

ABSTRACT

Mark Sorrells, BUILDING GRANTEE CAPACITY THROUGH AN INNOVATIVE—PROCESS-DRIVEN, PEOPLE-CENTERED—EVALUATION FRAMEWORK (Under the direction of Dr. Matt Militello). Department of Educational Leadership, February 2018

Program evaluation is an essential function for grant-seeking organizations, yet many struggle with measuring the impact of their work. The form of program evaluation is also an ongoing challenge for funders. Many grant-seeking nonprofits possess limited internal capacity, and are consequently forced to over-rely on external consultants who possess little organizational background or content knowledge. For grant-seeking organizations, this lack of program evaluation capacity may eliminate them from funding opportunities. The purpose of this study was to implement and analyze an innovative— process-driven, people-centered—grantee capacity building model. The intent of the framework was to build individual and organizational capacity to perform and sustain program evaluation. The Golden LEAF Grantee Capacity Building Model (GLF-GCB Model) was examined using an action research design within a conceptual framework of (a) accountability, (b) leadership empowerment, and (c) continuous improvement. Five grantees participated in the study while implementing digital learning initiatives. Evidence from the study demonstrated that the GLF-GCB Model was an effective framework that helped grantees implement digital learning initiatives effectively and better measure the impact of their work during the initial phase of grant-supported activity. From the study, a new capacity building model emerged that informed practice and proved useful in bridging the gap between theory and practice. In addition, new knowledge was generated that can inform capacity building efforts of policy makers, practitioners, and funders.

BUILDING GRANTEE CAPACITY THROUGH AN INNOVATIVE
– PROCESS-DRIVEN, PEOPLE-CENTERED –
EVALUATION FRAMEWORK

A Dissertation

Presented to

The Faculty of the Department of Educational Leadership
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Doctor of Education in Educational Leadership

by

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– PROCESS-DRIVEN, PEOPLE-CENTERED –
EVALUATION FRAMEWORK

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DEDICATION

I dedicate this body of work to the rural people and places that have and continue to struggle to keep pace with the ever-changing economic landscape ushered in by globalization and advances in technology. New innovative strategies are needed to help retool our rural economies in North Carolina, which have been undermined by the loss of jobs, diminishing human and physical infrastructure, and economic restructuring. It is my hope that this study will help prod grant-making and grant-seeking organizations to rethink how they organize and work together so that resources are available and impact maximized for those communities that need help the most. More deliberate action is needed to reestablish the social capital and networks in rural communities that are necessary to keep pace with rapid and complex changes that are occurring. Collectively, we can make a difference!

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Writing this paper and maintaining a full-time work schedule has been one of the more challenging, yet rewarding experiences of my career. At this stage in life, it has taken a lot of grit and encouragement to persevere. I owe a great deal of gratitude to a number of people for their support while I embarked on this journey. I also am thankful for and honored by the organizations that willingly agreed to participate in a complex study that examined how grant-making organizations can get better at working with rural, disadvantaged communities to help level the playing field, and thereby aid organizations that serve these areas to become more competitive and resourceful in transforming economically challenged areas into more viable places to live, work, and play.

I have learned a lot through this process and been inspired by the resiliency and dedication of rural people and organizations to work hard in spite of the headwinds and obstacles they encounter to grow their communities and the human talent needed to participate in a globally competitive economy, and not get left behind. I owe gratitude to a great number of individuals who have encouraged and supported me during this process. In no particular order, I express heartfelt appreciation to the following.

Thanks to the board, leadership, and staff of the Golden Long Term Advancement Foundation (Golden LEAF) for allowing me the opportunity to take on this responsibility while I also carried out my regular work duties. I want to thank Dan Gerlach for his patience, support, and editing prowess. Thank you to the Golden LEAF Board of Directors for their resolve to continue funding digital learning over a longer horizon and the support given to me by them to cross the goal line and rejuvenate. In addition, I am deeply grateful to the program officers and staff who daily exhibit dedication and commitment to Golden LEAF's mission to assist the rural

communities with economic transition. It is an honor to work with such a dedicated group.

Special thanks go to Jason, Marilyn, and Suzanne for serving as lead contacts for the districts and schools that received digital learning grants from Golden LEAF and participated the study.

The work could not have occurred without the strong partnership that has evolved over the years between Golden LEAF and North Carolina State University's Friday Institute for Educational Innovation. Thank you to the Friday Institute leadership for their support of my work in education and willingness to partner with Golden LEAF to move educational reform forward in rural communities. I am most appreciative to the digital learning coaching and professional development teams that were on the ground working with our grantees. Special thanks are extended to Emmy, Frances, Jackie, and Wynn for their tireless work and dedication to rural people and places.

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CHAPTER ONE: INTRODUCTION

The mission of the Golden Long-Term Economic Advancement Foundation (Golden LEAF) is to assist rural, economically disadvantaged, and tobacco-dependent communities with transition to new economic opportunities. What would happen if all philanthropic and government agencies invested only in the brightest stars; communities with the most potential?

The loss of jobs and talent in rural areas has contributed to budget constraints that are forcing rural leaders to make difficult decisions concerning how best to allocate scarce resources to support vital services such as education, infrastructure, economic development, healthcare, public safety, and social services. Building the internal capacity of nonprofits and agencies to be good stewards of scarce resources, and to measure and report impact are essential functions that allow grant-seeking organizations and the rural communities they serve to sustain themselves and remain viable.

Problem Statement and Background

Due to persistent economic challenges and market volatility, funding agencies—both governmental and philanthropic—are now faced with difficult choices as to how limited resources should be used to maximize results. These economic pressures have served to elevate the demands of funders for increased accountability and transparency by the organizations they fund (Intacct, 2015). With resources becoming scarcer, and access to funds more competitive, nonprofits and governmental grant-seeking organizations continue to see the demands for their services increase, causing them to search for a broader array of funding mechanisms to support their work. To be successful in the quest for funding in a highly competitive arena, grant-seeking organizations are increasingly challenged to demonstrate the impact and effectiveness of their work (Brock, Buteau, & Herring, 2012; Huffman & Thomas, 2008). This is particularly daunting

for small organizations, especially those that are located in economically disadvantaged, high-need, rural areas. The development of organizational capacity to conduct evidence-based evaluation is an imperative that must be addressed with more intentionality by both the grant-seeking nonprofit and philanthropic sectors. Evaluation capacity was described as a deliberate process to empower individuals, increase knowledge and skills, and use data to drive decision-making and organizational learning to improve performance (Labin, Duffy, Meyers, Wandersman, & Lesesne, 2012; Naccarella, Pirkis, Morley, Burgess, & Blashki, 2007). Unless grant-seeking organizations improve in their ability to demonstrate impact, resource availability to fund their work will likely become increasingly more competitive and restricted. To that end, many small, rural grant-seeking organizations could be excluded from funding opportunities, placing them and the communities they serve in the unenviable position of being left behind and unable to take advantage of opportunities.

Even though program evaluation is considered a vital function for education, economic development, healthcare, and nonprofit grant-seeking organizations that depend on foundation and public funding, it remains challenging and elusive because many lack internal staff skilled in program evaluation and often depend on external consultants with no organizational background and content knowledge (Bakken, Nunez, & Couture, 2014). Carman and Fredericks (2010) explored the evaluation capacity of nonprofit grant-seeking organizations by using a cluster analysis that aggregated nonprofits into three groups. The first group consisted of organizations that struggle because they have not devoted enough time to evaluation, but feel moderately content with their level of skill to perform program evaluation. Carman and Fredericks described the second type as nonprofits that struggle with design, data collection, and resources devoted to evaluation, even though support from management is apparent. The third type described by

Carman and Fredericks were organizations that experience substantial challenges with program evaluation from a lack of basic resources, skills, and little support internally or from funders.

Evaluation is also challenging for philanthropic foundations. The challenge stems from the nexus between foundation and grantee success. The extent to which the funder is able to make a difference in society and achieve its mission is dependent on the success of the nonprofit grant-seeking organizations it funds (Brock et al., 2012). Nonprofit capacity was cited in research by the Center for Effectiveness in Philanthropy as a key source of frustration for foundations nationally (Buteau, Buchanan, Brock, & Ross, 2009). Buteau, Buchanan, Brock, and Ross (2009) asserted that grantees' lack of capacity to assess performance stems from a dearth of organizational talent, knowledge, and time to plan appropriate outcomes and collect data that are aligned to the impact on those served. Brock and colleagues (2012) claimed that even though the philanthropic sector has criticized nonprofit grant recipients' efforts to demonstrate impact, foundations have devoted too little time and effort to aid grantees with program evaluation. In fact, a majority of nonprofits surveyed for the Brock et al. (2012) study indicated receiving no support from foundations for assessment, but expressed a desire to receive assistance from their funders. The research team used data from their survey to identify five areas of nonprofit need, listed in the order of importance, where collaboration with foundations would be beneficial: (a) how to develop the skills of staff to collect and interpret data, (b) how to interpret the data, (c) what data to collect, (d) how to identify and set appropriate outcome metrics and, (e) what is learned about their performance.

Many funders are now beginning to recognize the need to initiate work aimed at improving the evaluation capacity of grantees. While interest in the field of evaluation capacity building (ECB) is gaining momentum among funders, grant-seeking organizations, and

evaluators, a synopsis of evaluation capacity building literature completed by Labin et al. (2012) revealed that more must be learned. Leviton (2013) used the Socratic method to pose a series of questions for the organizations responsible for evaluation, the evaluators, and funders. Coupled with the Labin et al. (2012) study, Leviton used the Socratic approach to conclude that as evaluation becomes a more recognizable tool for organizations, the utility of evaluation findings must move from simple accountability to more advanced functions of learning and aligned engagement with funders.

Preskill and Boyle (2008) proposed that:

ECB involves the design and implementation of teaching and learning strategies to help individuals, groups, and organizations learn about what constitutes effective, useful, and professional evaluation practice. The ultimate goal of ECB is sustainable evaluation practice—where members continuously ask questions that matter; collect, analyze, and interpret data; and use evaluation findings for decision-making and action. For evaluation practice to be sustained, participants must be provided with the leadership support, incentives, resources, and opportunities to transfer their learning about evaluation to their everyday work. Sustainable evaluation requires the development of systems, processes, policies, and plans that help embed evaluation work into the ways the organization accomplishes its mission and strategic goals (p. 444).

Preskill and Boyle (2008) also pointed out that even though considerable effort has been focused on ECB over the years, few thorough contextual frameworks or models have been developed to (a) guide practitioners' efforts to build evaluation capacity and/or (b) test evaluation processes, activities and outcomes.

Purpose of Study

The purpose of this study was to implement and analyze an innovative—process-driven, people-centered—grantee capacity building model. The intent of the framework was to build individual and organizational capacity to implement and sustain program and evaluation practice. The Golden LEAF Grantee Capacity Building Model (GLF-GCB Model) was examined using an action research design (Mintrop, 2016; Stringer, 2014) to explore the utility of the model within

a conceptual framework of: (a) accountability, (b) leadership empowerment, and (c) continuous improvement. The unit of analysis for the study was seven school districts that implemented digital learning initiatives with support from Golden LEAF and the Friday Institute. The GLF-GCB Model was designed to take a more holistic view of ECB by engaging grant-making and grant-seeking organizations in a collaborative process of building individual and organizational capacity to effectively implement and sustain program and evaluation practice.

An action research (Mintrop, 2016; Stringer, 2014) approach was utilized to enable the researcher, acting as change agent, to analyze the utility of the GLF-GCB Model to build evaluation capacity at the individual and organizational levels for the purpose of improving performance and sustaining practice. Independent variables used in the framework included: inclusive leadership practice, funder/grantee collaboration, structured professional development and coaching, and continuous improvement. A transformative lens was used to explore: (a) to what extent individual confidence and skill levels to perform and use evaluation data for decision-making improved, (b) how collaboration between funder and grantee aided in building the evaluation capacity of grant-seeking organizations, and (c) how organizational learning influenced the internal ability of grantees to sustain grant-supported activity.

ECB was assessed using quantitative data collected at the district/school level from leadership teams and teachers to assess the implementation and evaluation capacity of grantees to use digital learning to transform instructional practice from traditional to student-centered, digital-rich teaching and learning. Qualitative data was collected through focus group workshops designed to assess the improvements in individual confidence and skills and organizational abilities to implement digital learning with fidelity and measure the impact of their work. Structured learning events were made available to GLF's digital learning grantees during grant

terms to support capacity enhancements at the individual and organizational levels and encourage collaboration among grantees and with the grantor. The purpose of the study was to implement and analyze an innovative—process-driven, people-centered—grantee capacity building model to assess its utility to build individual and organizational capacity to inform practice and sustain continuous improvement.

The GLF-GCB Model that was investigated is portrayed in the digital learning grant process chart shown in Figure 1. This model evolved from and continues to be refined through the collaborative efforts of Golden LEAF and North Carolina State University’s Friday Institute for Educational Innovation (Friday Institute) to assist grantees funded by the foundation to implement digital learning projects. The innovative framework was designed to provide grant-seeking nonprofit organizations with support, professional development, and technical assistance from Golden LEAF and the Friday Institute to aid them in the application process and during program implementation. Structured learning events between Golden LEAF, the Friday Institute, and grant-seekers were used to align perspectives, build the capacity of grantees to effectively implement digital learning initiatives, and assist them with measuring and reporting the impact of their work within Golden LEAF’s evidence-based evaluation process. In addition to accountability, the framework included measures to guide the grant-seeking organization in building an inclusive leadership foundation to improve implementation success. It also embedded professional development, technical assistance, coaching, and other support interventions from Golden LEAF and the Friday Institute to aid grantees in using the continuous improvement cycle—plan-do-study-act—to collect and use data to inform decision-making and action.

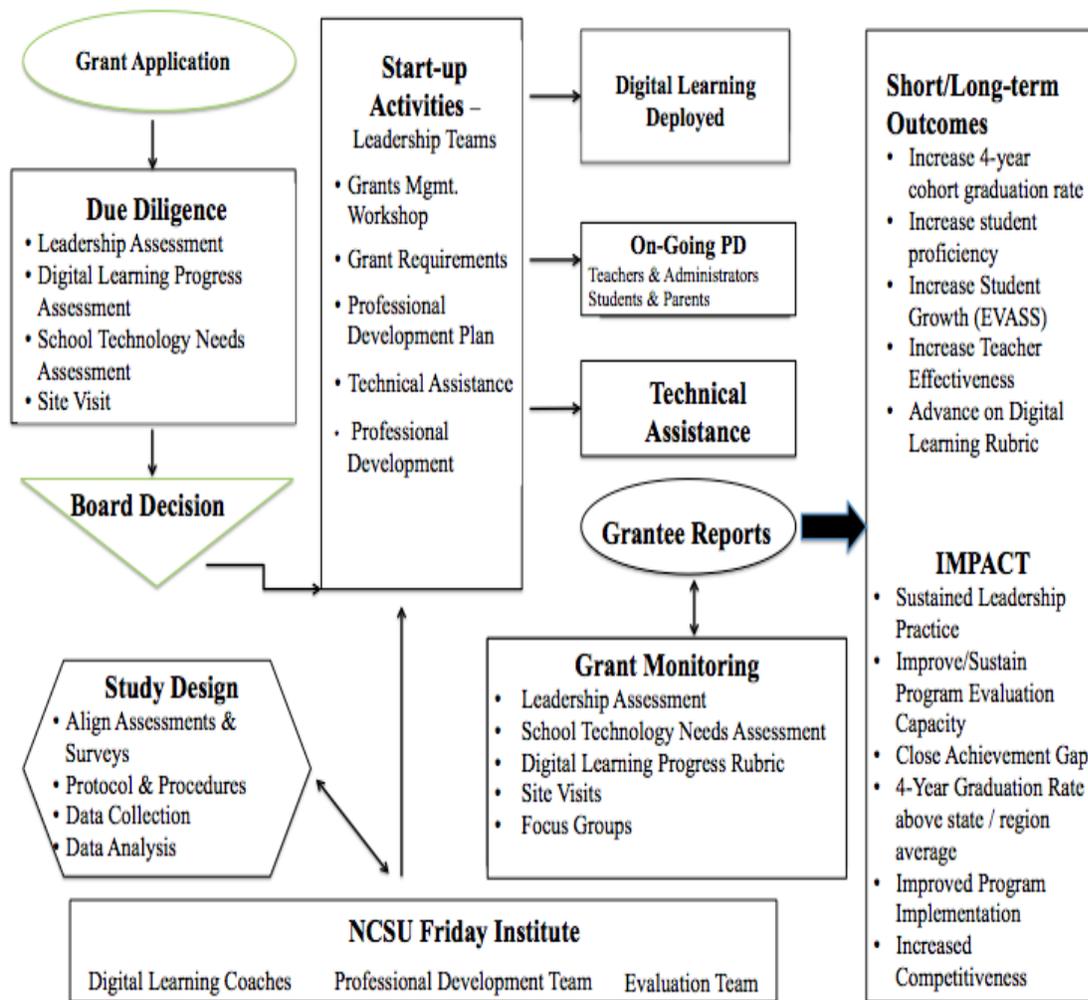


Figure 1. Golden LEAF grantee capacity building model for digital learning grants.

Broadly speaking, the mission of grant-seeking organizations is centered on improving the social and economic conditions of place and people. The program of change for nonprofits takes years to enact, not months. Effective leadership is an essential ingredient for successful change and consists of multiple qualities that are often not found in a single individual (Larsen & Rieckhoff, 2014). In Donet's (2011) review of Reeves's book, "Learning Leaders: How to Focus School Improvement for Better Results," exceptional leaders were described as individuals who surround themselves with team members that complement their own capabilities and establish a collaborative culture of trust, shared goals, and responsibility to teach and learn. These values coincide with the survey findings used by Mulford and Silins (2003) to define the concept of organizational learning.

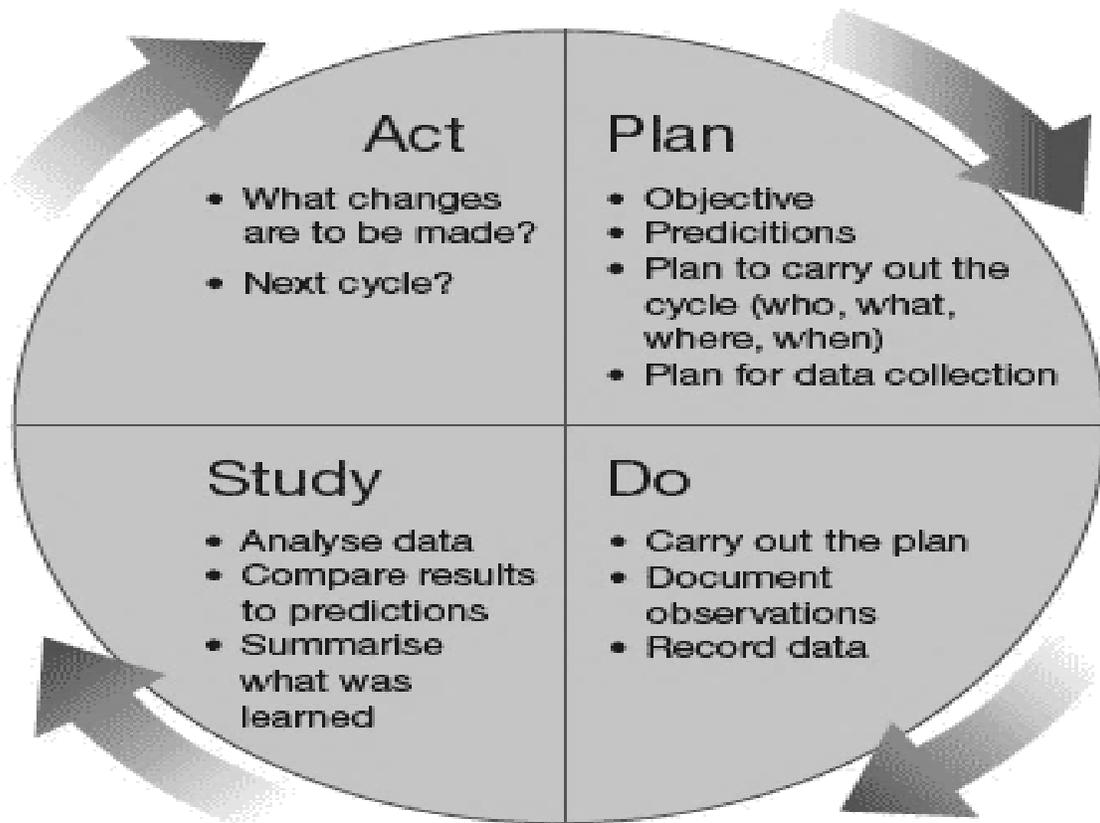
The concept of distributed or inclusive leadership was a desired outcome for the innovative—process-driven, people-centered—grantee capacity building model. Grantees were encouraged by Golden LEAF to develop leadership teams to address the varied levels of expertise needed to successfully implement these complex projects. Leadership teams were tasked with producing logic models to shape the vision for the project, crafting action plans to guide implementation, and establishing commitment from team members. Collaboration between the funder and grantee also occurred in the start-up phase of the project when common outcome measures were identified and used to populate project management plans, which grantees completed to report progress to Golden LEAF.

Within the framework, Golden LEAF used the *North Carolina Digital Learning Progress Rubric* (Friday Institute for Educational Innovation, 2016) as a guide to assist educators who were applying to the foundation for the resources they needed to implement digital learning initiatives. Golden LEAF and the Friday Institute also used the rubric as an evaluation tool to

monitor grantees' progress during project implementation. An abbreviated copy of the Digital Learning Progress Rubric Version 2 for district use can be found in Appendix B. The school version of the rubric contains major areas which allow grantees to assess their current state of development in digital learning and track progress: (a) Leadership, (b) Professional Learning, (c) Content & Instruction, and (d) Data & Assessment. A district version is also available to assess district readiness for system wide deployment. The Progress Rubric for districts includes a fifth assessment area, Technology Infrastructure & Devices, which is typically a central office function. The rubric was a vital piece of the framework and was used by Golden LEAF and the Friday Institute to immerse grantees in a cycle of continuous improvement (see Figure 2). Copies of both assessment rubrics can be found on the Friday Institute's website, <http://ncdlplan.fi.ncsu.edu/rubric/>.

