense of belonging and

support with people or projects.

At the other end of the spectrum, qualitative data also added detail around the least

frequently met SDT need of *autonomy*. Respondent 29 shared:

We have become so data oriented – quantitative type – that I think we are losing some of

the personal touch we have long been noted for.  We used to design our own based on the

programs, but now so much is mandated that really doesn't relate to what we are doing –

the dispositions survey, for example. Everyone rates himself or herself (binary, I know)

as proficient and most of them are, so what is the point?

Complementary to commentary about a faculty program leader's place and power within the

environment, Respondent 36 offered:

As a faculty, we used to really enjoy the process of designing program assessment

studies. But now the [college] process comes across as giving orders to the professionals

who teach in the programs. Inexplicably, the process has been used to put people and

programs down when it really should be about building programs up. The assessment

office is knowledgeable, supportive, and positive, but these good efforts have been

overshadowed by a generally negative college-level attitude.

Both respondents articulate negative sentiments around process and culture, noting a lack of

control and lack of power in faculty program leader voice or perspective with respect to

assessment.

Quantitative results demonstrated connections between individual SDT needs (*autonomy*,

*competence*, *relatedness*) and *SDT* overall, as well as indicating which needs were met more

frequently for NLU faculty program leaders. The qualitative data, with interpreted connections to

*relatedness* and *autonomy*, added detail to the NLU faculty program leader experience. The

qualitative data are not singularly or exclusively aligned with one individual SDT need, as one

could draw connections about a supportive culture made possible by meeting *competence* needs,

while also seeing how *relatedness* may not be as present for the respondents sharing frustrations

around assessment process and faculty program leader role therein. These between-need and

need-to-overall SDT relationships not only reinforce SDT literature about theory composition,

but also demonstrate the combination of needs can prove more impactful – positively or

negatively – for faculty program leader behavior (Heath & Heath, 2010; Ryan & Deci, 2000;

Stupnisky et al., 2018; Svinicki, 2016; van den Berg et al., 2013).

**Use of Assessment Evidence**

As a whole, NLU faculty program leader responses in relation to use of assessment

evidence aligned with national trends (Jankowski et al, 2018). The top three uses of assessment

reported by NLU faculty program leaders were for *program review*, *program accreditation*, and

for *external accountability*, which were three of the top five uses in a 2017 landscape survey of

provosts (Jankowski et al., 2018). The bottom three reported uses of assessment reported by

NLU faculty program leaders were for *resource allocation and budgeting*, *professional*

*development for faculty and staff*, and for *co-curricular improvement*, which were also three of

the bottom five uses in the 2017 provost landscape survey (Jankowski et al., 2018). Both the

types of use and extent to which assessment evidence is being used as reported by NLU faculty

program leaders mirrored national trends for use of assessment evidence.

While post-hoc analyses of demographic objects did not yield significant relationships

with any *SDT* predictor variables or the overall *use* outcome variable, NLU faculty program

leaders recognized assessment evidence should be used for program accreditation and external

reporting in light of external reporting requirements for states and programmatic accreditation

(NLU, n.d.-a, n.d.-d, 2015, 2019). While it is common for compliance to be conflated with the

primary purpose of assessment (Gose, 2017; Kuh et al., 2015; Metzler & Kurz, 2018), several

internally-benefitting uses of assessment evidence reported by NLU faculty program leaders help

combat the concern assessment evidence only serves compliance purposes. Further limiting the

notion of compliance as the primary purpose of assessment, there were no significant

relationships between the *use* outcome variable and the demographic object of *specaccred* –

whether faculty program leader's program has specialized or program accreditation. In other

words, results suggested overall NLU faculty program leader use of assessment evidence is not

significantly influenced by whether the program has specialized accreditation or not.

With respect to the bottom three uses of assessment evidence as reported by NLU faculty

program leaders, there is institutional context to consider. Adding detail to the correlation of

*relatedness~resource allocation and budgeting*, Respondent 16 (as shown in Appendix H)

shared in a qualitative response, "I acknowledge that student learning assessment results may be

used for resource allocation and budgeting that I am not aware of." With multiple levels and

decision makers involved in NLU's strategic planning and governance mechanisms (Levy,

2018c; NLU, 2015), faculty program leaders may not know the extent assessment evidence is

used beyond the direct actions they take. Likewise, given NLU assessment attention and culture

focuses more on academics, faculty program leaders may not be as familiar or aware of

opportunities to apply assessment evidence for purposes of *co-curricular improvement* (Levy,

2018c; NLU, 2015).

The lowest reported use of assessment evidence by NLU faculty program leaders was the

use for *professional development for faculty and staff*. This is unfortunate since faculty typically

lack formal training or preparation for assessment work and using assessment evidence (Angelo

& Cross, 1993; Cain, 2014; Jankowski & Slotnick, 2015; Koole et al., 2011; Kreiser, 2001; Kuh

et al., 2015; Maynes & Hatt, 2012; Slavit et al., 2013; Suskie, 2014; Wei & Pecheone, 2010).

Considering SDT needs in relation to assessment, *competence* was not met as frequently as it

could have been for NLU faculty program leaders, where lack of assessment knowledge can be a barrier in relation to motivation or behavior (Ryan & Deci, 2000; van den Berg et al., 2013). Institutional context compounds the result of *competence* as a need, given NLU faculty program leaders indicated in a 2018 survey they needed support with respect to taking action with assessment results, citing taking action as one of the top two priorities and areas of urgency for improvement (Levy & Eskew, 2018a).

Perhaps faculty program leaders do not realize assessment results could be used to guide or inform professional development. Or, compounded with the least frequently met SDT need of *autonomy*, perhaps faculty do not feel they are able to use assessment results to inform or direct professional development for their area or college. If faculty view assessment through a compliance mindset – where it is simply an externally-serving task to complete – professional development may not be considered necessary or relevant (Ewell, 2009; Kuh et al., 2015; Levesque-Bristol et al., 2019; Slavit et al., 2013; Suskie, 2014). Further inquiry could be useful in order to better understand the study's results for use of assessment evidence balanced with needs and intent of faculty program leaders.

For both the top and bottom uses of assessment evidence reported by NLU faculty program leaders, it is important to consider these data as a static snapshot of behaviors and attitudes. Qualitative feedback alluded to as much, with Respondent 36 indicating:

> It has been some time since my program's outcomes assessment results led to resourced follow-up actions. However, this was not always the case, and outcomes assessment has the potential to be very effective and very rewarding when it bears a clear connection to strategy, planning, and curriculum development.

Use of assessment evidence reported by NLU faculty program leaders for this study may not be reflective of past practice or indicative of planned future efforts. That said, the hope would be, like national data, overall and individual uses of assessment evidence would increase over time (Jankowski et al., 2018).

Simply increasing use is not enough for accreditors and institutional leaders, though; when engaging in the work, faculty program leaders should focus on being as effective as possible with the use of assessment evidence (B. Gellman-Danley, personal communication, February 6, 2019; Ewell, 2009; Fischer, 2019; Jankowski et al., 2018; Kuh et al., 2011; Kuh et al., 2015; Metzler & Kurz, 2018; Stitt-Bergh et al., 2019). In promoting effective use of assessment evidence, NLU leadership should be mindful of motivation needs and engagement behaviors of faculty with assessment (Ewell, 2009; Jankowski et al., 2018; Kuh et al., 2015). The longer assessment-related needs go unmet, the more difficult it can be to hold faculty program leaders accountable for expected behavior (Levy, 2018c; Kuh et al., 2011; Ryan & Deci, 2000; Stupnisky et al., 2018). Although this study captured type of use and extent assessment evidence was used, detail around intent, rationale, and prioritization for use of assessment evidence could be areas for further inquiry with NLU faculty program leaders. Likewise, longitudinal tracking for use of assessment evidence could inform on trends with respect to behavior changes.

**Self-Determination Theory and Use of Assessment Evidence**

It bears repeating that motivation is important context to understand faculty assessment practices (Ewell, 2009; Jankowski et al., 2018; Kuh et al., 2015). Significant relationships did not exist for individual SDT needs (*autonomy*, *competence*, *relatedness*) as predictor variables in relation to the overall *use* outcome variable, but there was a positive association between the

overall *SDT* predictor variable and the *use* outcome variable. The result of a correlation test and

non-parametric linear regression indicated the statistical likelihood that an increase in meeting

the collective needs of Self-Determination Theory is met with an increase in NLU faculty

program leaders use of assessment evidence.

