



**NORTHWESTERN
UNIVERSITY
TEACHER LEADER PROGRAM**

*Investigating the Possibility of an
Online Model*

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EXECUTIVE SUMMARY

The School of Education and Social Policy at Northwestern University chose to investigate the possibility of moving its Teacher Leader program online in the fall of 2019. The small size of the program and the changing nature of graduate coursework to increasingly online delivery modes served as an impetus for this exploration. The university began experimenting with the hybrid model for a couple of its courses, in an attempt to gather feedback and assess online viability. The onset of Covid-19 in March 2020 moved the curriculum fully online, as it did with many educational platforms across the world. A decision was made to permanently deliver Teacher Leader programming 100% online going forward. This project, initiated prior to the virus, attempted to assess demand for a hybrid or fully online program and to study the programmatic elements that were important for both students and instructors in an online platform. The following research questions directed this study:

1. What demand exists for an online Teacher Leader program?
2. What are the programmatic components and factors that best support the online student learning experience?
3. How does the online format influence the needs of instructors to deliver content effectively and what larger organizational supports must be present to best facilitate the transition?

A mixed method approach was utilized to gather data. A quantitative survey was placed on the Illinois Principal website and was completed by 80 respondents. 14 qualitative interviews were conducted with Northwestern current Teacher Leader students, alumni, and faculty. Data was compiled, coded, and organized into thematic matrices for analysis. The following findings resulted.

Key Findings:

1. What demand exists for an online Teacher Leader program?

Finding #1: There is a documented demand for an online Teacher Leader program.

60% of the quantitative respondents were likely or very likely to choose online learning instead of in-person coursework if they were to pursue further graduate studies. An additional 28% said they would choose online learning depending on the program details. 100% of the qualitative interviewees acknowledged the need for an online platform.

Finding #2: The preferred format of online programming differed between quantitative and qualitative respondents but both groups expressed an interest in a flexible model with a mixed blend of synchronous and asynchronous coursework.

The quantitative survey participants favored a fully online model, and the interviewees chose a hybrid model as the most attractive delivery platform. The majority of both quantitative and qualitative respondents identified flexibility as the reason they would complete online graduate studies. Better work-life balance, less time commuting, and

more efficient time management were the themes identified as most enticing. A mixed blend of synchronous and asynchronous coursework was preferred by both parties.

2. What are the programmatic components and factors that best support the online student learning experience?

Finding #3: Students report the need for connection as one of the most important programmatic elements in the transition to online learning.

Qualitative respondents expressed concern for lost relationships with peers and instructors both inside and outside of the classroom. They lamented that social and collaborative opportunities may be lost in the online format. A rich connection to the larger university may also be compromised as a result of not being present on campus. Quantitative survey respondents thought quality classroom facilitation and adequate preparation by the program were the most important factors for the classroom and student experience, respectively. Connection was less salient.

Finding #4: Student advising, technology supports, and networking assistance were identified as essential for the online platform.

Because the remote platform can be isolating, an advisory system was recognized as an important support that could help prepare students for the Teacher Leader program via orientation measures, clear expectations/communications, and counseling services that could be sustained throughout the program. Technology supports such as devices, one on one assistance, tutorials, and training could also benefit program participants. Finally, provisions for networking could help connect students to university personnel, alumni, and mentors.

3. How does the online format influence the needs of instructors to deliver content effectively and what larger organizational supports must be present to best facilitate the transition?

Finding #5: The online model will change instructional delivery. Instructors should be proficient in online pedagogy, course facilitation and management, learning environment design, and the promotion of social relationships in the online classroom.

Instructional practices previously utilized in in-person programming will need to be adjusted for the online platform. The remote environment poses unique challenges for classroom pedagogy, student engagement, and the cultivation of peer and instructor social relationships. Online learning requires greater instructor presence and support, more student led, collaborative activities, greater use of multimedia tools, and shorter, interactive sessions.

Finding #6: Instructors report a variance of individual needs that the larger university network can help address.

Instructors possess varying degrees of comfort and expertise with online platforms and technologies. A general consensus of training opportunities, one on one technological assistance, collaborative opportunities for curricular development, and departmental guidance for expectations and competencies were deemed important by faculty members

in the transition to fully online programming. These supports can be provided primarily by the Teacher Leader administration, School of Education and Social Policy, and IT department.

Recommendations:

Recommendation 1: Launch a robust, flexible, fully online program based on research and stakeholder input, utilizing multiple platforms for publicity.

Northwestern should fully invest in a fully online model, committing to an iterative design process informed by feedback and focus groups. They should devise an implementation evaluation plan to assess progress toward the program's goals and mission. Maximizing the use of marketing platforms including partnerships with area schools, the education department alumni network, and social media avenues should be explored.

Recommendation 2: Partner with the Illinois State Board of Education to increase program awareness and develop a micro-credentialing pathway to the Teacher Leader endorsement.

Northwestern should partner with the ISBE to promote awareness of the Teacher Leader program among school districts and statewide administrative leaders as an effective means to grow teacher leadership in schools. They should also strive to design a micro-credentialing system to advance teacher leader coursework that would give educators an incremental pathway to pursue leadership roles in districts recognizing the credential.

Recommendation 3: Design intentional and meaningful opportunities for students to connect with and feel supported by peers, faculty, and the larger institution.

Northwestern should offer a comprehensive orientation to new students, pre-program and monthly advisor check-in's, purposeful annual student convenings, collaborative, student led course design, and multiple networking and social events for program participants.

Recommendation 4: Provide sufficient, pedagogical online training and personalized support to professors based on needs and requests.

The Teacher Leader program should solicit individual faculty input on supports deemed necessary. Guidance, expectations, and competencies for the online platform should be created to best guide instructional practices. Partnerships with other university departments offering remote coursework, instructional designers, and IT personnel should be forged to devise readiness modules and resources. Time should be allocated for faculty collaboration, and readily available, targeted training should be provided.

The demand exists for an online Teacher Leader program that has the potential to attract a diverse, talented group of student learners and instructors from all over the country and perhaps the world. If implemented strategically, iteratively, and holistically, Northwestern could provide a rich, meaningful experience for teacher leaders to enhance school achievement, touch student lives, and transform educational leadership for the 21st century.

INTRODUCTION

Northwestern University has embarked on a journey to reflect upon and re-envision its School of Education for the 21st century, a time marked by new pedagogies and technologies, a renewed commitment to equity, and a transformative view of the learner and learning communities as collective, relational entities through which education can occur. Northwestern has always been at the forefront of the changing context of education since its inception, evolving to meet the demands of an increasingly diverse student body and global world. It has continuously strived to offer innovative, culturally responsive instruction to produce enlightened graduates and socially responsible change agents dedicated to improving lives and communities.

The Teacher Leadership program, situated within the larger educational department, is one such program that was primed for reorganization and modernization due to a low enrollment, a more digitalized higher education landscape, and a diminishing national teacher workforce. Now more than ever, there is a demand for great leaders in education. According to the U.S. Department of Education (2017), research has shown that the most important school-based factor impacting a child's academic success is the quality of the classroom teacher, followed closely by the strength of the school leader. Northwestern's Teacher Leader program aims to cultivate gifted educational leaders to help guide students through changing times that have been marked by uncertainty, political discord, civil unrest, and economic hardship. It also hopes to cultivate future school leaders that will strengthen and grow the profession.

Because teacher leadership can be a critical component of effective teaching and school success (Berry et al., 2010), it has been embraced by many districts and teacher preparation programs nationwide. A review of the empirical research on teacher leadership from 2003-2017 found there were positive impacts of teacher leadership on teacher leaders themselves, their colleagues, and some organizational aspects such as learning climate, democracy, and organizational commitment (Nguyen et al., 2019). The findings also suggest some indirect effects and impacts of teacher leadership on student learning (Nguyen et al., 2019; York-Barr & Duke, 2004). Great teachers and teacher leaders can help mitigate difficult times and can help ensure a bright and hopeful future for students everywhere.

Teacher leadership exerts its influence in many ways and through varying contexts. It is not regulated to traditional school administration roles but is found in the classroom, in mentorship and coaching, in learning design and curricular development, and in policy making. Teacher leadership can be both formal and informal, occurring through a variety of positions, roles, and channels of communication in the daily work of schools. York-Barr & Duke (2004) propose seven key dimensions of teacher leader practice including coordination and management, school or district curriculum work, professional development of colleagues, participation in school change, parent and community involvement, contributions to the profession, and pre-service teacher education. Northwestern's Teacher Leader program endeavors to prepare educators for these various challenges of leadership, while advancing

equity and social justice-based environments, engaging with communities, understanding learning and development, and fostering sense-making.

This project will attempt to provide insight and recommendations for restructuring and modernizing the Teacher Leader program. In the fall of 2019, university leadership sought to explore the potential of moving the curriculum to a hybrid or online model to compete with the growing body of online offerings in higher education and to increase accessibility, diversity, and expanse to a larger student audience. A hybrid model was defined as curricular content that was delivered partially in person and partially online. A fully online platform would distribute content entirely in an online setting. The onset of Covid-19 in March 2020 accelerated the transition to fully online programming and ultimately solidified its permanence for the foreseeable future. The project conducted assesses student demand for an online curriculum and documents evidence and justification for movement to an online model. It also offers suggestions for effective program implementation viewed through both the student and instructor lens.

INSTITUTIONAL CONTEXT

Northwestern University was founded in 1851 on the shores of Lake Michigan as a school that would serve the Northwest Territory. The University has grown to include 12 schools and colleges, with additional campuses in Chicago and Doha, Qatar. Northwestern is a prestigious research institution that prides itself on a robust, interdisciplinary culture. It is consistently ranked among the nation's top undergraduate and graduate schools and boasts an award-winning community of scholars, faculty, and alumni. The university employs 3,334 full-time faculty members. The student body consists of approximately 8,000 undergraduate and 13,000 graduate students, with a 9% acceptance rate. Northwestern offered \$207 million in scholarships to students in 2020-21 to help offset tuition rates. 20% of the class of 2024 received Pell Grants and 64% of undergraduates receive financial aid. Northwestern is committed to excellent teaching, innovative research, and the personal and intellectual growth of its students in a diverse academic community (Northwestern University, 2021).

The Teacher Leadership Program:

Northwestern's Teacher Leader program, which employs eighteen faculty members, is nestled inside the larger School of Education and Social Policy, otherwise known as SESP. SESP is consistently ranked among the top ten graduate education programs in the U.S. The School of Education was originally founded to enhance school-based learning and facilitate traditional teacher training. Over the course of time, the department has evolved, as education has, to include offerings in elementary and secondary teaching, Learning Sciences, Human Development in Context, Learning and Organizational Change, Social Policy, Higher Education Administration and Policy, and Applied Economics and Social and Economic Policy. SESP is devoted to making lives better across individuals, families, organizations, and communities. It encourages its students and faculty to adopt an interdisciplinary lens to study the interconnectedness of educational systems.

The Teacher Leader program offers a unique opportunity for educators and those interested in the education, policy, and non-profit sector to earn either a master's degree or Teacher Leader certification recognized by several states across the country including Illinois. This niche offering allows students to serve as credentialed leaders in their respective roles and schools without pursuing an administrative degree. Northwestern was one of the first institutions in Illinois to offer the Teacher Leader endorsement. Having completed the 12-course program including a core sequence, an elective, and a practicum, students may pursue roles in instructional coaching and course design, curriculum development, and social policy. Most students complete the program in two years, but the curriculum allows great flexibility for working professionals to balance professional obligations, personal responsibilities, and coursework. The program's mission is to create a community of teacher scholars who transform learning for all students by advancing equity and justice-oriented teaching, supporting

subject/disciplinary sense-making, and learning in and from community (Northwestern School of Education and Social Policy Teacher Education Program, 2020).

Students may also engage with the Teacher Leader program through a continuum of professional learning options, accessing development in a multitude of ways. The program offers micro-credentials - workshops, short courses, and summer institute options for educators who might want to further professional development without embarking on a full master’s degree or Teacher Leader certification. Credit-bearing courses can be completed individually or in a strand of four or more courses to earn a “Certificate of Advanced Study in Teacher Leadership.” Past certificate strands have been issued in the areas of Instructional Coaching, Computational Thinking, Next Generation Science Teaching, and Social and Emotional Learning. The degree courses in Teacher Leadership align with the Teacher Leader Model Standards adopted by most major educational organizations including the NEA, ETS, and National Board. The program hopes to expand consulting and research to schools, increase monthly webinars, and use its new online platform to extend its outreach to a larger student audience.

Definition of Problem:

Enrollment in Northwestern’s SESP education program has been steadily declining in recent years, a trend seen across all the Big Ten education schools. The Teacher Leader program, launched in 2011-12, has only had a fall enrollment hovering between 8-16 students annually. In the larger United States, teacher education enrollments dropped 35% between 2009 and 2014 (Berry & Shields, 2017). Coupled with the challenges imposed by Covid-19, the fact that nearly one-third of the teaching force is at or over the age of 50 years (Taie & Goldring, 2017), and an 8% annual attrition rate (17% among new teachers) (Gray & Taie, 2015), the future of education in this country and the outlook for educational programming at Northwestern is at risk.

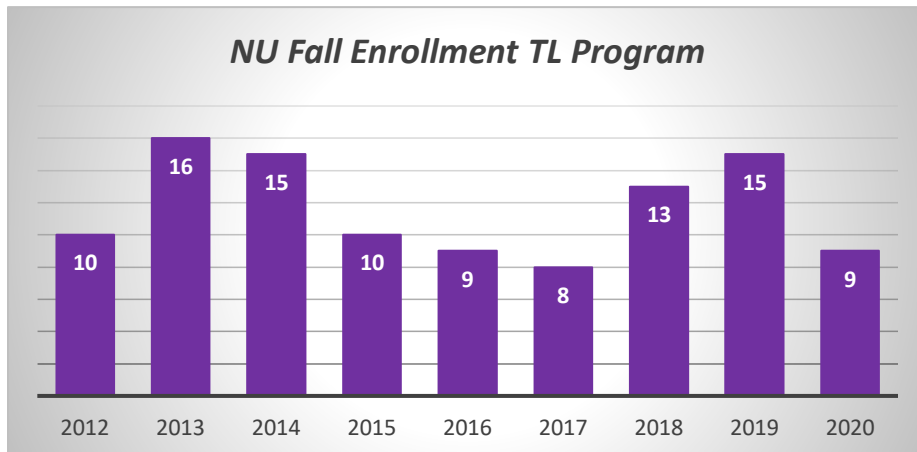


Figure 1. Northwestern University Fall Enrollment Numbers 2012-2020.

Complicating matters is the changing landscape of higher education toward more online programming. “The ubiquity of information technology and communication has significantly reshaped the structure of learning of higher education” (Albrahim, 2020, p. 9). These changes represent challenges that may burden universities and their staffs to keep pace with the innovative paradigms of higher education, new approaches to research and accreditation, and new methods of teaching and learning (Siemens & Matheos, 2010). It was estimated in 2018 that about 15% of the market share of universities around the world belonged to online education (Burquel and Busch, 2020). The Covid-19 crisis has sped up the move towards the online environment, on an “untested and unprecedented scale” (Burgess & Sievertsen, 2020). Post-Covid-19, there may be an increasing demand for students to further their studies remotely, as many have grown accustomed to and have even embraced the benefits of the new platform.

Northwestern began restructuring its education administration in 2019 with the intent to build, strengthen, and diversify its Teacher Leader program. Throughout the program’s short history, changes have been made to entice a larger student body and to evolve with the changing climate of education. These changes have included offering greater flexibility in course selection, more summer programming options, alternate pathways for certifications, and more workshop/consulting partnerships with local schools. Despite many positive changes, there is still a heightened awareness of the program’s fragility based on size and a social-political climate ripe for greater student and faculty diversification. A strategic plan was developed to expand offerings online through the Ed Studies and Teacher Leader programs to better compete with an increasing online market. The administration believed that piloting hybrid or fully online Teacher Leader programming could increase matriculation numbers and revenue accordingly.