Improvement Goal

The goal of this action research project was to implement and study the GLF-GCB Model to assess how the innovative—process-driven, people-centered—framework builds individual and organizational capacity in order to improve performance and sustain evaluation practice. By improving the capabilities of grant-seeking organizations to effectively implement and evaluate program activity, nonprofits should become less dependent on external evaluators and be more competitive in seeking funds from governmental and nonprofit grant-making organizations. Improved grantee capacity was expected to derive from inclusive leadership practice, meaningful collaboration between funder and grantee, structured professional development, technical assistance and coaching, and the utilization of continuous improvement methodology to drive action.



Source: Loyola University Stritch School of Medicine, 2011. Retrieved from <http://www.stitch.luc.edu/lumen/MedEd/softchalkhdht/CMEFacDevWebPage/CMEFacDevWebPage10.html>

Figure 2. Continuous improvement cycle.

Data were collected from a cohort of seven grantees that received grants from Golden LEAF to implement digital learning. Data collected during the assessment phase were used to measure the initial readiness of GLF grantees to implement digital learning and assess the initial evaluation capacity at the individual and organizational levels. To measure the utility of the framework to build grantee capacity, quantitative data collected through assessment rubrics and surveys from school and/or district leadership teams and teachers were triangulated with qualitative data collected during focus group workshops. Findings from the investigation increased understanding of the extent to which the grantee capacity building model was useful in improving performance and sustaining the evaluation practice of grant-seeking organizations.

Questions and Tasks

This action research study assisted the author in answering four questions:

- Overarching Question – How does the GLF-GCB Model impact individual and organizational capacity to inform practice and sustain continuous improvement?
- Sub Question 1 – What was the initial capacity and readiness of grantees to implement and measure the impact of grant-focused activity?
- Sub Question 2 – How did the GLF-GCB Model improve the individual knowledge and skill necessary to successfully implement digital learning and evaluation practice?
- Sub Question 3 – How did the GLF-GCB Model guide organizational improvement efforts of grantees?

From initial discussions included in the Problem of Practice section, it became clear that interest in program evaluation was growing. While evaluation talent was recognized as an essential skillset for practitioners, it remains an abstract target for grant-seeking and grant-

making organizations. Preskill and Boyle (2008) stated that even though evaluation capacity building is of great importance, research and practice are in the early stages of development with much to learn about what strategies are effective and to whom they benefit. Suarez-Balcazar and Taylor-Ritzler (2013) synthesized the state of literature and concluded that great opportunities exist to grow the body of knowledge surrounding ECB by conducting research that responds to and augments practice. Furthermore, Labin et al. (2012) described ECB as a complicated phenomenon that involves a deliberate process to increase individual drive, knowledge, and boost organizational aptitude to perform evaluation and use findings for improvement.

Labin et al. (2012) designed the *Integrative ECB Model* to organize evaluation capacity building into 3 distinct areas of focus. The first component of the model was focused on defining the need for ECB by exploring factors that influence individual and organizational learning and the extent to which results can be mainstreamed. The authors took care to identify internal and external factors for consideration such as: attitudes toward ECB; availability of resources to support it; evaluation expertise, and organizational support to facilitate evaluation practice. Answering the question *why* was identified as an important factor in successfully moving organizational practice for ECB from the current mindset of reporting as a compliance requirement imposed by grant-makers to a more holistic culture where evaluation is carried out to inform decision making for program improvement and to build organizational talent. In the second section of the *Integrative ECB Model*, Labin et al. (2012) identified ECB strategies that included theoretical constructs to inform design and implementation, methods of delivery, and the substance of ECB activities. Individual learning content was focused on attitudes and skill development while learning at the organizational level was geared more toward the processes, procedures, and leadership support needed to foster a culture of learning and mainstream

evaluation as a predictable organizational function. ECB results comprised the third sector of the Labin et al. model. The authors described individual outcomes in terms of the improved behaviors—attitudes, knowledge, and skills—needed to effectively engage in evaluation practice. Labin et al. (2012) also listed five criteria that influence organizational results: (a) processes, (b) policies, and (c) practices connected to performing and benefitting from evaluation; (d) the importance of leadership in bringing about organizational change; and (e) collective values within the institution that reinforce or encumber transformation. They concluded that mainstreaming evaluation practice was critical to the long-term goal of sustaining ECB.

CHAPTER TWO: REVIEW OF LITERATURE

A literature review was completed for the study using the Labin et al. (2012) framework to sort the research findings into 3 categories—why, how and what, and outcomes—see Figure 3. To further refine the analysis of the literature, the topic of ECB was examined through the lens of theory and practice. Within that context, it was important to view the landscape from the perspective of a practitioner working in the field of philanthropy to gain a broad interpretation of the current state of practice, recognize challenges, and identify emerging trends emanating from the field. Is there evidence that supports the struggles encountered by Golden LEAF are also challenges other grant-making organizations face? Is the trend in utilizing evidence-based evaluation practice causing struggles for both funders and grantees? And, what is being done to address evaluation capacity constraints faced by both grant-seekers and grant-makers in measuring and reporting the impact of their work? From a theoretical standpoint, it was important to learn what evaluation experts were reporting as best practices and what trends held promise in moving the field from a narrow perception of accountability to a more holistic outlook which shapes evaluation to be inclusive of leadership empowerment and continuous improvement. A summary of the Literature review is presented in Table 1.

Finally, this phase of the study was used to identify common themes from theory and practice that could inform the evaluation practice of grant-making and grant-seeking organizations to better measure the impact of their work and frame evaluation as a vital function for organizational health and well-being.

Conceptual Evidence of Need for ECB

A review of literature about evaluation capacity identified a number of consistent trends. One area of broad agreement among researchers was that ECB is in the early stages of

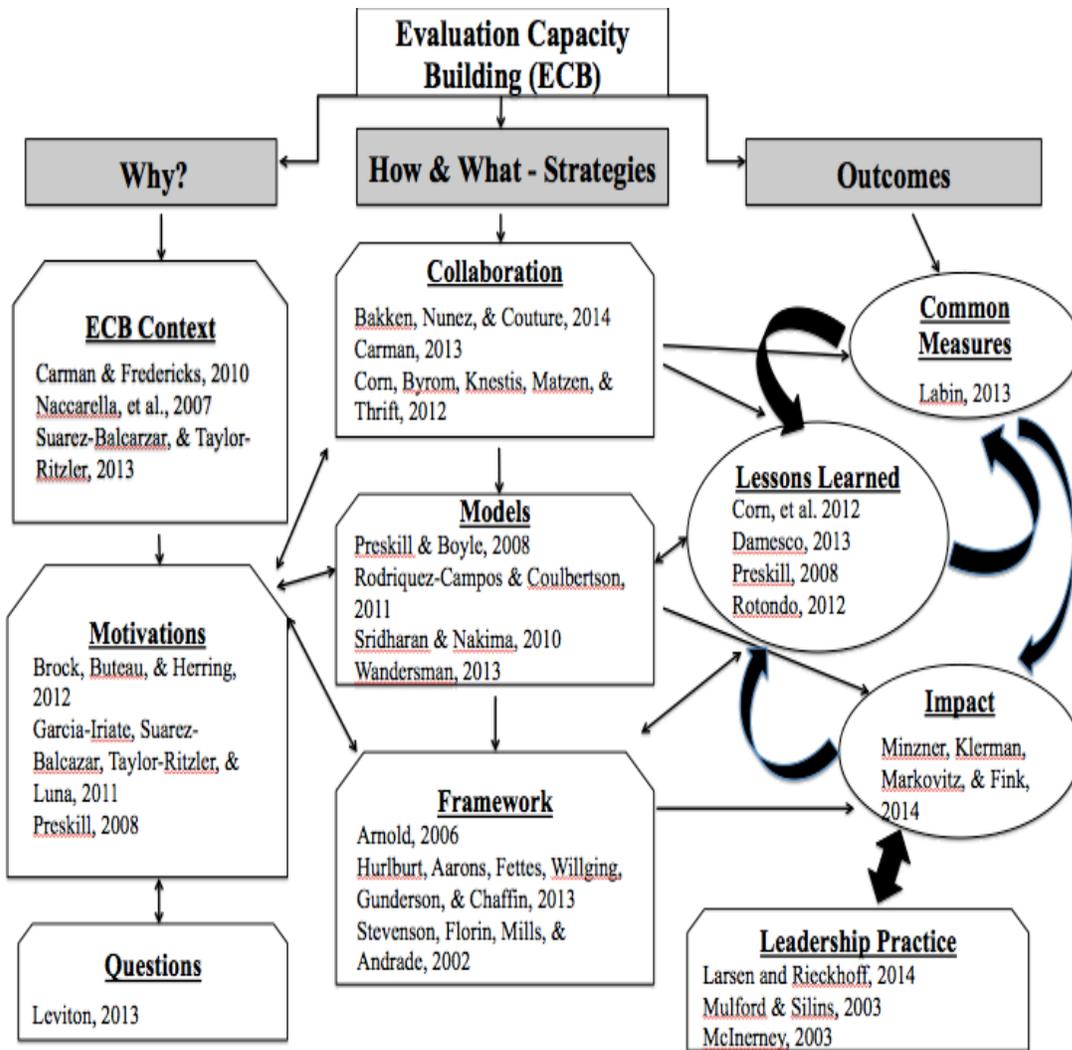


Figure 3. Evaluation capacity building literature map.

Table 1

Evaluation Capacity Building Literature Review Summary

| Source | Literature Typology | Main Findings |
|---|---------------------|---|
| Labin, Duffy, Meyers, Wandersman & Lesesne (2012); Levin, 2014; Preskill & Boyle (2008); Wandersman (2013) | Conceptual | Evaluation capacity building (ECB) is in the early stages. Interest and effort for greater knowledge, understanding, and capacity to undertake evaluation capacity is growing. |
| Gopalakrishnan, Preskill & Lu (2013) | Conceptual | The trend toward more complex societal problems has increased the importance of assessment as an essential function for organizations to use in making decisions and taking action. |
| Buteau, Buchanan, Brock & Ross (2009); Brock, Buteau, & Herring (2012) | Conceptual | Evaluation reform is desired by grant-seeking and grant-making sectors. Increased interaction is needed to transform ECB from compliance to coaching and support. |
| Leviton (2013); Wandersman (2013); Labin et al., (2012); Suarez-Balcazar & Taylor-Ritzler (2013) | Empirical | Intentional Process: The focus of ECB must move from accountability to problem solving and include leadership empowerment and continuous improvement. |
| Preskill & Boyle (2008) | Empirical | Relevant Learning: ECB programs struggle to transfer gains in skill and knowledge into action. Application is a lever to routinize ECB practice. Mainstreaming Practice: Leadership matters |
| Corn, Byrom, Knestis, Matzen & Thrift (2012) | Empirical | Shared Vision: Up-front assessments to gauge beginning capacity and organizational culture are a determinant of success for ECB. |
| Preskill & Boyle (2011); Garcia-Iriarte, Suarez-Balcazar, Taylor-Ritzler & Luna (2011); Minzner, Klerman, Markovitz & Fink (2013) | Empirical | Inclusive, holistic – systems approach: Attitudes shift from compliance to a learning process when participants understand the value and are included in the design process and adequate staff and resources are devoted to assessment by the organization. |

Table 1 (continued)

| Source | Literature Typology | Main Findings |
|--|------------------------|--|
| Rodriguez, Campos & Coulbertson (2011); Bakken, Nunez & Couture (2014); Sridharan & Nakima (2009); Rotondo (2012); Corn et al., (2012); Danseco (2013); Arnold (2006); Huffman & Thomas (2008) | Empirical | Collaboration: Evaluation design must become an integral part of the program development process and be conducted in concert with key stakeholders. The act of creating lasting change takes time and persistent commitment by grant-seeking and grant-making organizations. |

development with much to learn (Labin et al., 2012; Leviton, 2014; Preskill & Boyle, 2008). The interest and effort for greater knowledge, understanding, and capacity to undertake evaluation practice is growing (Wandersman, 2013). At the same time, the needs of society have become more complex as our economy has morphed from a domestic to a global landscape making evaluation even more critical, yet increasingly complicated. The structural changes in our economic base resulting from globalization and the lethargic recovery from the most recent economic downturn have given rise to increasing numbers of people living in poverty, which has led to more complex social ills. As a result, there are greater demands for social and economic assistance, but declining resources. This volatile economic environment has functioned to elevate the importance for grant-seeking and grant-making organizations to become more effective in their work. As society's problems have grown more complex, grant-seeking and grant-making organizations have had to become more creative in crafting innovative programs designed to tackle complex problems that are not likely to be solved using short term strategies (Gopalakrishnan, Preskill, & Lu, 2013). This evolving trend toward more complex societal problems has increased the importance of assessment as an essential instrument for organizations to fuel informed decision-making and improve action. Gopalakrishnan, Preskill, and Lu (2013) argued that evaluation practice must also continue to evolve and grow to respond to a progressively complicated and interconnected world that is rapidly changing. Traditional evaluation approaches are not well suited for creative solutions where no standard model exists, the path to success is not clearly defined, and the measures of success are at best fuzzy and sometimes unknown (Preskill, 2012). Therefore, new out-of-the-box approaches are being tested by grant-seeking and grant-making organizations to resolve these increasingly multifaceted and challenging social problems (Preskill, 2012). In her blog *A Call to Evaluate Social*

Innovation...Differently, Hallie Preskill described pioneering practices being tested to initiate change more responsively and effectively including systems building, cross-sector partnerships, focusing on collective impact design, encouraging policy development, and constructing organizational networks. She claimed that new evaluation processes are needed to facilitate real-time information flow using multiple communication channels, to fuel close working partnerships among stakeholders, and to embrace a systems orientation.

The research of Gopalakrishnan et al. (2013) identified three core trends that support the need for evaluation practice to transform: (a) innovative solutions to tackle complex problems will require new assessment strategies and capabilities; (b) economic pressures from globalization are forcing grant-seeking and grant-making organizations to work collaboratively across institutional lines to share information and best practice; and (c) the explosion of digital learning through technology and social media can be used to shorten the cycle time needed by grant-makers and grant-seekers to process and use information to better serve program beneficiaries. Further discovery by the research team recognized six strategies being used by leading social enterprises to guide evolving evaluation practice: (a) systems approaches are used to engrain longer term perspectives, (b) technology applications are inserted into the process to establish immediate feedback mechanisms that shorten the cycle time of information flow between stakeholders, (c) technology is integrated into the evaluation process to aid in collecting and analyzing data, (d) varied evaluation responsibilities are distributed across stakeholders and within institutions to support the use data for continuous improvement, (e) data visualization is utilized to illustrate system transformation, and (f) cultural norms are established with purpose to promote sustained evaluation practice within and among organizations.

Evaluation reform was also an area of need recognized by both the philanthropic and nonprofit sectors as desirable. Nonprofit capacity was cited in research by the Center for Effectiveness in Philanthropy as a key source of frustration for foundations nationally (Buteau, Buchanan, Brock, & Ross, 2009). The struggle for grantees appeared to be two-fold: limited organizational capacity and inadequate structures or systems in place to assess performance. Andrea Brock and colleagues Ellie Buteau and An-Li Herring (2012) acknowledged criticism from the philanthropic sector that grant-seeking organizations are not as effective as they need to be in measuring and demonstrating the impact of their work, but also recognized that philanthropic organizations have done little to assist the nonprofits they fund with improving evaluation practice. While more than 60% of nonprofits surveyed by Brock et al. (2012) responded favorably to receiving help from funders, the majority (71%) of leaders from those grant-seeking nonprofits reported receiving no assistance—monetary or otherwise—to assess the impact of their work. The researchers found that limited communication occurred between grant-makers and grant-seekers regarding which performance metrics and data to use to gauge progress and how to grow internal talent to collect, interpret, and report the results of their performance. In the report, the authors cited one nonprofit leader claiming that the relationship between funder and grantee must transform from a mostly compliance centered perspective to one that is more focused on a coaching or support orientation. Grant-seeking nonprofits responded favorably to inquiry about increased interaction with grant-makers concerning assessment with the greatest area of need identified being enhanced organizational capacity to collect and interpret data (Brock et al., 2012).

Philanthropic leaders also cited performance assessments as a key source of internal frustration (Buteau et al., 2009). Program staff of foundations interviewed by the research team

identified a number of significant challenges faced by them in assessing the progress of grant-supported organizations toward meeting programmatic goals. In the article, Buteau et al. (2009) discussed a variety of technical challenges associated with the complex problems targeted by grantmaking nonprofits such as how short-term data can be used to inform action targeting long-term results and how to quantify intangible outcomes that are often difficult to track (i.e. teacher effectiveness). The technical challenges identified by Buteau et al. (2009) tend to make evaluation resource intensive, thereby requiring significant commitments by grant-making organizations. Buteau et al. (2009) also argued that capacity challenges extend across institutional systems and impact the nonprofits they fund. The capacity limitations apparent in grant-seeking organizations hampered the ability of grant-makers to demonstrate the impact of their investments.

Empirical Findings

The theoretical review of literature presented above acknowledged broad agreement among researchers that evaluation capacity building (ECB) was in the early stages of development and interest to produce greater knowledge and grow capacity for evaluation practice was mounting (Labin et al., 2012; Leviton, 2014; Preskill & Boyle, 2008; Wandersman, 2013). To further explore evaluation capacity building and the gap that exists between theory and practice, a summary of practical findings will now be presented.

Intentional Process

A review of literature confirmed that ECB was a concept that was gaining momentum, but one where broader examination and development was necessary (Labin et al., 2012; Leviton, 2013; Preskill & Boyle, 2008; Preskill & Boyle, 2011; Wandersman, 2013). To aid in moving the field of study forward, Leviton (2013) proposed a series of questions about ECB for funders,

grant-seeking organizations, and evaluators. First, she challenged grant-seeking organizations to define the value propositions so that leaders and staff clearly understand the benefits and costs associated with ECB. Without clear understandings of the benefits, Leviton argued that grant-seeking organizations are more probable to continue to focus ECB on the narrow perspective of meeting accountability demands by funders, and it was unlikely that organizational emphasis would migrate toward a problem-solving approach aimed at improving services. Leviton also challenged grantees to clarify values derived from a longer term or systems perspective compared to those achieved from time-limited evaluation approaches. Leviton concluded that without a clear value proposition, grant-seeking organizations would persist in framing evaluation as a foreign actor or guest within the host entity. Second, evaluators were confronted by Leviton to think more critically about the benefits needed to increase understanding and thereby improve organizational viewpoints toward evaluation. Was resistance to evaluation synonymous with a lack of capacity or was it more a product of the ability—or lack thereof—of evaluators to appropriately guide, teach, and practice? Leviton stressed that ECB is only as good as the quality of training and technical assistance provided, which unfortunately varied greatly and was in need of improvement. Third, Leviton queried funders about the demands they placed on grantees for accountability that often distorts the value of evaluation by limiting the perspectives of grant-supported organizations to a narrow focus of compliance. She suggested a more comprehensive framework where evaluation becomes a shared value within an organizational learning culture to aid understanding and program improvement. The role of funders in ECB was also part of Leviton's inquiry. She concluded that short-term training or technical assistance was insufficient and encouraged efforts by funders to establish more

meaningful and longer lasting relationships with grantees so that evaluation moves beyond accountability to a more utilitarian function vital to organizational improvement.

Suarez-Balcazar and Taylor-Ritzler (2013) framed the current state of literature about ECB as being organized into four essential categories: (a) What is it? (b) How does it happen? (c) How is capacity demonstrated? and (d) What is the impact? The authors argued that to move the field of study forward, the science of ECB—creating new knowledge—must exist within a harmonious give and take bond with practice. They identified gaps in the research in each of the four areas and challenged future studies to strengthen and confirm existing models, characterize learning theories that reinforce skill enhancement, measure contextual and cultural factors that affect ECB, and document the utility of ECB to improve organizational performance.

Labin et al. (2012) defined ECB as a deliberate process to improve individual enthusiasm, knowledge and skill, and to enhance the organization's capacity to effectively perform evaluation practice and use its findings for action. Their research amalgamation suggested that the state of ECB—theory and practice—was early stage and in great need of advancement. Wandersman (2013) utilized the research of Leviton, Suarez-Balcazar and Taylor-Ritzler, Preskill, and Clinton to dive deeper into the why, what, and when of ECB. He concluded by stating that even though evaluation capacity is hard to attain, it must be more clearly defined and measured so the process of building capacity is understood and new knowledge can be translated into practice that grant-seeking and grant-making organizations can use to improve performance and outcomes. To pursue further understanding, Wandersman (2013) developed the Getting To Outcomes (GTO) model as a results-based approach to guide ECB. The GTO framework outlined a process—asking and answering ten accountability questions—to help key stakeholders use evaluation knowledge and tools to navigate universal planning, to aid with

quality implementation, to self-assess, and to solve problems and improve performance. The GTO model followed the continuous improvement framework of plan, do, study, and act. By illustrating the rationale, science, and practice of ECB, Wandersman implied that evaluation stakeholders would likely increase the probability of achieving the desired results.

In their 2011 study, Preskill and Boyle summarized that learning from and about ECB must be intentional by using a quote from Abigail Adams (1780):

“Learning is not attained by chance; it must be sought for with ardor and attended to with diligence.”