This study's research question was:

How does Self-Determination Theory help explain faculty program leaders' use of

assessment evidence?

The result, knowing there is a positive association between Self-Determination Theory and use

of assessment evidence overall, helps inform NLU administrators and faculty program leaders

that collectively meeting needs of *autonomy*, *competence*, and *relatedness* is likely to be met

with increased use of assessment evidence. While the main analyses did not yield significant

relationships between individual SDT needs and overall use of assessment evidence as an

outcome variable, post-hoc tests found the following individual SDT needs positively correlated

with individual uses of assessment evidence: *competence* with *external accountability*, *autonomy*

with *co-curricular improvement*, and *relatedness* with *resource allocation and budgeting*.

Further, post-hoc analyses doubling the data found several significant relationships between

demographic objects, individual SDT needs and overall SDT predictor variables, as well as

individual uses and collective *use* outcome variables.

Because the *SDT* predictor variable is a composite of the individual SDT needs of

*autonomy*, *competence*, and *relatedness*, it should be acknowledged there is room for growth in

terms of better meeting these needs for faculty program leaders. Out of a possible value of 16 per

respondent, *relatedness* was the individual SDT need met most frequently for NLU faculty

program leaders with an average value per respondent of 12.17, followed closely by a similar average of 12.14 for *competence*. The average of 10.56 for *autonomy*, however, was markedly the SDT need least frequently met for faculty program leaders. More frequently meeting the individual SDT needs could have relationship implications for individual needs and collective SDT being more likely met with increases in the use of assessment evidence, as well as possibly more effective use of assessment evidence. After all, if faculty program leaders are knowledgeable, feel supported and connected to the work, and have the power to make decisions and changes in their environment, they are likely to be more effective in their roles and with their responsibilities (Flaherty, 2018; Ryan & Deci, 2000; Stupnisky et al., 2018; van den Berg et al., 2013).

        **Implications for action.** In light of the *SDT~use* relationship, as well as individual SDT needs not being met as frequently as they could be, NLU administrators and faculty program leaders should be encouraged to integrate the collective needs of Self-Determination Theory into professional development, training, and support with respect to assessment efforts. This would not require considerable or additional resources given the natural relationships between *autonomy*, *competence*, and *relatedness* with assessment (Baker et al., 2012; Cain, 2014; Ewell, 2009; Fuller et al., 2016; Koole et al., 2011; Kuh et al., 2015; Maki, 2010; Metzler & Kurz, 2018; Ryan & Deci, 2000; Slavit et al., 2013; Stitt-Bergh et al., 2019; van den Berg et al., 2013), and with the roles and responsibilities of faculty (Flaherty, 2018; Ryan & Deci, 2000; Stupnisky et al., 2018; Svinicki, 2016; van den Berg et al., 2013). SDT-infused professional development and support would serve to bolster the assessment culture and better meet motivation-related needs for faculty, combining to promote more use of assessment evidence.

Collective SDT needs could also be emphasized with NLU faculty program leaders through existing annual assessment processes (Levy, 2018c). In preparation for annual assessment reporting, NLU leadership could make sure to provide context as to why this work was being done (*relatedness*), as well as educational information on the mechanics of how best to engage in the process (*competence*). Leadership could also reiterate existing institutional staff are available to serve as dedicated support persons to offer guidance to faculty program leaders who are leading assessment work. Designating support persons could contribute to faculty program leader *relatedness* with the reporting process, while also underscoring *autonomy* by positioning the faculty as leaders and the staff as support. Further, NLU leadership could explicitly remind all involved in the reporting process that faculty program leaders are authorities in their discipline, serving to empower faculty program leaders – in assessment and beyond – which could have a significant impact on *autonomy* (Baker et al., 2012; Kuh et al., 2011; Kuh et al., 2015; Levesque-Bristol et al., 2019; Madsen et al., 2016; Metzler & Kurz, 2018; O'Dell, 2009; Stupnisky et al., 2018).

In looking to use assessment evidence, SDT needs can be considered in relation to NLU faculty program leaders sharing results. Sharing as a form of assessment use is relevant since NLU faculty program leaders identified sharing of results as one of the top urgent priorities for improvement or advancement of practice (Levy & Eskew, 2018a), while also being an aspect of use related to many other use cases (e.g., program review, program accreditation, external accountability, institutional benchmarking, communicating educational effectiveness to external entities). Some qualitative faculty responses to this study also indicated faculty may not be aware of all the ways assessment evidence is being used. Since faculty program leaders can lack

assessment knowledge and experience for sharing results (Maynes & Hatt, 2012; Suskie, 2014; Wei & Pecheone, 2010), institutional leadership can provide tips and transparency around discipline-specific examples using assessment evidence to help build *competence* in sharing practices and knowledge of how assessment evidence is used.

Good assessment practice includes effective sharing of results (AAHE, 1992; Baker et al., 2012; Ewell, 2009; O'Dell, 2009), where content shared should be customized to meet the needs of intended audience members (Maki, 2010; Suskie, 2009). Consequently, reinforcing and promoting sharing assessment results as a practice could help sharing be seen as important or valued by faculty program leaders, contributing to meeting the *relatedness* need. Positioning faculty program leaders as the experts and owners of their programs – including telling its story or sharing its results – can be empowering and help instill *autonomy* (Baker et al., 2012; HLC, 2014; Kuh et al., 2015; Stitt-Bergh et al., 2019).

Thinking about interventions to enhance assessment processes and promote sharing, it may not be enough to address assessment-specific needs. Knowing faculty often have little formal training in pedagogical practices and teaching may not be the primary focus or motivation for their given load, efforts to advance the use of assessment results may require capacity building for pedagogical practice and intentional messaging around classroom impact (Levesque-Bristol et al., 2019; Stupnisky et al., 2018; Stupnisky et al., 2017; Svinicki, 2016; van den Berg et al., 2013). Thankfully, assessment has a clear relationship to multiple facets of faculty responsibilities (e.g., curriculum determination, instruction, delivering course objectives and student learning outcomes), so there should be mutually beneficial byproducts for assessment when faculty competence, capacity, and even authority increases in relation to pedagogy and

course-related responsibilities (Angelo & Cross, 1993; Arum & Roksa, 2011; Cain, 2014; Gold,

Rhoades, Smith, & Kuh, 2011; Kuh et al., 2015; O'Dell, 2009; Suskie, 2014; Wolverton, 1998).

Given the sense of responsibility and ownership for which NLU faculty program leaders

are positioned for assessment and beyond, accountability can also be an avenue through which to

recognize achievement or gaps in relation to SDT needs. To increase accountability mechanisms

associated with assessment and create extrinsic motivation for faculty, performance evaluations

could examine faculty program leader performance and engagement in assessment (Levy, 2018c;

NLU, 2015; Ryan & Deci, 2000; Stupnisky et al., 2018). Including assessment as part of faculty

performance signals *competence* is expected, which is important since lack of knowledge can be

a barrier and help explain issues with faculty program leader motivation or performance (Ryan &

Deci, 2000; van den Berg et al., 2013). Since faculty program leaders may be reticent to engage

in professional development or training for assessment for a variety of reasons (Angelo & Cross,

1993; Doyle, 2003; Jankowski et al., 2018; Kreiser, 2001; Kuh et al., 2015; Metzler & Kurz,

2018), the eventual performance evaluation adds *relatedness* for the faculty program leader

beyond just building capacity for assessment. Elevating assessment engagement in performance

evaluations can also add to faculty program leader sense of *autonomy*, reminding them of the

expectation to lead assessment work for their area. With assessment engagement as part of

performance evaluation processes, space is automatically created for faculty to surface issues

related to lack of agency or barriers to meeting their need of *autonomy* in relation to assessment

work (Jankowski et al., 2018; Kreiser, 2001; Kuh et al., 2015; Levesque-Bristol et al., 2019;

Madsen et al., 2016; Metzler & Kurz, 2018; Stupnisky et al., 2018).

The examples provided for professional development, annual assessment reporting, sharing, and performance evaluations represent relevant components likely to impact NLU faculty program leader motivation and behaviors with respect to use of assessment evidence. Annual assessment reporting is the primary assessment activity with which NLU faculty program leaders engage (Levy, 2018c; NLU 2015). In addition to effective sharing of results being good assessment practice worthy to focus on its own (AAHE, 1992; Baker et al., 2012; Ewell, 2009; O'Dell, 2009), NLU faculty noted sharing of assessment report results – conveying information to be relevant to target populations across the institution – as an urgent priority for professional development. Institutional leadership executing on the strategic plan want to advance assessment practices through continuous improvement, which includes reporting activities and faculty capacity development (A. Hilsabeck, personal communication, November 6, 2018; Jones, 2014; Levy & Eskew, 2018a; Templin, 2018). Explicitly noting assessment engagement as something in performance evaluations could cement the responsibility for faculty program leaders and add to motivation to demonstrate commitment to the work (Levy, 2018c; NLU, 2015; Ryan & Deci, 2000; Stupnisky et al., 2018).