The onset of the virus in March 2020 changed the course of Northwestern’s Teacher Leader plan and this investigative capstone significantly. Like all educational coursework, programming was forced online rather abruptly without the luxury of careful planning, gentle experimentation, and gradual implementation. As a result, the university has made the decision to pursue a fully online Teacher Leader curriculum beginning in Fall 2021. This capstone reflects SESP’s initial exploration of a potential hybrid or online Teacher Leader model. Though a decision has been made for future direction, the project will still help inform appropriate design and implementation for coming semesters.

The virus and the changing dynamic of higher education has provided Northwestern a timely impetus to thoughtfully reengineer a niche program that could command a large online market share of the Teacher Leader landscape. Maintaining the longevity and growth of the program, serving a population of educators without direct access to on campus coursework, and evolving to meet the changing needs of twenty first century students are the major goals of this strategic initiative.

LITERATURE REVIEW

The literature review compiled for this project encompasses two separate genres – teacher leadership and online learning in higher education. To better frame this project, teacher leadership needs to be appropriately defined. The largely seminal literature analysis to explore the teacher leader discipline was conducted by York-Barr and Duke in 2004. They defined teacher leadership as, “the process by which teachers, individually or collectively, influence their colleagues, principals, and other members of school communities to improve teaching and learning practices with the aim of increased student learning and achievement” (p. 26). Wenner and Campbell followed with their own review in 2017, studying the emerging forces potentially pressing on the ecology of teacher leadership including accountability measures. They defined a teacher leader as focused on roles beyond the classroom, supporting the professional learning of peers, influencing policy/decision making, and ultimately targeting student learning. Though definitions in the research may greatly vary, positive educational outcomes at the individual, group, school, and student level are documented. They include positive impacts on teacher leaders’ competences and psychological dispositions (Nguyen et al., 2019; York-Barr & Duke, 2004) peer relationships (Hofstein et al., 2004), and the recruitment, motivation, and rewarding of accomplished teachers (Khan & Malik, 2013). Finally, teacher leaders can play a central role of meeting the needs of students in schools (Wenner & Campbell, 2017).

As teacher leader opportunities in the K-12 space has gained popularity and has been incorporated into school support, leadership, and even evaluative measures, higher education programs have increased their teacher leadership programming correspondingly. Each curriculum is different but may involve any combination of coursework including instructional coaching, mentoring, effective leadership practices, evaluation and assessment, policymaking, and equity/cultural understanding. The partners in the Teacher Leadership Initiative, comprised of the National Education Association, the National Board for Professional Teaching Standards, and the Center for Teaching Quality, created a set of overarching themes to guide a new model for teacher leadership. These consist of reflective practice, personal and interpersonal effectiveness, communication, continuing learning, group processes, adult learning, and technological facility (Teacher Leadership Initiative, 2017). The Teacher Leadership Exploratory Consortium released model standards spanning seven domains (2018). Many neatly overlap the TLI initiative, but also include fostering a collaborative culture, accessing and using research to improve practice and student learning, promoting the use of assessments and data for school improvement, and advocacy work in the community. Because the field is still rather nascent and ever-evolving, additional research will better inform curricular planning and teacher leader competencies for the future.

The literature available for effective online program design is equally limited and still developing. With the advent of effective, efficient, and intelligible technologies, higher education institutions across the country and world are moving curricula to online platforms. Online programming affords opportunities to reach a vast student clientele with limitations due to geography, time constraints, work-life commitments, physical disabilities, and even language barriers. Consequently, higher education organizations are evolving to meet the changing needs

of diverse learners. “There is much evidence to support the emerging consensus that online education will continue to be one of the fastest growing markets in American higher education for the foreseeable future; student demand for online courses and programs still continues to exceed the supply” (Maloney and Oakley, 2010, p. 68). Recent numbers support the growing popularity of online education. Approximately 7.1 million college students have taken at least one online course (Allen and Seaman, 2014) and 65.5% of universities are citing online programs as critical to their long-term strategic plans (Wisloski, 2011) to support the more than 5.3 million online learners (Haynie, 2015).

There are also growing indications that online instruction can be a valuable means to deliver content. In a 2009 study, the U.S. Department of Education isolated 51 common factors across thousands of studies and concluded that, in general, online learning is more effective than face-to-face learning (U.S. Department of Education, 2009). Nearly three quarters of academic leaders believe that the learning outcomes of online learning are similar to or better than those of face-to-face education (Allen & Seaman, 2014; Bell & Federman, 2013). E-learning enhances the individual learning process and empowers students (Abdous, 2009; Raj, Walters and Rashid, 2009). Finally, online learning can be a means for students to authentically engage with peers across the world. “Providing a truly global classroom in which culturally diverse students participate from their own countries provides a powerful academic environment for achieving global competence” (Rovai & Downey, 2010, p. 141).

In 2014 Georgia Tech launched a fully online master’s program in its reputable computer science division. It was the first highly ranked university of its kind to offer a lower cost online equivalent to its in-person program. There was significant demand for admission by mostly mid-career Americans, unlike its younger, predominantly international on campus clientele. Those who were not admitted generally did not pursue other formal education. This implies that the higher-education market had previously not been meeting demand for a program like Georgia Tech’s online computer-science master’s degree and “confirms that, when done well, online coursework can substantially increase overall educational attainment and expand access to students who would not otherwise enroll” (Goodman et al., 2018, p. 9). With an increasingly digitally savvy educational population and an impetus like Covid-19 to force many tasks online, there will likely be a larger demand for online programming across many disciplines including education.

Thus, it is imperative that any institution considering this type of organizational change be thoughtful and planned in its implementation approach. To optimize the student experience, a comprehensive orientation should be prioritized. In an Australian study examining online learning in higher education, connecting with students early, offering orientation and preparation, was vital to their future success (Stone, 2019). Gaytan (2013) found that student self-discipline, quality of faculty-student interaction, and mandatory orientation were rated as the most important elements affecting student retention in online courses. Tang and Chaw (2016) found that despite widespread use of digital devices, electronic learning training is still necessary to support effective learning in online environments. For these reasons, a student onboarding and orientation process might be an opportune forum to introduce program requirements, familiarize

students with peers and faculty, and answer pertinent questions. It also may help identify financial, technological, and academic support interventions which are the most salient support services students need (Netanda, Mamabolo, and Themane, 2019).

Establishing a sense of safety and belonging, congruent with Maslow's hierarchy of human needs, are also important (Milheim, 2012). Clearly communicating program expectations, providing quality and timely instructor feedback (Ragusa and Crampton, 2018), and utilizing regular and targeted institutional communication for supportive purposes enhances students' sense of belonging (Stone, 2019) and contributes to a comfortable, secure educational environment. It is recommended that successful online instructors possess personal qualities such as being supportive, visible, respectful, approachable, responsive, flexible, open, honest, compassionate, and able to lead by example (Keengwe et al., 2014; Savery, 2005). Finally, a sense of community, which is cultivated through interaction (Rovai, 2002) and is closely linked to student engagement (Young & Bruce, 2011), is a critical element to online student success (Moore, 2014).

Instructor needs will change as programming transitions from the in-person classroom to the online platform. Faculty may benefit from training in digital pedagogies and tools as learning shifts from traditional information acquisition models towards collaborative knowledge construction models of learning (Saykili, 2019). Therefore, one of the fundamental roles of the instructor is that of a learning engineer who designs effective and engaging learning environments addressing the characteristics of the 21st century learner through the use of digital innovations (Karlı, 2013). In addition to changing demands in instructional design, online instructors must adopt greater teacher presence shifting from "information provider" to "facilitator for learning" (Saykili, 2019). They should expect greater student reliance and more intensive engagement demands (Stone, 2019).

Like the student learner's need for connection, instructors will also require peer and administrative support for professional development and mentoring. The establishment of effective student and instructor communities of practice, which are defined as individuals with a common interest and desire to learn from and contribute to the group with their variety of experiences (Lave & Wenger 1991), will aid this process. Other institutional supports necessitated by the online format will include learning environment and curricular design, technology platforms, recruitment initiatives, equity considerations, and financial resources. Careful planning, thoughtful execution, and iterative, data-driven improvement initiatives will promote program success and viability in an increasingly competitive higher education market.

Many of the strategies with promising efficacy in the online environment are similar to those that are effective in face-to-face programming. Diverse pedagogies that address a range of student needs, high instructor presence, quality group interaction, the promotion of classroom cohesion and trust, and available supports outside of class are equally important online. Instructors may need to increase their aptitudes in user-friendly technology tools, orientation practices, synchronous session management, and the incorporation of social media that are unique to online coursework (Lockman & Schirmer, 2020). Only timely and useful faculty

feedback was identified as an evidence-based practice for quality online instruction, and more important than peer feedback, with the rest being a “mélange of promising practices with insufficient research” (Lockman & Schirmer, 2020, p. 149). All in all, the process of transforming traditional on campus graduate coursework to fully online platforms is still relatively new, precipitated by Covid-19, and evolving each day as more research becomes available. There are few studies documenting the abrupt switch to online teaching and the significant impact on society, and the educational process is currently not yet fully understood (Burgess and Sievertsen, 2020).

CONCEPTUAL FRAMEWORK

Bronfenbrenner’s ecological framework helps us understand the systems that shape the learning experience in an online Teacher Leader program. Ecology focuses both on the constituent parts of an ecosystem and the relationship between them, emphasizing how the parts are interconnected. Education modernization and renewal can adopt an ecological perspective recognizing that a micro ecosystem, such as a classroom, is nested within another ecosystem, the school, which is part of the nation’s macro educational ecosystem (Davis, 2009, p. 508). Zhao and Frank expand this biological metaphor to encompass non-living, environmental factors, “a school and its classrooms can be viewed as an ecosystem because they make up a complex system containing many parts and relationships, with both biotic components (e.g., teachers, students, parents, and administrators) and abiotic components (e.g., physical setting, location of the computers, grades, and subjects taught)” (2003, p. 812). Though the application of the ecological model to education differs depending on context, the concept is the same: the educational process is interconnected and relational, with each component part exerting an important, dynamic, and sometimes sustaining or detrimental influence on the others.

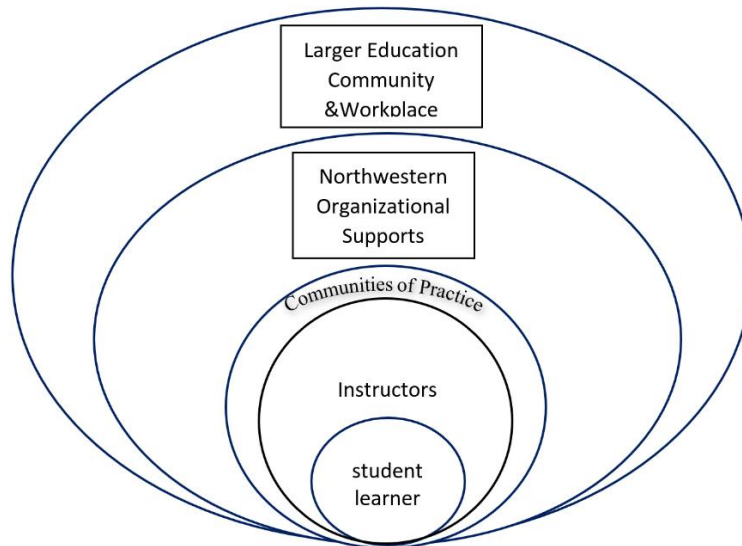
Urie Bronfenbrenner pioneered much of the application of the ecological model to child development in his seminal work *The Ecology of Human Development* (1979). His model has been applied to other areas of study including children’s mental health (McLeod & Shanahan, 1993), pediatric injury (Schwebel & Brezausek, 2007), suicidal ideation (Langhinrichsen-Rohling, Snarr, Slep, Heyman, & Foran, 2011), identities of mixed-race college students (Renn, 2003), the consulting training environment (Lau & Ng, 2014), working with immigrant students (Paat, 2013; Stebleton, 2011), and advising international students in a community college context (Zhang, 2018). Because the field is relatively new, Bronfenbrenner’s ecological model has not been applied directly to online higher education. Nonetheless, coupled with the above bioecological tenets, Bronfenbrenner’s system layers could shed great light on how best to design and implement Northwestern’s online Teacher Leader program to best serve all representative stakeholders, including the student learner and faculty.

Bronfenbrenner’s ecological model is comprised of five systems of interaction with the former nested in the latter: 1) Microsystem, 2) Mesosystem, 3) Exosystem, 4) Macrosystem, and 5) Chronosystem (Zhang, 2018). At the heart of the model is the individual. The inner most layer, the microsystem, is defined as a “pattern of activities, roles, and interpersonal relations experienced by the developing person in a given setting with particular physical and material characteristics” (Bronfenbrenner, 1979, p. 22). The next concentric layer, or mesosystem, is defined as a collection of microsystems and how these systems interact with each other (Bronfenbrenner, 1977). The exosystem includes “other specific social structures, both formal and informal, that do not themselves contain the developing person but impinge upon or encompass the immediate settings in which that person is found, and thereby influence” (Bronfenbrenner, 1977, p. 515). The final layer, or macrosystem, is “the overarching institutional patterns of the culture or subculture, such as the economic, social, educational, legal, and political systems, of which micro-, meso-, and exo-systems are the concrete manifestations” (p. 515). Lastly, the chronosystem incorporates the notion of time and its impact on the system.

Compton drew upon Bronfenbrenner’s model to represent her work on integrating mobile device technology into educational curricula. Her research yielded four main parts that make up the framework including beliefs, resources, methods, and purpose that need to be considered for the educator to effectively integrate technology (Compton, 2017). While not directly applicable to moving Northwestern’s Teacher Leader program online, it does provide comparable insight. The framework is influenced by personal and environmental factors acting upon, in this case, the educator. Training, access to mobile technologies, and technical support were further deemed critical for effective technology integration.

In the higher education model for this capstone, the student learner is positioned as foundational to the Teacher Leader program. The first layer immediately surrounding the student learner, or microsystem, would include instructors. In an online setting, students are required to communicate regularly with faculty for course engagement and for accessing curricular support. Overarching both student and instructor categories is the larger “community of practice” theme and mesosystem that consists of all the unique people, language, tools, practices, assumptions, interpretations, and norms attributed to that ecosystem (Lave & Wenger, 1991). The next concentric circle, or exosystem, extending outward would represent the larger university and the support systems made possible by the larger organization. The final layer and macrosystem would signify the students’ outside work contexts where they could implement all the applicable content learned to become leading agents of change for school improvement and student growth. There is no specific chronosystem layer denoted in the constructed model, though timeliness applies to all layers of support and interactions and is an important determinant of both student retention and progression through the Teacher Leader sequence. Figure 2 represents the capstone model.

Figure 2. Conceptual Framework for Teacher Leader Online Implementation Supports



One cannot study the online student experience without analyzing the interdependent, critical factors that influence the student learner both directly and indirectly. The online learner is especially at risk for isolation and attrition. Zhao and Frank in their implementation studies of technology in schools state, “We can no longer continue the tradition of studying discrete factors in isolation. Instead, we need to become ‘ecologists’ and provide an organic, dynamic, and complex response to this organic, dynamic, and complex phenomenon” (2003, p. 810). Thus, this capstone will seek to identify and research the critical factors and their corresponding relationships necessary for the successful implementation of online programming that will likely include training and professional development, mentoring, collegial learning groups, peer support programs, and institutional support and leadership.