Relevant Learning

Another concern identified in the literature was that ECB programs typically struggle to transfer the perceived gains in skill and knowledge learned into practical application in the workplace. In other words, there is a need for individuals to experience how evaluation works in real-world situations if individual learning is to take root and produce organizational change. A number of studies were found that described models or strategies for use in designing and implementing capacity building activities such as the multidisciplinary approach developed by Preskill and Boyle (2008) to transfer organizational learning in evaluation knowledge, skill, and attitudes into sustainable practice. The multidisciplinary model was constructed by Preskill and Boyle as a comprehensive conceptual framework that embedded factors which can influence the launch, execution, and impact that ECB activities and processes have on mainstreaming evaluation practice. The left portion of the model is used to illustrate the initiation, planning and design, and implementation stages, which are framed within the core objectives of developing evaluation knowledge, aptitude, and attitude of the individual characters. Entrenched at the center of these concentric circles are multiple ECB strategies to consider when designing and

delivering training and technical assistance. The authors emphasized that in addition to design, the fidelity of implementation will also affect the transfer of learning and stressed the importance of building opportunities into the training process for participants to immediately apply what was learned in a work context. Application served as a lever to routinize evaluation as a core organizational practice.

Mainstreaming Practice

Preskill and Boyle (2008) acknowledged the importance of understanding organizational learning capacity and suggested that leadership matters. They argued that organizational leaders who value learning and evaluation, foster a culture of inquiry, and allocate time and resources to support systems to engage in and disseminate evaluation practice are critical to success. These dynamics served as levers that impacted what and how people learned about evaluation, but also affected the extent to which evaluation practice becomes mainstreamed and expected as an ongoing organizational function. The right half of the Preskill and Boyle (2008) multidisciplinary model identified the processes, practices, and resources that the authors believed were vital to sustaining practice. The model provided a set of integrated guidelines for planning, implementing, and studying ECB to maximize desired outcomes. Preskill et al., summarized by saying that many questions about ECB remain unanswered, but underscored that if assessment is to be transformational it must be intentional, universal, and viable.

Shared Vision

Corn, Byrom, Knestis, Matzen, and Thrift (2012) acknowledged that an investment of time during the early stages of project implementation to gauge beginning ability levels, know-how, and organizational culture allows technical assistance providers to be more focused and deliver more developmentally appropriate evaluation support. They acknowledged that three

dynamic forces affect collaborative change in schools: engaging moral purpose, comprehending the change process, and capacity building. Additionally, Corn et al. (2012) stated that capacity building is dependent on the degree to which educators' knowledge, skills, and attitudes are transformed, resources are accessible and deployed, educators participate in learning communities that are focused on the innovation, the program is rational, and leadership is distributed across key functional areas. Another determinant of success identified by Corn et al. (2012) was the creation of a shared identity where a cross section of participants are valued as mutual learners and leaders who possess a common vision of the project work and the proposed outcomes. The Corn et al. (2012) study produced a number of lessons learned and suggestions to improve educator evaluation capacity:

- Different stakeholders realize different purposes for evaluation. Therefore, it is important to frame ECB training as a means to maximize results from project activity and to use data to inform participants of the contributions made from their work.
- Language matters therefore it is important to develop a common understanding of terms and intent. The evaluation process should be framed from a coaching or support lens and not from a compliance perspective or a judgmental standpoint.
- Clarify the roles and responsibilities of the people involved and have a plan to coordinate activity.
- Time is an important yet limited commodity. Plan respectfully.
- Organizational change is dependent on individual transformation. Incorporate structures into the process to facilitate monitoring, reflection, and discussion of the evolution that is occurring.

- The goal of ECB should not be to create data experts. Rely on existing data when possible and focus learning on how to analyze and interpret the information.
- Success depends largely on establishing a shared identity about project outcomes. Be inclusive and use tools such as logic models to create a common understanding to drive the planning, implementation, and evaluation processes.
- Use a variety of communication strategies to disseminate information so that stakeholders are well informed.
- One size does not fit all – Utilize an asset-based approach to assess strengths, constraints, and existing capacity.

Inclusive, Holistic – Systems Approach

In their 2011 study, Preskill and Boyle sought to build deeper understanding of the motivations, strategies, outcomes, and lessons learned from ECB by interviewing individuals with prior evaluation experience. Motivations for engaging in ECB varied, but the majority of participants in the Preskill and Boyle (2011) surveys indicated capacity building strategies were initiated to address compliance requirements of grant-makers. Most practitioners reported that over time their attitudes toward assessment shifted from a compliance lens to one of viewing evaluation practice as a means to learn and grow. The authors identified ten strategies to assist individuals' learning that included: involvement in the design and implementation process, training, written materials, communities of practice, appreciative inquiry, technology infused learning, internship, mentoring and coaching, and structured meetings. None of the participating sites studied by Preskill and Boyle indicated having an ECB plan and described their experience as a gradual process of evolution. Preskill and Boyle noted a shift in attitudes more favorable toward evaluation in addition to improvements in observed outcomes—increased knowledge and

understanding, positive shifts in behavior, increased skill, improved attitudes, and decreased anxiety. The subjects interviewed by the research team were experienced practitioners who identified a number of lessons learned which included: (a) the importance of showing how and why evaluation benefits participants to create interest, motivation, and buy-in; (b) front-end assessment of the organization's prior experiences and readiness—politically and culturally—to engage in ECB; (c) utilizing an inclusive process to design and plan; (d) framing evaluation as a learning process; (e) acquiring adequate resources to undertake ECB and assessment; (f) building trusting relationships; (g) acknowledging that evaluation takes time; (h) engaging the whole organization; (i) using an asset-based approach to frame the work; and (j) mobilizing institutional champions.

Often organizations lack the resources, staff time, and funding to undertake evaluation, which negatively affect the process of implementing ECB (García-Iriarte, Suarez-Balcazar, Taylor-Ritzler, & Luna, 2011). Restricted capacity emanating from workload constraints and limited personnel may prevent organizations from pursuing a more inclusive process. García-Iriarte, Suarez-Balcazar, Taylor-Ritzler, and Luna (2011) adopted a catalyst for change model of ECB that sought to build the capacity of one member of the organization then relying on that agent to transfer knowledge and capacity to other staff members. This train-the-trainer model respected the routine work schedules of other staff but failed to incorporate the values and perspectives of others in the evaluation process, which raised concerns about the efficacy of the model to transform ECB beyond a limited perspective of accountability to a learning and development tool. Their study also did not assess whether or how evaluation capacity was developed, sustained, or used within the organization. This raised the concern about the long-term effectiveness of depending on a narrow, train-the-trainer approach.

Minzner, Klerman, Markovitz, and Fink (2014) exposed the capacity limitations of nonprofits that impair growth, sustainability, and effectiveness by looking at the effectiveness of ECB in increasing organizational capacity and identifying areas of greatest improvement. Minzner et al. (2014) noted that current work in the field of evaluation had produced little conclusive evidence that greater organizational capacity produces improved program outcomes for clients of nonprofits. From their research, the authors reasoned that topics commonly addressed in ECB training for nonprofits included grant writing and fund raising, strategic planning, board development, community outreach, and financial management, but limited or no emphasis was centered around the topic of program evaluation. Their research provided technical assistance to nonprofits across a broad scope of topics to assess organizational growth. A summary of the Minzner et al. results demonstrated growth in 5 critical areas—strategic development, fund raising, leadership development, program development, and community engagement—with the largest area of improvement occurring in program development.

Collaboration

In reality, program evaluation is often an after-thought of the program development process occurring once funding is secured and flowing rather than as an integral part of the design, implementation, and sustainment progression (Rodríguez-Campos & Coulbertson, 2011). To address this inequity, Rodríguez-Campos and Coulbertson (2011) proposed a collaborative framework that incorporates a systemic edifice, which promotes decision-making. They too followed the principle that evaluation was a learning tool and utilized a collective impact approach to engage key stakeholders throughout the process. Their Model for Collaborative Evaluation was structured to engage patrons in a deliberate process to design a collective impact assessment process with the goal of increasing the chances that findings will be used for program

improvement. The model served as a roadmap for a more holistic learning environment that allowed participants to more clearly understand the evaluation process, which should increase the odds that findings become an essential tool for future action.

Bakken, Nunez, and Couture (2014) emphasized that to be effective at building evaluation capacity providers of training and technical assistance must include stakeholders and deliver authentic learning opportunities. Stakeholder participation in evaluation practice was noted by the authors as vital to increasing ownership, which in turn would promote a cognitive shift where evaluation findings are utilized in organizational decision-making and program implementation processes (Bakken, Nunez, & Couture, 2014). Further, they differentiated between strategies that seek to impart evaluation know-how vs. those that empower individual learning and claimed that without experiential learning, knowledge and skill are most often not transferred into the work place. Bakken et al. (2014) concluded that although adult learning methodologies, coupled with authentic experiences, are critical design elements of ECB, alone they may not result in an organizational culture that values and mainstreams evaluation practice.

Colleagues Sridharan and Nakima (2011) explored the lack of clarity about how evaluations matter in forming policy and maximizing program efficiency. The authors argued that evaluation planning must reach beyond formulaic approaches typically used by external experts hired as consultants and inserted inherent attributes of the program to inform the design of the evaluation plan. Therefore, they concluded that most elements of the evaluation design should be developed in concert with key stakeholders, which is not consistent with standard commissioning of evaluation experts to conduct evaluation work. Their ten-step model was designed to inform a broad research agenda that contributes to the development of a comprehensive evaluation plan (Sridharan & Nakima, 2011). Because the research team used an

on-going developmental approach, the model relied on a non-linear, interactive process that runs contrary to standard relationships between contract evaluators and program deliverers where consultants are hired to undertake a specific scope of work and not to engage in a comprehensive process of in-depth, open inquiry. The work of Emma Rotondo (2012) also purported the inclusion of key stakeholders in the design and implementation of monitoring and evaluation systems. The participatory and learning-oriented evaluation approach described by Rotondo focused on localized learning to sustain innovations and pursued participation by external community actors in the decision-making process. She stressed the importance of developing an infrastructure of social capital to embrace and sustain innovations where consensus of public value exists. To build social capital and a culture of consensus, Rotondo stated that new approaches to evaluation were needed that promote decentralized decision-making, increase reliance on local talent, share leadership through team building, create a shared vision, establish an enabling culture, and utilize technology to facilitate quick and broad dissemination of information.

As mentioned in numerous articles, ECB is in its infancy. Therefore, innovation was identified as a key driving force for building evaluation capacity in light of its complex nature and numerous influence factors including processes that are fluid, interactive, cyclical in nature, and impacted by individual and organizational dynamics (Danseco, 2013). Danseco (2013) identified five key factors that are essential to fostering innovative practice in ECB: curiosity, courage, communication, commitment, and connection. The Five C's of innovation were consistent with factors identified by others in developing a culture of learning.

Evaluation capacity building is typically considered more resource intensive than traditional training and technical assistance. Therefore, ECB was not identified as a high priority

for grant-seeking organizations unless learning was focused on the organizations' need to get the most from the available finite resources so benefits to those receiving service are maximized (Corn et al., 2012). For ECB to be a priority for grant-seeking organizations, grant-makers must take a more active and collaborative role to establish a supportive environment. Rodríguez-Campos et al. (2011) outlined a Model for Collaborative Evaluation, which stressed the importance of using a structured process to establish long-term relationships among key stakeholders to succeed at collaborative assessment. Numerous articles referenced the value of interagency collaboration (Arnold, 2006; Bakken et al., 2014; Carman, 2013; Hurlburt et al., 2013), but most involved short-term or limited engagements. Hurlburt et al. (2013) stressed the importance of implementation fidelity in evaluation as being as critical to success as the practice utilized. Their Interagency Collaborative Team approach enabled organizations to work collaboratively to generate structural and process supports associated with effective implementation and increased ability to sustain innovation (Hurlburt et al., 2013). The model developed by Hurlburt and colleagues included a structured implementation process embedded within a four-stage framework: (a) exploration—assessment of fit and education; (b) preparation—stakeholder development and alignment, resource acquisition; (c) implementation—focus on fidelity, skill development, progress monitoring, and feedback; and (d) sustainment. Results from the study substantiated the importance of a number of the structural supports, which served to generate strong initial commitment and collaboration, inter-institutional leadership, and alignment to fit the innovative practice within the local setting.

Mary Arnold (2006) proceeded to build a collaborative ECB framework using four strategic methods for teaching evaluation that included using logic models to build understanding in the planning and design stage and provided one-on-one technical assistance to support small

team collaborations. Arnold's impetus centered on the broadly held notion that evaluation was a *top-down* request that was viewed negatively causing a great deal of anxiety and frustration by grant-supported organizations about program evaluation. The author found that utilizing logic models established a mutual landscape and a common language for educators. Logic models provide a precise roadmap to a defined end (Lynch et al., 2016). By engaging in the process of developing a logic model, participants reached a shared interpretation of how structures, resources, and strategies were translated into desired outcomes (Lynch et al., 2016).

Furthermore, Arnold found that the addition of coaching assistance and peer-to-peer team collaboration provided individualized assistance that was beneficial for building confidence and acquiring new skills in program evaluation. Arnold's model produced positive results, but did not address sustainability of practice. She claimed that the framework produced a blueprint for evaluation capacity among groups without access to evaluation expertise, but did not take into account the longer-term implications of dependency on external organizations for expertise and the typical short-term relationships in these type collaborations. No systematic studies were encountered that approached ECB through attempts to establish long-term relationships between foundations and grantees with the goal of generating more sustainable practice.

Huffman and Thomas (2008) emphasized that ECB must be framed as deliberate work that is aligned with but separate from the evaluation process. They described the field of evaluation as maturing over time to include multiple methods for steering evaluation work; however, the subject of ECB had not yet evolved to the point of including a wide range of methods to build capacity. Huffman and Thomas stated that evaluation capacity can be acquired through consultants who are experts in evaluation practice or through structured learning events on how to use evaluation tools, but in most cases lacked real-world application. Therefore,

learning was most often not transformative at the organizational level. Their collaborative immersion approach embedded application into the capacity building process by submerging individuals in continuous evaluation networks designed to confront real-world scenarios within their organizational setting. The Huffman and Thomas model used a social-constructionist, grounded theory, which recognized individual and organizational learning enhancements through social interactions within peer networks. Huffman and Thomas's research on the impact of the collaborative immersion process demonstrated success in developing individual skills in data collection and analysis, but more critically, the approach assisted organizations with developing new processes, policies, and practices for engaging in and sustaining evaluation practice.

Summary of Findings

The act of creating lasting change takes time and persistent commitments by grant-making and grant-seeking nonprofit organizations. The Golden LEAF (Long-Term Economic Advancement) Foundation was established as an endowment to assist in shaping a more prosperous future for North Carolina's rural, economically distressed communities. Therefore, identifying key factors that are useful in measuring impact and sustaining organizational practice are vital to both the success of the foundation and well-being of the communities it was created to serve. For a grant-maker to succeed in accomplishing its mission, their grantees must also be successful and skillful in determining the impact of their work. The challenge of measuring impact is a core function where both grant-making and grant-seeking organizations must improve. The desire to do better organizationally and build the capacity of Golden LEAF's grantees was the driving motivation for this study.

During the literature review, a number of recurring themes were identified that appeared consistently in journal articles from evaluation experts and in philanthropic and nonprofit sector

publications. Those themes will now be summarized for clarity. First, it became clear that the movement toward increased accountability continues to grow and gain momentum placing greater demands on public and private grant-making organizations and grant-supported nonprofits to be more effective at providing evidence of impact (Brock et al., 2012; Buteau et al., 2009; Huffman & Thomas, 2008). It was also evident that the need for ECB exists and has been acknowledged broadly from evaluation experts, grant-supported nonprofits, and the philanthropic sector.

A second area of consensus noted in the research was that ECB must be an intentional process that should purposefully seek to establish longer-term and more meaningful relationships between stakeholders. While no research journals were found where scholars conducted investigations on the association between funder and grantee, many did generalize that the engagement between grant-making and grant-seeking organizations must be structured from a coaching or support perspective and not limited to compliance. This relationship among stakeholders should also be centered on a shared value of inquiry to pursue greater knowledge and understanding, which in turn should result in systems—policy, practice, and process—to improve organizational performance. Framing the change process through a more holistic approach that addresses accountability, leadership empowerment, and continuous improvement should serve to root evaluation as a core, utilitarian function within the organization to aid with program implementation and improvement.

Another consistent finding was that if ECB is to be transformed into practice, adult learning theory must be used in the design process along with authentic learning experiences where knowledge is applied in a real-world context. Peer learning networks were similarly noted as useful strategies in the transfer of learning into application by allowing participants time to

share and reflect on the learning process. Research also stressed using an asset-based approach so that individual and organizational needs are assessed up-front to gauge readiness—beginning ability levels, know-how, and organizational culture—so that technical assistance can be more focused and developmentally appropriate (Corn et al., 2012).

A fourth area of agreement identified in the research centers on the importance of establishing a shared vision where evaluation was viewed as an integral organizational function that supports a culture of learning. Leadership should be shared and disbursed across functional areas to clarify roles and responsibilities and enhance fidelity in program implementation. Leadership empowerment was often mentioned as a critical factor in assuring that all stakeholders are valued as reciprocal learners and leaders who are encouraged to grow. In short, learning was transferred into practice when resources for ECB were made available and deployed, stakeholders participated in peer learning networks focused on implementing the innovation, and leadership was distributed across functional areas.

Fifth, the process of building evaluation capacity must be inclusive, consider the whole organization, and utilize a systems approach. Involvement in planning and constructing a comprehensive framework was crucial for evaluation to be considered by stakeholders as a core function essential to an organization's success. Therefore, leadership must be willing to allocate the necessary time, talent, and resources to evaluation and include assessment as part of the overall program design process, not as an afterthought. Building assessment into the program design process and eliciting input broadly was important for participants to view evaluation as a learning tool. Using these strategies can also promote ECB as a useful tool in building trust.

Collaboration was also a common theme that emerged from the literature. Several models of collaboration were identified from the literature review with a number of coherent benefits

mentioned. The collective impact models reviewed were consistent in using strategies that promote authentic learning, instill cross-institutional ownership, empower individual learning, and incorporate decentralized decision-making procedures. Several researchers described the ECB process as a developmental approach that evolves—plan-do-study-act—as new information is gathered and used to inform future action. The design process was described as a continuous and inclusive practice that involves local stakeholders with the intent to form lasting relationships aimed at improving services to program beneficiaries. Several research teams identified logic models as a tool to promote a shared identity through the creation of a mutual landscape and common language for participants. These collaborative models also promoted peer-to-peer learning networks that assisted organizations with the creation of systems—policies, practices, and processes—to mainstream evaluation practice.

And last, a consistent reference was found in the literature about the importance of sustaining evaluation practice. The transfer of knowledge and understanding of ECB into practice was mentioned as an essential step in mainstreaming evaluation as a core organizational function. Mainstreaming requires organizational leaders to create a culture of learning that stimulates curiosity, courage, communications, commitment, and connections (Danseco, 2013).

CHAPTER THREE: RESEARCH METHODOLOGY

Background

In 2012, the Golden LEAF Foundation (GLF) set out to improve its ability to measure the effect of contributions it was making toward helping communities with economic transition. Golden LEAF, Inc. was established in 1999 to receive 50% of North Carolina's share of proceeds from the Master Settlement Agreement that resulted from litigation between 46 states and participating cigarette manufacturers. The foundation was created as a charitable organization to provide economic impact assistance to communities adversely affected by the decline in the tobacco economy, especially those rural areas that were dependent on tobacco farming for economic livelihood. During the first 9 years of existence, Golden LEAF made more than \$300 million in grants to approximately 623 organizations. A lot of *good work* came from the grants awarded by Golden LEAF during the formative years. On the other hand, the organization had not formulated a comprehensive evaluation system and therefore struggled to assemble collective impact data from its grantmaking to tell the story and demonstrate to interested stakeholders its effectiveness in assisting communities with positive economic gains in the most economically challenged areas of the state.

Prior to 2012, impact data gathered by Golden LEAF were limited to individual grantee reports and organizational data that identified the number and amount of grant dollars distributed to grantees. The reports submitted by grantees were project specific and did not provide a common set of measures that could be used in aggregate to frame impact more broadly. Additionally, evaluation metrics were at that time identified solely by grantees and had not been intentionally correlated to the mission of the foundation. The retooling process started with research to identify best practices in the industry. The efforts centered on conversations with

other philanthropic organizations in North Carolina, as well as advice from the Foundation's audit firm BDO USA.

A comprehensive evidence-based evaluation policy and procedures document for use in monitoring grants was drafted by foundation staff and adopted by the Golden LEAF Board of Directors late in 2012. The policy laid out a process for conducting front-end due diligence and framed a set of tools for grantees to use in reporting both financial and programmatic outcomes. The policy included a set of tools for grantees such as project management plan templates, budget and expense tracking forms, grant management workshops, a site visit protocol, and risk adjusted monitoring assessments.

During the initial implementation phase, which spanned approximately eighteen months, GLF and its grantees experienced significant challenges in meeting the reporting and monitoring requirements laid out in the policy. Some grantees responded well to the shift in GLF's monitoring practices, but many struggled, especially nonprofits, educational entities, municipalities, and county governments from the most economically challenged areas of the state. The struggle for grantees appeared to be two-fold: limited organizational capacity and inadequate structures or systems in place to assess performance. Both Golden LEAF and its grantees were spending excessive time and energy completing reporting and monitoring requirements that often extended over a review period of several months and at times spanned beyond the due date for subsequent reports.

In 2013, the Golden LEAF Board of Directors approved the staff's recommendation to post a request for proposals for a special workforce initiative: Essential Skills in Advanced Manufacturing Workforce Initiative (Essential Skills). The stated purpose for the special initiative was to close the skills gap through collaborative programs that increase the talent pool

of highly skilled, technical workers aligned with identified employment opportunities of industries located in tobacco-dependent, economically distressed and/or rural communities. In addition to measuring the impact of the workforce training initiative from grants awarded to 21 community colleges, Golden LEAF also sought to improve the evaluation capacity of those grantees to combat the internal organizational challenges it identified in the early stages of implementing Golden LEAF's new grant monitoring policy. Stated objectives for the Essential Skills evaluation included: (a) collecting and reporting formative and summative results aligned with stated program priorities, and (b) using proven evaluation capacity building strategies to enhance the assessment capacity of the 21 North Carolina community colleges that were granted funding. The Golden LEAF Board awarded a grant to North Carolina State University's Friday Institute for Educational Innovation (Friday Institute) for the evaluation work. Using the Evaluation Capacity Building Framework (Corn et al., 2012), the Friday Institute created an evaluation plan to assess changes in the individual perceptions of knowledge and skills aligned with evaluation practice, the frequency of using the assessment practices, the grantee's organizational capacity to implement those practices, and grantee attitudes and beliefs towards the value of evaluation. Initial findings indicated favorable changes and improvements in the levels of program evaluation knowledge and skills acquired by individual staff of participating community colleges (Friday Institute, 2015). Many of the colleges lacked organizational processes and procedures and were under-resourced to collect data, which led to difficulties in planning and reporting (Friday Institute, 2015). Schools also described improving their relationships with external stakeholders, especially industry partners and the degree of connectivity with K-12 schools.