**Caution for application.** The emphasis on using Self-Determination Theory as a framework or lens to apply and enhance existing NLU institutional efforts was framed by an intentional and underlying consideration in relation to this research. A conservative approach for application was exercised to limit creating, changing, or dedicating too much to NLU processes or resources based off of research results from a small sample. While infusing SDT into existing practices is a good-faith effort to focus on better meeting the individual SDT needs (*autonomy*, *competence*, *relatedness*) for faculty program leaders – which results suggest would be met with

an increase in overall use of assessment evidence – caution should be exercised in what changes

or where SDT might be infused. Efforts to change or enhance motivation do not always have the

intended impact as desired and can be dependent upon the audience or population (Budwig,

2018; Cabot, 2016; Flaherty, 2018; Ryan & Deci, 2000; Stupnisky et al., 2018). Further inquiry

and research should be done to better understand the individual SDT needs in relation to faculty

program leader behavior to help discern additional applications for change.

   Additional data collection as it relates to motivation of faculty program leaders and use of

assessment evidence should consist of more than just quantitative methods. More information

should be gathered in order to best understand the existing data, seeking to capture more about

*why* and *how* faculty program leaders use assessment evidence, as well as better understand the

rationale or intent behind their quantitative responses and current behaviors. Analysis and

interpretation of additional qualitative data – on their own and in relation to the collected

quantitative data – could help identify practices which institutional leaders might discourage

among faculty program leaders, as well as recognize where behavior reflects recommended

practice, which should then be considered for adoption across the university (AAHE, 1992;

Angelo & Cross, 1993; AAC&U, 2006; O'Dell, 2009; Wei & Pecheone, 2010). Considering

additional data collection as a recommendation, reflection on instrument and methodology are

worthwhile in discussing implications.

**Instrumentation and Methodology**

   On the topic of data collection, the results of this study afforded feedback which could be

used to adjust instrumentation and methodology. Results and reflection from this study can

inform procedure if replicating this study. Findings from this study can also guide further

research in order to capture expanded or complementary data. Both researcher and respondent

perspective afford actionable insight.

      **Questionnaire.** The bulk of the instrument used for this study was a combination of two

established instruments – one based on measuring SDT (Stupnisky et al., 2018) and the other on

use of assessment results (Jankowski et al., 2018). In addition to modifications made by the

researcher to suit the study, slight adjustments were made to the instrument as a result of pilot

feedback from faculty program leaders at a neighboring institution. Cronbach's α values for

*autonomy*, *competence*, and *relatedness* – comparable to past research (Stupnisky et al., 2018) –

as well as *SDT* and *use* variables all validated the instrument as consistent and reliable in its

measurement. Results withstanding, opportunities to improve the instrument still exist.

      One adjustment could be more consistency in terminology. Specifically, the SDT-related

content referred to use of *assessment evidence*, while the other section of the instrument called

on respondents to indicate extent *assessment results* were used. While the terms of *assessment*

*evidence* and *assessment results* have been used interchangeably in this study, the difference in

terminology could cause confusion or create cognitive dissonance for respondents in relation to

assessment *evidence* versus *results*. Pulling from Appendix H, Respondent 6 indicated as much

by sharing, "It would be helpful to provide some examples of what you mean by 'using

assessment evidence'." The original SDT-related content did not have mention of results or

evidence and the use-related content uses *results* (Jankowski et al., 2018; Stupnisky et al., 2018);

evidence was used as part of the research question, hypotheses, and the SDT-related questions

due to the researcher's alignment with the definition provided by NILOA (2012a) in its

Transparency Framework. Because *evidence* appeared a more technical and less faculty-familiar

term related to assessment – explicitly causing confusion for respondents – it seems *results* might

be an easier and more consistent inclusion for future research efforts compared to consistent use

and having to define *evidence* for respondents. This could be additional feedback sought in

instrument piloting or qualitative follow up with faculty with respect to their participation in this

study.

Beyond *assessment evidence*, comments were made to seek definitions or additional text

for instrument clarity. Respondent 27 indicated, "Unsure on the interpretation of – I do what

really interests me when using assessment evidence." Respondent 6 wondered how best to

respond to questions by commenting, "Unclear as to whether the question is to be answered

specifically for one program or multiple programs for faculty that teach or have knowledge of

multiple programs," while Respondent 20 questioned answer options via scale points in noting,

"Quite a bit and Very much seem too similar." The original instruments from which this study's

questionnaire were derived did not have additional instructional text or examples (Jankowski et

al., 2018; Stupnisky et al., 2018), but perhaps providing definitions for key terms should be done

for future data collection with a similar instrument. Where used or administered for a single

institution, the instrument might also be modified with familiar or common language reflective

of institutional structure or processes.

There were two respondents who sought an *N/A* option for the use of assessment results

questions. Respondent 25 specifically indicated applicability for a question by sharing, "there is

no NA or I don't know option, and for some of these, 'Resource allocation and budgeting' for

example, I do not know." For the use of assessment questions, the assumption was an *N/A* option

would not be necessary since the respondent – a faculty program leader – should know the extent

assessment results are used given their engagement in and responsibility for assessment work. While every use of assessment instance was feasible for faculty program leader knowledge, feedback from respondents demonstrate respondents genuinely may not know or cannot be certain the extent results were used in some use cases (Levy, 2018c; NLU, 2015). The use of assessment questions were derived from a survey sent to provosts, who would know or could find out the answer to extent of use (Jankowski et al., 2018), so perhaps an *N/A* or *I do not know* option could be added due to limitations of knowledge for faculty program leaders. Alternatively, given previous considerations for change, instructional text could be added to the instrument to explain if a respondent does not know or is not sure about use of assessment results then they should indicate *Not at all* in order to make use of the existing scale.

**Sample size.** Beyond adjustments or enhancements to the instrument, sampling considerations should inform further inquiry, especially in seeking to use a questionnaire. While the 36 respondents were representative of the NLU faculty program leader population, even the initial sample for this study (73 faculty program leaders) was small for statistics and research purposes (Field et al., 2012). Small samples can impact the existence or strength of statistical influence and variable interactions (Akoglu, 2018; Field et al., 2012; Statistics Solutions, 2019b). Post-hoc analyses where data were doubled surfaced more significant relationships between demographic objects, individual and collective predictor variables, and individual and collective outcome variables. These results suggest future research should aim to obtain larger samples in hopes of the most fruitful results from the main analyses, as well as less constraints or caveats to use of additional analysis methods for comparison to previous research.

Because faculty program leaders are of a finite amount at NLU, future data collection might consider expanding the sampling to include more types of faculty. Assessment literature, faculty professional organizations, and accreditors alike all articulate an expectation and agreement that faculty have a responsibility to be involved in assessment work (Angelo & Cross, 1993; Arum & Roksa, 2011; Cain, 2014; Ewell, 2009; Gold et al., 2011; HLC, 2014; Kezar & Sam, 2010; Kreiser, 2001; Kuh et al., 2015; O'Dell, 2009; Suskie, 2014; Wolverton, 1998). Moreover, literature calling for an increase in faculty effectiveness when using assessment evidence applies to more than just faculty program leaders (B. Gellman-Danley, personal communication, February 6, 2019; Ewell, 2009; Fischer, 2019; Jankowski et al., 2018; Kuh et al., 2011; Kuh et al., 2015; Metzler & Kurz, 2018; Stitt-Bergh et al., 2019). Despite faculty program leaders having the ultimate responsibility to deliver on assessment expectations, NLU's assessment culture – including knowledge from the assessment needs and support results from 2018 – is inclusive of faculty members beyond program leaders (Levy & Eskew, 2018a). While this study specifically sampled faculty program leaders, further inquiry surrounding additional faculty populations (i.e., more than just program leaders) could provide new or nuanced results related to faculty behaviors and motivations in use of assessment evidence. A demographic question of faculty position or role could even be added to help discern if there are significant or influential differences in faculty motivation by role.