PROJECT QUESTIONS

This project will use three research questions to guide the capstone study:

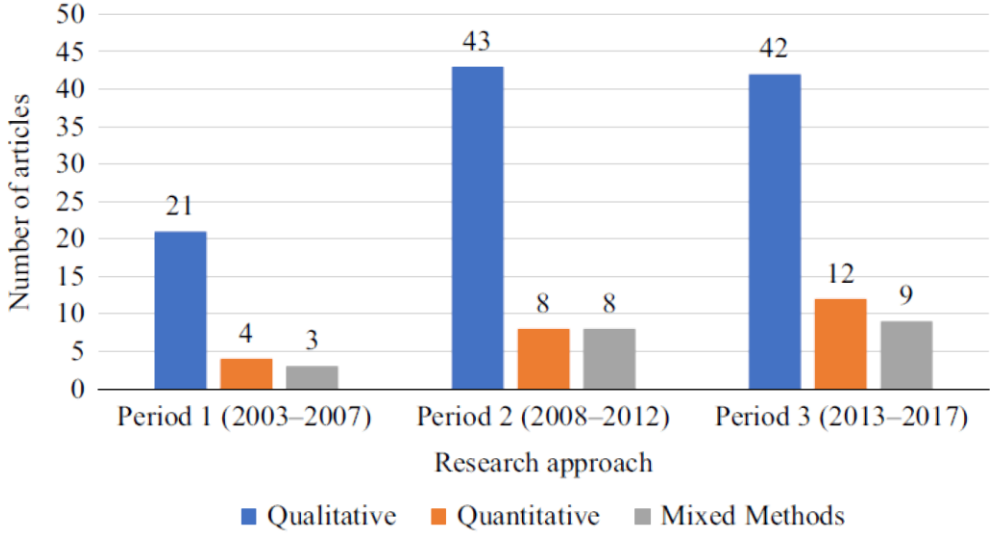
1. What demand exists for an online Teacher Leader program?
2. What are the programmatic components and factors that best support the online student learning experience?
3. How does the online format influence the needs of instructors to deliver content effectively and what larger organizational supports must be present to best facilitate the transition?

Capstone findings will propose an illustrative model for better understanding the necessary supports and factors that will allow Northwestern's Teacher Leader program to achieve sustainability and thrive in an online format going forward. In particular, they will address the essential needs of both the student learner at the system's core and the faculty whose interpersonal interactions impact the developing learner most significantly. Lastly, important institutional supports will be identified to maintain the health, responsiveness, and adaptability of the larger Teacher Leader ecosystem.

PROJECT DESIGN

This capstone used a mixed methods approach. Nguyen et al. (2019), in their synthesis of the international empirical literature on teacher leadership from 2003-2017, found that 71% of the articles reviewed drew on qualitative data only, most relying on interviews as the most predominant data collection method; 16% employed a quantitative research design; and 13% used both qualitative and quantitative data. The volume of quantitative and mixed-method studies did increase slightly over their 15-year study window, but overall qualitative methods seemed to dominate teacher leadership studies for that period of time. Other studies and syntheses of literature have also noted a preference for a qualitative approach to researching teacher leadership, and leadership more generally, which may be seen as a limitation in the field (Gumus et al., 2018; Wenner & Campbell, 2017). Accordingly, more quantitative studies are needed in the teacher leadership field (Harris et al., 2019).

Comparison of research approaches across teacher leadership review period



Note: From Nguyen, D., Harris, A., & Ng, D. (2019). A review of the empirical research on teacher leadership (2003–2017). *Journal of Educational Administration*, 58(1), 60-80. doi:<http://dx.doi.org.proxy.library.vanderbilt.edu/10.1108/JEA-02-2018-0023>

I chose a qualitative component because interviews with Teacher Leader stakeholders may, as the previous literature suggests, offer the greatest opportunity for rich assessment and understanding of a complex Teacher Leader genre. However, because quantitative research is lacking and because Northwestern’s Teacher Leader program is so inherently small, relying strictly on qualitative interviews of students, alumni, and faculty might not result in a large enough data pool for meaningful results. Thus, a mixed methods approach was chosen. The qualitative portion of data collection would help Northwestern assess Teacher Leader content,

beliefs, and insights on a potential move to online programming and a quantitative complement would ensure a robust number of outside opinions on those issues.

The quantitative component utilized convenience sampling. A 30-question survey, consisting of some Likert scale questions (with a few sections for open ended responses) was placed on the Illinois Principal website in July 2020 on three separate occasions to solicit anonymous teacher respondents. For this reason, the response rate is not known. The target population for the survey was teachers who might be interested in obtaining a Teacher Leader degree or certification. The Illinois Principal website was chosen as a distribution means to allow principals who value the Teacher Leader credential or those whose schools may have Teacher Leader positions and opportunities to push out the survey to their respective staffs. The language attached to survey strongly urged administrators to pass the link along to their teachers.

The survey yielded 80 responses, representing a demographic that was mostly female (75%) and Caucasian (86%) which is generally characteristic of the majority of Illinois public school teachers that are 82.3% White and 76.8% female (Illinois State Board of Education, 2020). The sample leaned toward older educators - 30% under the age of 40, 26% ages 40-45, and 44% 46 and older. 74% had already attained a master's degree. Years of experience was more wide-ranging across respondents with 21% having 6-10 years, 14% 11-15, 20% 16-20, and 33% with over 21 years in the classroom. Thus, the survey respondents could generalize to an already well-educated and experienced Illinois teacher/administrator population, some whom might be interested in furthering their careers via Teacher Leader programming. However, when explicitly asked later in the survey whether they would be interested in potentially obtaining a master's degree in Teacher Leadership in the future, 50% of the respondents chose "I am not interested." Thus, the survey may not have targeted the intended population as appropriately as hoped. Again, the timing of the survey's placement on the Illinois Principal website in July following a challenging school year may have contributed to more working administrators and rising administrators taking the survey themselves, rather than the envisioned teacher target. If this survey were to be conducted again, I would include a question that identified the respondent's explicit role, "administrator", "current teacher leader", or "teacher," for more informed analytic purposes.

Survey completion was incentivized by optional entry at its conclusion into a random drawing for four, \$50 Amazon gift cards. The original intent of the client was to distribute the survey to four geographical areas of the country. However, due to Covid-19 constraints, it was only disseminated to Illinois educators, resulting in 80 responses from the Midwestern region. Respondents were asked to affirm their consent by reading a statement at the onset of the survey that explained the voluntary nature of the questionnaire and the confidentiality of their answers. The main objective of the quantitative portion of the data collection was to assess demand for Teacher Leader online programming and to gain a sense of programmatic elements that were important to potential students.

The quantitative survey questions were designed with input from Northwestern Teacher Leader administrators and were also based on extant literature. Questions were organized into

categorical sections, but these were not explicitly apparent to respondents. The categories included basic demographics, online technology experience and proficiency, value preferences for graduate and online coursework, online delivery preferences, and Teacher Leader specific questions. Survey Monkey software was used to gather and analyze data. Frequencies of survey responses and most descriptive means were utilized to evaluate data, ascertain findings, and help guide recommendations. Data was sorted by age groups, degree attained, partiality for future online studies, and interest in online Teacher Leader programming to identify trends and patterns. This information was then used to determine the population with the greatest demand for an online Teacher Leader curriculum. The data revealed this target demographic was generally varied but did lean towards those with bachelor or master's degrees. See Appendix C for the survey.

The qualitative portion of data research utilized three different interview instruments customized for the current student, alumni, or faculty interviewee. All three versions consisted of 20-22 semi-structured questions, also arranged into categories. The students and alumni were surveyed in the areas of personal background, demand for online programming, student preparation, communication, connection, and peer/administrative support. Faculty categories included personal background, demand for online programming, learning environment design, instructional delivery/changing role of instructor, and peer/administrative support. I designed each instrument based on the literature review conducted, with the intent to mirror some of the quantitative questions created. All interviews were conducted via Zoom between August and December 2020. Participants were also incentivized in a similar manner to the quantitative survey with a random Amazon gift card drawing. See Appendix D for the interview instruments.

Fourteen, 30-50 minute interviews were completed with current students, alumni, and instructors from the Teacher Leader program. Northwestern distributed my recruitment letter to a student/alumni listserv. Ten individuals affirmed that they would be willing to participate initially, all alumni and one current student. The low response rate was expected given the program's small size and educator fatigue due to the abrupt Covid-19 curricular pivot the previous spring. I solicited the names of faculty members who might potentially be willing to contribute to the study, as well as more interviewees of color. The Teacher Leader administration provided that information and I subsequently reached out via email to all names listed. I was able to recruit and interview 4 more individuals.

Overall, the following breakdown of interviewees resulted: 1 current student, 1 current student and Teacher Leader professor at a neighboring institution, 8 program alumni, 3 current Teacher Leader faculty members, 1 adjunct professor in the education department and alumni. Due to Covid-19, I did not have the large number of interviewees I had hoped to choose a purposive sample from. Nonetheless, the respondents still represented a diverse sample and one that is typical of the demographic makeup of educators in Illinois which is approximately 78% women and 89% Caucasian (Illinois State Board of Education, 2019). 11 women, 3 men, and 3 respondents of color were interviewed. Questions were semi-structured but allowed space for open-ended responses.

Interviews were digitally recorded and transcribed for coding purposes. Confidentiality was ensured by assigning a number, rather than name, to each interviewee. First a listening tour was conducted to familiarize myself with the interviews and emerging themes. A descriptive chart was devised to code and quantify remarks for the second round of analysis. Next, transcribed data was placed into emergent categories, and concept-clustered matrices aligned with the ecological framework were created to group together common themes complete with illustrative quotes. Finally, all data was compiled into a synthesized construct summarizing both quantitative and qualitative data. All data collection protocol was approved by the IRB.

Gender		Ethnicity		Interviewee Type		
women	men	Caucasian	Non-Caucasian	Current student	Alumni	TL Faculty
11	3	11	3	2	8	3

FINDINGS

Question #1 - What demand exists for an online Teacher Leader program?

Finding #1: *There is a documented demand for an online Teacher Leader program.*

The respondents surveyed expressed a strong interest in online programming. The quantitative data shows that 60% were likely or very likely to choose online learning instead of in-person coursework if they were to pursue further graduate studies. An additional 28% said they would choose online learning depending on the program details. Surprisingly, that high percentage reflects an older demographic of respondents, 70% who were over the age of 40. For a more tenured group of educators, 52% with 16 or more years of teaching, technology does not appear to be a deterrent, but rather a welcome platform for further studies. Of the five respondents who chose “I would not enroll in an online program because I prefer the traditional classroom setting,” only one was in the 46 and above age group. The other four were in the 28-39 age window. One would expect a younger sampling of educators to embrace online learning more enthusiastically, but the data suggests technology may present a wonderful opportunity for educational advancement sought by many, regardless of age.

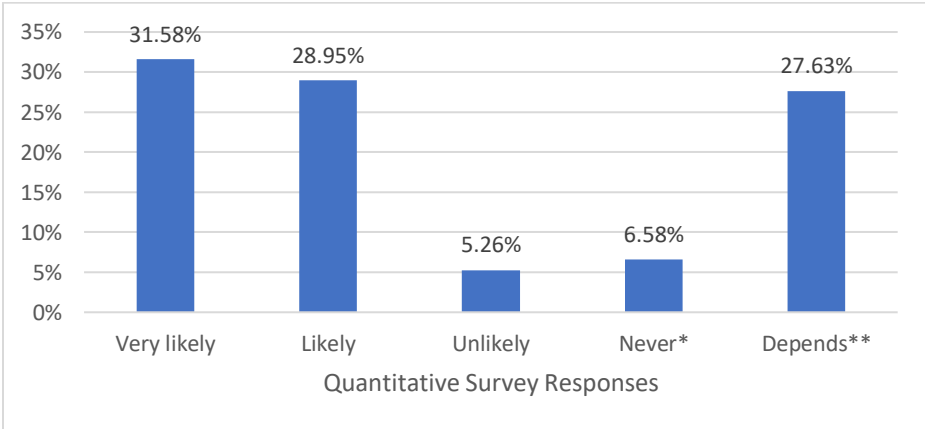


Figure 3. Chart showing percentage of quantitative respondents and their likelihood for choosing an online program rather than a traditional in-person classroom format for future graduate coursework. Highest percentage of responses came from those likely to enroll in an online program. Followed by those who stated that it would depend on the program offered.

*Never** denotes an actual response of “I would not enroll in an online program because I prefer the traditional classroom setting.” *Depends*** denotes an actual response of “It would really depend on the program offered.”

Seventy seven percent of the quantitative sample had taken 5 or fewer fully online classes at the time the survey was administered. 87% had experience in fewer than five courses that were a blend of traditional in-person and online programming. Thus, the sample had some but not extensive exposure to online learning. Furthermore, 25% (20 individuals) rated their

experience with online coursework to be neutral or somewhat poor, which is not a glowing endorsement for previous online studies. Yet, of this 25%, only three respondents said they would not choose an online program rather than a traditional in-person format if they were to pursue further graduate coursework and only one was “unlikely” to do so. Hence, the majority of respondents exhibited a strong interest in choosing online programming for future studies regardless of their prior experiences.

The qualitative interviews also revealed a significant interest in moving the Teacher Leader program to an online format. 100% of the respondents affirmed there was a need for an online format and 100% supported the transition to online programming. One alumnus commented, “I was really trying to think of which course I really felt that you’d have to be there in person and honestly I had trouble thinking about it. I could definitely see the program being online. I could not think of a negative as to why it should be in person.” The general sentiment of all the other interviewees was similar. There was positive support for the transition. However, some expressed hesitancy for the potential loss of the relationships that more readily develop in a traditional in-person format, which one respondent referenced as “losing that personal touch.”

“I don’t see any reason why the program couldn’t be wholly online especially with the technology we have today.”

Both the quantitative and qualitative survey instruments were conducted after the onset of Covid-19. This may have influenced responses since the educational world had to quickly change to a remote platform within the course of a short period of time. Teachers and students adapted quickly, without much choice, to learning in virtual classrooms around the globe. Though the transition was harsh and abrupt, nearly one year later education has been able to continue in ways many would never have deemed possible a short time ago. As one faculty member acknowledged, “I think there’s more that can be done online than I had anticipated. I think there are some options that are better online. We just didn’t know they would be better online.”

The survey and interview results may have been quite different without the virus. In the fall of 2019, Northwestern began to experiment with the hybrid model, conducting limited coursework online with the assistance of willing professors. This gentle foray into the online platform was meant to test the waters and gather feedback on hybrid programming. Only one of the faculty members interviewed was part of this pilot program. This individual recounted relative ease in their own voluntary transition to online teaching and noted only one student who expressed some pushback to the piloted platform. The majority “seemed to have embraced this so much.” This faculty member reported the fewest instructor needs going forward and described their optimism for the program’s potential. “I think it’s really exciting to see the change. People from all over the country...all over the world essentially could be part of this program.”

The other faculty members interviewed were not part of the pilot program. Covid-19 forced all Teacher Leader studies fully online in March of 2020, imposing a definitive shift that became the new norm for the program going forward. These faculty members, brand new to the online platform, described the initial transition as “unfamiliar” and “uncomfortable.” There was some documented reticence and even a sense of loss for in-person bonding activities. Nonetheless, they all indicated that via gradual acclimation, and with the supports of the larger Teacher Leader program, they were able to adapt and even thrive in the new setting. One instructor explained their apprehension, “Honestly I was very worried about it. You know I loved my in-person classes and I was very worried when we flipped to online and none of those fears materialized.” Without Covid-19, faculty members might not have embraced the programmatic pivot to a fully online curriculum as readily. A decision was made in late spring 2020 to continue the model indefinitely, and all administrative efforts since have focused upon creating effective online programming and expanding marketing efforts to promote the new format. The virus may have provided a timely impetus to cater to a new crop of educators who are more proficient and skilled with online tools in light of the new remote climate.

“Covid is now the new context. It’s the new baseline. So I just think people will choose what they want based on whatever experiences they’ve had during this time.”

Finding #2: The preferred format of online programming differed between quantitative and qualitative respondents but both groups expressed an interest in a flexible model with a mixed blend of synchronous and asynchronous coursework.

Forty two percent of the quantitative respondents identified the greatest advantage for enrolling in a 100% online graduate program as flexibility – being able to complete coursework at their own pace and time. 33% cited work-life balance as the most important reason for choosing an online platform, 14% thought being able to enroll in any institution regardless of geographic location was the most enticing, and 9% chose commute time. The qualitative interviews echoed similar themes that were not coded exclusively to one category. 93% mentioned flexibility (including work-life balance and time management), 57% greater access, 50% less commute time, and 29% increased diversity as the greatest benefits of moving the Teacher Leader program online. Even though commute time seems less significant in the quantitative data, for interviewees it held great importance because it allowed more time and flexibility for other pursuits like coursework and life balance. Those quantitative respondents who were not interested in the online platform selected they prefer the traditional classroom (14%), were concerned about connecting with others online (14%), thought the online degree may not be as respected (13%), or had concerns with technology (6%) as the reasons they were uninterested.