From these early findings, Golden LEAF made several modifications to the comprehensive grant monitoring process that included instituting face-to-face grants management workshops for new grantees and developing common outcome metrics for each grant priority area supported by Golden LEAF. The Foundation also implemented a process that encouraged increased interaction between the foundation's program officers and leadership teams from grant-seeking organizations in the application process and after awards were made to assist grantees with designing and implementing comprehensive plans to monitor progress and measure impact. Lessons learned from the Essential Skills evaluation capacity initiative were used to inform GLF's grant monitoring practices as well. From these lessons, Golden LEAF integrated grantee capacity building strategies into its education and workforce training grant programs, especially in the area of digital learning.

Investments by Golden LEAF to assist local education agencies and schools with transition to digital learning started in 2007 with partners from the North Carolina Department of Public Instruction (NCDPI), the Friday Institute, and SAS Institute. Over the past 9 years, Golden LEAF has awarded over 58 grants to middle and high schools around the state totaling more than \$27 million, (see Figure 4). In addition to making grants to schools to implement digital learning, GLF has partnered with the Friday Institute to provide professional development and coaching assistance to aid schools with implementing the research-based digital learning framework created by the partners mentioned above. This framework has been used by the Friday Institute and NCDPI to create the North Carolina Digital Learning Plan (Friday Institute, 2015), which has now been adopted by the State Board of Education as a guide for district implementation. With assistance from the Friday Institute, GLF's work in digital learning continues to be refined to aid schools with program implementation and evaluation.

Golden LEAF Digital Learning Grants

*Awarded 58 Digital Learning Grants totaling \$27,177,182.28
as of December 2015*

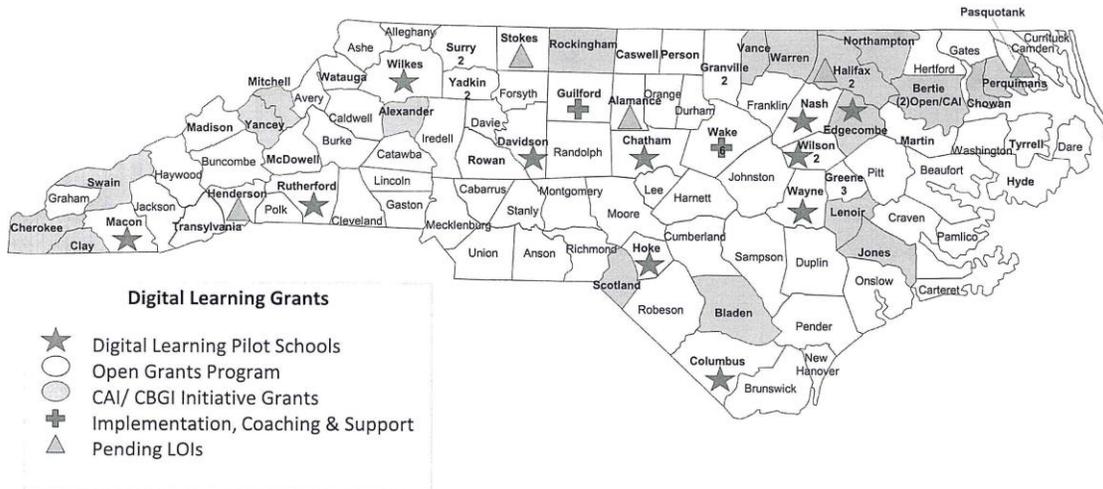


Figure 4. Golden LEAF digital learning grants.

The framework and nature of evaluation capacity building offered by Golden LEAF and the Friday Institute matured after making the initial grants to schools and/or districts to implement digital learning initiatives. In the formative years, investments were made by Golden LEAF in two pilot projects to explore how technology could be deployed to improve instructional practice and thereby improve student preparedness for work and advanced training. During the duration of the initial digital learning grant programs, the Foundation had few processes and practices to assist schools and/or districts with implementing digital learning other than professional development provided by the Friday Institute for teachers. Many of the school districts that received grants from Golden LEAF were eager to put devices in the hands of students, but viewed digital learning as a technology initiative rather than an innovation to improve instructional practice. These districts typically had not developed a clear plan for the innovation that defined the success of and expectations for their work. Additionally, most grantees had not taken the time to shape a vision statement explaining *why* the innovation was important nor created an inclusive plan that could be used to guide action. Many had also neglected to thoroughly consider the time it would take to make the transition from teacher-led to student-centered instruction and contemplate the longer-term professional development needs of staff and administrative support required for teachers to advance their practice. With limited time and resources dedicated to program design and planning, most grantees struggled; especially districts and schools located in economically distressed communities. They typically encountered unanticipated leadership challenges from a lack of administrative support and limited buy-in by school staff and parents. In short, many of those early grantees were faced with having to restart the program to address gaps in the implementation process. Several other grantees did not plan for the long-term and were unable to sustain the work once grant funds were expended.

From those early experiences, Golden LEAF and the Friday Institute molded the Golden LEAF Grantee Capacity Building Model (GLF-GCB) to incorporate a more comprehensive process that encouraged grantees to use distributive leadership practice to build inclusive leadership teams and incorporated processes and tools that addressed sustainability and continuous improvement concerns. The GLF-GCB Model was designed to include an assessment phase where a grantee's readiness to implement was first measured, then the data was used by district and/or school leadership teams to craft plans to guide program activity, determine how internal and grant resources can be best deployed to increase the probability of success, and establish sustainability plans.

The capacity building phase of the GLF-GCB Model included three professional learning events that were delivered by the Friday Institute. These events were designed to build the capacity of the organizations receiving grants from Golden LEAF and the individual school and/or district players to successfully implement digital learning. The first training institute was held prior to project implementation as a kick-off event. It was designed to assist school and/or district leadership teams with knowledge and skills to inform program design, craft implementation plans, and entrench evaluation practice into the design process. A second institute offered by the Friday Institute aimed to build the internal capacity of instructional support staff—technology directors, instructional coaches, and media coordinators—to provide the on-going professional development, coaching, digital learning resources, and other technical support needed by content-area teachers to achieve success in technology intensive instruction. The third institute was a teacher leader boot camp which focused on building the instructional practice of teacher leaders to implement sound technology-enhanced teaching and learning through 21st century strategies, tools, and resources. These professional development institutes

were designed to build the individual and organizational capacity of the leadership teams and teacher leaders to implement digital learning and measure the impact of their work. After completing the training sequence and initial program activity, school and/or districts annually were challenged to assess their progress along a growth continuum using the Digital Learning Progress Rubric (Friday Institute, 2016), School Technology Needs Assessment –Teacher (Friday Institute, 2016), and Evaluation Capacity Assessment Surveys (Friday Institute, 2015).

The third and final segment of the Golden LEAF Grantee Capacity Building Model was focused on integrating the work of continuous improvement into the policies, procedures, and practices of grant-supported organizations to mainstream evaluation as a routine function within the organizations' core systems. The work of continuous improvement was embedded into the grant reporting process by GLF and placed in practice through annual assessments completed by schools and/or districts using the Digital Learning Progress Rubric and an aligned sustainability plan. These instruments formed a basis for inquiry by GLF and the Friday Institute with grantees concerning progress made in achieving stated goals and to identify strategies for improvement. Grantees were also encouraged to engage in cross-institutional learning during the structured training institutes and form peer-to-peer improvement networks to engage in reflective dialogue and drive advancement during the implementation process. Additionally, site visits were conducted by the Friday Institute coaches and Golden LEAF to interact with leadership teams, observe teachers, and make recommendations for improvement.

Problem Statement

The purpose of this study was to implement and analyze an innovative—process-driven, people-centered—grantee capacity building model. The intent of the framework was to build individual and organizational capacity in order to improve and sustain program and evaluation

practices. The Golden LEAF Grantee Capacity Building Model (GLF-GCB) was examined within a conceptual framework of (a) accountability, (b) leadership empowerment, and (c) continuous improvement. The unit of analysis for the study was seven grantees that implemented digital learning initiatives with support from Golden LEAF and the Friday Institute. The research was framed by four questions. The overarching question explored the overall utility and impact of the GLF-GCB Model to build grantee capacity to inform practice and sustain continuous improvement. The first Sub Question assessed the initial capacity and readiness of grantees to implement grant-supported activity. Sub Question 2 sought to measure improvements in the capacity of individuals to successfully implement and evaluate the impact of grant-supported work. The final research question, Sub Question 3, was crafted to develop an understanding of how the Golden LEAF Model was used to inform the work of grant-supported organizations to continuously improve and sustain their work.

- Overarching Question – How does the GLF-GCB Model impact individual and organizational capacity to inform practice and sustain continuous improvement?
- Sub Question 1 – What is the initial capacity and readiness of grantees to implement and measure the impact of grant-focused activity?
- Sub Question 2 – How does the GLF-GCB Model improve the individual knowledge and skill necessary to successfully implement digital learning and evaluation practice?
- Sub Question 3 – How does the GLF-GCB Model guide organizational improvement efforts of grantees?

Research Design

Evidence from research included in the Problem of Practice section provided clear signals that interest in program evaluation was growing. While evaluation talent was recognized as an essential skillset for practitioners, it remained an abstract target for grant-seeking and grant-making organizations. Preskill and Boyle (2008) stated that even though evaluation capacity building is of great importance, research and practice are in the early stages of development with much to learn about what strategies are effective and to whom they benefit. Suarez-Balcazar and Taylor-Ritzler (2013) synthesized the state of literature and concluded that great opportunities existed to grow the body of knowledge surrounding evaluation capacity building (ECB) by conducting research that responds to and augments practice. Furthermore, Labin and colleagues (2012) described ECB as a complicated phenomenon that involved a deliberate process to increase individual drive, knowledge, and boost organizational aptitude to perform evaluation and use findings for improvement. Practical application of evaluation theory was identified as a critical factor in empowering organizations to become more successful in enacting, scaling, and sustaining innovation and evaluation practice.

Action research is grounded in bringing theory to practice (Mintrop, 2016). Action research involves an iterative cycle of analyzing, planning, doing, and evaluating to inform future action (Mintrop, 2016). Mintrop described action research as a methodology that is used to enable researchers to serve as change agents who actively participate in the intervention and study action. While biases are innate in all research, action research places transformative leaders at center stage where control and distance move inward (Mintrop, 2016). For leaders of action research, Mintrop stated that control and distance are internalized through critical self-reflection and reflection with others.

My role in the digital learning initiative at Golden LEAF was one of transformative leader as well as funder. Active engagement by the author along with the Friday Institute and other partners in the initial research, planning, implementation, and evaluation fueled continuous scholarship about the effective use of technology-rich instruction to improve teaching and learning, thereby resulting in a more comprehensive set of criteria and program model. The author's role as change agent in the initial and on-going efforts to mold a digital learning framework to augment educational reform influenced the development of North Carolina's Digital Learning Plan. That role included the development of the tools and interventions used to forge the innovative—process-driven, people-centered—framework referred to as the GLF Grantee Capacity Building Model (GLF-GCB). Therefore, it seemed appropriate, given the author's position as change agent, to use an action research study design to analyze the utility of the GLF-GCB Model.

The GLF-GCB Model was studied within a framework of (a) accountability, (b) leadership empowerment, and (c) continuous improvement. The following independent variables were entrenched in the GLF-GCB Model: distributive leadership practice, funder/grantee collaboration, structured professional development, coaching, and continuous improvement. A transformative lens was used to investigate: (a) to what extent individual confidence and skill levels to perform and use evaluation data for decision-making improved, (b) how collaboration between funder and grantee aided the process of building the evaluation capacity of grant-seeking organizations, thereby improving the fidelity of implementation, and (c) how organizational learning influenced the internal capabilities of grantees to sustain evaluation practice

Phase I- Assessment

The initial phase of the GLF-GCB Model was designed to assess the readiness of schools and/or districts to implement digital learning and establish baselines for common performance metrics to measure progress against. Readiness assessments were conducted by Golden LEAF and the Friday Institute using quantitative data collected from schools and/or districts through the following instruments: the NC Digital Learning Progress Rubric (Friday Institute for Educational Innovation, 2016); the School Technology Needs Assessment – Teacher (STNA-T) surveys (Friday Institute for Educational Innovation, 2016); and, the Golden LEAF Evaluation Capacity Assessment (Friday Institute for Educational Innovation, 2013). Copies are attached in Appendices B, C, and D.

All grantees funded by Golden LEAF to implement digital learning initiatives were asked to use the Progress Rubric to complete an initial assessment of the school and/or district's readiness to implement digital learning. The Progress Rubric is a strategic planning tool designed to serve as a guide for schools and/or districts to navigate the transition from traditional to technology-rich teaching and learning (Friday Institute, 2016). The rubric outlines a vision for digital learning and was used by Golden LEAF to determine an initial baseline assessment of grantees' readiness to implement digital learning and to measure progress over the grant term through annual assessments. The Progress Rubric was designed to help school and/or district leadership teams reflect on their current state of practice, create implementation and sustainability plans, experiment with innovations, determine next steps, and track progress (Friday Institute, 2016).

The Progress Rubric contains four major categories which allowed school level grantees to assess their current state of preparedness and track progress: (a) Leadership, (b) Professional

Learning, (c) Content & Instruction, (d) Data & Assessment. For districts an additional construct is included (Technology Infrastructure & Devices) (Friday Institute, 2016). The progress rubric includes a protocol for survey administration and has a scoring mechanism where points are assigned based on participants' answers to questions within each construct category. Points assigned in each category are added together to determine a total score. The total is then compared to a scoring grid to determine the organizations' current state of readiness or position in four stages of development: Early, Developing, Advanced, and Target. The Progress Rubric was a critical piece of the GLF-GCB Model and was used by Golden LEAF as a common outcome metric on grantees' progress reports to monitor growth and accomplishments during project implementation. Golden LEAF and the Friday Institute also used the Progress Rubric as a framework to assist grantees with developing sustainability plans. The sustainability plans developed by grantees served as a continuous learning tool. Grantees were required to annually re-administer the Progress Rubric to reflect on practice, assess growth, and update sustainability plans to inform future action. The iterative use of the Progress Rubric by grantees allowed Golden LEAF and the Friday Institute to immerse grantees in a cycle of continuous reflection that served to inform and improve practice. Data collected from grantees were analyzed using simple statistical calculations to measure growth in aggregate and within the categories contained in the Progress Rubric.

The Friday Institute used the STNA-T survey to assist school and/or district leadership—administrators, technology facilitators, media coordinators, instructional coaches, teachers, or technology committee members—teams with collecting data to plan how technology was utilized at the school level and to improve teaching and learning (Friday Institute, 2016). The Friday Institute validated the STNA-T survey tool as an effective and dependable instrument to

measure teacher effectiveness in using technology as a tool to improve teaching and learning (Corn, 2007). Data collected from the survey were not reported at the individual level, but rather combined with responses from other educators at each school and reported in aggregate to show the number of times a response was selected for each question. STNA results were used by the Friday Institute to identify the professional development needs of the school and/or district and develop customized training programs to assist teachers and administrators with the conversion to student-centered, technology-rich instructional practice. Golden LEAF used the initial data collected by the Friday Institute from the STNA-T survey as baseline data. The survey was administered annually to measure the progress teachers made in transitioning to digital learning. STNA measured activity in the following categories: Supportive Environment for Technology Use, Professional Development, Teaching and Learning, and Impact of Technology (Friday Institute, 2016). Data collected from grantees were analyzed using simple statistical calculations to measure aggregate teacher growth at the school and/or district level.

Golden LEAF and the Friday Institute also collected data during the assessment phase using the Golden LEAF Evaluation Capacity Assessment Survey for Digital Learning (Friday Institute, 2013) to determine the individual knowledge and skills and organizational practices that support evaluation efforts. The survey was first administered at the Leadership Institute where members of grantee leadership teams were asked to complete the assessment as part of their team's learning experience. During the 2016 Leadership Institute, sixty-two (62) participants from the seven-grantee leadership teams attended the initial technical assistance event. Data were collected by the Friday Institute from fifty (50) participants and reported by leadership team (81% response rate). Results from the initial surveys were used by Golden LEAF to establish a baseline of initial evaluation capacity for each grantee. The Golden LEAF

Evaluation Capacity Assessment Survey was administered again after the first implementation period to members of grantee leadership teams attending the 2017 Leadership Institute to measure growth against the prior year pre-assessment data. A total of four grantees attended the 2017 event with 22 team members completing the post assessment. Grantee 6's grant term expired prior to the 2017 Institute causing the district to opt out of the project due to not having available resources to support travel and subsistence. Grantee 2 restructured its leadership team with a broader membership base—teachers, support personnel, and administrators—and chose to attend the leadership track for new grantees. Grantee 4 completed the ECB post assessment, but was unable to attend the 2017 Institute. Data collected from five grantee leadership teams (64% of the original respondents) remaining in the study were analyzed using simple statistical calculations to measure growth in individual skills and knowledge and organizational abilities to support and sustain program and evaluation practice.

In analyzing the baseline data from the initial assessments, two issues were identified that could potentially bias the results and compromise the usefulness of the baseline data from the Evaluation Capacity Assessment Survey. First, respondents rated their beginning organizational capacities unusually high (responses ranged from 88 -100%) in replying to statements #9 – 15 on the pre-assessment survey leaving little room to determine growth, see Pre-ECB Assessment columns in Table 2 Organizational Capacity Assessment Survey Results. Overstated valuations of beginning capacity could be influenced by a number of factors such as the respondents not having clear knowledge and understanding of evaluation practice prior to taking the survey (*I don't know what I don't know*), participants' desire to have peers view their organization favorably, or the organization could already possess strong evaluation capabilities.

Table 2

Organizational Evaluation Capacity Building Pre-Assessment Survey Results

| <i>My organization has the capacity to...</i> | Pre- ECB Assessment (N=50) | |
|---|----------------------------|-----------|
| | Low | High |
| Develop policies and procedures to improve an initiative/program | 12% | 88% |
| Implement programmatic changes informed by evaluation findings | 10% | 90% |
| Identify and utilize the necessary resources to conduct and use evaluations | 12% | 88% |
| | Not at All | Very Much |
| Evaluation can improve organizational practices | 2% | 98% |
| Evaluation can support decision making efforts | 0% | 100% |
| Evaluation yields useful information | 2% | 98% |
| Evaluation adds value to the organization | 0% | 100% |

Further examination led to the discovery of a second more critical problem that likely skewed participant responses. In comparing the survey against initial leadership team responses, an error was found in the format used to replicate the survey tool in the data collection software. The error resulted from a misinterpretation of the response options available to participants completing the survey. The Likert scale options available in the survey questions were limited to only two (e.g. High – Low) choices vs. a scale that included seven possibilities—Very Low...to...Very High—as presented in the original instrument, (see Appendix D). Limiting the response options likely influenced survey participants to choose the more favorable option when completing the survey.

Two options were explored to address the potential bias contained in responses collected for the baseline data. One alternative considered was to reconstruct the survey instrument to include a retrospective pre-post look at the individual and organizational capacity statements. Participants would first be asked to indicate where along the continuum they would rate themselves or the organization after the first year of work. Then through retrospect, individuals would be invited to identify where they would rate themselves or the organization prior to starting the project. While viable, this option has the potential to frustrate or confuse participants and was therefore not chosen as a preferred course of action. A second option was identified in consultation with the dissertation chair and vetted with key stakeholders. That option involved using an interactive format for the focus group workshop where members of grantee leadership teams were engaged in a reflective process to identify progress made during the initial implementation period, pinpoint factors that contributed to or prohibited advancement, and challenged participants to use data to initiate planning for next year. Objectives for the protocol were: (1) to engage school and/or district Digital Learning Leadership Teams in a data informed

process designed to identify accomplishments and challenges encountered in the initial phase of implementing digital learning and craft improvement plans to guide future action; and, (2) to assist GLF with assessing the utility of the GCB Model to build individual skill and knowledge and enhance organizational practices to improve performance and sustain evaluation practice as a routine organizational function. Data from the Focus Group Workshops were used to inform the Overarching Question and Sub Questions 2 and 3. A complete copy of the GLF ECB Focus Group Workshop Protocol can be found in Appendix E.

Phase II – Capacity Building

The Friday Institute hosted three professional development institutes during the initial year of project implementation which were designed to build the capacity of grantees from three distinct groups that played key roles in transitioning school-level instructional practice to digital learning: leadership teams; technology and instructional support personnel; and teacher leaders. During these professional development institutes, grantee leadership teams gathered at the Friday Institute to receive training specific to the leadership, coaching and support, and instructional responsibilities required for successful implementation. In addition to Friday Institute staff, prior grantees were recruited to lead sessions with new GLF grantees.