**Qualitative methods.** Much of the recommendations provided so far pertain to the quantitative data captured via the questionnaire. Beyond the open-ended questions in the instrument, qualitative methods should be considered in future research to provide additional insight for this study's topic or expand understanding of existing results. The quantitative

approach provided initial data to further explore, where qualitative methods can help provide a

holistic picture of the central phenomena (Creswell, 2014; Creswell & Poth, 2018).

Qualitative methods often rely on multiple sources of data and maintaining a focus on the

meaning and experiences of participants (Creswell, 2014; Creswell & Poth, 2018). Even when

codified, multiple sources can combat the idea of a single narrative or truth (Heiser, Prince, &

Levy, 2017). In assessment and beyond, participants' experiences and perspectives matter; when

trying to understand motivation and behavior, personal experience can inform on *autonomy*,

*competence*, and *relatedness* (Ryan & Deci, 2000; Stupnisky et al., 2018). Though there were not

significant relationships between the demographic objects and predictor or outcome variables,

that does not rule out important or relevant context faculty may share about assessment behaviors

which might stem from their experience in their role, with other faculty and staff, or even the

college in which they primarily teach. Knowing NLU's shared governance and operational

structures may look slightly different within each college (Levy, 2018c; NLU, 2015), additional

description and detail of faculty assessment behaviors could differentiate individual, area-

specific, or institutional trends worthy of celebration or concern.

In light of differences in practice and perspective, qualitative methods should be

considered for future research for emergent design processes (Creswell, 2014; Creswell & Poth,

2018). An emergent design enables the research to adapt approach as necessary in order to learn

more about the issue or central phenomena. Where findings are surprising, curious, or seem

counterintuitive to other participant perspectives or institutional knowledge, appropriate follow

up questions and shift in research process can be made in order to better understand what is

going on. Despite the quantitative post-hoc analyses conducted, flexibility to ask different

questions or pull in additional data sources were not realistic options given this study's

parameters. Whether trying to better understand quantitative findings of this study or provide a

more holistic picture for faculty assessment behaviors, an emergent design of a qualitative

approach could be useful to shape data collection for future research or further inquiry.

**Researcher Reflection**

Interpretation of results, implications, and recommendations for further research have

been presented in relation to literature and documentation or data for NLU faculty and

assessment culture. Though capturing reactions or responses to results from faculty program

leaders was not part of this study's design, feedback is possible to obtain from one of NLU's two

full-time staff dedicated to supporting institutional assessment since that person is me, the

researcher. While researcher perspective was listed as a limitation for this study, it can be

considered a strength for perspective having worked with NLU faculty program leaders and

observed their assessment behaviors, though not always aware of their motivations. It is worth

sharing my personal reflection of the results in light of my experience in the field of assessment

and with NLU.

With respect to the results surrounding SDT needs, I was surprised *relatedness* was the

need reported as met most frequently. There have been several NLU faculty program leaders in

each college who have questioned the purpose and necessity of assessment processes or did not

authentically engage in the process (Levy & Eskew, 2018b). Both questioning purpose and

inauthentic engagement in assessment are not uncommon in the field (Cabot, 2016; Gilbert,

2016; Kuh et al., 2015; Madsen et al., 2016; Maynes & Hatt, 2012; O'Dell, 2009; Suskie, 2014;

Svinicki, 2016; Worthen, 2018). With *autonomy* being the need met the least, perhaps

assessment purpose questions and superficial participation from faculty program leaders stem

more from the process not looking as they would prefer. There may also be an element of

*competence* not being met, as the barriers and questions from individual faculty program leaders

typically diminish or lessen the more I am able to engage with, educate, and support them. There

can be a number of factors – personal, professional, situational, political –  impacting the

intentions behind the words and actions of faculty, none of which may be accurately perceived

by me. For these reasons and more, further inquiry – especially of a qualitative nature – would be

useful to better understand the results of this study.

The results for use of assessment evidence were very much in line with what I expected

to see. Assessment results are part of NLU's program review process (Levy, 2018c; NLU, 2015),

so *program review* should be one of the top use cases. Knowing assessment and accreditation

have a symbiotic relationship to be leveraged for one another's purposes (Gaston, 2018; Levy et

al., 2018), and given the majority (63%) of respondents are from programs with programmatic or

specialized accreditors, I expected to see *program accreditation* and *external accountability* as

likely top uses case. I know co-curricular efforts receive less institutional attention and resources,

with faculty program leaders not always well-versed in what co-curricular efforts exist or their

purpose (Levy, 2018c; NLU, 2015), making *co-curricular improvement* a likely low use case.

Gaps and missed opportunities informed my recent focus for improvement in working with

programs and colleges to fully leverage assessment results, so I was not surprised to see use

cases of *professional development for faculty and staff* or *resource allocation and budgeting*

among the least frequent uses. This study's results added further clarity around the extent certain

use cases take place at NLU. Additionally, results suggested where more work and

encouragement could be done to effectively use results, which could even help satisfy needs in relation to SDT (e.g., professional development for *competence*, resource allocation for *autonomy*).

With respect to variable relationships, I was excited to see a significant and positive association between SDT overall and use of assessment evidence. I had anticipated this outcome in also expecting the individual needs would have significant relationships (positive or negative) with use of assessment evidence. Perhaps the individual SDT need relationships were prevented by the low sample size. Alternatively, the combination of SDT needs may prove significantly more influential than individual needs, hence SDT treating the needs collectively (Ryan & Deci, 2000; Stupnisky et al., 2018; Svinicki, 2016; van den Berg et al., 2013).

I received a small dose of validation for my assumptions of significant relationships for individual SDT needs in relation to use of assessment evidence when post-hoc analyses with doubled data revealed several additional relationships not previously seen – including at least one negatively associated relationship. I had already been interested in the post-hoc analyses, expecting more significant relationships between demographics or even individual uses of assessment than the few which existed. The doubled-data analyses with upwards of quadruple the amount of variable and object relationships compared to the original analyses further piqued my curiosity in wanting to know the strength and presence of these object and variable relationships in a larger study.

In the end, I was surprised by how much I appreciated the results of this study (and overall process) from a research and professional perspective. I had some assumptions of assessment behavior validated, but several assumptions challenged with respect to faculty

motivations. I learned so much from the literature and this study's results about faculty motivation. Given assessment professionals carry a general charge to help ensure faculty engage in assessment practices (Jankowski & Slotnick, 2015), it was both frustrating and humbling to realize a number of factors unrelated to me and beyond my control may be negatively impacting or preventing faculty from engaging in assessment work. I am heartened and motivated, however, to use the results from this study to be better in my role working with and supporting faculty.

Specific to Self-Determination Theory, I am finding myself regularly viewing and thinking about colleague and co-worker behaviors through an SDT lens, wondering which needs might be impacting challenging situational circumstances. Specific to assessment, I am motivated to expand SDT and assessment-related research efforts to both better understand NLU faculty program leaders, but also see if findings are unique to NLU or representative of trends seen across higher education institutions. Given the clear alignment of SDT to many common assessment barriers and opportunities (Ewell, 2009; Fischer, 2019; Fuller et al., 2016; Jankowski et al., 2018; Kuh et al., 2011; Kuh et al., 2015; Metzler & Kurz, 2018; Ryan & Deci, 2000; Stitt-Bergh et al., 2019), I echo Fuller at al. (2016) and encourage other assessment professionals to consider SDT as a lens through which to view assessment activity on their campus.

**Conclusion**

Despite assessment of student learning being essential work in higher education, a number of institutions have noted faculty could more effectively be using assessment results (Jankowski et al., 2018; Kuh et al., 2015; Metzler & Kurz, 2019; Suskie, 2014). In seeking to apply Self-Determination Theory (SDT) as a theoretical framework to provide context for faculty behavior associated with assessment actions (Fuller et al., 2016; Ryan & Deci, 2000), data were collected via electronic survey of faculty program leaders at a single institution, National Louis University (NLU). This study's research question was:

How does Self-Determination Theory help explain faculty program leaders' use of assessment evidence?

To inform on this research question, mostly quantitative data were collected and analyzed, and qualitative, open-ended questions were asked pertaining to thoughts or comments related to closed-ended question responses.

Results from the study are presented in relation to the following hypotheses:

- $H_1$ – Autonomy is associated with use of assessment evidence

- $H_2$ – Competence is associated with use of assessment evidence.

- $H_3$ – Relatedness is associated with use of assessment evidence.

- $H_4$ – Self-Determination Theory is associated with use of assessment evidence.