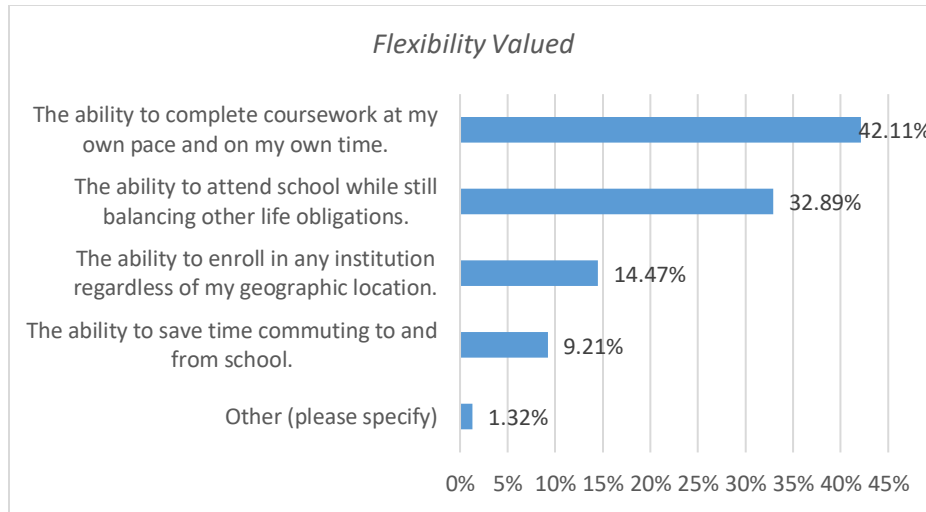


Figure 4. Chart showing percentage of quantitative respondents who chose each of the above as the greatest advantage for enrolling in online programming. Highest percentage of responses came from those who selected flexible self- pacing followed by work-life balance.

Many qualitative survey respondents further identified online programming to be the appropriate or even an unavoidable next step in the program’s evolution. One interviewee explained, “I think that so many universities are going to their graduate online programs. It gives us that flexibility so I think it’s almost inevitable that Northwestern will have to move to an online graduate presence.” An online format may be just what the program needs to grow its small, rather fragile, niche offering into a more robust and sustainable competitor in the Teacher Leader landscape. Higher education is increasingly moving online. Northwestern’s education department has always prided itself on cutting edge coursework and has evolved over time to adapt to the changing dynamics of education. The creation of the program in 2012 sought to meet the demand for more leadership in area schools, whether in formal or informal roles. Now with the onset of new videoconferencing tools and innovative technologies, the program can increase its expanse to an online market of educators, policy makers, and non-profit leaders near and far.

Survey respondents did not agree on a consistent format for a potential online program. When asked about completing an online Teacher Leader program, quantitative survey respondents, with no affiliation to Northwestern, had a stronger inclination for the 100% online delivery (71%). Only 47% were interested in completing a Teacher Leader degree in the hybrid format. Qualitative interviewees had a strong preference for the hybrid model (91%) with only a select few (9%) endorsing a full online model. All of the qualitative respondents were either current students, alumni, or faculty of the Teacher Leader program who had experienced or taught mostly in the in-person format. Thus, it is logical that this discrepancy would exist with qualitative respondents deeply tied to a history of more in-person instruction.

Qualitative interviewees expressed concerns that certain face to face programmatic elements would be lost in a fully online platform. Some mentioned particular courses that they

had difficulty envisioning virtually. One alumnus explained, “There was one where we had to design a program for the school. That would be better in person and the social context of education and anything having to do with cultural competence so that people can actually discuss things.” Another alumnus noted concern over student presence, or lack thereof, in the virtual classroom. “I think sometimes people can have better discussions when they are in person. You get to read peoples’ faces more often when they’re talking. If I am in a Zoom meeting, I could be taking care of my kid at the same time or not really structuring that time for class so I think that would be a drawback.” A third communicated trepidation over lost camaraderie with peers. “How do you really cultivate relationships when you don’t have the option of being face to face anymore? How do you really build and sustain relationships virtually? I don’t know if it’s training or actually providing resources for students.” Finally, a current student lamented the loss of connection to instructors having been forced online mid-program due to Covid-19. “I loved my teachers this summer. They were wonderful but I didn’t feel as close as I did when I was face to face.” Most interviewees highly valued the relational and interactive component of their on-campus Teacher Leader experiences, so it is not surprising that many chose the hybrid format as preferable to the fully online model.

The mode of instruction, asynchronous (all independent work at the student’s own pace) or synchronous (some live, virtual meetings in person), followed a similar pattern. 74% of the quantitative respondents and 100% of the qualitative interviewees chose a mix as the best platform for delivery of content. 22% of the quantitative responses yielded an interest in all asynchronous work but none of the interviewees shared that opinion. One former alumnus shared, “I wouldn’t do all asynchronous because teacher leadership is all about relationship building” and another alumnus concurred, “leadership is just so social.” When pressed about the structure of a blend of asynchronous and synchronous programming, many qualitative respondents felt asynchronous work should precede synchronous sessions to optimize live meetings. One respondent suggested, “the majority of learning would happen individually and then you would come back together to discuss, interface, break down, make meaning, etc.”

Other preferences for online delivery included project based learning and small group discussion over lecture for in class time. Both survey groups favored shorter synchronous sessions generally in the 1-1.5 hour range. There was stark difference in the number of convenings preferred for all students to come to campus for programming. The quantitative survey revealed much less interest. 57% labeled them as neutral or not important, 26% said they were not necessary, and 38% chose one convening before the program begins as preferable. 86% of qualitative interviews preferred convenings more than once a year which again is consistent with a group that had experienced in-person programming during their time at Northwestern. Lastly, roughly 74% of quantitative respondents reported a reduced cost and lower number of courses as the top reasons they would choose one Teacher Leader program over another. Northwestern has already addressed this factor, reducing the number of courses required for program completion to twelve for future cohorts, and correspondingly lessening tuition.

Figure 5: Chart showing percentage of quantitative respondents who named the following as their preferred pedagogical format for the delivery of online content. Highest percentage of responses chose project-based learning followed by small group discussion.

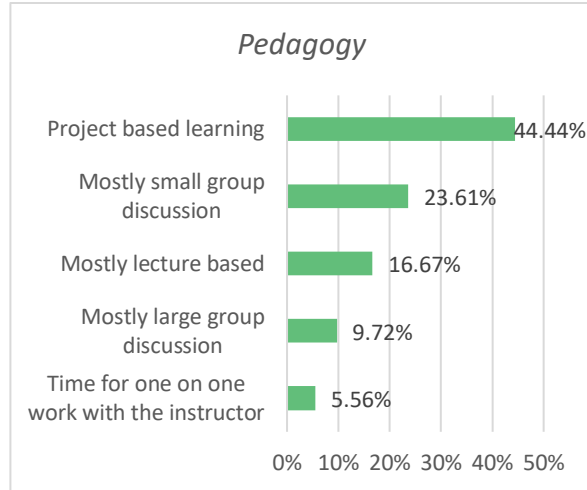
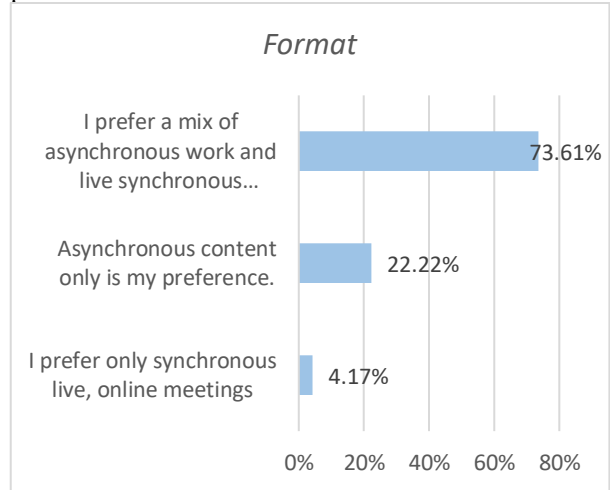


Figure 6: Chart showing percentage of quantitative respondents who preferred each type of online format for coursework. Highest percentage chose a mix of asynchronous and live synchronous sessions. Fully asynchronous content was the second most preferred format.



Question #2 - What are the programmatic components and factors that best support the online student learning experience?

Finding #3: *Students report the need for connection as one of the most important programmatic elements in the transition to online learning.*

Connection was the preeminent concern interviewees had for moving the Teacher Leader program to an online platform. Education is a relationship driven discipline. Therefore, it is not unexpected that this theme was mentioned by 100% of the qualitative respondents with great regularity in the interviews. Many were concerned that camaraderie and friendships would be lost and relationships with both peers and instructors weakened. Some cited the virtual platform as less conducive for organic interactions. One alum lamented, “There’s nothing that can ever replace in-person time. You grow extremely close. You support one another even though we’re coming from very different places. You can’t do that via Zoom. You lose some of the intimacy and some of the quality connection you have.” Another shared, “I wouldn’t love to see it fully online because I really loved and thought one of the most valuable parts of it was the interactions I was able to have in real time with my classmates and my professors.”

Some worried this lack of connection would diminish the quality and richness of classroom collaboration and discussion. Fears included not having good communications and conversations with peers in classes, missing out on the constant critique and feedback from an in-person experience, and lack of depth in group exchanges and dialog. One alum commented, “I think it was harder for my professor to read the room when we were all virtual on a screen. I

don't think discussions were facilitated quite as well because of that." Another had concerns over class size for discussions, "Once you get too many people on a zoom call it becomes very difficult to voice your opinion." Lastly, a professor spoke of similar difficulties and feeling at a loss. "It's very hard to replicate classroom dynamics in a Zoom call. And so much of what you talk about is classroom dynamics. So, there are things I just couldn't figure out what to do with students either at Northwestern or at my middle school that I think would really be lost."

"You do benefit in my lens from the relationship, cohort building, the hey Mike just said something I would have never ever thought about if I was doing the work in my silo. You need that. That's part of learning. That's why we don't do it by ourselves."

Reproducing collaborative activities was also concerning to many interviewees. One former student explained the value of cooperative relationships inside and outside of the traditional classroom. "If it ends up working well and stays online or hybrid, I feel that that's a loss because of personal connections that may not be as strong in that I do think seeing other teachers teach in person and going to their schools...I always thought that was impactful for me." Another alumnus shared similar worries about duplicating meaningful in-person collaboration. "We used lots of protocols and different activities that required us to get up and move around and work in groups. There are different frameworks for online learning, but they are very different from the way in which the Teacher Leadership program was taught. I think actually physically experiencing that and then also getting to lead protocols and watching other people lead collaboratively and in groups...I think that would definitely be lost in the online model."

A third salient theme that emerged among qualitative program participants was the potential loss of connection to the larger university and Northwestern community. In an online program, participants are not physically visiting campus to gain the full student experience and connect with other Northwestern peers and personnel. A current professor summed up the importance, "I think there's something about just coming to campus and feeling connected to the NU community, wearing the purple, and being in an environment where you are in the school context. When you go to a school you want to feel like you've been a part of that school and you've been a part of that culture." Respondents articulated worries and laments that future Teacher Leader students could miss out on the larger Northwestern experience that traditional in-person students have... from setting foot on the beautiful campus and attending class in Annenberg Hall, to engaging in live cultural and social events with the larger student body. Questions exist as to whether a remote participation in the Teacher Leader program will result in as valuable and meaningful an experience as the traditional in-person format. The integrity of the program and the inherent merit of the Northwestern Teacher Leader degree may be compromised if not designed and executed with high standards and multiple opportunities to foster program connections.

“I fully believe in developing online relationships and that you can have and create a positive online relationship with somebody you’ve never met in person. And that can be a robust online relationship as long as you invest into it and as long as the university provides some sort of framework to do that.”

The same partiality for strong interpersonal connection was not found in the quantitative survey. Connection was still deemed important, but not as important as more pedagogical decisions by the instructor. Quality classroom facilitation by instructor and adequate preparation by the university for coursework were chosen as the top values for having a good course experience and student experience, respectively. Connection to peers and instructor followed but were not weighted as heavily as curricular elements and supports. Furthermore, quantitative respondents selected the pedagogical role as the most important task for instructors to fulfill (50%) with the social role of creating an environment that promotes relationships and learning as less vital (13%).

Figure 7: Chart showing percentage of quantitative respondents who named the following as the most valued choice for a good online course experience. Highest percentage of respondents chose quality classroom facilitation by the instructor.

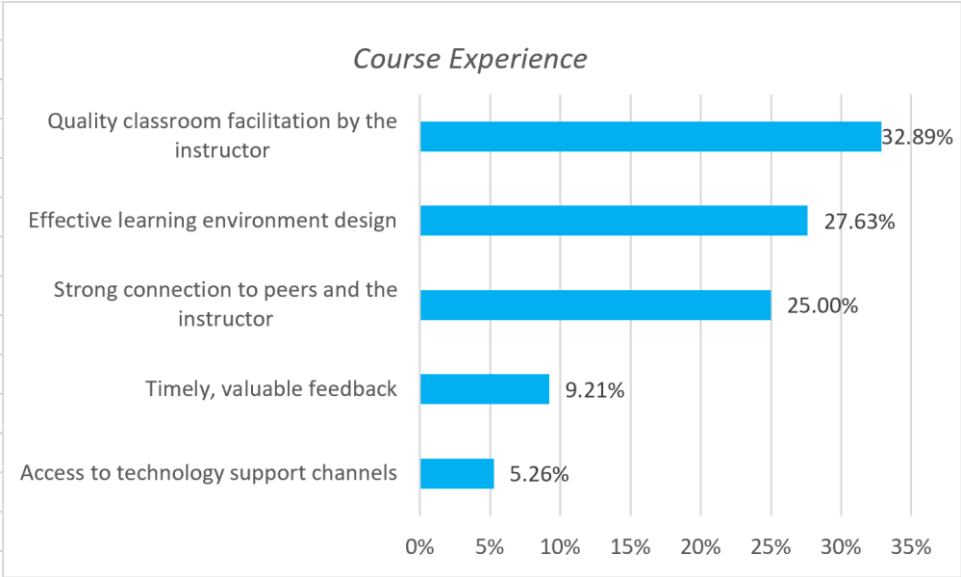
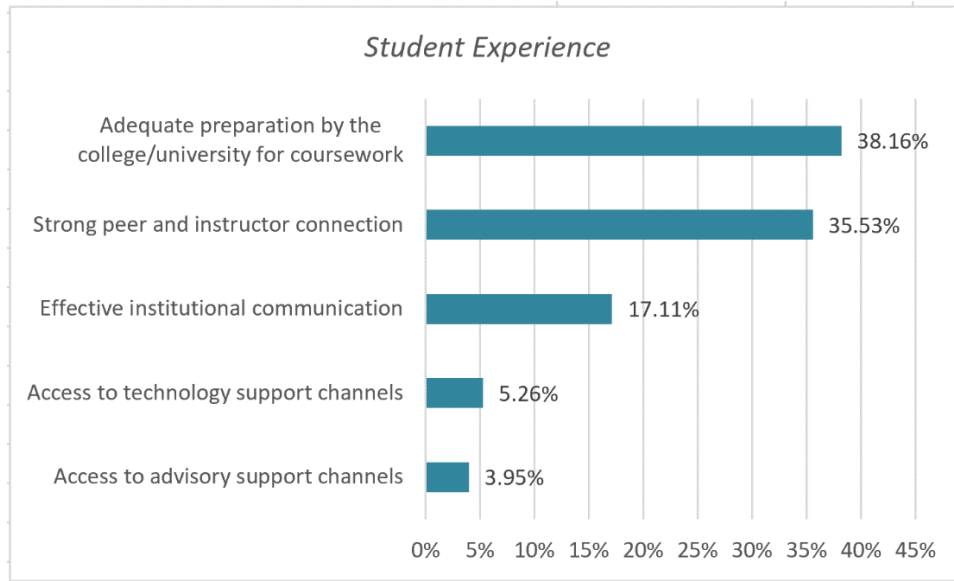


Figure 8: Chart showing percentage of quantitative respondents who named the following as the most valued choice for a good online student experience. Highest percentage of respondents chose adequate preparation by the college/university for coursework.