The engagement of new and existing grantees in the leadership, coaching, and teacher professional development institutes was intended to create social learning opportunities and inspire *Network Improvement Communities* (Bryk, Gomez, Grunow, & LeMahieu, 2016) to form with the intent of improving outcomes through shared experience exchanges. The concept of a Network Improvement Community (NIC) was created by Douglas Engelbart to accelerate learning by creating structured opportunities for cross-institutional, collaborative learning using methods of improvement science (Bryk et al., 2016). According to Bryk and colleagues (2016), a

NIC contains four fundamental characteristics. It is: (a) focused on a common aim; (b) has clear comprehension of the problem, the system that manufactures it, and a shared working model to improve outcomes; (c) utilizes a disciplined approach of continuous improvement; and, (d) incorporates a systems approach to accelerate learning into practice and support efforts to scale the intervention. Further, Bryk and colleagues suggested that a NIC creates a research-practice link that invites active participation by the researcher to join as a change agent. The GLF-GCB Model appeared to mimic the characteristics of a NIC. Golden LEAF, as funder, provided grant resources to the Friday Institute to serve as a network hub for GLF grantees. The funds were used by the Friday Institute to host professional development events for GLF grantees and provide coaches experienced in effectively integrating technology into instructional practice to help grantees: (a) identify improvement priorities and provide regular feedback on progress made in achieving common outcomes; (b) examine what was working, for whom, and under what conditions; (c) elevate best practice and inspire others to test it further or adopt the intervention; and (d) with validating improvements to accelerate scaling (Bryk et al., 2016)

GLF grantees were expected to form leadership teams to guide project administration and participate in a leadership development institute hosted by the Friday Institute. The grantees' superintendents and school administrators selected the membership of the leadership teams. Leadership team members included the following: Technology Director, Instructional Coach/Technology Facilitator, Media Coordinator, Curriculum & Instructional Director, Teachers, and the Principal or Assistant Principal of the school. The Friday Institute's Leadership Institute was held prior to grantees moving into the implementation phase of work. The first institute served as a kick-off event to begin the process of preparing school and/or district leadership teams with the knowledge, skills, and tools needed for a successful project

launch. The event was designed to bring a diverse leadership group from each grant-supported organization together to begin the process of forming a vision for success and creating an implementation plan to guide project work. Leadership teams were given opportunities to organize and delegate core responsibilities to its members, participate in training sessions on leading educational innovations, and establish relationships with staff from GLF, the Friday Institute, and other grantees. All seven (7) grantees sent teams to the kick-off event with a total of sixty-two (62) members attending. Prior GLF grantees that had demonstrated success in transitioning schools to digital-aged instruction, along with members of Friday Institute team, served as session facilitators for the 2016 event. While at the institute, individual participants completed an Evaluation Capacity Assessment (Friday Institute, 2013) to establish baseline data for the individual knowledge and skill levels and the organizational practices used to support internal implementation and evaluation efforts. Data collected from the survey were reported by grantee team and were not identifiable to any one individual. The assessment was administered again after the first implementation period when grantee leadership teams returned to the 2017 Leadership Institute. The Friday Institute also administered an evaluation survey of the professional development events to gather feedback from participants concerning the quality and usefulness of the training offered. Surveys collected at the leadership institutes were submitted anonymously and event participation was open to and attended by non-GLF grantees. Therefore, survey results regarding participant satisfaction of the trainings were not included as part of this study, but were analyzed and discussed during peer learning meetings between the principal investigator, Friday Institute coaches, and Golden LEAF program officers.

The Coaching Digital Learning Institute (CDLI) was the second cross-institutional, professional development event hosted by the Friday Institute. Six (6) grantees sent staff—sixty

(60) total attendees—to the October 2016 technical assistance event. Participants that attended the CDLI served in support roles for their institutions delivering professional development and providing classroom support to teachers through coaching, co-teaching, and access to digital resources and other forms of technical assistance to aid in the transition. The Coaching Digital Learning Institute included the following collaborative learning content:

- Strategies and resources for success in the instructional technology facilitator role;
- Exploration of new and existing tools and resources to advance instructional practice;
- Professional development programs and strategies to introduce teachers to Web 2.0 tools and other emerging technologies for use in classroom applications;
- Sharing and networking opportunities to foster professional learning across districts;
- Skill building in the use of technology in core content areas;
- Opportunities to explore digital literacy and identify how to leverage the potential of digital tools to improve teaching and learning; and,
- Strategies to utilize formative, summative, and diagnostic assessment in digital learning to improve instructional practice and student outcomes.

Participants of the Coaching Digital Learning Institute completed on-line surveys at conclusion of the two-day event. Surveys collected at the coaching institute were submitted anonymously and participation was open to and attended by non-GLF grantees. Therefore, survey results from the professional development event were not incorporated into the study, but were analyzed and discussed during peer learning meetings between the principal investigator, Friday Institute coaches, and Golden LEAF program officers.

The third professional development institute targeted classroom teachers. The Teacher Leader Boot Camp was designed to empower and equip teacher leaders for instructional design

and to deliver technology-rich and engaging lessons to advance student learning. Sixty-four (64) teacher leaders from all seven (7) grantees were given opportunities to:

- Analyze, plan, and apply strategic and effective standards to digital learning environments;
- Learn how to effectively use sound technology-enhanced teaching and learning through 21st century instructional strategies, tools, and resources;
- Engage in experiential learning activities, small group collaboration, and reflection on the effective use of web-based tool, resources, and best practices;
- Debunk for participants what teaching and learning looks like in student-centered, technology-rich school environments; and,
- Build capacities of and strategies for individuals to advocate and support alignment of digital learning with system level professional development planning.

At the conclusion of the capacity building event, the Friday Institute surveyed participants. Surveys collected at the teacher leader institute were submitted anonymously and participation was open to and attended by non-GLF grantees. Therefore, survey results from the professional development event were not used as part of the study, but were analyzed to measure the effectiveness of the training provided at the event and discussed during peer learning meetings between the principal investigator, Friday Institute coaches, and Golden LEAF program officers.

Phase III – Continuous Improvement

A total of forty-three (43) individuals from five grantees completed focus group workshops at the end of the initial year of implementation. The makeup of attendees included fifteen (15) administrators, eight (8) support personnel, and twenty (20) teachers. The number of

people that participated in these workshops was greater than the quantity attending the 2016 and 2017 Leadership Institutes due to the following: Grantee 3 had turnover in the superintendent's position and wanted the interim leader to be part of the year two planning process. High school administrators from the district were also invited to attend to address concerns expressed by central office staff and school administrators about issues stemming from students migrating from the middle school where students had access to digital resources to the high school where those resources were not yet available. As mentioned previously, Grantee 4 implemented digital learning at their two remaining high schools. Originally, this grantee utilized one district level leadership team, but over the deployment period migrated to two school-based leadership teams that included members of the district team as well as teachers, administrators, and support staff from the individual schools that participated in the Coaching Digital Learning Institute and Teacher Leader Boot Camp. Other grantees also invited new participants to the focus group meetings to either broaden the leadership foundation or out of interest to rotate new members into the process to drive deeper engagement.

The focus group workshops were conducted using a semi-structured and informal format. Data from School Technology Needs Assessment -Teacher surveys (STNA-T), Progress Rubrics, evaluation capacity surveys, and other available data were circulated to leadership team participants in advance of the exercise to allow time for participants to review their data. To kick off the workshop, teams were first divided into affinity groups based on three sub-classifications: administrators, instructional support staff, and teachers. The affinity groups were first asked to examine and discuss the pre and post assessment data and, as a group, generate a list of what worked and what did not work for presentation to the broad leadership team. The affinity groups were then directed to regroup as a leadership team to complete a gallery walk where individual

members prioritized items from each list generated by the affinity groups. The leadership team was next tasked with producing a map of core strategies to help guide action during the second year of implementation, and begin the process of updating their GLF Sustainability Plan. During the workshop, guiding questions were used to encourage participants to reflect on their work and accomplishments from the initial performance period. To close the session, participants were asked to reflect on the experience and respond to four basic questions listed below. A copy of the Focus Group Workshop Protocol can be found in Appendix E.

- Question #1 – What knowledge or skills have you learned or improved upon during the initial phase of implementation? How did your participation on the leadership team enhance your understanding of and appreciation for program evaluation?
- Question #2 – Do you feel more confident in your ability to measure the impact of your work now vs. prior to participating in the project? If yes, what was useful in building your confidence? If you are not more confident, what help do you need to improve? What would you want to learn more about?
- Question #3 – What additional resources or adjustments are needed from your organization to mainstream evaluation practice as a regular function in your school and/or district?
- Question #4 – Was this exercise beneficial and how will those benefits translate into improved performance for your organization?

Data from the focus group workshops were summarized by grantee then coded to identify emerging themes that were used to determine how the GLF-GCB model helped guide the organizational improvement methods of grantees. Qualitative data from the focus groups were also triangulated with quantitative data collected from pre and post assessments to evaluate the

overall effectiveness of the model to build the individual and organizational capacity to inform practice and sustain continuous improvement.

Data Collection

The purpose of this study was to implement an innovative— process-driven, people-centered— grantee capacity building model to assess the extent to which individual and organizational capacity to perform and sustain program evaluation was improved. To analyze the utility of the Golden LEAF Grantee Capacity Building Model, the principal investigator collected and analyzed data from four primary sources. First, sixty-two (62) staff from seven grantees attended the Friday Institute’s 2016 Leadership Institute where they formed leadership teams and began preparing for project implementation. During the kickoff event, participants used the GLF Digital Learning Evaluation Capacity Assessment (ECB) Survey (Friday Institute, 2013) to assess their individual knowledge and skills and organizational practices that supported implementation and internal evaluation efforts. Data from the initial (pre) surveys were used to establish baselines to measure growth against. Fifty (50) individuals from the seven grantees completed the ECB pre-survey, which represents an 81% completion rate. The ECB survey was administered again (post survey) during the 2017 Leadership Institute after grantees had completed an initial period of implementing the digital learning project. A total of four grantees sent twenty-two (22) participants to the 2017 Institute. Grantee 4 was unable to participate due a mandatory district meeting, but the eight members (8) of the district leadership team that attended the 2016 Leadership Institute completed the post ECB survey after concluding the Focus Group Workshop. Grantee 6 chose not to participate in the 2017 Institute due to having exhausted available grant resources for professional development and opted out of the study. Grantee 2 chose to attend the 2017 Institute as a first time rather than returning attendee to retool

the membership of the leadership team. The ECB post survey was limited to individuals from grantee organizations that participated in the Capacity Building Phase of the GLF-GCB Model. A total of thirty (30) individuals from five (5) grantee leadership teams completed the post assessment survey. This represented a 60% post survey response rate of the original 50 pre-assessment ECB surveys completed by the five grantees remaining in the study.

Second, the initial cohort of seven grantee leadership teams completed the NC Digital Learning Progress Rubric (Progress Rubric) as a pre-assessment of readiness prior to implementation. Five grantees completed a post assessment using the Progress Rubric after the initial implementation period to evaluate progress in moving along the development continuum in key implementation categories. Third, grantees completed pre (7 grantees and 346 teachers) and post (5 grantees and 211 teachers) School Technology Needs Assessment – Teacher surveys to measure the progress of teachers in effectively integrating technology-rich instruction into classroom practice. Fourth, data were collected from five (5) grantee leadership teams (89 participants) during focus group workshops. Quantitative and qualitative data collected from grantees were triangulated to identify trends and areas of improvement.

Data collected through the Evaluation Capacity Building Assessment Survey, NC Digital Learning Progress Rubric, and School Technology Needs Assessment-Teacher Survey were existing data collected by the Friday Institute. The Friday Institute gave permission for Golden LEAF to access and use data collected in conjunction with Golden LEAF's digital learning grants and for this study. A copy of the permission letter from the Friday Institute to allow access and use data collected from digital learning grantees is included in Appendix F.

All data collected was stored on a secure server at the Golden LEAF Inc. in a partitioned drive accessible only by the network administrator and the author. The personal drive was

password protected and secured through a series of firewalls. East Carolina University's Medical Center Institutional Review Board approved the study proposal under an exempt status on November 30, 2016. A copy of the approval notification is included in Appendix A.

Data collected from grantees by the Friday Institute were aligned with the research questions, see Table 3, to assess the utility of the GLF-GCB Model to build individual and organizational capacity to inform practice and sustain continuous improvement.

Context of Grantees

Seven grantees were originally identified for the study. All grantees were awarded GLF resources to implement digital learning initiatives at the school or district level. These grantees initiated digital learning either at select schools or as a pilot across the district based on cohorts of teachers who had achieved digital competency and thereby demonstrated readiness to integrate technology into classroom instructional practice. The seven grantees in the 2016-17 GLF study group consisted of three middle schools, two high schools, one district integrating technology in grades 6-12, and two districts where digital learning initiatives were implemented using teacher cohorts across schools within the district. A brief description of each grantee is provided below.

- Grantee 1 is a Local Education Agency (LEA) that implemented digital learning in one of two middle schools. The grantee is located in an economically distressed, rural, northeastern county. The middle school was designated as a Title 1 Low Performing School with enrollment of 592 students in grades 6-8. The school's population was made up of 49% Caucasian, 37% African American, 7% Hispanic, and 3% multiple race students with 52% female and 48% male. School performance data listed on the North Carolina Department of Public Instruction website for the

2015 academic year indicated

Grantee 1 did not meet growth, and all aggregate grade level proficiencies were below state averages. The school used a one-to-one (student to device ratio) model to integrate digital learning at the school.

- Grantee 2 is an LEA located in an economically distressed, rural, northeastern county that has only one middle school. Grantee 2 had approximately 215 students in grades 5-8. The middle school was rated a Title I Low Performing School with more than 95% of the students qualifying for the Free or Reduced Lunch Program. Over 90% of the students were African American and most came from households with parents under the age of forty. During the 2015 school year, the school exceeded growth, but aggregate student grade level proficiencies were significantly below state averages. The school used a one-to-one-model to integrate digital learning at the school.
- Grantee 3 is an LEA with one middle school and is located in western NC in an economically distressed, rural county. The middle school where the digital learning initiative was deployed had approximately 574 students in grades 6-8. During the 2015 school year, this middle school met growth, but the aggregate grade level proficiency for the school was slightly lower than the state average. Grantee 3 also implemented a one device to one student model.

Table 3

Research Questions

Overarching Question:

How does the GLF-GCB Model impact individual and organizational capacity to inform practice and sustain continuous improvement?

| Research Phase | Data Collection Instrument | Data Collected From | Method of Approval |
|----------------|----------------------------|---------------------|--------------------|
|----------------|----------------------------|---------------------|--------------------|

Sub Question 1 – What is the initial capacity and readiness of grantees to implement and measure the impact of grant-focused activity?

| | | | |
|---------|--|-------------------------|-----------------------|
| Phase 1 | NC Digital Learning Rubric - Pre | Leadership Team Members | NCSU Friday Institute |
| Phase 1 | School Technology Needs Assessment (STNA-T)- Pre | Teachers | NCSU Friday Institute |
| Phase 1 | GLF Evaluation Capacity Survey - Pre | Leadership Team Members | NCSU Friday Institute |

Sub Question 2 – How does the GLF-GCB Model improve the individual knowledge and skill necessary to successfully implement digital learning and evaluation practice?

| | | | |
|---------|---------------------------------------|-------------------------|-----------------------|
| Phase 2 | STNA-T - Post | Teachers | NCSU Friday Institute |
| Phase 2 | NC Digital Learning Rubric - Post | Leadership Team Members | NCSU Friday Institute |
| Phase 2 | GLF Evaluation Capacity Survey - Post | Leadership Team Members | NCSU Friday Institute |

Sub Question 3 – How does the GLF-GCB Model guide organizational improvement efforts of grantees?

| | | | |
|---------|----------------------|---------------------|---------------|
| Phase 3 | Focus Group Workshop | Leader Team Members | Consent Forms |
|---------|----------------------|---------------------|---------------|

- Grantee 4 is a rural LEA that is located in an economically disadvantaged county in the Piedmont Triad region. Grantee 4 previously implemented digital learning in one of the county's three high schools and was now using a second Golden LEAF grant to scale the initiative at their two remaining high schools. School 1 had approximately 561 students while School 2 had 900 students. School 1 met growth during 2015-16, but School 2 did not meet growth. End of course aggregate proficiency levels for both schools were below the state average for 2015.
- Grantee 5 is a Local Education Agency in western NC. This grantee has approximately 5,000 students in a district that is located in a rural, economically distressed county. Grantee 5 implemented a one-to-one model of digital learning in the middle grades of five K-8 schools and one traditional and two early college high schools. Average school size for Grantee 5 ranged from approximately 490 students in grades K-8 to around 480 at the high school level. The district's aggregate grade level proficiencies were below the state averages in end of grade (6, 7, and 8) and aggregate end of course tests at the high schools for 2015.
- Grantee 6 is an LEA that is located in a growing, suburban county in the Piedmont Triad region. The district had approximately 23,000 students in grades Pre-K-12 and served a diverse community with twenty elementary schools, seven middle schools, seven high schools, an early college high school, a state-of-the-art career and technical education center, and an alternative school. The district initiated digital learning through a scale-up plan using model classrooms that deployed technology with teachers who demonstrated digital proficiency through a certification process. Initially, Grantee 6 had twenty teachers who completed the certification process.

These badged teachers led the initial deployment. Grantee 6 engaged the Friday Institute's professional development team using internal funds to initiate teacher and administrator training for more than a year prior to receiving a GLF grant to purchase devices for students. The district's aggregate proficiency levels for the 2015 end of course and end of grade tests were all below state averages.

- Grantee 7 is located in a high growth, suburban county in the western region of the state. The district had approximately 13,500 students enrolled in 23 schools (13 elementary, 4 middle, 4 high schools, 1 workforce academy, and 1 early college high school). Grantee 7 used GLF resources to provide professional development to teachers and administrators and planned to use county resources to purchase technology and scale digital learning across the district's schools over a three-year period. This district also used internal funds for professional development delivered by district instructional technology coaches the year prior to the initiative. Deployment occurred in high school classrooms using a cohort model during 2016 with middle school deployment scheduled for 2017. The district's aggregate proficiency levels for 2015 were all above state averages.
- The makeups of the initial grantee leadership teams are highlighted in Table 4.

Data Collection Protocols

Guides and procedures for using the data collection instruments were included in each of the documents. A summary is included below.

NC Digital Learning Progress Rubric

Assessments were completed following one of two procedures. One, members of a school leadership team worked individually to rate their school, followed by a process of either

combining the individual scores of team members to achieve an average score or through facilitated discussion leading to consensus that resulted in an aggregate set of school or district-wide ratings. Or two, the leadership team met several times to collectively rate their school or district's readiness to implement or progress made in each of the key elements. The team rated their school or district's readiness as Early, Developing, Advanced, or Target. Data (quantitative or qualitative, formal or informal, etc.) were used to inform and justify the ranking process to improve accuracy. Data from the Progress Rubric were collected annually to compare changes over time (Friday Institute, 2016). The assessment was completed by grantees at the start of the project and on an annual basis to monitor progress toward Target status on the development continuum.

School Technology Needs Assessment-Teachers

STNA-T is a web-based survey tool designed by the Friday Institute to be completed by teachers and other educators working directly with students (Friday Institute, 2016). The survey takes approximately 25 minutes to complete and was administered to the entire staff of targeted schools. STNA-T results were not scored or reported for each individual respondent. Instead, each person's responses were combined with those of other educators in their building, and reported at the school level to show how many times each possible response was selected for each statement (Friday Institute, 20016). The STNA-T survey was administered to teachers at the beginning of the project and again on an annual schedule to assess growth.

Due to the length of the survey (87 total questions), the author chose a subset of thirty-five (35) questions from the STNA-T survey to collect data to address Sub Questions 1 and 2 of the study. The abbreviated list of survey questions were chosen in consultation with staff from the Friday Institute. To ensure integrity of the smaller data sample collected from the STNA-T

Table 4

Grantee Leadership Team Member Makeup

| Grantee | Leadership Teams | Administrators | Support Staff | Teachers |
|---------------|---------------------|----------------|---------------|----------|
| Grantee 1 | 9 | 2 | 3 | 4 |
| Grantee 2 | 8 | 1 | 1 | 6 |
| Grantee 3 | 7 | 2 | 2 | 3 |
| Grantee 4 | 8 | 2 | 2 | 4 |
| Grantee 5 | 9 | 3 | 3 | 3 |
| Grantee 6 | 11 | 6 | 3 | 2 |
| Grantee 7 | 10 | 3 | 5 | 2 |
| Total Members | 62 | 19 | 19 | 24 |

surveys, Chronbach's alpha was utilized to test the internal consistency for each construct. Social Scientists require a minimum Cronbach alpha value of .70 to classify items as a scale or construct, and exceeding a value of .80 signifies high internal consistency and reliability of the items (Miller, 1995). STNA-T exceeded these minimum standards. Corn (2007) originally found the internal consistency/reliability ratings for each construct and sub-construct to range from .807 to .967. Internal consistency/reliability analysis conducted using this study's condensed population also exceeded minimum threshold requirements with results ranging from .954 to .981. Table 5 displays the Cronbach alpha values for each of the shortened STNA-T survey constructs.

Golden LEAF Digital Learning Evaluation Capacity Assessment Survey

This survey was to be administered to grantee leadership teams during the initial Leadership Institute and again after the initial implementation period. The first Leadership Institute was a kickoff event that occurred near the beginning of the project. Members of the leadership team were asked to complete the survey at the kickoff institute (pre) and again after completing an initial implementation period to assess growth (post).

Golden LEAF Evaluation Capacity Building Focus Group Workshop

Members of the grantee leadership teams were asked to voluntarily participate in a focus group workshop. Each participant of the focus group workshop was presented a Consent Form to review and sign indicating their understanding and agreement to participate in the workshop. The Consent Form outlined the purpose of the study, the reason they were being asked to be involved in the study, what they would be asked to do, what they might experience as a result of participating, the manner in which the information was collected, how their confidentiality would be protected, and who they could contact if they had questions or concerns at any time during the

Table 5

STNA Survey Cronbach's Alpha Internal Consistency Scores

| Construct | Number of Items | Cronbach's Alpha |
|-------------------------|-----------------|------------------|
| Leadership | 6 | .956 |
| Tech and Infrastructure | 4 | .945 |
| Professional Learning | 10 | .980 |
| Content and Instruction | 9 | .981 |
| Data and Assessment | 9 | .974 |

study. The Consent Form stated that participation was voluntary and participants could choose not to participate at any time without penalty. The Consent Form was explicit in pointing out that there were no known risks to participation and that it would not cost them anything to participate. In addition to the Consent Form provided, it was emphasized to focus group participants that they could choose not to participate from the beginning and/or choose to stop participating at any time during the study without penalty. The Consent Form further outlined that participants would not give up any of their rights by agreeing to participate in the study. Participants were given the opportunity to ask any additional questions for clarification about the study and their role. The contact information for both the principal investigator and the Office of Research Integrity and Compliance were listed in the Consent Form if participants had any questions or concerns. A copy of the Consent Form can be found in Appendix G.