Of these hypotheses, a null hypothesis – no association exists – held true for $H_1$, $H_2$, and $H_3$, given significant relationships did not exist for *autonomy*, *competence*, or *relatedness* predictor variables with the *use* outcome variable. The null hypothesis was rejected, however, for $H_4$, where a significant and positive relationship suggested the likelihood that an increase in the

collective SDT (*autonomy*, *competence*, and *relatedness*) would be met with an increase in faculty program leaders use of assessment evidence. Post-hoc analyses with respondent data doubled proved insightful, as multiple analyses in the study resulted in at least double the amount of significant relationships between variables and objects. Such results presented a strong recommendation for future research with a larger sample size.

This study yielded two main implications for further research. First, a larger sample size should be used for quantitative data collection using a similar questionnaire like this study. A larger sample with more respondents could verify if more relationships between variables and objects hold true beyond post-hoc analysis, while also potentially making it possible to generalize results to faculty program leaders beyond a single institution. The second implication is to use qualitative methods for further data collection. The quantitative data helped identify what faculty behavior looked like in relation to use of assessment evidence, but understanding more about how and why faculty behavior manifests, as well as what might be done for betterment, could provide complementary information to the quantitative results or prove novel results unto themselves.

Results from this study will be used to make changes to assessment practices at NLU with the goal of better meeting faculty program leader needs, which should result in more use of assessment evidence. Further analysis will be conducted to expand on this study's results for NLU and beyond. The underlying goal of this research was to better understand faculty approaches and engagement with assessment in order to make it more likely to intervene for betterment of faculty experience and assessment culture. With results in hand and implications for action outlined, actions can be executed in hopes of achieving that goal.

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Appendix A

NLU Academic Programs by College

**The College of Professional Studies and Advancement (CPSA)**

B.A. in Applied Behavioral Sciences

B.S. in Health Care Leadership

B.S. in Management

Ed.D. in Higher Education Leadership

Ed.S. in Applied Behavior Analysis

M.A. in Psychology

Master of Business Administration (MBA)

Master of Health Services Administration (MHA)

Master of Public Administration (MPA)

M.S. in Applied Behavior Analysis

M.S. in Counseling (School or Clinical Mental Health Counseling)

M.S. in Industrial and Organizational Psychology

M.S. in Human Resource Management and Development

M.S. in Human Services Management

M.S. in Written Communication

Ph.D. in Community Psychology

**The Kendall College of Culinary Arts and Hospitality Management (Kendall)**

A.A. Culinary

B.A. Culinary

B.A. Hospitality Management

**The National College of Education (NCE)**

Early Childhood Education, MAT

Early Childhood Administration, M.Ed., MAT

Elementary Education, MAT

Middle Grades Education, MAT

Secondary Education, MAT

Special Education, M.Ed, MAT

General Special Education, M.Ed

Administration and Supervision, M.Ed, Ed.S

Curriculum Advocacy, and Policy, Ed.D, Ed.S

Curriculum and Instruction with Advanced Professional Specializations, M.Ed, Ed.S

Educational Leadership, Ed.D

Learning Sciences Education, M.Ed, Ed.S

Mathematics Education, M.Ed

Postsecondary Teaching and Instructional Leadership, Ed.S

Reading and Language, M.Ed

Reading, Language and Literacy, Ed.D, Ed.S

School Psychology, Ed.D, Ed.S

Teacher Leadership, M.Ed, Ed.S

Teaching, Learning and Assessment, M.Ed

**The Undergraduate College (UGC)**

B.A. in Applied Communications

B.A. in Business Administration

B.S. in Computer Science and Information Systems

B.A. in Criminal Justice

B.A. Early Childhood Education

B.A. Early Childhood Practice

B.A. Elementary Education

B.A. in Human Services

B.A. in Psychology

Appendix B

NLU Assessment and Needs Questionnaire Spring 2018

**To what extent do you agree with the following statements?**

| Statements | Strongly disagree | Disagree | Somewhat disagree | Somewhat Agree | Agree | Strongly agree |
|---|---|---|---|---|---|---|
| I know how to use assessment technology that is currently available to me (e.g., LiveText, Survey Gizmo, SPSS) | 0% | 9% | 22% | 39% | 13% | 17% |
| I feel supported with respect to completing assessment work | 4% | 4% | 0% | 35% | 22% | 35% |
| I know who to contact when I have assessment-related questions | 0% | 13% | 0% | 13% | 13% | 61% |

**Which elements would your area like to improve or advance for assessment?**

| Element | Percent of total responses |
|---|---|
| Assessment planning | 11% |
| Learning outcome articulation | 13% |
| Curriculum mapping/alignment | 15% |

| | |
|---|---|
| Setting targets/success standards | 11% |
| Instrument/method selection or creation | 8% |
| Analysis/reporting | 11% |
| Taking actions with results | 13% |
| Sharing of results | 18% |

**What is the urgency of the requested elements for assessment improvement?**

| Element | Urgency scores totaled and compared as percent of total responses |
|---|---|
| Assessment planning | 14% |
| Learning outcome articulation | 1% |
| Curriculum mapping/alignment | 9% |
| Setting targets/success standards | 18% |
| Instrument/method selection or creation | 6% |
| Analysis/reporting | 6% |
| Taking actions with results | 29% |
| Sharing of results | 19% |

**If you were to participate in professional development, training, or receive support, who would you like to have invited? Select top 2 options.**

| Response options | Percent of total responses |
|---|---|
| Just my area (e.g., office, department, program) leadership | 33% |
| Open to all faculty/staff in our area | 58% |
| Open to all faculty/staff from within our college/division | 25% |
| Open to all faculty/staff from across NLU | 33% |

Appendix C

Descriptive Statistics for SDT Questions in Stupnisky et al. (2018) Study

| Basic Needs Variable | Range | Mean | Standard Deviation | Skewness | Kurtosis | Cronbach's Reliability |
|---|---|---|---|---|---|---|
| Autonomy | 15-60 | 50.01 | 9.78 | -0.83 | 0.07 | 0.76 |
| Competence | 20-60 | 53.22 | 8.54 | -1.15 | 0.58 | 0.81 |
| Relatedness | 0-60 | 46.25 | 12.56 | -0.62 | -0.40 | 0.87 |

*Note*: All measures were transformed from a 1-4 scale to a 0-60 scale.

Appendix D

Consent Information and Questionnaire Content

The purpose of this research project is to provide context for faculty program leaders' behavior associated with assessment actions. This is a research project being conducted by the Higher Education Leadership program at National Louis University (NLU) on behalf of doctoral candidate, Joseph Levy. Because Joseph serves as the Executive Director of Assessment and Accreditation at NLU, the Higher Education Leadership program sending the instrument – in addition to data confidentiality and anonymity measures described below – is a measure to reduce risk and further separate academic and professional interests.

You are invited to participate in this research project because you are a faculty program leader at National Louis University, the home site of the study. Your participation in this research study is voluntary. You may choose not to participate. If you decide to participate in this research survey, you may withdraw at any time. Whether or not you decide to participate in this study or if you withdraw from participating at any time, you will not be penalized.

The procedure involves responding to an online survey that will take approximately seven minutes. Your responses will be confidential and anonymous, as no identifying information such as your name, email address, or IP address will be collected. The survey questions are organized in three sections: needs-related questions associated with assessment, extent assessment results are used for particular purposes, and demographic questions for institutional culture context.

Best efforts will be taken to keep your information anonymous and confidential. All data are stored in a password-protected, electronic format. To help protect your confidentiality and anonymity, the surveys will not contain information that could personally identify you. The results of this study will be used for scholarly purposes, as well as shared with National Louis University leadership to support the campus culture for faculty program leaders. Given anonymity and confidentiality, along with the potential for results to be used to improve resources and support for faculty program leaders, your honesty and candor in responses is appreciated.

Upon request you may receive summary results from this study and copies of any publications that may occur. To request results from the study, please email the researcher, Joseph D. Levy, at jlevy2@nl.edu.

In the event that you have questions or require additional information, please contact the researcher, Joseph D. Levy, at jlevy2@nl.edu or (312) 261-3358.  Also, if you have any concerns or questions before or during participation that have not been addressed by the researcher, you may contact the chair of NLU's Institutional Research Review Board:  Shaunti Knauth; email: shaunti.knauth@nl.edu; 312-261-3526. The Institutional Research Review Board is located at National Louis University, 122 South Michigan Avenue, Chicago, IL.