Finding #4: Student advising, technology supports, and networking assistance were identified as essential for the online platform.

Other programmatic components that emerged as important in the qualitative interviews included advising, technology, and networking supports. Ultimately, these provisions all depend on and fall under the guise of strong connections between institutional personnel and students. Some interviewees worried about attrition due to unrealistic expectations or poor program fit. One faculty member explained, “Sometimes people think they want something. Then they start experiencing it and realize I didn’t think it would be like this.” Another shared this sentiment. “I would really want to know ahead of time what it really looked like and what we were expected to do...so I would like to see the format of it just so I was prepared.” Student retention in online programs is lower than in traditional ones (DiRamio & Wolverton, 2006; Hoyer, 2006; Stanford-Bowers, 2008; Terry, 2007) and the dropout rate is one of the most problematic challenges facing online educators (Lee & Choi, 2011).

Self-motivation, accountability, and focus impediments were also identified as unique challenges in the virtual environment. One respondent offered, “You have to prepare yourself to work in a space that is not designed for academic pursuits. You have to be very self-motivated in a way that does not come naturally for everyone. You have to be really structured.” Another former student cautioned, “People are always distracted by other things on their computer. I will say my experience of putting everything down and going to class and really being present...I really don’t think we’ve figured out how to make that happen yet.” Helping students establish appropriate study spaces, habits, and “boundaries,” as one interviewee characterized it, may aid the learning process for remote programming.

“How can we be productive when we don’t have the same boundaries and same spaces in which to do that?”

Interview participants noted it was important to have a thorough orientation to accomplish many of these goals. They also described how an advisory team could clearly outline program expectations in advance of coursework as part of the orientation process. Welcome training and initiation could acquaint new students with program goals, online software/tools, the learning management system, and an introduction to library resources. One alumnus recounted, “I didn’t have a good understanding of how to access the Northwestern libraries online for example until the end of my coursework. Maybe some sort of orientation that would provide tech know how, canvas, accessing the libraries and databases online would help.” Another suggested a full three-day orientation that would include virtual tours, videos, and teambuilding. All of these efforts might better help students to feel comfortable and organized in a potentially isolating remote platform. Being clear and transparent up front about the rigor and requisite self-discipline necessary for remote studies may help students feel more prepared and may lessen the attrition that is more problematic in online settings.

“I think online learning requires a different set of skills in terms of attention and follow up. I think the responsibilities are great but I also think the quitting point...that barrier is really lower.”

Seventy percent of qualitative respondents found their advisor to be valuable during their Northwestern tenures. One current student who had experienced online coursework due to Covid-19 explained, “I really relied on my advisor. She was there to help me, guide me. Honestly, just therapeutic...she was a sounding board basically so that played a vital role in classes I took and even my path that I chose.” Another alumnus commented, “I think having an advisory team that is very approachable...I think would give people with some anxiety about the technology piece some comfort.” Another interviewee suggested that having a point person with whom you have already established a relationship increases the likelihood that students would actually ask questions and seek out support. A fourth mentioned the importance of her advisor in “filling in the gaps to give you specialty insight that the professors cannot” and acting as a bridge between classroom learning and the real world.

Thus, many suggested assigning a designated person, perhaps even particular to their career role, to each new online student. Advisors could check in with students periodically to provide guidance and assistance, serve as a sounding board, and connect students with both university and workplace resources. The advisory team could be charged with developing feedback mechanisms for program improvement, could aid with state certification questions, and could create a directory of resources for students to access help. Interviewees felt that these

types of communicative and counseling advisory efforts could help students siloed remotely feel a better sense of connection and belonging to each other and the university.

Having access to the appropriate technologies and support systems was also identified as important for online curricular delivery. Some qualitative respondents warned against assuming students would have access to necessary devices and adequate wireless networks. They suggested this type of inquiry be a part of the onboarding process to ensure students were ready to engage in curricula. If acquiring hardware or an internet connection was problematic, an interviewee recommended that the university provide devices to ensure equitable access and engagement for all. Other supports proposed by interviewees included available one on one tech support when needed, training in the chosen learning management system, and help navigating videoconferencing software. One current student praised the university's technology assistance as her cohort pivoted to the online platform, "We had someone from Northwestern's tech department join us. I think that really eased everyone's anxiety, helped us gain some relationships and trust, and helped us feel at ease knowing how this would look."

Many interviewees acknowledged networking and mentorship as important outcomes of their Northwestern Teacher Leader experience. They spoke so favorably about the relationships cultivated with peers and mentors in the surrounding Chicagoland area, visiting each other's schools and forging strong partnerships. Some were concerned that the organic relationships that develop naturally in in-person instruction and the inherent geographical proximity to professional networks might be compromised by the online model. However, most lauded the online platform as a means to actually strengthen networking supports. 29% of respondents explicitly mentioned increased diversity of students and instructors as a means to integrate varying perspectives into the program. Alumni and guest speakers near and far could be readily brought into classes via Zoom without having to travel. Large scale conferences and events could be easily attended online, as long as students were made aware of outside opportunities for professional growth and development. One faculty member acknowledged, "I think there's more that can be done online than I had anticipated. I presented at a learning conference and there were maybe 200 people in this session, and it seemed to work just fine...there were people all over the country." Thus, with the right supports to facilitate connection, preparation, communication, counseling, student engagement, and networking, the online model can offer great potential for the Teacher Leader students of tomorrow.

Question #3 - How does the online format influence the needs of instructors to deliver content effectively and what larger organizational supports must be present to best facilitate the transition?

Finding #5: *The online model will change instructional delivery. Instructors should be proficient in online pedagogy, course facilitation and management, learning environment design, and the promotion of social relationships in the online classroom.*

The data revealed that both quantitative and qualitative respondents believed that instruction would need to change in the online format. Quantitative survey participants preferred a pedagogically strong instructor, a well-prepared course, quality classroom facilitation by the instructor, and effective learning environment design. 50% of respondents identified pedagogical as the most important role an instructor can fulfill in an online course, acting as an effective and knowledgeable facilitator. Qualitative respondents also acknowledged pedagogy’s importance. One current student explained, “There are teachers that are still up there lecturing. I think we are really realizing I have to change...do more of the hands on, more of the independent, more of the groupwork. Sitting behind a computer looking at a PowerPoint for a half hour is just too much so your instructional delivery does need to change to meet the needs of the students.” Others mentioned the need to shift to a more student-centered model, moving away from teacher led activities toward more collaborative programming and student facilitated instruction. A current student offered an appropriate example, “Instead of the instructor lecturing, she assigned us roles to facilitate. I don’t care how you teach it...you come up with activities and discussions and it was really cool to see everyone’s different way of leading and facilitating. It was less ‘lecturie’ then.”

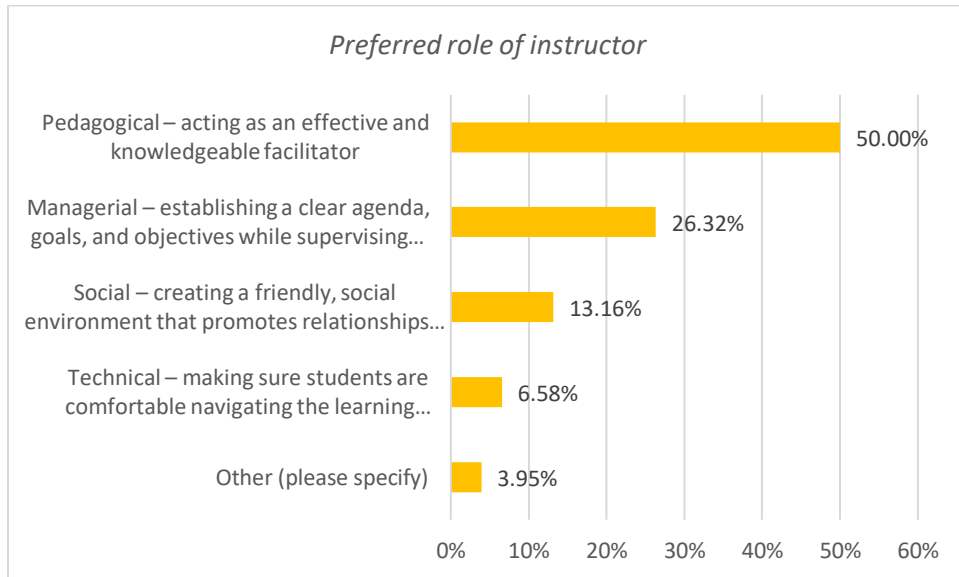


Figure 9. Chart showing percentage of quantitative respondents who named each of the above as the preferred role of the instructor. Highest percentage of responses chose the pedagogical role as most important followed by the managerial role.

Maintaining student engagement and high levels of classroom interactivity were also common themes that emerged from interviews as necessary for the online format. Qualitative respondents suggested building norms and expectations for student engagement into course syllabi. Student attention spans will likely be shorter online. One faculty member acknowledged, “I think that’s going to be the challenge in the online environment instructionally – the attention span of folks seems to get smaller and smaller. This whole sit and get for three hours...forget that.” Instructors may have to switch things up more frequently, include a rich

array of multimedia tools, and utilize more classroom discussions and breakout rooms. One student described, “We moved to a lot of group work and that really helped.” Another explained a similar preference, “I think that break out rooms tend to be useful...so you’re not just doing your own work and not have someone to talk to while you’re doing it. Peer to peer group work online has tended to work for me.” Accordingly, synchronous sessions may need to be shortened relative to traditional, in-person sessions to combat Zoom fatigue. Furthermore, lessons may need to be diversified and marked by frequent transitions to captivate the often-waning attention of a virtual audience.

“What does student engagement mean online versus in a classroom? I found that there was a real sense that you just could not be replicating...I felt like you had to start with a whole different baseline of questions about what you wanted to accomplish and achieve and what you want students to be doing.”

While the social role of the instructor was less emphasized for quantitative respondents, it was considered important to interviewees. A few explicitly mentioned the instructor’s responsibility in creating an appropriate social emotional learning environment in the virtual platform. One former student advised, “Instructors are going to have to work very hard to build that relationship full stop. There’s going to have to be community building time built in and an SEL approach. It would have to be extremely intentional, and it would have to be demanded by the university.” Faculty also acknowledged this importance of “humanizing” the learning experience in the remote setting. One professor explained, “Just starting out every class...How are you? That helped us open up the world for building a culture of learning. That instructional frame...humanizing myself as a teacher and allowing students to humanize themselves with each other I think has been the most important instructional method or frame that benefitted me during this time.” Another concurred, “We would have leading questions each week to intentionally build connection and camaraderie and a feeling of belonging. We were very intentional about that and I think it made a difference. There was warmth. There was intimacy...we tried to create a sense of caring about one another.”

Qualitative participants also hoped instructors would have greater accessibility and presence in the online model, making themselves available for assistance and offering timely and meaningful feedback. One alumnus commented, “I think as an institution you would need to formalize some expectations for your instructors about making a limited number of one-on-one meetings with their students. Formalizing procedures by which instructors would interact would help it become standard practice.” Another current student expanded on this idea, “If it’s true online, a simple phone call or a sit down one-on-one with each student to get to know them, welcome them...it really brings that connection.” Because students do not have the natural accessibility that comes with in-person learning, online instructors should expect and be responsive to more frequent online inquiries and requests for virtual meetings. Interviewees also

asked that online instructors be flexible and empathetic should problems arise with technology or life challenges because “You can’t always predict how technology is going to work.”

Finding #6: *Instructors report a variance of individual needs that the larger university network can help address.*

Since the Teacher Leader program was forced online due to the virus, many Teacher Leader faculty have now had some experience in the fully online platform. Their pivots from the traditional to remote classrooms have each been marked by different challenges. Some had already experimented with hybrid programming and found the transition relatively seamless. Others felt great anxiety and loss initially but have since gained greater familiarity and confidence in the platform. Still, each expressed different needs for effective instruction going forward now that the model has been embraced indefinitely by the university. One reported, “I think now I am able to see some of the advantages whereas at the beginning it was just trying to learn everything that needed to be learned. I think once you’ve got the basics down, and you have experience and you’ve had success, you can see some of the benefits. I think there are some real positive opportunities.”

Most faculty interviewed echoed the same optimism for the platform going forward but still had some reticence about pedagogy, class facilitation, and learning environment design. The ecological model helps outline the various layers of supports that may aid professors as they transition to the new online platform. First, the establishment of communities of practice are critical to allow faculty to come together, collaborate, and construct curricula with the assistance and encouragement of their peers. One instructor described her positive experience. “I did some training to prepare for remote. One of the courses I took with my co-teachers for one of the classes. That was tremendously helpful...learning new skills about teaching remotely. Having a chance to talk it through and practice different options.” Another championed the idea of teamwork. “We are a cohort and we might do some things we haven’t done before.”

“Nothing is more distracting than a professor who can’t get the technology to work. After the pandemic, people are going to be expecting that folks have this down...especially if you have agreed to teach in a program that is hybrid or remote.”

Faculty also acknowledged a significant need for more training in instructional delivery methods, technology, and tools to maintain student engagement. Some requested that the university provide basic expectations, best practices, and basic online competencies for curricular guidance. Others valued one on one technology assistance and a general openness to evolving instructor requirements. As the university institutes a fully remote Teacher Leader program for the fall of 2021, it should be attentive to and helpful in addressing a diverse array of faculty needs to ensure the best experience for Teacher Leader student learners. Supports from the ecological layers of the Teacher Leader administration, SESP, and IT department will be necessary. The university may have to allocate additional funding to initiate a competitive,

alluring, and successful online Teacher Leader model. Thus, there is desire but also potential hurdles including social relationships and supports necessary for the conversion of the Teacher Leader program to the online platform. The following recommendations can help launch a curriculum to meet the demand and address the challenges.

RECOMMENDATIONS

Recommendation 1: Launch a robust, flexible, fully online program based on research and stakeholder input, utilizing multiple platforms for publicity.

Northwestern should fully invest in a flexible, fully online model for its Teacher Leader program based on the goals of program growth and diversification. A flexible online delivery platform allows students, many working professionals, to self-monitor their schedule and pace their studies accordingly, spending more time on unfamiliar or difficult content (Aslanian & Clinefelter, 2012). Departmental leadership should work with university IT to develop or modify its current learning management system and videoconferencing tools to deliver streamlined asynchronous content and provide for synchronous sessions. Research indicates both formats play a part in keeping students connected, learning the content, and providing satisfaction in the online classroom (Watts, 2016). Thus, a mixed platform is recommended. Instructors should be thoughtful about when to use each modality based on student need, motivation, and course content. Technology support channels and resources should be readily available to both students and instructors alike. The university should investigate the possibility of loaning out hardware and devices if hardships exist to allow equitable access for all students.

The Teacher Leader program should commit to an iterative design process informed by student, advisor, and instructor feedback, preferably at the conclusion of each quarter. “Consulting learners in some meaningful way about what instructional strategies online practitioners could employ to help them learn successfully will invariably lead to a more informed and holistic approach to teaching and students’ learning” (Watson et al., 2017, p. 427). Teacher Leader administrators should devise an implementation evaluation plan to assess progress toward the program’s goals and mission biannually. Evaluative tools could include student course evaluations, faculty self-reflections, student and instructor retention data, and/or qualitative interviews with individual students and focus groups. These measures would hold great value in the online program’s infancy and would undoubtedly inform early curricular design.

Marketing will also be imperative at the initial stages. Departmental leadership should utilize all available channels to promote the new program, including alumni listservs, revised website design complete with multimedia content, and university communications. Eventually, the program could be publicized with area schools, partnerships, and perhaps even HBCU’s to increase program diversity and richness. A strong social media presence would also likely increase program enrollment and is advised. Some aggressive strategies being utilized currently in higher education include social media advertisement, the development of mobile apps to enrich the student and prospective student experience (virtual campus tours, meetings with advisors/financial aid team), and relatively low-cost YouTube content to highlight university programs (Tucker & Au, 2019). When executed correctly, social media is currently the most effective way to increase brand awareness and build a community of followers (Onisko, 2016).