Conflict Statement

The principal investigator of the study is an employee of the Golden LEAF Foundation and thus has a vested interest in seeing that grantees are successful, which presented a potential bias. The author has also participated in work led by the Friday Institute to shape the digital learning plan for North Carolina, which is utilized by Golden LEAF. Therefore, as change agent additional biases were present that had to be managed.

The Friday Institute received grant funds from Golden LEAF to provide coaching support and collaborative professional learning events in which GLF grantees participated. In addition, the Friday Institute entered into contracts for service with Golden LEAF grantees to provide high quality, on-site professional development for teachers and administrators.

These potential conflicts were managed through defined operational protocols that were designed to guide the work of the principal investigator and the staff of the Friday Institute. The

author also kept a self-reflection/field observation journal and engaged in reflective dialogue with Friday Institute staff and coaches, Golden LEAF program officers assigned to monitor grant activity, and principal leads of the school and/or district leadership teams to further manage conflicts.

CHAPTER FOUR: ANALYSIS OF DATA

Introduction

The core of Chapter Four is focused on the distillation of data collected from grantees to inform the research questions outlined for the study. To examine the data and findings, the content of this chapter was organized into three distinct sections. First, a summary of baseline data is presented for the seven grantees that were part of the original study cohort. The quantitative data collected from pre-assessment surveys (ECB, STNA-T, and Progress Rubric) are described in aggregate to examine grantees' initial readiness to implement grant-supported activity. Second, comparisons of pre and post assessment data collected from five grantees that continued in the study are presented to evaluate the utility of the Golden LEAF Grantee Capacity Building (GLF ECB) Model to build the individual knowledge and skill and organizational capacity to implement and measure the impact of grant supported activity. Third, case studies for two grantees were developed to identify core themes—positive attributes—that emerged from the primary phase of project implementation. These vignettes are used to explore how the GLF-GCB Model benefitted grantees through organizational improvements—policies, procedures, and practices—and the extent to which the model was useful in building the individual and organizational capacities of grantees to inform practice and sustain continuous improvements.

Figure 5 is used to summarize the flow of discussion for this chapter.

As outlined in Chapter Three, the purpose of this study was to implement and analyze an innovative—process-driven, people-centered—grantee capacity building model. The intent of the framework was to build individual and organizational capacity to better measure the impact of grant-supported work and improve and sustain program implementation and evaluation practice.

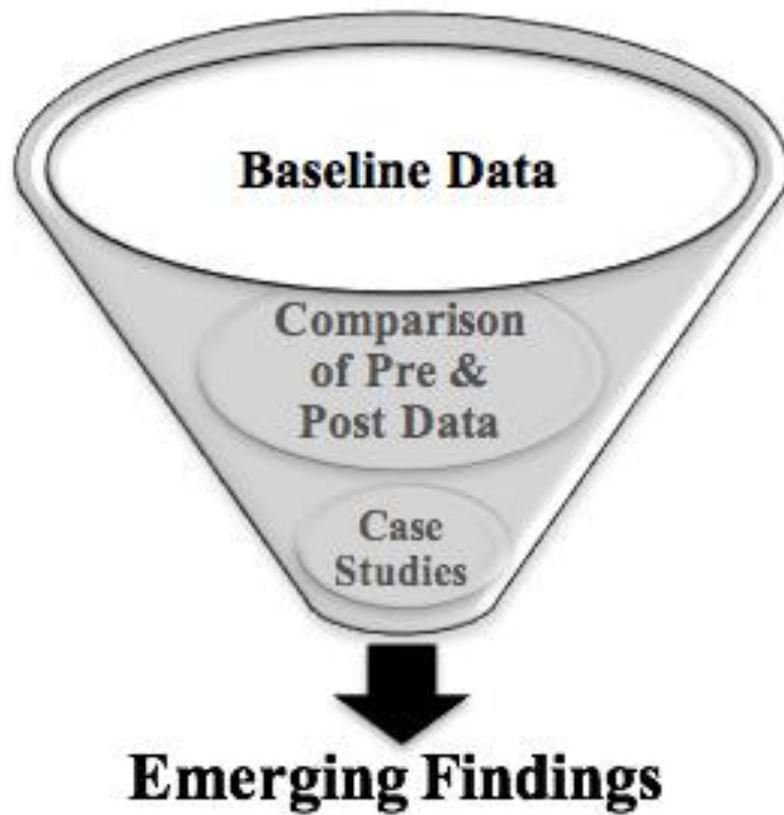


Figure 5. Graphic display of discussion for chapter four.

An action research design was used to investigate: (a) to what extent individual confidence and skill levels to perform and use evaluation data for decision-making improved, (b) how collaboration between funder and grantee contributed to building the evaluation capacity of grant-seeking organizations, thereby improving the fidelity of implementation, and (c) how organizational learning influenced the internal capabilities of grantees to sustain evaluation practice.

The research was framed by four questions.

- Overarching Question – How does the GLF-GCB Model impact individual and organizational capacity to inform practice and sustain continuous improvement?
- Sub Question 1 – What was the initial capacity and readiness of grantees to implement and measure the impact of grant-focused activity?
- Sub Question 2 – How did the GLF-GCB Model improve the individual knowledge and skill necessary to successfully implement digital learning and evaluation practice?
- Sub Question 3 – How did the GLF-GCB Model guide organizational improvement efforts of grantees?

The study population initially consisted of seven GLF grantees that received awards during the 2016 grant cycle to implement digital learning initiatives at the school or district levels. Grantees implemented grant-supported activity either through a school or cohort model. Within the initial cohort of seven grantees, three implemented digital learning projects at middle schools. One grantee deployed technology at two of its remaining high schools that had not previously made the transition to a digital learning platform. Another implemented at all K-8 and high schools across the district. The two remaining grantees used a cohort model of deployment

where teachers received classroom carts with devices once they have demonstrated readiness through a defined teacher certification or badging program.

Each grantee formed a leadership team to manage program activity. School and/or district leadership teams consisted of administrators, instructional and technology support personnel, and teachers. Teams were populated by 6-12 individuals who participated in technical assistance events hosted by the Friday Institute as part of the capacity building phase of the GLF-GCB Model. Data were collected from each leadership team during the assessment phase of the model to establish baseline documentation, after the initial year of capacity building interventions and implementation, and then annually throughout the grant term to facilitate continuous improvement. In addition, data were collected from teachers using the STNA-T survey to assess initial readiness and ongoing progress made in transitioning to technology-rich instructional practice. STNA-T surveys were collected prior to project implementation to establish baselines and identify professional development needs (assessment phase), at the end of the first year of implementation to measure growth resulting from training and technical assistance (capacity building), and again each annual cycle thereafter to monitor progress and aid in planning future activity (continuous improvement).

A summary of the seven grantees can be found in Table 6 with a more detailed description in Chapter Three Context of Grantees. Baseline data were collected from the initial seven grantees during the start-up phase of the project. The next section will be used to discuss the initial readiness of the grantees as they began the journey toward digital learning.

Table 6

Grantee Designations and Participant Numbers

| Participant | Leadership Team Members | Deployment Model | Region | District Designation | Teacher Participants |
|-------------|-------------------------|--------------------------------|-------------------|----------------------|----------------------|
| Grantee 1 | 9 | Middle School | Northeast | Rural Tier 1* | 31 |
| Grantee 2 | 8 | Middle School | Northeast | Rural Tier 1 | 22 |
| Grantee 3 | 7 | Middle School | Western | Rural Tier 2 | 42 |
| Grantee 4 | 8 | High School 1 High School 2 | Piedmont Triad | Rural Tier 2 | 37 58 |
| Grantee 5 | 9 | District | Western | Rural Tier 1 | 87 |
| Grantee 6 | 11 | Teacher Cohort | Piedmont Triad | Urban Tier 3 | 18 |
| Grantee 7 | 10 | Teacher Cohort | Western | Urban Tier 3 | 51 |

Note. * North Carolina Department of Commerce's 2017 Economic Tier Designations publication, (NC Department of Commerce, 2017). The Department annually ranks the state's 100 counties based on an assessment of economic well-being and assigns each a Tier Designation: (the 40 most distressed are assigned Tier 1 status, the next 40 are designated Tier 2, and the 20 least distressed are Tier 3).

Baseline Data

The study plan was broken into three phases: assessment, capacity building, and continuous improvement. The assessment phase of the GLF-GCB Model was designed to gauge the readiness of schools and/or districts to implement digital learning by establishing initial baselines for common performance metrics that were identified for the study and used to measure progress against. Data were collected from each grantee during the assessment phase to establish initial baselines to measure progress against using the following survey tools: GLF Evaluation Capacity Assessment Survey (Friday Institute, 2013), School Technology Needs Assessment –Teacher Survey (Friday Institute, 2016), and the North Carolina Digital Progress Rubric (Friday Institute, 2016).

Data were collected at the beginning of the study and used to establish baselines for each of grantee. The following baseline data will now be used to describe the initial readiness of the seven grantees to implement and evaluate grant-supported work. Pre-assessment data will be summarized to conclude this section.

- Evaluation Capacity Assessments – survey was administered to members of the seven leadership teams to identify beginning individual knowledge and skill and organizational capacity to assume evaluation activities.
- Digital Progress Rubric – assessments of organizational readiness to implement digital learning.
- School Technology Needs Assessments – Teacher – examines the confidence and skill of teachers to effectively use technology to improve teaching and learning.
- Summary of Baseline Data

Evaluation Capacity Building (ECB) Assessments

Initial data were collected from the seven (7) grantees by the Friday Institute during the 2016 Digital Leadership Institute using the GLF Evaluation Capacity Assessment Survey for Digital Learning (Friday Institute, 2013). Fifty (50) of sixty-two (62) members from the initial cohort of seven grantee leadership teams that attended the July 2016 event completed the pre-assessment survey (81%). Responses from the first survey were used to determine baselines for the individual knowledge and skills and organizational abilities of the seven grantees prior to program implementation. During the first year of implementing the project, members of the grantee leadership teams and other staff participated in three-structured peer-to-peer learning events as well as on-site professional development activities for teachers and administrators. The three technical assistance institutes were described in detail in the Phase II – Capacity Building section of Chapter Three.

The institutes were designed to build the capacity of grantee leadership team members and staff through training specific to the leadership, coaching and support, and instructional responsibilities needed for successful implementation. The workshops included time for skill building, team reflection and planning, and cross-institutional networking with other grantees. Participants reassessed their individual skills and organizational capacities after completing the capacity building phase of the project. Post implementation data were collected by the Friday Institute during the July 2017 Leadership Institute and at the beginning of the 2017 school year to assess if improvements occurred. The number of grantees that attended the second leadership event contracted from seven (7) to four (4) leadership teams with 22 members participating in the 2017 Leadership Institute. The reduction in numbers resulted due to the following events. Grantee 6's grant term expired and funds were exhausted prior to the 2017 Institute making it

difficult to participate in a second leadership event without additional external resources. Grantee 2 retooled its leadership team to achieve a more balanced pool of members and returned to the first year leadership track since most associates on the reconstituted group were new to the leadership team and had not participated in any of the capacity building workshops. The Friday Institute collected data from 22 members of the four grantees attending the second leadership institute. Eight additional responses to the post ECB survey were received from the leadership team of Grantee 4 who were unable to attend the 2017 Institute due to a mandatory district planning retreat. This increased the total number of post ECB survey responses received to thirty, which represents 60% of the pre-assessment survey cohort. Data from the ECB Assessment (pre and post) surveys were then compared to determine if improvements occurred in the individual knowledge and skill and organizational capacity to implement grant supported activity and measure the impact of grantees' work.

Baseline data collected during the July 2016 leadership event indicated that more than half (50%) of the respondents surveyed rated themselves low in their beginning confidence and abilities to conduct the front-end work related to program design and evaluation planning (survey statements #1-4). A slight majority (60%) felt more confident in their skill and abilities to create data collection instruments (statement #4). Individuals expressed greater confidence (62% to 78% response range for statements #5-8) in collecting and analyzing different types of data and interpreting and communicating evaluation findings. Aggregate baseline data for the seven grantees (50 participants) in the initial study cohort are provided in Table 7.

Table 7

ECB Pre-Survey – Individual Confidence

| <i>My degree of knowledge and skills is ...</i> | Pre- ECB Assessment (N=50) | |
|---|----------------------------|------|
| | Low | High |
| 1. Develop a logic model for evaluation planning | 54% | 46% |
| 2. Design an evaluation plan | 52% | 48% |
| 3. Develop strategic evaluation questions | 52% | 48% |
| 4. Design data collection instruments (e.g., surveys and interview protocols) | 40% | 60% |
| Mean Questions 1-4 | 50% | 50% |
| 5. Collect different types of data (e.g., qualitative & quantitative data) | 28% | 72% |
| 6. Analyze different types of data | 22% | 78% |
| 7. Interpret evaluation results | 26% | 74% |
| 8. Communicate evaluation findings | 38% | 62% |
| Mean for Questions 5-8 | 29% | 71% |
| Total Mean Response | 39% | 61% |

Baseline data collected from individual members of grantee leadership teams concerning the frequency of engagement in front-end evaluation planning and design work (survey statements #1-4) show an average of 69% indicated they were typically never, rarely, or only sometimes involved in these processes. It is reasonable to conclude that limited opportunities to engage in the front-end processes related to program planning and evaluation design likely contributed to the lack of confidence expressed by participants. Respondents also indicated they were more frequently (46% mean response for - Always or Often) involved in later stage evaluation activities (survey questions #5-8) that consisted of collecting, analyzing, interpreting, and communicating evaluation results. The most common response by participants to the survey questions concerning the frequency of engagement in program evaluation indicated they were only occasionally (Sometimes mean - 41%) involved in program planning and evaluation. Table 8 shows the initial responses of participants to questions regarding the frequency of use.

As mentioned previously, pre organizational evaluation capacity ratings for the initial seven grantee cohort appeared unusually high (see Table 2, Chapter Three), which was likely a result of the error found in formatting response scales when the survey tool was entered into the data collection software. The survey administrator incorrectly restricted the survey response options for the 2016 Leadership Institute ECB Assessment Survey in the data collection software as high or low choices versus using the Likert Scale from the original instrument that contained seven options ranging from very high to very low. To address the discrepancy, the design and purpose for the focus group sessions moved from an interview protocol to an interactive workshop format (see the Focus Group Workshop Protocol in Appendix E). The framework was crafted to engage leadership teams in a reflective, data-informed planning process where grantees assessed their initial progress and identified core strategies for the second

Table 8

ECB Pre-Survey – Individual Frequency of Use

The frequency at which I engage in this activity is...

| Pre-ECB Assessment Statements (n=50) | Never | Rarely | Sometimes | Often | Always |
|---|-------|--------|-----------|-------|--------|
| 1. Develop a logic model for evaluation planning | 10% | 26% | 36% | 28% | 0% |
| 2. Design an evaluation plan | 10% | 18% | 38% | 32% | 2% |
| 3. Develop strategic evaluation questions | 4% | 24% | 42% | 26% | 4% |
| 4. Design data collection instruments (e.g., surveys and interview protocols) | 2% | 16% | 46% | 32% | 4% |
| Mean Response Q1-4 | 7% | 21% | 41% | 29% | 2% |
| 5. Collect different types data (e.g., qualitative and quantitative data) | 0% | 14% | 38% | 40% | 8% |
| 6. Analyze different types of data | 0% | 6% | 42% | 44% | 8% |
| 7. Interpret evaluation results | 2% | 6% | 44% | 38% | 10% |
| 8. Communicate evaluation findings | 2% | 22% | 38% | 36% | 2% |
| Mean Responses Q5-8 | 1% | 12% | 41% | 39% | 7% |
| Total Mean Response | 4% | 16% | 41% | 34% | 5% |

implementation period. Organizational baseline data for the ECB pre-survey are displayed in Table 9.

In addition to the GLF ECB Assessment Survey, coaches from the Friday Institute assisted grantees with completing additional baseline assessments using the Digital Learning Progress Rubrics (Progress Rubric) and School Technology Needs Assessment Surveys (STNA-T). Baseline data were collected from grantees in the spring or early fall of 2016 depending on the grant award date and used to determine the grantees—schools and/or districts—initial readiness to implement digital learning and identify professional development needs to assist the school or district with transitioning to technology-rich instruction.

Findings from the Digital Learning Progress Rubric were used to establish beginning boundaries of organizational readiness to implement digital learning along a growth continuum—Early, Developing, Advanced, and Target. Data from those initial reviews will now be discussed to frame the initial state of preparedness of the seven grantees to implement the innovative project activity.

Digital Learning Progress Rubric

The Progress Rubric is a strategic planning tool designed by the Friday Institute (2016) to function as a road map for schools and/or districts to navigate the complex journey toward the effective use of technology to improve teaching and learning. Grantees used the Progress Rubric to complete an initial assessment of readiness and then annually to reassess growth by reflecting on their current state of practice, analyze data from the rubric to inform future action and plans for the upcoming year, and as a tool for measuring progress against their prior assessments to sustain momentum. The iterative use of the Progress Rubric by grantees allowed GLF and the

Table 9

ECB Pre-Survey Organizational Capacity

| <i>My organization has the capacity to...</i> | Pre- ECB Assessment (N=50) | |
|---|----------------------------|-----------|
| | Low | High |
| Develop policies and procedures to improve an initiative/program | 12% | 88% |
| Implement programmatic changes informed by evaluation findings | 10% | 90% |
| Identify and utilize the necessary resources to conduct and use evaluations | 12% | 88% |
| | Not at All | Very Much |
| Evaluation can improve organizational practices | 2% | 98% |
| Evaluation can support decision making efforts | 0% | 100% |
| Evaluation yields useful information | 2% | 98% |
| Evaluation adds value to the organization | 0% | 100% |

Friday Institute to immerse grantees in a cycle of continuous improvement that was used to inform, improve, and sustain practice.

The Progress Rubric contains four major categories, which allowed the grantees to assess (at the school or district level) their current state of preparedness and monitor progress: (a) Leadership, (b) Professional Learning, (c) Content & Instruction, and (d) Data & Assessment (Friday Institute, 2016). A fifth construct classification is included on the assessment rubric for districts to use in monitoring Technology Infrastructure & Devices since procurement and maintenance are functions of central office personnel. Baseline data were collected from the pre-implementation Progress Rubric assessments before technology was deployed by the grantees and again at the end of the initial enactment period. Post implementation assessments were completed in the fall of 2017 with the data collected compared against established baselines or prior year aggregate and construct scores to determine progress and position along a growth continuum scale—Early, Developing, Advanced, and Target. The Progress Rubric was used as an annual evaluation tool to aid grantees with reflective dialogue useful to continuous improvement. Data from the Progress Rubric assessments were used to answer Sub Questions 1 (readiness baseline), 2 (improvements in individual skill and organizational practice), and 3 (guide for organizational improvements).

The Friday Institute coaches facilitated sessions with each of the seven grantees in the fall of 2016 to complete the initial readiness assessments. The three grantees that implemented digital learning initiatives through a district or cohort model (Grantees 5, 6, and 7) used the Digital Learning Progress Rubric Version 2 (Friday Institute, 2016), which included a readiness assessment of the district's infrastructure to support digital learning (see Appendix B). The remaining four grantees that implemented digital learning projects in designated schools

(Grantees 1, 2, 3, and 4) used the school version of the rubric to assess their readiness to deploy technology for improved teaching and learning. Readiness scales for each version of the rubric are as follows:

- District Scoring Grid:
 - Early (0-25) — Developing (26-50) — Advanced (51-75) — Target (76-100)
- School Scoring Grid:
 - Early (0-18) — Developing (19-36) — Advanced (37-54) — Target (55-72)

Two of four grantees (Grantee 4-S2 & Grantee 2) that implemented digital learning at the school level scored in the advanced category, but only by one and two points respectively.

Grantee 4 had previously invested time and resources to prepare their high schools to implement digital learning prior to receiving the grant from Golden LEAF. The leadership team of Grantee 2 initially assessed their level of readiness as advanced, but returned to the first year track of the 2017 Leadership Institute to engage a more balanced leadership team in the project. Teachers populated a majority of the original leadership team of Grantee 2. Administrators and support personnel representing this grantee on the leadership team participated in the process on a very limited basis and, in some instances, not at all in the technical assistance and professional development sessions. The remaining readiness scores for grantees that used the school implementation model fell in the developing category. The mean aggregate score for the four grantees that employed the school model was thirty-five points (35), which falls in the upper range of the developing scale. Grantees scored a higher percentage of available points (53%) in the leadership and professional learning categories (see Table 10) than in any of the other categories. The lowest percentage (mean score 43%) of possible points achieved by this cohort of grantees in the pre-assessment occurred in the Content & Instruction construct category.

Table 10

Progress Rubric – Mean Aggregate Baseline Scores for Grantees Using School Deployment

Model

| | Mean Scores | Total Possible Points | Percentage Achieved |
|-----------------------|-------------|-----------------------|---------------------|
| Leadership | 12.6 | 24 | 53% |
| Professional Learning | 6.4 | 12 | 53% |
| Content & Instruction | 12.0 | 28 | 43% |
| Data & Assessment | 3.6 | 8 | 45% |
| Mean Aggregate | 34.6 | 72 | 48% |

Figure 6 displays the baseline scores of each grantee's aggregate score and for all four construct categories included in the rubric.