**ELECTRONIC CONSENT: I understand that by electronically signing and clicking on the "agree" button below, I am agreeing to participate in this study. My participation will consist of the activities below:**
- **Voluntary completion of one survey taking approximately eight minutes to complete**

**I understand that if I do not wish to participate in the research study, I can decline participation by clicking on the "disagree" button.**

**Please select your choice:**
> **Agree**
> **Disagree**

Which best describes how often you feel the following?
> Very much
> Quite a bit
> Some
> Not at all

1. I have a sense of freedom to make my own choices in using assessment evidence.
2. My decisions related to use of assessment evidence reflect what I really want.
3. My choices related to using assessment evidence express who I really am as a faculty program leader.
4. I do what really interests me when using assessment evidence.
5. I have confidence in my ability to do things well when using assessment evidence.
6. I am capable of using assessment evidence.
7. I can completely achieve my goals related to using assessment evidence.
8. I can successfully complete difficult tasks associated with using assessment evidence.
9. The assessment-associated people I care about (faculty, staff, etc.) also care about me.
10. I am supported by the assessment-associated people I care about (faculty, staff, etc.).
11. I am close with the assessment-associated people important to me (faculty, staff, etc.).
12. I experience positive feelings with the assessment-associated people with whom I spend time (faculty, staff, etc.).

13. Do you have any thoughts or comments related to your above responses?
    a. Yes (please explain)
    b. No

To what extent are student learning assessment results used for the following?
> Very much
> Quite a bit
> Some
> Not at all

14. Program accreditation

15. Communicating educational effectiveness to external entities (prospective students, governing boards, alumni, etc.)
16. External accountability reporting requirements
17. Institutional benchmarking
18. Strategic planning
19. Program review
20. Learning outcomes revision
21. Supporting achievement of equity goals
22. Development of assessment measures/approaches
23. Curriculum modification
24. Co-curricular improvement
25. Institutional improvement
26. Program improvement
27. Academic policy development or modification
28. Professional development for faculty and staff
29. Resource allocation and budgeting

30. Do you have any thoughts or comments related to your above responses?
    a. Yes (please explain)
    b. No

31. Which best describes the degree level with which you primarily serve?
    a. Undergraduate
    b. Graduate – Masters
    c. Graduate – Doctoral
32. Does your program have specialized or programmatic accreditation?
    a. Yes
    b. No
33. How long have you been employed at NLU?
    a. Less than 1 year
    b. 1-2 years
    c. 3-4 years
    d. 5 years or more
34. How long have you been in your current role at NLU?
    a. Less than 1 year
    b. 1-2 years
    c. 3-4 years
    d. 5 years or more

Appendix E

NILOA Provost Survey (Jankowski et al., 2018)

# National Institute for Learning Outcomes Assessment (NILOA)

## Provost Survey 2017

Gathering and using evidence about what students know and can do as a result of their college education is an important responsibility of virtually every chief academic officer. To understand more about how this responsibility is carried out, the National Institute for Learning Outcomes Assessment (NILOA) is again asking senior academic officers at every accredited two- and four-year college and university in the United States to share some basic information about **undergraduate assessment** practices on their campus.

Please take a few moments to tell us about the approaches and tools your institution is using. Results from the survey will inform efforts for all institutions, and we will provide you with a copy of the results prior to public release. We thank you in advance for your help.

*Student learning outcomes include general and specialized knowledge,*
*skills, abilities, dispositions, and values associated with a program of study.*

1.  Has your **institution** adopted or developed an explicit set of student learning outcomes common to **all undergraduates** across all majors?      ☐ Yes      ☐ No

2.  Mark the statement below that **best describes** the extent to which your departments/schools/programs have intended learning outcomes that <u>**are aligned**</u> with **institutional** learning outcomes.

    ☐ ALL departments/schools/programs have defined learning outcomes that ALIGN with institutional learning outcomes.

    ☐ SOME departments/schools/programs have defined learning outcomes that ALIGN with institutional learning outcomes.

    ☐ ALL departments/schools/programs have defined field-specific learning outcomes, but they are NOT ALIGNED with institutional learning outcomes.

    ☐ SOME departments/schools/programs have defined learning outcomes, but they are NOT ALIGNED with institutional learning outcomes.

    ☐ Individual departments/schools/programs DO NOT specify learning outcomes.

3.  What assessment approaches are used **at the institution level** (as contrasted with specific departments or units) to assess or represent undergraduate student learning? *By institution level we mean approaches used across the entire institution or with valid samples to represent the whole institution. Mark all that apply.*

    ☐ Incoming student placement exams (ACCUPLACER, COMPASS, PARCC, Smarter Balanced, locally developed exams)

    ☐ National student surveys (NSSE, CCSSE, UCUES, CIRP, etc.)

    ☐ Locally developed surveys

    ☐ General knowledge and skills measures (CLA+, ETS-HEIghten, ACT CAAP, ETS Proficiency Profile, etc.)

    ☐ Locally developed knowledge and skills measures

    ☐ Portfolios or eportfolios (a purposeful collection of student work showcasing achievement of learning outcomes)

    ☐ Classroom-based performance assessments such as simulations, comprehensive exams, critiques, assignments, etc.

    ☐ Capstone projects (including senior theses), courses, or experiences

    ☐ Rubrics (published or locally-developed used in conjunction with other approaches, including capstones, portfolios, and classroom-based assessments)

    ☐ Externally situated performance assessments such as internships or other community-based projects

    ☐ Alumni surveys, focus groups, or interviews

    ☐ Employer surveys, focus groups, or interviews

    ☐ Other (specify: _____ )

4.  Of the assessment approaches your institution uses, please list in rank order up to THREE that are **most valuable for improving** student learning (with 1 being most important).

    1. _____    2. _____    3. _____

5. What would be **especially helpful** to your institution as you assess undergraduate student learning?
   *Mark up to three of the following.*

   ☐ More professional development for faculty and staff

   ☐ Greater institutional assessment staff capacity

   ☐ Increased student participation in assessment activities

   ☐ More faculty involved in assessing student learning

   ☐ More faculty using the results of student learning assessment

   ☐ More student affairs staff involved in assessing student learning

   ☐ More student affairs staff using the results of student learning assessment

   ☐ Stronger administrative and leadership support

   ☐ Stronger governing board support

   ☐ Other (specify: _____ )

   ☐ Additional financial or staff resources

   ☐ Technologies and analytics that aggregate assessment results at various levels to represent overall institutional performance

   ☐ Greater sharing and access to assessment results across units and levels of the institution

   ☐ More valid and reliable assessment measures

   ☐ External funding (federal, state, or foundation grants)

   ☐ More opportunities to collaborate with other institutions

   ☐ Information on best practice approaches

6. To what extent do the following **support your assessment activities**?
   *Mark one response for each item.*

| | Very Much | Quite a Bit | Some | Not at All | N/A or Don't have one |
|---|---|---|---|---|---|
| a. Institutional policies/statements related to assessing undergraduate learning | ☐ | ☐ | ☐ | ☐ | ☐ |
| b. Assessment committee | ☐ | ☐ | ☐ | ☐ | ☐ |
| c. Institutional research office and personnel | ☐ | ☐ | ☐ | ☐ | ☐ |
| d. Professional staff dedicated to assessment | ☐ | ☐ | ☐ | ☐ | ☐ |
| e. Professional development opportunities for faculty and staff | ☐ | ☐ | ☐ | ☐ | ☐ |
| f. Center for teaching and learning | ☐ | ☐ | ☐ | ☐ | ☐ |
| g. Active involvement of significant numbers of faculty in assessment | ☐ | ☐ | ☐ | ☐ | ☐ |
| h. Active involvement of student affairs staff in assessment | ☐ | ☐ | ☐ | ☐ | ☐ |
| i. Active involvement of students in assessment activities | ☐ | ☐ | ☐ | ☐ | ☐ |
| j. Funds targeted for outcomes assessment | ☐ | ☐ | ☐ | ☐ | ☐ |
| k. Assessment management system or software (e.g. Taskstream, Tk20, Livetext, or home-grown) | ☐ | ☐ | ☐ | ☐ | ☐ |
| l. Recognition and/or reward for faculty and staff involvement in assessment activities | ☐ | ☐ | ☐ | ☐ | ☐ |
| m. Leadership from President/CEO or Provost | ☐ | ☐ | ☐ | ☐ | ☐ |
| n. Other (specify: _____ ) | ☐ | ☐ | ☐ | ☐ | ☐ |