Thus, Teacher Leader administrators should partner with university IT and marketing personnel to highlight, appropriately rebrand, and publicize the new remote program.

Recommendation 2: Partner with the Illinois State Board of Education to increase program awareness and develop a micro-credentialing pathway to the Teacher Leader endorsement.

Northwestern should partner with the ISBE to promote awareness of the Teacher Leader program among school districts, unions, and statewide administrative leaders as an effective means to grow teacher leadership in schools. A member of the larger educational community, and an important ecological layer of support for the School of Education and Social Policy, the ISBE holds great influence for advancing Teacher Leader initiatives both in Illinois and as a model for other states. Northwestern administrators should proactively meet with ISBE officials and provide insightful direction on how best to implement a state-wide micro-credentialing process for Teacher Leader certification based on current standards and curricular practices. School districts could phase in the Teacher Leader endorsement by explicitly listing it as a qualification for new hires in leadership roles (Teach Plus, 2021). Educators could pursue Teacher Leader coursework incrementally, accruing requisite leadership skills and attributes that demonstrate readiness and qualify them for advancement roles. This micro-credentialing pathway would give the Northwestern Teacher Leader certificate and others like it more credence and would encourage districts to value it in hiring decisions. It would also provide a constructive mechanism by which teachers could increase educational attainment without the financial burden and time obligations of a full graduate degree.

Both cost and number of courses required to earn a Teacher Leader degree were identified by survey respondents as important determinants of future Teacher Leader coursework. 19% chose cost as their biggest concern if they were to enroll in an online Teacher Leader program and 52% said it would be the deciding factor between two equal programs. When asked how important the number of required courses would be in electing a program, 76% of respondents selected “very important” or “somewhat important.” Cost is increasingly playing a role in students’ decisions to pursue additional coursework as more flexible models flood the higher education landscape. Many students just may not be willing to sacrifice the time and money needed to earn a degree when a certificate or credential may be just as effective in advancing their career (Tucker & Au, 2019). As an example, only 26% of online degree seekers at a for profit institution earn a bachelor’s degree in six years (NCES, 2018). Therefore, offering potential students the option to accumulate Teacher Leader credits on a need be basis, more gradually over time, would likely encourage teacher professional development and consequently benefit school districts in Illinois and nationwide.

Recommendation 3: Design intentional and meaningful opportunities for students to connect with and feel supported by peers, faculty, and the larger institution.

Bronfenbrenner reminds us that a meaningful student learner experience depends on all layers of the larger educational ecosystem. Students and instructors do not exist in isolation but

depend on one another and larger institutional constructs for support and sustenance. Because of this framework, and because the relational component was such a valued and salient issue for qualitative respondents, Northwestern should provide multiple opportunities for authentic connection through the program. First, it should offer a comprehensive orientation to new students, assigning an advisor, and outlaying program expectations and goals. Advisors should reach out to new students early and often as programming commences, and then monthly thereafter. Quality, ongoing, timely, and multimodal communication, especially from advisors, can be a leading factor in participants feeling connected or disconnected in graduate distance programming (Terras et al., 2018) and may help combat the attrition that is more characteristic of the online platform by fostering a sense of belonging.

The program should welcome students with technology training, an introduction to university resources, and online social events for new students. At least annually, purposeful and timely convenings should be organized to further acclimate students to the campus and to peers, and students should collectively pursue experiential coursework that is more difficult to achieve in a remote setting. When designing the learning environment, instructors should prioritize collaborative, student directed curricula, and should try to meaningfully connect with students through office hours, outreach efforts, and constructive feedback. Finally, departmental leadership should arrange multiple pathways for connection via monthly networking occasions, student communication channels, and social events for program participants. Some suggestions offered by interviewees included “student lounges,” virtual happy hours or game nights, themed advisory support sessions, affinity groups, or even a rotational buddy system for willing participants. Different social technologies, if used to further build on extant connections or to create new relationships, may help reduce feelings of isolation (Nowland et al., 2017) that is inherently a part of remote learning.

Recommendation 4: Provide sufficient, pedagogical online training and personalized support to professors based on needs and requests.

The Teacher Leader program should provide faculty with direction and training in the best pedagogical practices for online learning. These include collaborative, student led course design, instructional and multimedia tools to promote active engagement, effective asynchronous learning environment construction, and online feedback mechanisms. Instructors should be encouraged to have a strong online presence, to be responsive to student needs, and to know their learners. This can be accomplished through preassessment questionnaires, online meetings/discussions, phone calls, office hours, and thoughtful classroom facilitation. Having a comprehensive picture of the student population and gaining a sense of prior knowledge and technology aptitude will help professors know how best to support their students and how to tailor instruction accordingly (Smith & Brame, 2014).

Teacher Leader administrators should solicit individual faculty input on supports deemed necessary. Professional development opportunities, one-on-one assistance, and equipment should be offered based on those needs. Professional development is critical to assisting online instructors in adopting new pedagogies, evaluating these new roles, gaining the required

competencies, and reconstructing their teacher persona within the remote environment (Baran & Correia, 2014). Guidance, expectations, and competencies for the online platform should be created to best guide instructional practices. These documents could help with syllabus design, course creation, and could serve as a means for faculty to assess their readiness to teach in the online platform.

The Teacher Leader program could also partner with other university departments offering remote coursework, instructional designers, and IT personnel to devise readiness modules and resources for online instructors to consult prior to and throughout course delivery. Instructors who collaborate with other educators and instructional designers promote more focused, substantive sessions that address real problems and contribute to an evolving community of inquiry that builds on successive achievements (Scoppio & Luyt, 2017). Time should be allocated for the conscious development of these faculty communities of practice, whether around technology, curricular development, or instructional design. Convenings or retreats for the purpose of collaboration, connection, and support should be established and revisited with regular frequency.

LIMITATIONS

Small sample size

There were several limitations that may have influenced this project’s results. They are important to identify for future consideration as Northwestern initiates and implements its online Teacher Leader program. First, the project had a small sample size both quantitatively and qualitatively, 80 and 14 respondents, respectively. The quantitative group was heavily skewed toward a Midwestern, older, highly educated, female, and Caucasian sample. The qualitative group consisted of mostly Caucasian women as well. Certainly, this is not a comprehensive representation of the larger population of educators nationwide and therefore may be missing the important lens and perspectives of a more diverse, characteristic sample. The small sample size may have been the result of the timeliness of the survey and interviews conducted. Most occurred between July-August of 2020, a period marked by Covid-19 fatigue for teachers as they concluded a difficult school year and planned for the quick turnaround to welcome incoming fall students. Participating in research was not at the forefront of their minds. Surviving the pandemic and recreating curricula for hybrid or remote schooling took precedence. The inherent small nature of Northwestern’s Teacher Leader student and graduate pool posed further challenges for securing interviewees.

Selection bias

The qualitative data collection solicited information from only individuals who had been affiliated with Northwestern’s Teacher Leader program in some way – current student, alumnus, or faculty. There were no outside teacher, teacher leader, or administrative participants. Thus, the data collected may have been biased because that population had experienced the Teacher Leader program in-person in some capacity. The resounding interest in hybrid programming and concerns around the loss of connection may have come from nostalgic worry or fear that the program would lose its experiential value. The same sentiment might not be expressed by future Teacher Leader students who would not have that traditional in-person context for comparison. Thus, future interviews to assess important programmatic components for students and instructors should include the outside perspective of those not associated with Northwestern.

Covid-19 Timeline

Lastly, Covid-19 may have significantly influenced the data collected based on project timing. The virus imposed great hardship on educators all over the world. It may have impacted people’s willingness to participate, their outlook on future graduate studies, and their zeal for teaching. It also may have established a new norm that will forever change education. Teachers’ experiences during the pandemic may cause them to embrace online platforms or retreat from future technology driven pedagogies. The degree of polarization is yet to be seen. Regardless, the timing of this project just a few months into the pandemic may have demonstrated results that would have been quite different just prior to the onset of the virus or a year into the future when hopefully times will have normalized.

CONCLUSION

This project has attempted to provide research-based insight and direction for the development of an online Teacher Leader program at Northwestern University. “Teacher leadership continues to gain traction as a means to resolving school and student challenges while providing new career pathways for classroom teachers” (Teach Plus, 2021, p. 2). With more and more states creating teacher leadership positions to promote professional development, increase distributed leadership, and enhance teacher retention, there is great hope for the future of teacher leader programming. Concurrently, higher education graduate coursework is increasingly moving online, hastened by Covid-19 and a greater propensity for remote learning. Thus, Northwestern has strategically positioned itself at the forefront of a growing niche of teacher development, ripe for growth and expanse.

The results of this study support the demand for online Teacher Leader studies. They also demonstrate a preference for a fully online, flexible model to accommodate the needs of busy professionals. Data showed curricula should be designed around the premise of connection and support, for students, faculty, and the larger communities of practice that define both. This will include preparation, training, communication, collegiality, and technological assistance. Data also reiterated the importance of the relational sustenance of all the interconnected layers of the larger ecological framework. Each will need to be reinforced institutionally with equal strength and fervor to ensure the best possible experience for the student learner. With the right provisions, Northwestern’s Teacher Leader program has the potential to attract a diverse, talented group of students and instructors from all over the country and perhaps the world. If implemented painstakingly, iteratively, and holistically, Northwestern’s online Teacher Leader program could provide a rich, meaningful experience for students to enhance school achievement, touch pupils’ lives, and transform educational leadership for the 21st century.

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Appendix A: Quantitative Data

Demand Statistics

Question	% Survey Respondents
Is there a need for an online format?	100% yes
Do you support the move to online programming?	100% yes
Should program design be fully online or hybrid? (only students and alumni asked)	91% hybrid, 9% fully online
Preferred format: Asynchronous, Synchronous, or Blend?	100% blend
Preferred convening frequency: none, once, twice, more than twice during program tenure?	86% more than once, 7% once, 7% none
Do you have experience in a hybrid or fully online program(s) as instructor or student?	50% hybrid, 57% fully online, 29% none

Appendix B: Qualitative Data

Qualitative Data Matrix: Demand

C= current student	A= alumni	F= faculty
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Conceptual Lens	Category	Theme	Findings	Illustrative Quotes	Interview type	
TL Administration	Program redesign	Viability/need	100% supported online component	"I think that so many universities are going to their graduate online programs. It gives us that flexibility so I think it's almost inevitable that Northwestern will have to move to an online graduate presence."	C	
			Need to compete with online market			
			Student need for greater flexibility in learning model	"I was really trying to think of which course I really felt that you'd have to be there in person and honestly I had trouble thinking about it. I could definitely see the program being online. I could not think of a negative as to why it should be in person."	A	
			Present technology sufficient for quality learning			
			Covid may be impetus for more interest in online platform- change in student mindset	"Covid is now the new context. It's the new baseline. So I just think people will choose what they want based on whatever experiences they've had during this time."	F	
	Relationships in the online format can develop	"I fully believe in developing online relationships and that you can have and create a positive online relationship with somebody that you've never met in person. And that can be a robust relationship as long as you invest into it and as long as the university provides some sort of framework to do that."	A			
Faculty adapted to online model with the onset of Covid	"I haven't really thought about the downside because I knew this was happening. And honestly I was very worried about it...you know I loved my in person classes and I was very worried when we flipped to online and none of those fears materialized."	F				
	Format	Online/hybrid	Of the students and alumni, all but 1 felt a hybrid format would be best. Most respondents mentioned attending in	"Ideally you have as much in person as you can with the comfort level of the professors and students. In person I think there is much more opportunity to learn organically from other people...more connection. So I would say the more hybrid the better."	A	

		<p>person often, anywhere from one a quarter to several times during the quarter.</p> <p>Some referenced the MBA model of meeting 1 time a month or on weekends.</p>	<p>"I think it would be nice to have a kickoff at the beginning of the quarter to get to actually meet people. The teacher can do some activities where you can actually meet some people in the class, the professor, maybe test out some technologies....from there maybe there's a meeting in the middle and a meeting at the end."</p>	A
Model	Asynchronous/ Synchronous	<p>All felt a blend of both was appropriate, though distributions differed between respondents.</p>	<p>"I wouldn't do all asynchronous because teacher leadership is all about relationship building."</p>	A
		<p>Several respondents mentioned that the leadership classes in particular would need to have a synchronous component.</p>	<p>"Me personally I loved the asynchronous. I think the challenge with that is that you completely lose the cohort component of it because you're not even doing the same thing at the same time. I think it would lose the relationship with the teacher. While that personally worked for me, it wasn't essentially leadership stuff. I think with leadership it's so social."</p>	A
		<p>Many though asynchronous work should precede synchronous sessions where discussions and synthesis of material could occur.</p>	<p>"I think having a mixture of it all. I've never seen a program quite like that which I think would be extremely innovative and quite appealing to some folks. And it's kind of how we learn naturally as people, as human beings....by the things we do on our own, by the things we do with folks."</p>	F
	Class size	<p>Small number of respondents referenced desire for small classes</p>	<p>"Once you get too many people on a zoom it becomes difficult to voice your opinion."</p>	A
Time	Length of synchronous sessions	<p>Students thought the normal 3 hour sessions were too long for online</p> <p>Zoom fatigue exists</p> <p>General sentiment was for synchronous sessions to be between 1-2 hours.</p>	<p>"I think we have to be really respectful of the students. My experience is that they are super bright, super capable, just so sharp. Just understanding that there is such a thing as zoom fatigue. I don't want to take advantage or misuse student's time. If there are things that can be done offline, let's do that. Do them on your own time when that works best for you."</p>	F
In-person component?	All program convenings	<p>86% hoped for more than one convening during the program's duration, 7% once, and 7% reported this was not necessary.</p>	<p>"I think you definitely want your ceremonial convocation at the beginning where everybody gets to know each other and then once a quarter if rolling participation. "</p>	A
		<p>Long weekend and/or summer model suggested</p>	<p>"I think once a year for a long weekend is ideal and I think it's common practice. It also depends on where people are coming from because I don't think it's fair for people who live far away to incur the extra expense of travel."</p>	F
		<p>Kickoff convening emphasized as important</p> <p>Most respondents expressed desire to meet more than once a year.</p>	<p>"As long as it is infrequent and done in advance, I think there could be a good sense of buy in and I don't think anyone would turn their nose at that. I think it would be the effort of the university saying, we just want to meet you once in person because we believe that's important as a college as a school in a large setting like NU."</p>	F

Qualitative Data Matrix: Programmatic Components

Conceptual Lens	Category	Theme	Findings	Illustrative Quotes	interviewee	
Student Learner	Benefits	Flexibility	93% mentioned as benefit	"For me it would have been really nice not to waste time commuting. I think it would have really helped me scheduling as someone working full time and not living locally."	A	
			Less commute time			
			Better work-life balance			
				Easier time management	"I think people are appreciating not having to travel. I think about the courses at NU I have taught in the winter. I think about the cold and it's dark and the parking and it's icy and you have to bring all your materials. And you have all that travel time. I think to win back time you would have spent traveling is a major bonus for people."	F
			Less exhaustion			
				More time to devote to studies	"I would just say the flexibility in the schedule and one of the things we've all learned in this environment is that we can be far more efficient if we weren't in person. I think having students and giving them the flexibility of doing something on screen or online takes the burden off them getting to Evanston or Chicago."	F
		Greater Access for students		57% acknowledged as benefit	"You widen the net. For many of these students that are teaching all day long. You know a lot of them are coaching and doing all sorts of other things so certainly a 6:00 zoom class is a lot easier than having to commute all the way to Northwestern."	C
				Expand cohort	"I think it would encourage people who were maybe interested in Northwestern's program but who just can't get to campus."	A
			Geographical barriers lessened- NU geographically difficult to get to			
		Increased diversity	29% explicitly mentioned as benefit	"If they were able to draw from a greater base, I wonder if we would get a greater diversity of teachers in the program. Most people looked like me. If moving online could facilitate that, I think it would be a huge benefit to get more veteran teachers in there, more teachers of color, teachers from different types of schools... I think that would enrich the program for everyone to hear more voices."	A	
			Different student perspectives from different parts of the country (even within Illinois)			
			More diverse professors			
			Marketing in HBCU's might be helpful			
		Cost	21% listed potential lower cost as advantageous	"If it's a reduction in cost because now you don't have to provide a classroom space...you know you could reduce the tuition for some people and provide more	A	