Grantees 5, 6, and 7 executed using a district/cohort model. As previously mentioned, Grantee 6 invested time and internal resources the year prior to the GLF grant as a planning year and contracted with the Friday Institute to initiate professional development for teachers and administrators. It is reasonable to conclude that the additional preparation likely contributed to Grantee 6 achieving an Advanced ranking on the pre-assessment. Both Grantees 5 and 7 scored near the mid-point (41 and 38 respectively) of the Developing scale (26-50 scoring range) on the district assessment rubric. The mean score for the group was 46, which falls in the upper range of the Developing scale. All three of these grantees ranked their readiness highest in the Content & Instruction (51% of maximum score potential) and Data & Assessment (50%) construct categories. On average the lowest areas of readiness for Grantees 5, 6, and 7 were in the Leadership (42%) and Professional Learning (39%) categories. Table 11 displays mean scores for grantees using the district/cohort model. Baseline scores for these grantees are displayed in Figure 7.

School Technology Needs Assessment – Teacher Survey (STNA-T)

A third survey, School Technology Needs Assessment – Teacher (Friday Institute, 2016), was administered by the Friday Institute to establish customized professional development plans and assist school and/or district leadership teams with data to inform their planning in preparation for the upcoming year. Baseline data were collected from grantees soon after the 2016 Leadership Institute and again on an annual schedule throughout the grant period. Data collected from STNA-T surveys were reported as aggregate responses from all participating educators at the school level showing the number and percentage of responses for each

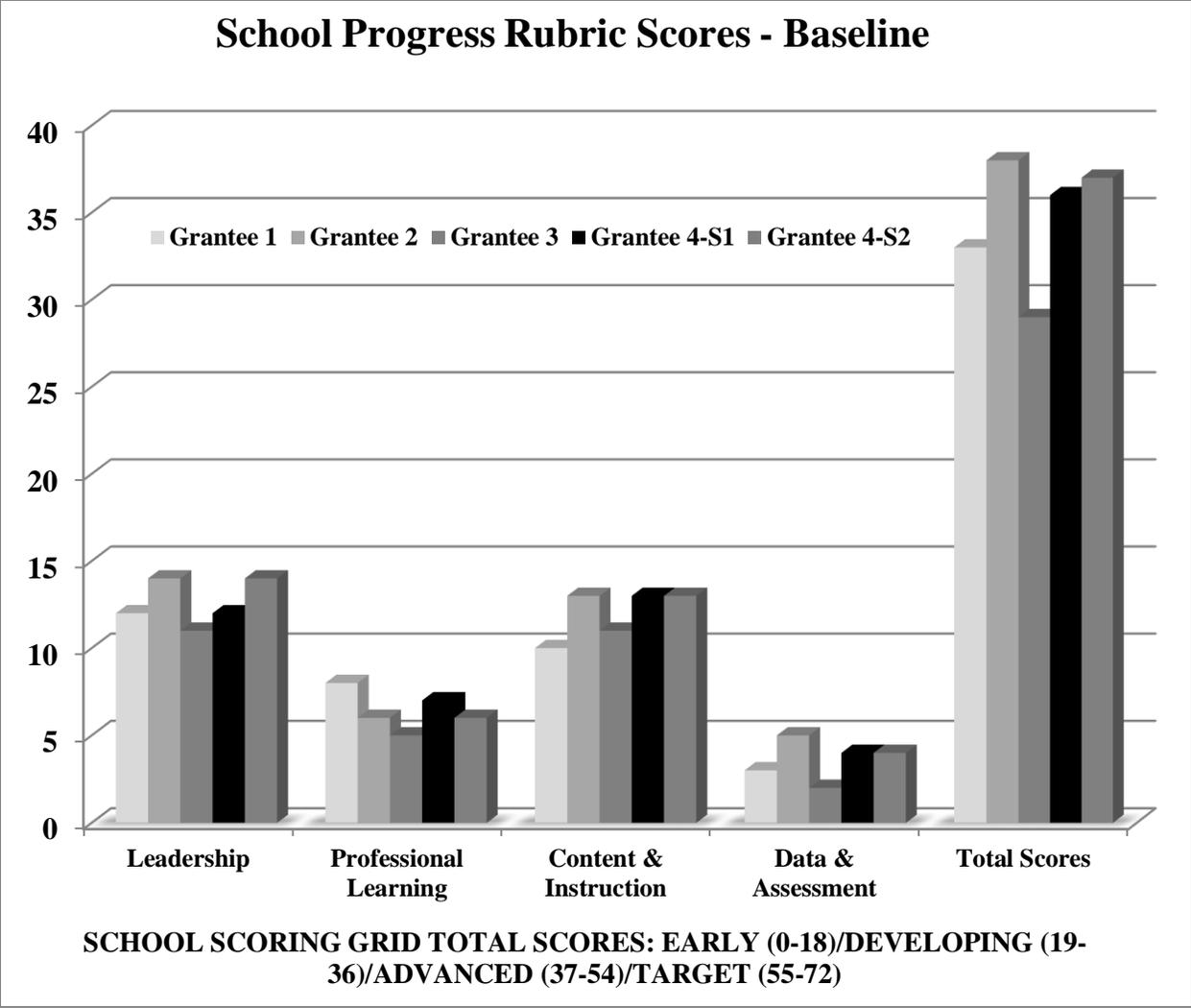


Figure 6. Progress rubric scores for grantees using school deployment model.

Table 11

Progress Rubric Mean Aggregate Baseline Scores for Grantees Using District Deployment

Model

| | Mean Scores | Total Possible Points | Percentage Achieved |
|-----------------------------|-------------|-----------------------|---------------------|
| Leadership | 11.7 | 28 | 42% |
| Technology & Infrastructure | 11.0 | 24 | 46% |
| Professional Learning | 4.7 | 12 | 39% |
| Content & Instruction | 12.3 | 24 | 51% |
| Data & Assessment | 6.0 | 12 | 50% |
| Mean Aggregate | 45.7 | 100 | 46% |

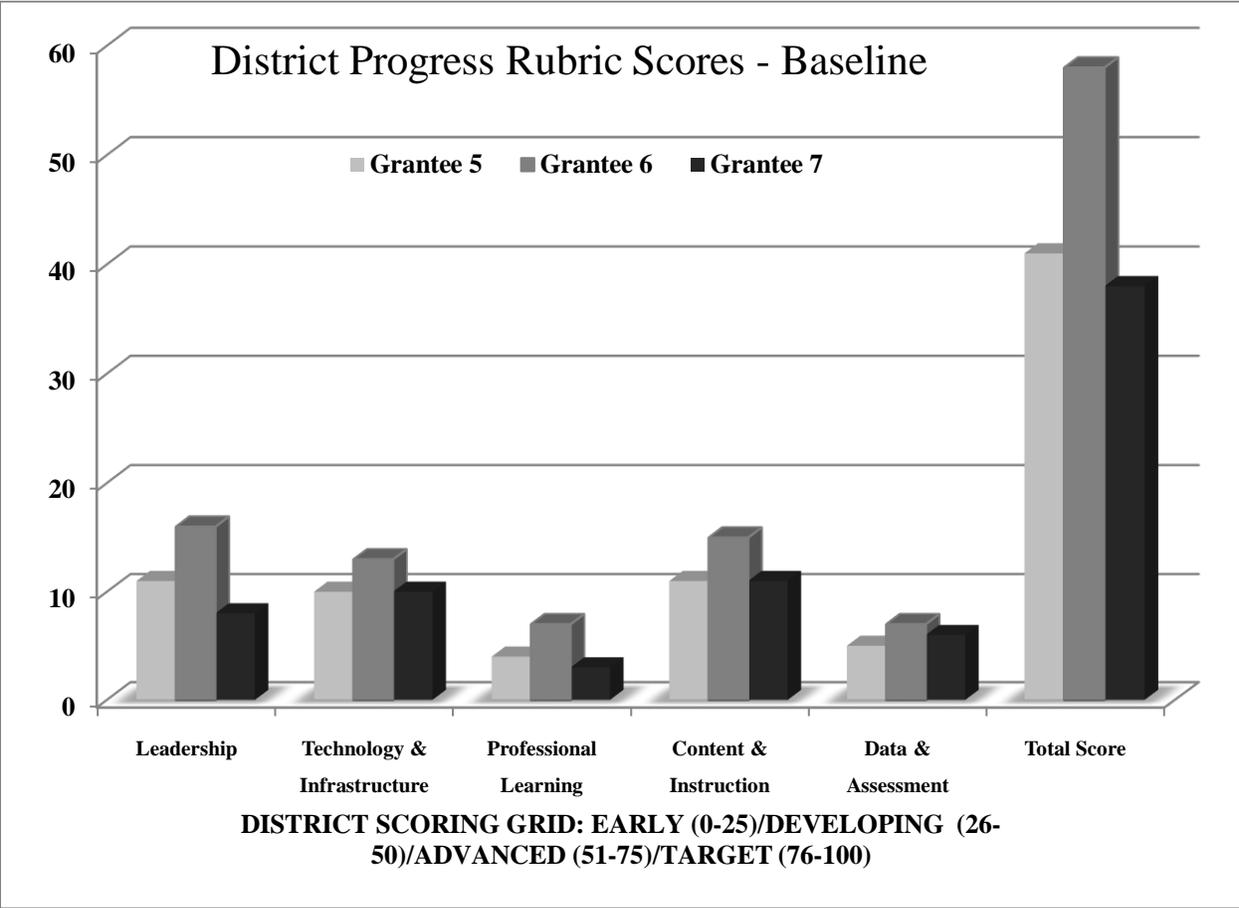


Figure 7. Progress rubric scores for grantees using district deployment model.

statement. Between the initial (pre) and second (post) assessments, schools and/or districts participated in structured peer-to-peer learning events and received customized, on-site professional development and coaching to support program implementation and evaluation efforts.

STNA-T is a comprehensive instrument created to measure activity in the following areas: Supportive Environment for Technology Use, Professional Development, Teaching and Learning, and Impact of Technology (Friday Institute, 2016). Due to the length of the survey (87 total statements), a process was undertaken to identify a smaller subset of inquiries from each category of the assessment tool that would best serve as indicators of individual skill and knowledge for this study (see Appendix C). First, an initial screening was undertaken to narrow the scope of STNA-T questions to a more manageable set (87 original questions down to 35). Statements selected for the survey were then aligned to the construct scales in the Progress Rubric with input from the Friday Institute staff.

To ensure integrity of the smaller data sample collected from the STNA-Teacher surveys, Chronbach's alpha was utilized to test the internal consistency for each construct. Social scientists require a minimum reliability rating of 0.70 to classify items as a construct (Miller, 1995). The original Chronbach's alpha ratings calculated by the Friday Institute for STNA-Teacher survey ranged from 0.807 to 0.967 (Corn, 2007). The internal consistency reliability analysis completed for the subset of STNA-T statements best suited for this study maintained Chronbach's alpha values above the minimum threshold. Reliability scores for the STNA subset exceeded values for the original survey (range 0.945 to 0.981). Results of the consistency reliability analysis are displayed in Table 4 in Chapter Three.

Initial STNA-T surveys were completed by the seven grantees in the spring or fall of 2016 and submitted to the Friday Institute. The data were sorted and used to form baselines for each school and/or district. Survey responses by teachers were grouped into two broad categories for reporting purposes—strongly agree and agree versus strongly disagree, disagree, neither agree nor disagree, and do not know—or—daily and weekly versus monthly, once a grading period, never and do not know for frequency questions. The second and subsequent rounds of data collected were compared against prior period responses to assess growth and determine ongoing professional development needs to support improved implementation. For the purpose of this study STNA-T data were used to address Sub Questions 1 and 2.

Baseline data for each grantee are reported in Table 12 using the mean for each construct scale. On average, grantees had higher percentages of teachers either agree or strongly agree with statements contained in the Leadership (86%) and Professional Learning (81%) categories than the other three areas. More respondents agreed with statements contained in the Leadership category followed by Professional Learning, Infrastructure & Technology, Data & Assessment, then Content and Instruction. STNA-T was also used to measure how often teachers engaged in technology enabled instructional practice. Responses by teachers to statements assessing the frequency of utilization for both the Professional Learning and Data & Assessment scales are displayed in Table 13. Fewer than half (48%) of the 346 teachers initially indicated frequent use (daily or weekly) of technology in their instructional practice and only 58% indicated regular use of technology to improve personal productivity or participate in training.

Table 12

STNA-T Grantee Baseline Scores Reported for Strongly Agree and Agree Responses

| Scales | Grantee | | | | | | | Total-Mean | |
|-----------------------------------|---------|-----|-----|------|------|-----|-----|------------|-----|
| | 1 | 2 | 3 | 4-S1 | 4-S2 | 5 | 6 | | 7 |
| Leadership | 94% | 95% | 86% | 92% | 85% | 71% | 76% | 85% | 86% |
| Technology & Infrastructure | 79% | 84% | 79% | 78% | 73% | 71% | 70% | 80% | 77% |
| Professional Learning | 90% | 85% | 79% | 88% | 78% | 66% | 74% | 85% | 81% |
| Content & Instruction | 72% | 85% | 62% | 64% | 70% | 69% | 64% | 76% | 70% |
| Data & Assessment | 86% | 84% | 66% | 78% | 61% | 60% | 56% | 74% | 71% |

Table 13

STNA-T Grantee Baseline Scores Reported for Frequency of Use for Daily and Weekly

Responses

| Scales | 1 | 2 | 3 | Grantee | | 5 | 6 | 7 | Total - Mean |
|-----------------------|-----|-----|-----|---------|------|-----|-----|-----|--------------|
| | | | | 4-S1 | 4-S2 | | | | |
| Professional Learning | 67% | 65% | 54% | 62% | 57% | 52% | 53% | 57% | 58% |
| Data & Assessment | 52% | 63% | 33% | 35% | 45% | 46% | 56% | 52% | 48% |

Summary of Baseline Data

The pre-assessment surveys completed by the seven grantees produced useful information regarding their readiness—individual and organizational—to implement digital learning and were used by the Friday Institute to design and deliver technical assistance and customized training to the leadership teams, teachers, and administrators tasked with executing core activities identified as critical steps to a successful program launch. Data collected from the three assessments—ECB, STNA-T, and Progress Rubric—characterized grantees that possessed traits consistent with capabilities outlined in the Developing scale of the Progress Rubric growth continuum. In addition, a majority of members serving on grantee leadership teams indicated on the ECB survey that they were infrequently involved and possessed limited confidence in their abilities and knowledge to perform planning and design tasks associated with program implementation and evaluation. While focused more on the instructional responsibilities, teacher responses on the STNA-T survey identified core areas where enhanced skills and knowledge would result in desired improvements and likely produce positive impacts related to student achievement and organizational performance. The data collected from baseline assessments provided conclusive evidence, with the exception of Grantee 6, that the grantee study cohort possessed characteristics consistent with criteria used in the Progress Rubric to describe organizations in the Developing stage of the growth continuum.

During the initial implementation phase, grantees participated in structured learning events and received on-site professional development to aid in developing the individual skill and organizational capacities needed to effectively implement and evaluate grant-supported activity. Grantees then reassessed their skills and abilities using the assessment tools described above. Data from the pre and post assessments were compared to determine if and if so where

had grantees improved in their abilities to perform program and evaluation work. The analysis of pre and post data will now be presented.

Comparison of Pre and Post Data

During the capacity building phase of the Golden LEAF Grantee Capacity Building model (GLF-GCB), grantees participated in technical assistance events that immersed the diverse leadership teams in the planning process, and took part in training sessions that were designed to prepare key individuals and groups to lead core aspects of project activity. Additionally, grantees were provided opportunities to network with other organizations experienced with digital transformation through structured peer-to-peer learning opportunities.

This section is used to describe the impact of the capacity building interventions on the five grantees that completed the research protocol. Table 14 provides a summary of the five grantees that completed the pre and post assessments for the study. Data collected from the baseline and post assessment surveys—ECB and STNA-T surveys and Progress Rubrics—were compared to inform the reader about the utility of the GLF-GCB model to build the individual skills and knowledge and enhance the organizational capacity necessary to successfully implement and measure the impact of grant supported work.

Discussion of the pre and post data will be broken down into the following sections.

- Aggregate Data—ECB, STNA-T, and Progress Rubric—are presented for five grantees that completed the study.
- Grantee Site Data – Pre and post data for each of the five grantees are contrasted to determine progress made by each participant.
- Grantee Data Summary

Table 14

Summary of the Five Grantees Who Completed the Pre and Post Assessments

| Participant | Leadership Team Members | Deployment Model | Region | District Designation |
|-------------|-------------------------|--------------------------------|----------------|----------------------|
| Grantee 1 | 9 | Middle School | Northeast | Rural Tier 1* |
| Grantee 3 | 7 | Middle School | Western | Rural Tier 2 |
| Grantee 4 | 8 | High School 1 High School 2 | Piedmont Triad | Rural Tier 2 |
| Grantee 5 | 9 | District | Western | Rural Tier 1 |
| Grantee 7 | 10 | Teacher Cohort | Western | Urban Tier 3 |

Note. * North Carolina Department of Commerce's 2017 Economic Tier Designations publication, (NC Department of Commerce, 2017). The Department annually ranks the state's 100 counties based on an assessment of economic well-being and assigns each a Tier Designation: (the 40 most distressed are assigned Tier 1 status, the next 40 are designated Tier 2, and the 20 least distressed are Tier 3).

Aggregated Data

First, a summary of the aggregated data collected from all five grantees during the study are presented, and then individual grantee results are examined in more detail to discern improvements that occurred from both the organizational and individual perspectives.

Evaluation capacity building. Comparisons of the pre and post evaluation capacity data collected from members of the five leadership teams are included Table 15. Due to the previously described formatting error on the Evaluation Capacity Building Assessment (ECB) survey, participants were limited to only high and low response options to rate their initial evaluation capacity while the post survey instrument provided respondents a scale of seven options—very high to somewhat high versus very low to neutral—to rate their knowledge and abilities. The post survey data were collapsed into two—high and low—categories to measure progress against baseline figures established during the pre-assessment. An analysis of the pre and post ECB data showed that members of the five leadership teams expressed more confidence in their individual abilities and appeared to have gained greater knowledge about program evaluation from participating in the GLF-GCB Model. The largest gains (mean increase of 28% points) in individual knowledge and skill occurred in the program and evaluation planning and design tasks (statements 1-4). Grantees incurred modest gains (mean increase of 12% points) in confidence to perform tasks specific to data collection, analysis, and interpretation (statements 5-8). Survey participants also expressed that they were more frequently involved in planning activities post intervention. Team members indicated that they were more often engaged in planning and design tasks after becoming a member of the leadership team than prior to taking part in the initiative. ECB data (see Figures 8 and 9) showed positive trends in response rates by individuals who indicated more frequent engagement in performing evaluation tasks. More

Table 15

Aggregate ECB Survey Data - Individual Capacity Assessments

| <i>My degree of knowledge and skills is ...</i> | Pre-ECB Assessment (N=34) | | Very Low - Neutral | Post ECB Assessment (N=30) | |
|---|---------------------------------|------|-----------------------|----------------------------------|---------------|
| | Low | High | | Very High- Somewhat High | % Change High |
| Develop a logic model for evaluation planning | 59% | 41% | 33% | 67% | 26% |
| Design an evaluation plan | 53% | 47% | 23% | 77% | 30% |
| Develop strategic evaluation questions | 44% | 56% | 27% | 73% | 17% |
| Design data collection instruments (e.g., surveys and interview protocols) | 47% | 53% | 10% | 90% | 37% |
| Collect different types data (e.g., qualitative and quantitative data) | 29% | 71% | 20% | 80% | 9% |
| Analyze different types of data | 26% | 74% | 13% | 87% | 13% |
| Interpret evaluation results | 26% | 74% | 10% | 90% | 16% |
| Communicate evaluation findings | 32% | 68% | 23% | 77% | 9% |

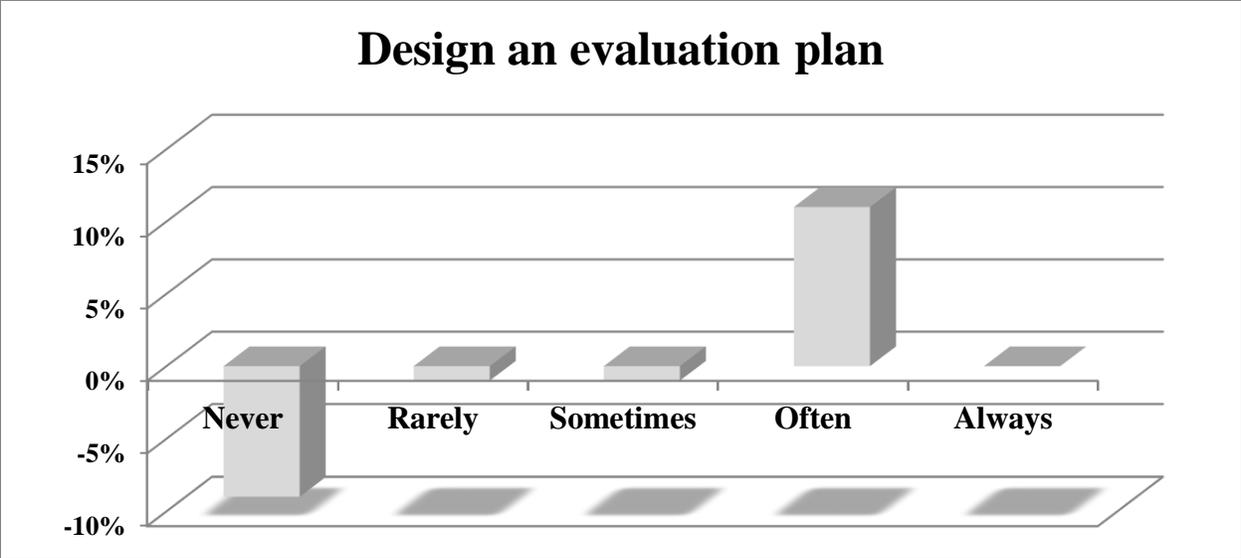


Figure 8. Aggregate ECB data: Individual capacity - change in frequency.