7. To what extent are the following **publicly available** (such as on the institution website, in publications, or in press releases)? *Mark one response for each item.*

| | Very Much | Quite a Bit | Some | Not at All |
|---|---|---|---|---|
| a. Student learning outcomes statements | ☐ | ☐ | ☐ | ☐ |
| b. Assessment plans | ☐ | ☐ | ☐ | ☐ |
| c. Assessment resources | ☐ | ☐ | ☐ | ☐ |
| d. Current assessment activities | ☐ | ☐ | ☐ | ☐ |
| e. Assessment results (evidence of student learning) | ☐ | ☐ | ☐ | ☐ |
| f. Examples of changes made based on evidence of student learning | ☐ | ☐ | ☐ | ☐ |
| g. Evidence that student learning has actually improved | ☐ | ☐ | ☐ | ☐ |

8. To what extent are student learning assessment results **used** for the following? *Mark one response for each item.*

| | Very Much | Quite a Bit | Some | Not at All | N/A |
|---|---|---|---|---|---|
| a. Regional accreditation | ☐ | ☐ | ☐ | ☐ | ☐ |
| b. Program accreditation | ☐ | ☐ | ☐ | ☐ | ☐ |
| c. Communicating educational effectiveness to external entities (prospective students, governing boards, alumni, etc.) | ☐ | ☐ | ☐ | ☐ | ☐ |
| d. External accountability reporting requirements | ☐ | ☐ | ☐ | ☐ | ☐ |
| e. Institutional benchmarking | ☐ | ☐ | ☐ | ☐ | ☐ |
| f. Strategic planning | ☐ | ☐ | ☐ | ☐ | ☐ |
| g. Program review | ☐ | ☐ | ☐ | ☐ | ☐ |
| h. Trustee/Governing Board deliberations | ☐ | ☐ | ☐ | ☐ | ☐ |
| i. Learning outcomes revision | ☐ | ☐ | ☐ | ☐ | ☐ |
| j. Supporting achievement of equity goals | ☐ | ☐ | ☐ | ☐ | ☐ |
| k. Development of assessment measures or approaches | ☐ | ☐ | ☐ | ☐ | ☐ |
| l. Curriculum modification | ☐ | ☐ | ☐ | ☐ | ☐ |
| m. Co-curricular improvement | ☐ | ☐ | ☐ | ☐ | ☐ |
| n. Institutional improvement | ☐ | ☐ | ☐ | ☐ | ☐ |
| o. Program improvement | ☐ | ☐ | ☐ | ☐ | ☐ |
| p. Academic policy development or modification | ☐ | ☐ | ☐ | ☐ | ☐ |
| q. Professional development for faculty and staff | ☐ | ☐ | ☐ | ☐ | ☐ |
| r. Resource allocation and budgeting | ☐ | ☐ | ☐ | ☐ | ☐ |
| s. Other (specify: _____ ) | ☐ | ☐ | ☐ | ☐ | ☐ |

9. How **important** are the following **factors or forces** in prompting your institution **to assess** undergraduate student learning outcomes? *Mark one response for each item.*

| | High Importance | Moderate Importance | Minor Importance | No Importance |
|---|---|---|---|---|
| a. Faculty or staff interest in improving student learning | ☐ | ☐ | ☐ | ☐ |
| b. Institutional commitment to improve | ☐ | ☐ | ☐ | ☐ |
| c. Concerns about equity and supporting achievement for all students | ☐ | ☐ | ☐ | ☐ |
| d. President and/or institutional governing board direction or mandate | ☐ | ☐ | ☐ | ☐ |
| e. Statewide governing or coordinating board mandate | ☐ | ☐ | ☐ | ☐ |
| f. State mandate | ☐ | ☐ | ☐ | ☐ |
| g. Regional accreditation | ☐ | ☐ | ☐ | ☐ |
| h. Program accreditation | ☐ | ☐ | ☐ | ☐ |
| i. Participation in a consortium or multi-institution collaboration | ☐ | ☐ | ☐ | ☐ |
| j. External funding (federal, state, or foundation grants) | ☐ | ☐ | ☐ | ☐ |
| k. National calls for accountability and/or transparency | ☐ | ☐ | ☐ | ☐ |
| l. Institutional membership initiatives (e.g., VSA, U-CAN, AAUDE, VFA) | ☐ | ☐ | ☐ | ☐ |
| m. Other (specify: _____ ) | ☐ | ☐ | ☐ | ☐ |

10. To what extent have you made **changes** in policies, programs or practices **informed by assessment results** for each of the following? *Mark one response for each item.*

| | Very Much | Quite a Bit | Some | Not at All |
|---|---|---|---|---|
| a. At the institution level | ☐ | ☐ | ☐ | ☐ |
| b. At the school/college level | ☐ | ☐ | ☐ | ☐ |
| c. At the department/program level | ☐ | ☐ | ☐ | ☐ |
| d. In specific curricular requirements or courses | ☐ | ☐ | ☐ | ☐ |
| e. In the co-curriculum | ☐ | ☐ | ☐ | ☐ |

11. Please describe an example of a change in policies, programs or practice informed by assessment results?

```
[                                                                    ]
[                                                                    ]
[                                                                    ]
```

12. What evidence should colleges and universities make available to demonstrate transparency and public calls for greater accountability?

```
[                                                                    ]
[                                                                    ]
[                                                                    ]
```

13. With what **issues or topics** regarding improving student learning does your campus need assistance?

```
[                                                                    ]
[                                                                    ]
[                                                                    ]
```

14. In which of the following is your institution **currently** involved? *Mark all that apply.*

☐ Revising general education
☐ Developing or implementing pathways to completion
☐ Using Liberal Education and America's Promise (LEAP) Essential Learning Outcomes
☐ Developing competency-based programs
☐ Using the Degree Qualifications Profile (DQP)
☐ Participating in Tuning
☐ Participating in Achieving the Dream (ATD)
☐ Participating in state-wide completion initiatives (Complete College America)

☐ Participating in the Multi-State Collaborative
☐ Using VALUE rubrics
☐ Facilitating faculty work on the design of assignments
☐ Mapping curriculum
☐ Developing comprehensive student records (e.g. co-curricular transcripts)
☐ Using the Beta Credential Framework
☐ Increasing quality or scaling-up High-Impact Practices (HIPs) (service-learning, undergraduate research, capstone, etc.)
☐ Other (specify: _____ )

Please enter the name, title, and e-mail of the person who completed this questionnaire.

Name: _____    Title: _____

E-mail: _____

General Comments: _____

15. May we **contact you** to obtain additional information about what your institution is doing in terms of student learning outcomes assessment?      ☐ Yes    ☐ No

## Thank you for your help!

After completing the survey, please put it in the enclosed postage-paid envelope and deposit it in any U.S. Postal Service mailbox. You can find out more about NILOA at www.LearningOutcomesAssessment.org. Copyright © 2017 Indiana University.

CASEID

Appendix F

Full Text of Study Invitation Emails

**Pre-Invitation Announcement (from the colleges)**
Hello!

On behalf of doctoral candidate, Joseph Levy, you will soon receive an email invitation from the Higher Education Leadership program to participate in a research project. The purpose of this research is to provide context for faculty program leaders' behavior associated with assessment actions. Exploring such behavior can provide insight into identifying aspects of assessment support and processes to address for betterment, as well as positive aspects worth recognizing/celebrating. The more NLU knows about the needs and behaviors of faculty, the more likely faculty are to see beneficial byproducts in assessment and beyond.

Your participation in this research study is voluntary. We invite you to respond to the online survey, which should take no more than five minutes. Your responses will be confidential and anonymous, as no identifying information (i.e., name, email address, IP address) will be collected. Because your responses may lead to improved resources and support for faculty program leaders, your honesty and candor is appreciated.

Be on the lookout for the participation invitation to be emailed to you within one week.

Thank you for your consideration,
Higher Education Leadership program

**Initial Study Invitation**
Hello [Name],

The Higher Education Leadership program is inviting you, as a faculty program leader at National Louis University (NLU), to participate in a research project to provide context for faculty program leaders' behavior associated with assessment actions. Your participation in this research study is voluntary, and you may withdraw at any time without any penalty.

We invite you to respond to this online survey, which should take no more than five minutes. Your responses will be confidential and anonymous, as no identifying information such as your name, email address, or IP address will be collected. The results of this study will be used for scholarly purposes, as well as shared with NLU leadership to support the campus culture for faculty program leaders. Because your responses may lead to improved resources and support for faculty program leaders, your honesty and candor is appreciated.

If you have any questions about the research study, please contact Joseph Levy (jlevy2@nl.edu). This research has been reviewed according to National Louis University's Institutional Research

Review Board (IRRB) procedures for research involving human subjects.