		<p>More funding for financial aid might be possible with lower online cost?</p> <p>Greater international enrollment could help fund program</p>	<p>financial aid because you have more funds to allocate, I think that would be beneficial.”</p>	
Concerns	Connection	<p>100% concerned about loss of relationships in online setting</p> <p>Loss of relationships with other students/instructors may occur in online setting.</p> <p>Camaraderie, friendships valuable</p>	<p>“If I was in the program and all of a sudden it switched, I would be disappointed with the decision because I really value in-person interactions and the relationship building...I just don’t think those things can happen to the same extent in a virtual platform. I feel like I really developed very genuine relationships with my professors and with my peers that I think to a certain extent you could develop but not necessarily as robust.”</p>	A
		<p>Class collaboration/discussions important to TL coursework, learning from peers</p>	<p>“The thing I would miss the most is the personal connection that I need. I mean just meeting my professors and meeting my friends and meeting the classroom...that’s what I miss the most.”</p>	C
		<p>Belonging to larger NU community</p> <p>Humanizing the student experience in the online platform is important</p>	<p>“There’s nothing that can ever replace in-person time. You grow extremely close. You support one another even though were coming from very different places. You get to know people’s paths. You can’t do that via zoom. You lose some of the intimacy and some of the quality connection you have.”</p>	A
		<p>Great concerns but also great potential for the new format, has been somewhat ameliorated by covid</p>	<p>“I guess the thing I could see being lost is you might lose some of the camaraderie that you would gain with certain people obviously just naturally you get by seeing them in person.”</p>	A
		<p>Prioritize organic connections</p>	<p>“With a fully online program, I would be worried about not having good communications and conversations with peers in classes.”</p>	A
			<p>“I don’t know of any teachers that are excited about online learning. I think people tend to be teachers because we like engaging with people and interacting. I would be reticent to sign up for an online Master’s program because I feel like I would be losing that connection.”</p>	A
			<p>“That would be my only concern that there would be people who could graduate from the program and never step foot on NU’s campus. And even if they choose not to participate in commencement, they would have never come. They would only have a degree and what does that really mean?”</p>	F

			<p>"I have always been the kind of teacher who taught by relationships. I think that creating a common human experience...working at what the common human experience is in the classroom is really important. And so my class that I taught this spring, it was all about just humanizing the Covid experience and where they were. That instructional frame...humanizing myself as a teacher and allowing students to humanize themselves with each other I think has been the most important instructional method or frame that benefitted me during this time and continues to work because people need to process. "</p>	F
	Integrity of program	21% mentioned explicitly as concern	"One concern I have is whether people would take the program as seriously. I don't know if it's a stigma or what but I think people think online coursework is not as intensive or meaningful."	A
		Less respected/intensive because online? Stigma? Meaningful, adequate assessments?	"Making sure that people are actually doing the work...that it just doesn't become some watered-down program. There needs to be some way to actually test people to see if they have actually mastered the concepts and are actually paying attention."	A
	Focus impediments	21% listed this as concern Distractions Lack of "being present" in virtual platform	"People are always distracted by other things on their computer. I will say my experience of putting everything down and going to class and really being present...I really don't think we've figured out how to make that happen yet."	A
	Screen time	14% worried about this Lack of sustained attention	"I would be worried about being on a computer all the time. If I'm already on a screen so many hours a day to teach and then have to go on and have a 3 hour discussion on zoom...that sounds like hell."	A
			"Seat time in front of a computer. I think that will be a concern for some folks not wanting to sit because the required state requirements are what they are and you've got to spend a lot of time on screen."	F
	Cost	Differential in cost for online – would online be less?	"I think people would expect to pay less which I think would be a concern. In class, the class you go to that's not great you're still getting some sort of experience. A bad online class is just bad."	A
			"I decided to go to NU ultimately because I had a scholarship and if I hadn't had that I think it would have been a tougher decision for me."	A
	Self-motivation/ accountability	21% mentioned as concerning Lack of structure/boundaries-	"The level of accountability and having the right structure in place would be a challenge. There's nothing like when you are in the physical setting of I am here to learn. How can we be productive when we don't have	A

			could be challenge for students. Must have determined students for success.	the same boundaries and same spaces in which to do that.” “You have to prepare yourself to work in a space that is not designed for academic pursuits. You have to be very self-motivated in a way that does not come naturally for everyone. You have to be really structured.”	
		Tech level of faculty	Concern about existing faculty and their ability to move teaching online in effective manner. There should be some technology accountability for faculty.	“I would be very worried about the tech level of some of the instructors was not great and not for a lack of support on the part of the university.”	A
		Tech level of students	Students may benefit from having accessible technology help available or possibly a designated support person or location to access one on one help	“We had someone from NU’s tech department join us. I think that really eased everyone’s anxiety, helped us gain some relationships and trust, and helped us feel at ease knowing how this would look. When you’re looking at grad school, you’re looking at some folks who are out of school so this might ease their anxiety a bit.” “I feel like people who are older may be more intimidated by technology. I feel like something that would help would be a person they could meet with in person to help them navigate the technology piece.”	C A
				“I think there are some people who do need to meet one on one so I think having that resource available and easy to get to. Like this is your designated tech person. You can set up meetings whenever you want.”	A
	Preparation for program enrollment	Expectations	Format – explicit format explanations may be helpful prior to onset of program.	“I would really want to know ahead of time what it really looked like and what we were expected...so I would like to see the format of it just so I was prepared.”	A
	Instructor	Pedagogy	Collaborative format	In-person TL program rich in collaborative activities. How to replicate in online? Groupwork is valuable	“There are different frameworks for online learning but they are very different from the way in which the teacher leadership program was taught and I think actually experiencing that and then also getting to lead protocols and watching other people lead collaboratively and in groups...I think that would definitely be lost in the fully online model which is why I think a hybrid model could be great.”
		Student centered model	Move from lecture based to student led format helps maintain greater student engagement in online platform]	“I think these TL courses were not very lecture based which is part of their appeal. If you move to an online or partially online, I think the tendency is to switch to a much more teacher led than student centered model. An effective teacher does not sit in a room with other teachers and lecture at	A

			them and being taught in a way that is counter intuitive to what you would want to be doing in that position is a risk with switching online.”		
			“We moved to a lot of group work and that really helped not only moving to zoom chat rooms but instead of doing 2-3 hours tonight, we’re going to do maybe an hour of me lecturing and then the other hour we’ll have you guys meet with groups and then come back and present.”	C	
			“Another neat thing, she said instead of the instructor lecturing, she assigned us roles to facilitate. I don’t care how you teach it...you come up with activities and discussions and it was a real cool way to see everyone’s different way of leading and facilitating. It was less lecture then.”	C	
		Modified format from traditional in-person	Instructors will need to alter present practices to online format Clear syllabus for online platform	“There’s an art to teaching online and some folks just slap up a million things to read and write. They’re not good with the interaction. So I would worry about the integrity of the program if it were to become fully online.”	A
				“What does student engagement mean online versus in a classroom? I found that there was a real sense that you just could not be replicating...some of my colleagues...they’re just trying to replicate and that did not really work for me. I felt like you had to start with a whole different baseline of questions about what you wanted to accomplish and achieve and what you want students to be doing.”	A
		Student Engagement	Maintaining high level of student engagement online challenging Engagement include content and format Engagement also includes connection to instructor and other peers	“The world is very complex and the issues that are happening in schools are very complex. I think the challenge of the instructor is that this is going to be engaging in its complexity and how we talk about it.”	F
	Technology	Technical aptitude	Some students concerned about tech levels of faculty Training in multiple platforms and software should be offered A manual/tip sheet/checklist on how to	“I think one thing that’s changed...a lot of previous programs were not using videoconferencing, so I think that’s helpful. Offering just that as a baseline and the training for professors then. Because nothing is more distracting than a professor who can’t get the technology to work. After the pandemic, people are going to be expecting that folks have this	F

		do tech functions might help instructors Individualized help for professors based on competencies and need	down...especially if you have agreed to teach in a program that is hybrid or remote.”	
			“This past summer we had a tech person in our class if we needed any kind of support. That was really reassuring. So any kind of tech support, either before the class starts to some training on new tools...that’s what I would want. Just to be sure that I had a hand to hold around technology.”	F
			“Moving forward there should be some basic competencies that instructors have to prove or something like that to show that they know how to use the technology. Maybe modeling what Tim did with an email....if you need support how comfortable are you and we can give you support that you need. Because it’s not a one size fits all approach for all people. I think training is important and key.”	F
Availability	Office hours and accessibility	Students may need more support from instructors in the online platform Opportunities for 1 on 1 support can exist online	“What you’re really paying for at NU is access to instructors and I think you need to ask more from instructors. How are we really going to give our students access to instructors? How are we going to teach them to access instructors in a different way?”	A
Flexibility	Empathy	Students hope for a certain amount of leniency.	“You can’t always predict how technology is going to work.”	A
Student-Instructor Relationship	Connection	One on one time with professors valued “Humanizing teaching” with get to know you activities may improve relationship	“I think as an institution you would need to formalize some expectations for your instructors about making a limited number of one on one meetings with their students. I think you would have to talk about what it means to have discussion boards. Formalizing procedures by which instructors would interact and hopefully it would just become standard practice.”	A
			“It takes time. If it’s a true online format a simple phone call helps too. Or sit down with each of them to get to know them...welcome them...a call or a zoom call really does help. It brings that connection.”	C
			“Instructors will have to work very hard to build that relationship full stop. There’s going to have to be community building time built in...kind of an SEL approach.”	A

Communities of Practice	Student Community	Connection to larger NU Campus	<p>Fears online students will miss out on NU experience</p> <p>Greater interaction with students outside the Master's of Ed program may be beneficial</p>	<p>"I think that there's something about just coming to campus and feeling connected to the NU community, wearing the purple, and being in an environment where you are in the school context. There's a major benefit to that for students who are looking for that kind of connectedness to campus...physical campus. I think that can be rewarding. Not having that ...it feels so transactional."</p>	F	
				<p>"I never felt a part of a larger student community while I was there. I only came one night a week. I didn't interact with anyone that wasn't in the Master's of Education program so I didn't have any larger NU community and I don't know that I needed that but I did have a small cohort of my classmates I felt close to. If there's any way they can build that community outside a virtual classroom. I think that's the most important thing...the other people you're learning with."</p>	A	
		In class strategies	<p>Groupwork and break out rooms build relationships among students well</p>	<p>"I always think that group work works well. I think that break out rooms tend to be useful."</p>	A	
			Assigned groups mentioned as helpful	<p>"I really do think by doing group work and assigning students...It definitely strengthened our relationship and fostered communication."</p>	C	
		Lessen isolation, foster support	<p>Must be careful not to silo people at home in the online format</p> <p>Creation of social activities and communication forums beneficial (including zooms, slack channels, in-person events)</p>	<p>"I'm not above not making it mandatory but having some way to connect socially...these virtual game nights or virtual happy hours or whatever people do. Just ways you can build that rapport you're looking for."</p>	A	
				<p>"I wonder if giving everyone a buddy almost...maybe that rotates, maybe that changes to find a time to meet and talk through these questions or pick an area of support you're looking for."</p>	A	
				<p>"Just giving them different forums and different ways to communicate. You could set up different systems...like set up a lounge that you set up in a zoom call...or set up office hours for classmates to come together, not necessarily an instructor."</p>	A	
		Instructor Community	Connection to other faculty	<p>Support and help groups may aid faculty with transition to online platform</p> <p>Cohort of faculty may allow for collaboration and creativity</p>	<p>"I did some training to prepare for remote. One of the courses I took with my co-teachers for one of the classes. That was tremendously helpful...learning new skills about teaching remotely. Having a chance to talk it through and practice different options."</p>	F
				<p>"The change and excitement over launching a new version of the program...there might be an effort to bring the team of teachers together. We are a cohort and we might do some things we haven't done before."</p>	F	

	Convening	Connection w/ peers	<p>Creating familiarity with program participants might help students feel connected to larger institution.</p> <p>Most (86%) felt convenings were necessary but not all did.</p>	<p>"I think that maybe one or two in person required meetings would be important if someone's going to do something remote just so that we kind of know who people are and could put flesh to a name."</p>	F
	Advisory program	Certification	<p>Advisors may need to help with placement and assist with state certification issues if more applicants from outside IL</p>	<p>"If you move online, I have to imagine you're going to get more applicants, especially not local applicants because people see the name NU and that's really a great name. There's a really niche market for this type of program because there's not a lot of programs like this out there. So I imagine if there is a shift to the online model and there are applicants from other states, there are going to be a lot of issues around certification. That's just something that I think NU needs to be prepared to help guide their students.</p>	A
TL Administration		Advising, counseling	<p>The majority of respondents (70%) found the advisory team to be helpful and valuable.</p> <p>Designated point person, group chat in lieu of emails, some sort of online feedback platform, and placement with advisors particular for student role were all suggested</p>	<p>"I really relied on my advisor. She was there to help me, guide me. Honestly, just therapeutic...she was a sounding board basically so that played a vital role in classes that I took and even my path I chose.</p>	C
				<p>"Those people help fill the gaps and they also can give you specialty insight that professors themselves cannot because they're thinking very strictly in their theoretical way.</p>	A
	Retention	Student assistance	<p>Online learning generally has higher attrition rates.</p>	<p>"I think online learning requires a different set of skills in terms of attention and follow up. I think the responsibilities are great but I also think the quitting point, the phone it in point...that barrier is really lower.</p>	A
	Onboarding	Orientation	<p>LMS: Students may need instruction on learning management system and other online tools.</p> <p>Library tutorial would be helpful.</p> <p>Meeting with advisor</p> <p>Tutorials and webinars for navigating LMS, zooms, technology tools advised.</p>	<p>An ideal orientation would be "like a full 3 days immersed of how it would be. We're going to take you on virtual tours. You're going to watch the video, all have lunch together on a zoom so you can get to know other people in your cohort. We're going to do all these activities and some sort of teambuilding and we're going to walk you through how to access the library databases online."</p>	A
		Expectation Setting	<p>Vision/goals for the program should be clear so that students understand what they are getting in to (will hopefully lessen attrition).</p>	<p>"Sometimes people think they want something. And then they start experiencing it and realize I didn't think it was going to be like this. So it's nice to say...remember we've talked about those components. I think that would be very very important."</p>	F

			Make sure new students are familiar with the format and provide help to learn it.		
	Resource page	Help site	A localized page for student support might be beneficial	"Maybe a little more explicit of here's a website and here's the places you can go for people who can support you....like a resource page maybe?"	A
	Alumni Connection	Guest speakers	Program alumni in leadership positions could be leveraged as guest speakers Pre-recordings make these appearances possible any time.	"I really enjoyed the opportunities of all the guest speakers. Every month they had different speakers. They would invite SESP people and bring in different people to talk and hear about other's research and connect. You could do those things virtually."	A
Using alumni as role models for master's projects valuable			"I know they brought some people back to present their master's projects...seeing the expectations of what is was going to be like was really great. Even alumni inviting students into their classrooms would have been really cool."	A	
NU Institution	Equipment	Provision of device or hotspot	Providing students a computer may increase access and streamline technology assistance - Other schools (DePauw) have given students devices to ease troubleshooting remotely	"I think there would probably need to be more explicit instruction on learning management systems student facing like Canvas 101 and obviously students would have to have a device to access and not everybody does so maybe the university can provide a laptop as part of the program."	A
			Disparities in equipment/access exist	"Definitely provide devices if possible or some sort of stipend where people could purchase their own devices or internet services...for people who struggle with finances."	A
			Might be able to build into tuition or offer stipend	"You never want to take for granted that people have the technology they need."	A
	Tuition	Financial aid	Because tuition is so high, particularly for an educators who typically don't have high salaries, maybe program could receive more money for grants, school partnerships, and financial aid. More funding would support more diverse candidates	"I think the biggest institutional support the program needs is more money. So I think the more grants that can be available. I wonder if there are ways to partner with school districts. There are plenty of well-resourced school districts in the Chicagoland area that value having a well-educated staff. I wonder if NU could partner and take off a couple thousand dollars. It might be a way that NU doesn't need to shoulder all the cost of making it cheaper."	A
LMS	Streamlined model (specifically canvas)	The university should have a user friendly learning management system in place	"To a certain extent I think the university needs to keep it as simplified as possible because teacher leaders are full time teachers...they have jobs and incredibly demanding jobs....so learning a bunch of online platforms I think would be really challenging. So having some sort of	A	