Thank you for your consideration,
      Higher Education Leadership program


**First Reminder**
Hello [Name],

You were invited to participate in a research project to provide context for faculty program leaders' behavior associated with assessment actions. Your participation in this research study is voluntary, and you may withdraw at any time without any penalty.

Your responses will be confidential and anonymous, as no identifying information such as your name, email address, or IP address will be collected. The results of this study will be used for scholarly purposes, as well as shared with National Louis University leadership to support the campus culture for faculty program leaders. Because your responses may lead to improved resources and support for faculty program leaders, your honesty and candor is appreciated.

We invite you to respond to this online survey, which should take no more than five minutes. If you have any questions about the research study, please contact Joseph Levy (jlevy2@nl.edu).

Thank you for your consideration,
      Higher Education Leadership program


**Final Reminder**
Hello [Name],

This email serves as a final reminder of your invitation to participate in a research project to provide context for faculty program leaders' behavior associated with assessment actions. Your participation in this research study is voluntary, and you may withdraw at any time without any penalty.

Your responses will be confidential and anonymous, as no identifying information such as your name, email address, or IP address will be collected. The results of this study will be used for scholarly purposes, as well as shared with National Louis University leadership to support the campus culture for faculty program leaders. Because your responses may lead to improved resources and support for faculty program leaders, your honesty and candor is appreciated.

We invite you to respond to this online survey, which should take no more than five minutes. If you have any questions about the research study, please contact Joseph Levy (jlevy2@nl.edu).

Thank you for your consideration,
      Higher Education Leadership program

Appendix G

Construct Table (Jimenez, 2019)

| Construct Defined | Operationalization/Definition | Subscales/Subareas | Measurement Tool & Questions |
|---|---|---|---|
| **Self-Determination Theory (SDT)** | SDT is a theoretical framework to understand motivation through the consideration of three basic needs being met: competence, relatedness, and autonomy.<br><br>For purposes of this study, the framework is not just to understand any person's motivation, but to understand the motivation of faculty program leaders in relation to use of assessment evidence. | **Autonomy** subarea made up of four questions<br><br>**Competence** subarea made up of four questions<br><br>**Relatedness** subarea made up of four questions | (Content adapted from Stupnisky et al., 2018)<br><br>Which best describes how often you feel the following?<br>    Very much (4)<br>    Quite a bit (3)<br>    Some (2)<br>    Not at all (1)<br><br>**[Autonomy]**<br>1. I have a sense of freedom to make my own choices in using assessment evidence.<br>2. My decisions related to use of assessment evidence reflect what I really want.<br>3. My choices related to using assessment evidence express who I really am as a faculty program leader.<br>4. I do what really interests me when using assessment evidence.<br>**[Competence]**<br>5. I have confidence in my ability to do things well when using assessment evidence.<br>6. I am capable at using assessment evidence.<br>7. I can completely achieve my goals related to using assessment evidence.<br>8. I can successfully complete difficult tasks associated with using assessment evidence.<br>**[Relatedness]**<br>9. The people associated with assessment whom I care about |

(students, colleagues, etc.) also care about me.
10. I am supported by the people associated with assessment whom I care about (students, colleagues, etc.).
11. I am close with people associated with assessment who are important to me (students, colleagues, etc.).
12. I experience warm feelings with the people associated with assessment with whom I spend time (students, colleagues, etc.).

Responses will be converted to numeric values, where 4 = Very much and 1 = Not at all. The batched question responses will be summed to create each predictor (independent) variable of autonomy, competence, and relatedness (e.g., Q1-4 responses totaled for an *autonomy* variable score). See mock data below for *autonomy*, where this would repeat for competence and relatedness.

| Respondent | Q1(A1) | Q2 (A2) | Q3 (A3) | Q4 (A4) | Autonomy |
|---|---|---|---|---|---|
| 1 | 4 | 4 | 4 | 3 | 15 |
| 2 | 3 | 4 | 3 | 3 | 13 |
| 3 | 2 | 3 | 2 | 2 | 9 |

Analysis will include correlation between each predictor variable with the outcome variable(s).

These three predictor variables (autonomy, competence, relatedness) and their data will eventually be used for regressions with outcome variable(s).

The overall sum of these three predictor variables will form the SDT predictor variable, also to be correlated and regressed.

| Use of assessment evidence | *Evidence* of student learning consists of indirect or direct measures and performance indicators whose data are analyzed, interpreted for a lay person, and contextualized in relation to the institution and to student learning.<br><br>*Use* is leveraging student learning evidence to make specific changes in policies, practices, and procedures to enable improvement through data-informed decision making. | | (Content adapted from Jankowski et al., 2018)<br><br>To what extent are student learning assessment results used for the following?<br>    Very much (4)<br>    Quite a bit (3)<br>    Some (2)<br>    Not at all (1)<br><br>13. Program accreditation<br>14. Communicating educational effectiveness to external entities (prospective students, governing boards, alumni, etc.)<br>15. External accountability reporting requirements<br>16. Institutional benchmarking<br>17. Strategic planning<br>18. Program review<br>19. Learning outcomes revision<br>20. Supporting achievement of equity goals<br>21. Development of assessment measures/approaches<br>22. Curriculum modification<br>23. Co-curricular improvement<br>24. Institutional improvement<br>25. Program improvement<br>26. Academic policy development or modification<br>27. Professional development for faculty and staff<br>28. Resource allocation and budgeting<br><br>In adapting the instrument, three elements from the original item were removed due to inapplicability to NLU programs: regional |

| | | | accreditation, trustee/governing board deliberations, other. |
|---|---|---|---|
| | | | Responses for each subscale question will be converted to numeric values, where 4 = Very much and 1 = Not at all. The subscale question responses will be summed to create one outcome (dependent) variable of *use* (e.g., Q13-28 responses totaled for a *use* variable score). |
| | | | Analysis will look at correlation between each predictor variable and the summed *use* outcome, as well as top/bottom three of the subscale questions as objects (though the latter may not all be reported). |
| | | | The *use* variable will be included in regressions with the predictor variables. |

Appendix H

Questionnaire Qualitative Responses with Sentiment and Coded Theme

**Q13: Do you have any thoughts or comments related to your above responses?**

| Respondent | Response Text | Sentiment | Theme |
|---|---|---|---|
| 6 | It would be helpful to provide some examples of what you mean by "using assessment evidence" | N/A | Instrument critique |
| 14 | there is variation in my relationships with assessment related people. for the most part I do feel positive. | Positive | Explaining response |
| 18 | My perception is that NLU sustains a highly supportive culture of continuous improvement in its progressive use of assessment results toward enhancing program quality. | Positive | Thoughts on NLU assessment culture |
| 20 | Quite a bit and Very much seem too similar. | N/A | Instrument critique |
| 27 | Unsure on the interpretation of - I do what really interests me when using assessment evidence. | N/A | Instrument critique |
| 29 | We have become so data oriented - quantitative type - that I think we are losing some of the personal touch we have long been noted for.  We used to design our own based on the programs, but now so much is mandated that really doesn't relate to what we are doing - the dispositions survey, for example.  Everyone rates himself or herself (binary, I know) as proficient and most of them are, so what is the point? | Negative | Thoughts on NLU assessment culture |

| | | | |
|---|---|---|---|
| 36 | As a faculty, we used to really enjoy the process of designing program assessment studies. But now the [college] process comes across as giving orders to the professionals who teach in the programs. Inexplicably, the process has been used to put people and programs down when it really should be about building programs up. The assessment office is knowledgeable, supportive, and positive, but these good efforts have been overshadowed by a generally negative college-level attitude. | Negative | Thoughts on NLU assessment culture |

**Q30: Do you have any thoughts or comments related to your above responses?**

| Respondent | Response Text | Sentiment | Theme |
|---|---|---|---|
| 1 | This survey really needs a N/A | N/A | Instrument critique |
| 6 | Unclear as to whether the question is to be answered specifically for one programs or multiple programs for faculty that teach or have knowledge of multiple programs. | N/A | Instrument critique |
| 16 | I acknowledge that student learning assessment results may be used for resource allocation and budgeting that I am not aware of. | N/A | Explaining response |
| 25 | there is no NA or I don't know option, and for some of these, "Resource allocation and budgeting" for example, I do not know | N/A | Instrument critique |

| 36 | It has been some time since my program's outcomes assessment results led to resourced follow-up actions. However, this was not always the case, and outcomes assessment has the potential to be very effective and very rewarding when it bears a clear connection to strategy, planning, and curriculum development. | Negative | Explaining response |