			Canvas mentioned as appropriate, user friendly, and interactive	streamlined model...one cohesive set of programs for people to access.”	
			One central place preferred for everything	“I think that the canvas system in place was really important and thought that was good when I was at NU. I thought it was clear. I think that’s in place and I think that will be great to have.”	A
			More training may be necessary for faculty	“Canvas is a learning curve for a lot of faculty and while there is a good support system at NU to my understanding it is still a bit of a barrier.”	A
	Synchronous tools	Video conferencing software	Zoom familiarity during pandemic strengthened. Zoom, google classroom mentioned as user friendly Good cameras necessary	“It seems like people have really gotten a handle on zoom during the pandemic so I feel like people would really like that.”	A
Larger educational community and workplace	Networking	Alumni connection outside the classroom for jobs/support	Students could gain exposure to other educators and alumni for insight, perspective, and social opportunities	“I think maybe having some of the alumni hop in on a zoom meeting and maybe talk about their experience of teaching in a west school as opposed to an international boarding school...very different perspectives. I think that would be beneficial. Or everyone who lives within a 20 mile radius of Lake Forest come and have coffee with me and we can shoot the breeze about teaching.”	A
	Mentorship	Career guidance	Teachers are often very willing to help other teachers navigate the profession.	“I think alumni would be happy to talk about the process of getting their first jobs. There could be some kind of discussion board online where questions are posted or alumni could be paired with current students to answer questions.”	A
	Educational events	Conferences, cultural awareness/social convenings for educators	Large scale events with the larger educational community could be facilitated at NU or students could be made aware of outside opportunities for professional growth and development.	“I think there’s more that can be done online than I had anticipated. I presented at a learning conference and there were maybe 200 people in the session and it seemed to work fine...there were people all over the country....the work we do with FAN....12,000 people watching that Robyn DiAngelo that would have never happened in person. I think there are some options that are better online. We just didn’t know they would be better online.”	F

Summary of instructor needs

Instructor Interviewee	Identified Needs
1	Training <ul style="list-style-type: none"> • Instructional delivery methods • One on one help Checklist, manual, or tip sheet for basic tech functions
2	Bringing cohort of teachers together for collaborative, creative and technical support Training <ul style="list-style-type: none"> • Tools • Classes, webinars Tech support in class and outside of class
3	Training <ul style="list-style-type: none"> • Tools to maintain student engagement • Multimedia components • Instructional delivery methods Relevant, complex content Expectation setting by Education Department for incoming students Communication of basic competencies for instructor technology readiness Openness to individual needs/asks of instructors – equipment, professional development
4	Training <ul style="list-style-type: none"> • Quality online instruction/pedagogy • Tools to maintain student engagement Professional development specific for the Education department Establishment of formal expectations/best practices for instructors with regard to student interactions/meetings Ability to bring guest lecturers in
5	Training <ul style="list-style-type: none"> • Particularly one on one help, point person

Appendix C: Quantitative Survey Instrument

Demographics:

1. What is your gender: Male, Female, Transgender, Non-binary, I would prefer not to say
2. What is your age: 22-27, 28-33, 34-39, 40-45, 46+
3. What is your race: Caucasian – non-Hispanic, Black, Hispanic, Asian, American Indian, Pacific Islander, Two or more races, I would prefer not to say
4. What is the highest degree you have earned: Bachelors, Masters, Doctorate
5. How many years of teaching experience do you have: 0-5 years, 6-10 years, 11-15 years, 16-20 years, > 21 years
6. Which geographic region best describes your location of teaching?

Northeast U.S.

Midwest U.S.

West U.S.

South U.S.

International

Online Technology Experience/Proficiency

7. Approximately how many college courses have you taken that were entirely 100% taught online?
0, 1-5, 6-10, 11-15, 16 or more
8. Approximately how many college courses have you taken that were a blended version of online and traditional classroom teaching?
0, 1-5, 6-10, 11-15, 16 or more
9. If you have taken a 100% online or blended course or group of courses, please rate your overall experience in those courses.
Very good
Good
Neutral
Somewhat poor
Poor
10. Please describe your comfort level using technology presently.
Very comfortable
Somewhat comfortable
Neutral
Somewhat uncomfortable
Not very comfortable

Value Preferences

11. If you were to pursue further graduate coursework, how likely would you be to choose an online program rather than a traditional in-person classroom format?

Very likely

Likely

Unlikely

I would not enroll in an online program because I prefer the traditional classroom setting

It would really depend on the program offered

12. What would you choose as the greatest advantage for enrolling in a graduate program offered entirely online?

The ability to complete coursework at my own pace and on my own time.

The ability to enroll in any institution regardless of my geographic location.

The ability to save time commuting to and from school.

The ability to attend school while still balancing other life obligations.

Other

13. If you were taking an online course, please select which choice you value the most in having a good course experience.

Effective learning environment design

Strong connection to peers and the instructor

Quality classroom facilitation by the instructor

Timely, valuable feedback

Access to technology support channels

14. If you were taking an online course, please select which choice you value the most in having a good student experience.

Adequate preparation by the college/university for coursework

Effective institutional communication

Strong peer and instructor connection

Access to advisory support channels

Access to technology support channels

15. What do you think is the most important role for the instructor to fulfill in an online course?

Pedagogical – acting as an effective and knowledgeable facilitator

Social – creating a friendly, social environment that promotes relationships and learning

Managerial – establishing a clear agenda, goals, and objectives while supervising interactions

Technical – making sure students are comfortable navigating the learning environment and web tools

Other

Online Delivery Preferences

16. If you were to enroll in an online class, what would be your preferred pedagogical format for the delivery of content?

- Mostly lecture based
- Project based learning
- Mostly large group discussion
- Mostly small group discussion
- Time for one on one work with the instructor

17. If you were to enroll in a graduate program offered entirely online, what format would you prefer best? Synchronous sessions meet at a designated time and are live with an instructor and other peers. Asynchronous content is completed without live meetings, independently at your own pace, with designated due dates.

- Asynchronous content only is my preference.
- I prefer a mix of asynchronous work and live synchronous meetings.
- I prefer only synchronous live, online meetings

18. If you were interested in the online delivery platform with some synchronous meetings, what is the appropriate length for each synchronous session do you believe?

- I was not interested in synchronous meetings.
- 1 hour
- 1.5 hours
- 2 hours

19. If you were to enroll in a program offered entirely online, how important would student convenings be to your overall experience? Student convenings would bring all students to campus at designated intervals for curricular, programmatic, and social events.

- Very Important
- Somewhat Important
- Neutral
- Somewhat Unimportant
- This is not important to me

20. If the online graduate program required student convenings as a program component, what do you feel are the appropriate intervals for convenings to occur?

- Once a year
- Once during the duration of the program
- Twice, once before the program begins and once sometime thereafter
- Never – I do not believe convenings are necessary

Teacher Leader Specific Questions

21. Would you be interested in potentially obtaining a master's degree in Teacher Leadership in the future?

Yes I am interested.
I might be interested.
I am not interested.

22. If you wanted to complete a master's degree in Teacher Leadership, how interested would you be in completing the degree 100% online?

Yes I would be interested.
I might be interested.
I am not interested.

23. If you wanted to complete a master's degree in Teacher Leadership, how interested would you be in completing a hybrid or blend of curricular programming – some traditional classroom and some online?

Very interested
Somewhat interested
Indifferent
Somewhat disinterested
Not interested in the hybrid or blended delivery platform

24. Would it make a difference if the online Teacher Leader degree was conferred by the type of institution listed below? Which would be your preference?

I have no preference what type of institution the degree would come from.
I prefer that the degree come from a large, research based American institution.
I prefer that the degree come from a small American institution.
I prefer that the degree come from an American community college.
I prefer not to attend an American institution for this type of degree.

25. If you were not interested in the 100% online delivery platform, please choose the reason that BEST represents your reasoning?

Not applicable because I am interested in the online platform
I prefer the traditional classroom setting
I do not feel confident in navigating the technology
I am concerned that I will not connect as readily with my peers and instructors effectively online
I am worried that the online degree will not be as respected as one earned in the traditional classroom
I am concerned I will not be adequately prepared to navigate the online platform well

26. If you were interested in a Teacher Leader degree, how important would the number of required courses for graduation be in choosing your program?

Very important
Somewhat important
Neutral
Somewhat unimportant
Not important at all

27. If the graduation requirements for a Teacher Leader program were 12 courses rather than 15, how much of a difference would that make in your decision to enroll?

It would not make much of a difference because I would choose the program based on the school's overall reputation.

It would make somewhat of a difference in my decision making but would not necessarily discourage me from enrolling.

It would make a definite difference because the length of the program is a determinant of whether I would enroll.

It would make a definite difference because cost of the program is a determinant of whether I would enroll.

28. For an online Teacher Leader program requiring 12-15 courses which usually takes about 3 years to complete, how many program convenings do you think should be required of students?

One

Two

Three

None

29. If you were to enroll in an online Teacher Leader program in the future, what would be your biggest concern?

Managing the overall workload with other life obligations

Not feeling properly informed about coursework or the program overall

Not feeling as connected to my peers and instructors as I would in the traditional classroom

Not feeling prepared for required coursework

Troubleshooting technology problems

Cost

30. All things being equal, if you had two institutions offering an online Teacher Leader program, what would best determine why you chose one school over another?

Cost

Length of program (number of course required)

Reputation of school

Program curricula

Flexibility of curricula

Please list your email here if you would like your name to be put into a random lottery drawing for an Amazon gift card to buy supplies for your classroom. Your name will NOT be linked to your survey.

Appendix D: Qualitative Survey Instrument

FACULTY INTERVIEW INSTRUMENT:

Interviewer:		Interviewee Pseudonym:
Date:		
Location:		
Context Notes:		
Start Time:	End Time:	Duration:

Personal Background:

1. Approximately how many years of teaching experience do you have total? How many years have you been on the faculty here at Northwestern?
2. Please describe your role here at Northwestern.
3. How would you describe your overall experience at NU.
4. Have you had any experience as a student in a hybrid or fully online college course? Can you please describe that experience(s).
5. Have you had any experience as an instructor in a hybrid or fully online college course? Can you please describe that experience(s).

Demand for Online Programming:

6. What are your thoughts about the TL program moving to a hybrid or fully online program? Do you think there is a need for this transition?
7. What do foresee as the greatest benefits to moving the TL program to the online format?
8. What do you foresee as the greatest challenge to moving the TL program to the online format?
9. How do you see the TL program changing in the new format? Will anything be lost/gained in your opinion and do you have any concerns?
10. How do you think current and future students would respond to a modification of the program in moving online? Do you anticipate any push back, why or why not?

Learning Environment Design:

11. If you have had experience moving from the traditional classroom to the hybrid or fully online platform, what helped you most with that transition?
12. How will overall learning environment design need to change for effective online instruction?
13. How would you own traditional classroom pedagogy and curricula change in the online setting?

Instructional Delivery/Changing Role of Instructor:

14. What format do you think would be most appropriate for the Teacher Leader curriculum and why in terms of hybrid/fully online, asynchronous/synchronous content, student convenings or lack thereof, etc?
15. Do you have any opinions of what sorts of technology platforms/software should be utilized for online delivery?
16. How do you anticipate your role as instructor changing?
17. How do you think the student-instructor relationship will change in the online format?

Peer/Administrative Support:

18. As a Teacher Leader instructor, what instructional support would you need to make the teaching transition to a hybrid or fully online platform smooth? What do you think will be your own greatest challenge?
19. What do you think NU students would need to experience success as an online student?
20. Are there any larger institutional supports that you would deem necessary for an effective transition to online programming?
21. Have your thoughts on the online platform changed as a result of the virus and the modification of recent curricula?
22. Is there anything I didn't ask you that you would like to share?

We thank you for your participation.

CURRENT STUDENT INTERVIEW INSTRUMENT:

Interviewer:	Interviewee Pseudonym:	
Date:		
Location:		
Context Notes:		
Start Time:	End Time:	Duration:

Personal Background:

1. How long have you been a student at Northwestern and how far are you into the program?
2. How would you describe your overall experience at NU.
3. Have you had any experience as a student in a hybrid or fully online college course? Can you please describe that experience(s).

Demand for Online Programming:

4. What are your thoughts about the TL program moving to a hybrid or fully online program? Do you think there is a need for this transition?
5. What do foresee as the greatest benefits to moving the TL program to the online format?
6. What do you foresee as the greatest challenge to moving the TL program to the online format?
7. How do you see the TL program changing in the new format? Will anything be lost/gained in your opinion and do you have any concerns?
8. How do you think current and future students would respond to a modification of the program in moving online? Do you anticipate any push back, why or why not?

Student Preparation:

9. If you have had experience moving from the traditional classroom to the hybrid or fully online platform, what helped you most with that transition?
10. What types of supports would you hope the University puts in place to aid students in the transition to the online format?
11. In what area do you think you will need the greatest amount of support to maximize the student learning experience? What do you think will be your greatest challenge as an online student?

Communication:

12. What format do you think would be most appropriate for distributing content for the Teacher Leader curriculum and why in terms of hybrid/fully online, asynchronous/synchronous content, etc.
13. Please describe what type of student convenings, in any, are appropriate and at what time intervals?
14. How important would an advisory team be for program communications and what would that look like to best support students?

Connection:

15. How do you anticipate your role as a student changing?
16. How do you think the student-instructor relationship will change in the online format? How could that be strengthened?
17. How do you think peer relationships can be better fostered in an online platform?

Peer/Administrative Support:

18. Are there any larger institutional supports that you would deem necessary for an effective transition to online programming?
19. Have your thoughts on the online platform changed as a result of the virus and the modification of recent curricula?
20. Is there anything I didn't ask you that you would like to share?

We thank you for your participation.

ALUMNI INTERVIEW INSTRUMENT:

Interviewer:		Interviewee Pseudonym:	
Date:			
Location:			
Context Notes:			
Start Time:	End Time:	Duration:	

Personal Background:

1. When did you graduate from the Teacher Leader program?
2. How would you describe your overall experience at NU.
3. Have you had any experience as a student in a hybrid or fully online college course? Can you please describe that experience(s).

Demand for Online Programming:

4. What are your thoughts about the TL program moving to a hybrid or fully online program? Do you think there is a need for this transition?
5. What do foresee as the greatest benefits to moving the TL program to the online format?
6. What do you foresee as the greatest challenge to moving the TL program to the online format?
7. How do you see the TL program changing in the new format? Will anything be lost/gained in your opinion and do you have any concerns?

8. Do you think this move will benefit or hurt the University long term?

Student Preparation:

9. How do you anticipate the role of student changing in this format?
10. If you have had experience moving from the traditional classroom to the hybrid or fully online platform, what helped you most with that transition?
11. What types of supports would you hope the University puts in place to aid students in the transition to the online format?
12. If you were a current student, what would be your greatest concern/challenge moving to the online platform?

Communication:

13. What format do you think would be most appropriate for distributing content for the Teacher Leader curriculum and why in terms of hybrid/fully online, asynchronous/synchronous content, etc.
14. Please describe what type of student convenings, in any, are appropriate and at what time intervals?
15. Based on your own experience, how important would an advisory team be for program communications and what would that look like to best support students?

Connection:

16. How do you think the student-instructor relationship will change in the online format? How could that be strengthened?
17. How do you think peer relationships can be better fostered in an online platform?
18. How could program alumni be utilized to support current students?

Peer/Administrative Support:

19. Are there any larger institutional supports that you would deem necessary for an effective transition to online programming?
20. How else could program alumni best assist in this transition?
21. Is there anything I didn't ask you that you would like to share?

We thank you for your participation.