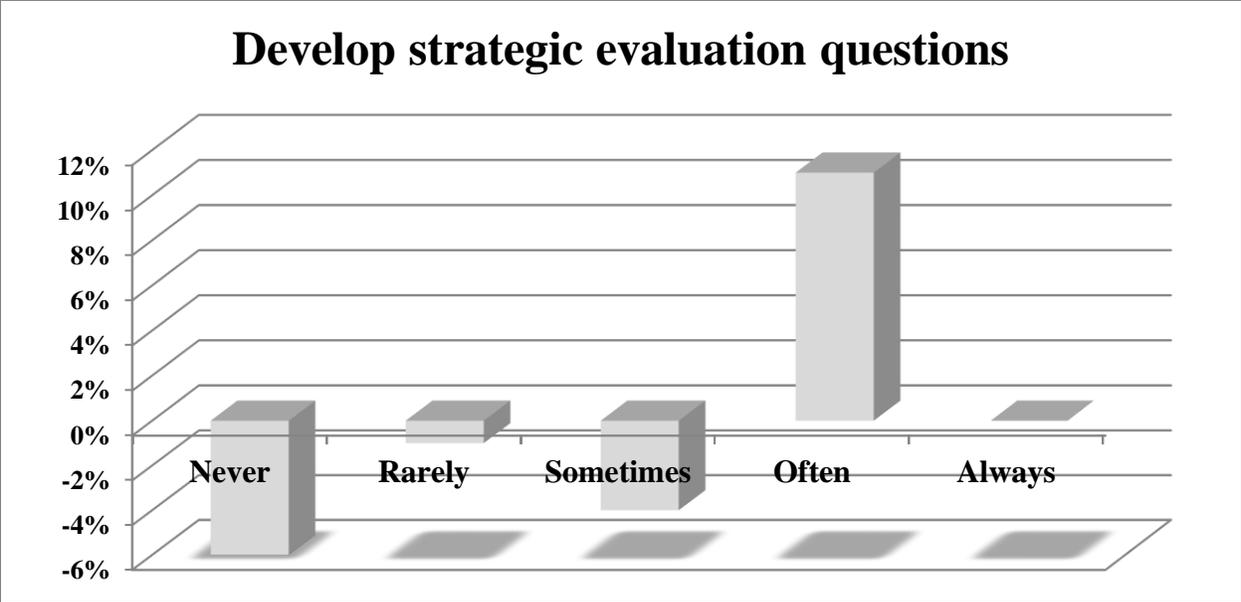


Figure 9. Aggregate ECB data: individual capacity questions – change frequency.

engagement and inclusion in leadership responsibilities were recurring themes mentioned by team members. The use of distributive leadership practice proved to be an effective strategy used by grantees to positively influence stakeholder buy-in and increase support for grant-supported activity. Data collected from grantee leadership teams indicated increased levels of participation in both planning and implementing evaluation tasks. The remainder of data from the ECB surveys can be found in Appendix H (see Frequency Charts H-1 through H-8 and Organizational Capacity Charts H-9 & H-10). There were no notable changes in organizational capacity assessment levels. This was likely a result of the formatting error and/or from survey participants who possessed limited knowledge and exposure to the broad skills needed to design, plan, carry out, and evaluate a comprehensive innovation and thus rated themselves high due to limited understanding of evaluation tasks and responsibilities required.

School technology needs assessment – teacher survey. All five grantees exhibited growth in the confidence and skill of teachers to use technology to improve teaching and learning. Data from pre and post STNA-T surveys were contrasted to identify where gains occurred. To assist with data analysis, STNA-T survey statements selected for the revised teacher survey instrument were aligned to the construct scales contained in the Progress Rubric. The Progress Rubric was used by grantees to monitor progress and accomplishments at the organizational level. A comparison of pre and post survey data disclosed moderate gains in all five categories. The largest area of growth occurred in the Content & Instruction category (+11% points) followed by Data & Assessment (+10% points), Technology & Infrastructure (+9% points), Professional Learning (+7% points), and Leadership (+5% points). Teachers also articulated more frequent use of technology to measure the impact of digital learning on student achievement (+16% points). This evidence paralleled feedback received from team members

participating in the focus group workshops where grantees consistently expressed greater comfort and ability to use technology to analyze data and apply the knowledge gained to inform future action. Aggregated and individual grantee STNA-T data are displayed by scale in Appendix H (see Charts H-11 through H-17).

Digital learning progress rubric. Baseline and post implementation assessment scores accumulated from grantees using the Digital Learning Progress Rubric (Progress Rubric) are displayed in Figures 10 (school model) and 11 (district/cohort model). Grantees 1, 3, and 4 implemented digital learning using a school model while two grantees (5 and 7) deployed using a district or cohort model to guide execution. Grantees 1 and 3 integrated technology at middle schools in grades 6-8 and Grantee 4 initiated the project in the district's two remaining high schools.

The Progress Rubric was used to measure growth along a development continuum—Early, Developing, Advanced, and Target—to assess progress across five scales (Leadership, Technology & Infrastructure, Professional Learning, Content & Instruction, and Data & Assessment). The school version of the rubric included only four of the five construct measures since the procurement and maintenance of technology and associated hardware are typically managed by the central office and therefore not controlled at the school level.

Baseline and post implementation scores from the Progress Rubric assessments completed by the three grantees that implemented the project at a designated school or schools are displayed in Figure 10. Each of the four schools that deployed at assigned schools (Grantees 1, 3, and 4) progressed from the Developing to Advanced stage. Post assessment scores achieved by this group improved by an average of 10 points over the initial baseline ratings. The mean score for the school model group rose from a baseline of 34.5 (48% of available points) on the

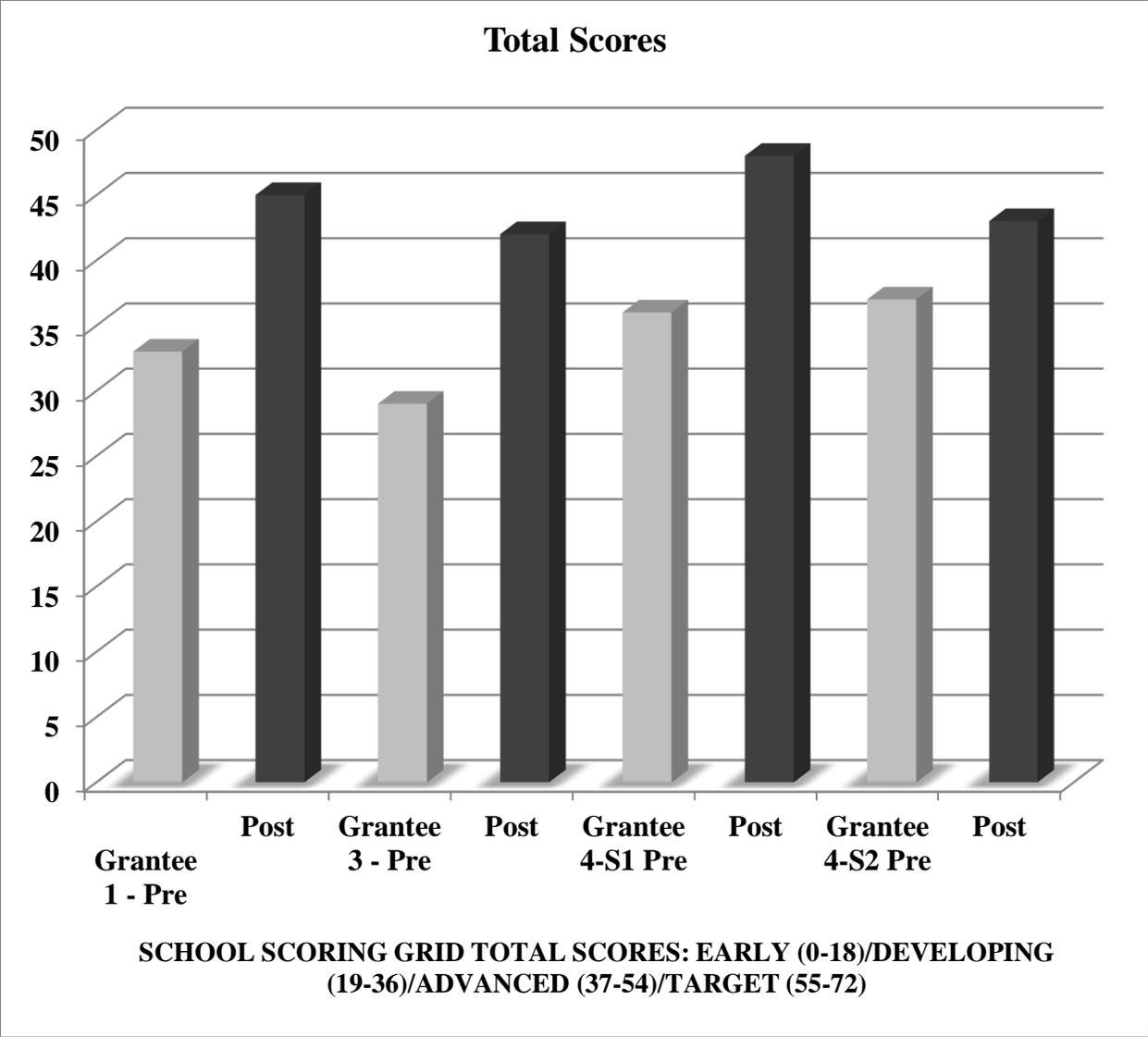


Figure 10. Digital learning progress rubric total scores for grantees using a school model.

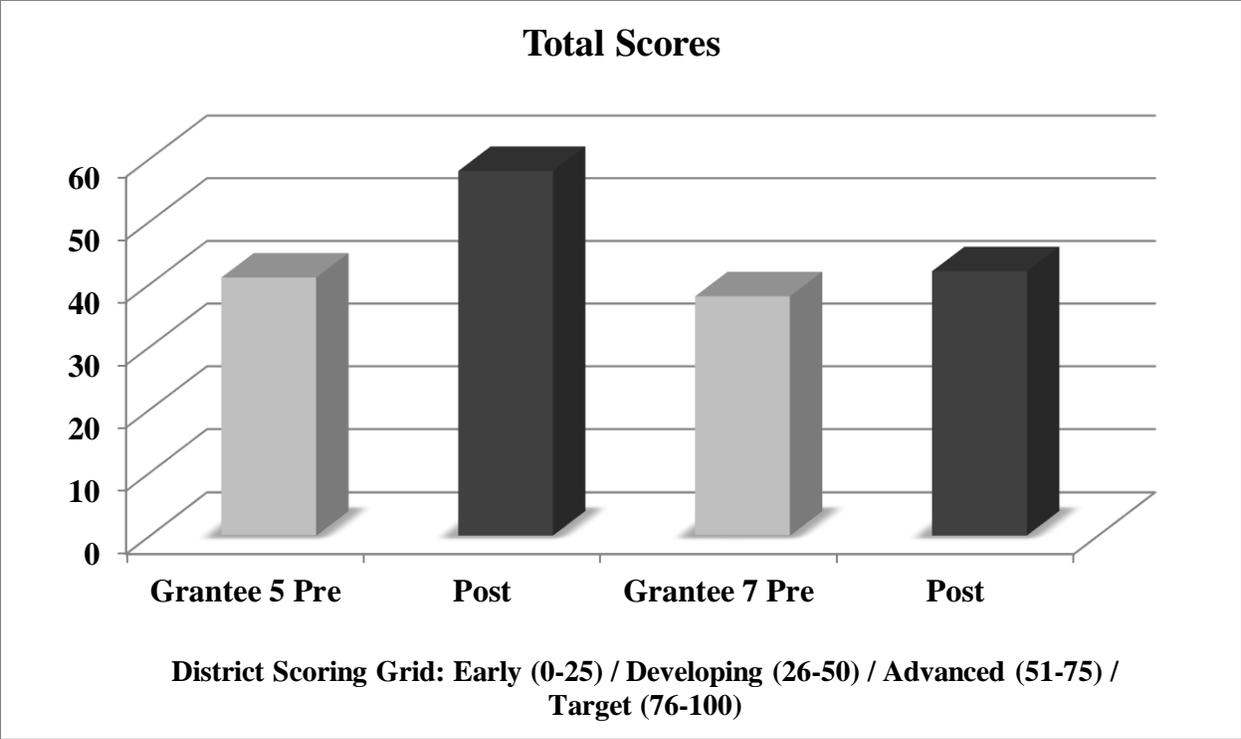


Figure 11. Digital learning progress rubric total scores for grantee using a cohort / district model.

pre-assessment to 44 points (61% of available points) post intervention. The largest gains achieved by these three grantees occurred in the Leadership (+39%) category followed by Content & Instruction (+25%), Professional Learning (+23%), and Data & Assessment (23% increase).

In contrast, only one of two grantees using the district / cohort model progressed to the Advanced stage on the district version of the Progress Rubric. Grantee 7 encountered challenges in measuring systems change across the district while utilizing a classroom model to pilot technology integration that initially limited participation to high school teachers completing a digital certification process. The project lead added the following commentary to their post Progress Rubric assessment:

We note only minimal district wide improvements through our pilot since our last submission because we assessed using a system or district lens even though we implemented using a teacher cohort model. Progress has been made in our pilot classrooms, but we recognize there remains plenty to do in other middle/high classrooms and in our elementary schools, where we have just started a pilot group. The rubric gives us a great frame for goal setting (Grantee 7, Focus Group Workshop, September 22, 2017).

The mean baseline score for the two grantees that deployed technology across the district was 40 out of 100 available points. The post assessment mean score for Grantee 5 and 7 grew to 50 points. Grantee 5 and 7 experienced the greatest improvement in the Professional Learning construct (+71%) followed by Leadership (+42%), Data & Assessment (+27%), Content & Instruction (+14%), and last Technology & Infrastructure (+10%).

An examination of the aggregate data demonstrated that on average the five grantees improved both at the individual and organizational levels. Further detail will now be presented to show grantee specific data. This is important as each grantee possessed different assets and levels of readiness within the survey scales used to assess individual and organizational readiness

for digital learning, which helped shape their journey of growth and progress made during the capacity building phase of the project. The stories that were gleaned from correlating the qualitative and quantitative were critical to learning how the grantees were able to improve performance and get better at measuring the impact of grant-support activity from participating in the GLF-GCB Model.

Grantee Site Data

The quantitative (aggregated pre and post) data presented above disclosed improvements in the confidence and skill of individuals tasked with carry out grant-supported program and evaluation activities and demonstrated greater organizational capacity to effectively implement and measure the impact of their accomplishments. The next section of Chapter Four is used to further examine the performance of the five grantees by correlating their quantitative (ECB, STNA-T, and Progress Rubric surveys) data with the qualitative information generated from grantee specific focus group workshops. The focus group workshops were designed to immerse grantee leadership teams in a reflective process of analyzing and using their pre and post assessment data to identify what worked and what did not work, prioritize core improvement strategies, and update the grantees' implementation plans which would serve as guides for action during the second year of work. The workshops were designed to engage grantees in the cycle of continuous improvement and result in the development of longer-term sustainability plans.

Grantee 1 (rural, northeastern middle school). Grantee 1 is a middle school located in a rural, economically distressed county in northeastern NC. This grantee deployed digital learning in grades 6-8 using a one-to-one model where each student received a device for in-school use only. Baseline and post implementation data collected from leadership team members

representing this grantee showed improved confidence in individual knowledge and skills to undertake program evaluation based on participants' responses to inquiries from the ECB survey. Overall, Grantee 1's individual evaluation capacity improved by an average of 30% points (statements 1-8) with the largest gains occurring in the areas of developing strategic evaluation questions (growth +47% points), designing evaluation instruments (+44% points), and analyzing different types of data (+44% points). Table 16 provides an overview of the pre and post ECB survey responses for this grantee.

In addition to expressing greater confidence and skill in performing evaluation tasks, participants on the leadership team indicated they were more often involved in evaluation activities after participating in the technical assistance sessions than prior to taking part in the project. Individual responses to questions concerning the frequency of engagement in evaluation activities increased by an average of 21.5% points over baseline figures for response options *often* and *always* (see Appendix I, Charts I-1 through I-8). Grantee 1's leadership team also indicated that their school increased its organizational capacity to develop policies and procedures to guide action (+22% points) and was better able to marshal the resources necessary to conduct evaluation tasks and use the information obtained to improve performance (+33% points). Chart I-9 in Appendix I summarizes the leadership team's responses to statements about this grantee's organizational capacity to conduct program evaluation.

A comparison of Grantee 1's STNA-T baseline and post survey data showed that growth occurred in 80% (28 of 35) of the survey statements where teachers either agreed or strongly agreed with survey statements. Moderate growth occurred (see Figure 12) across the five survey scales (mean increase of 8.6% points over baseline figures). In addition teachers who completed the pre and post assessment used technology more frequently to measure student performance

Table 16

Grantee 1: ECB Pre and Post Data Comparison – Individual Confidence Level Statements

| | Pre N=9 | Post N=5 | % Change |
|--|---------|-----------------------------|----------|
| <i>My degree of knowledge and skills is ...</i> | High | Very High- Somewhat High | High |
| Develop a logic model for evaluation planning | 46% | 54% | 8% |
| Design an evaluation plan | 48% | 52% | 4% |
| Develop strategic evaluation questions | 33% | 80% | 47% |
| Design data collection instruments (e.g., surveys and interview protocols) | 56% | 100% | 44% |
| Collect different types data (e.g., qualitative and quantitative data) | 78% | 100% | 22% |
| Analyze different types of data | 56% | 100% | 44% |
| Interpret evaluation results | 67% | 100% | 33% |
| Communicate evaluation findings | 44% | 80% | 36% |

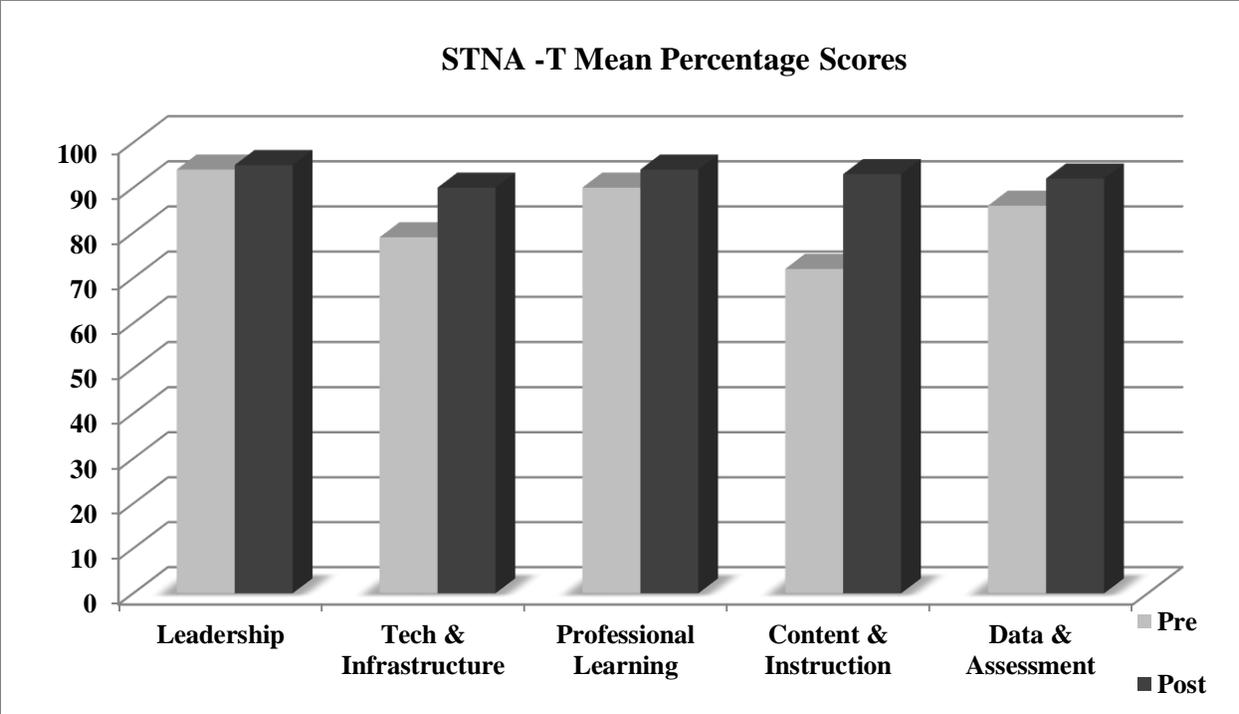


Figure 12. Grantee 1 STNA-T mean percentage scores by category.

(+21% points) and increased participation in training and their productivity (+9% points) after taking part in the project. Charts I-10 and I-11 contained in Appendix I were constructed to summarize pre and post STNA-T survey data for Grantee 1.

Grantee 1's leadership team initially rated their readiness to implement digital learning as Developing on the Progress Rubric. This grantee's post assessment scores from the Progress Rubric revealed growth in each of the four construct scales and in total, see Figure 13. Grantee 1 made the greatest gains in the Leadership (+5 points) and Content & Instruction (+4) categories. Overall, Grantee 1 progressed from the Developing stage with an initial score of 33 (46% of available points) into the Advanced phase achieving a score of 45, which represents 63% of total points available on the growth continuum. Progress made by this grantee can be summed up by the principal's comment captured at close of the focus group workshop:

The support from and process used by Golden LEAF and the Friday Institute have been very beneficial to our work and forced us to go through a planning and evaluation process that has made us more strategic in prioritizing our work and identifying how best to focus and use the available resources (Grantee 1, Focus Group Workshop, September 25, 2017).

Grantee 3 (rural, western middle school). Grantee 3 is a middle school that is located in a rural community in western NC. The initial assessment by the leadership team of Grantee 3 regarding individual evaluation capacity indicated low levels of confidence in all areas measured by the ECB survey. Responses by the leadership team of Grantee 3 to individual capacity statements are summarized in Table 17. A high level of assurance was expressed by only 1 of 4 members completing the survey on six of the eight statements contained in the ECB survey that measured individual knowledge and skill of evaluation tasks. After receiving training and support available through the GLF-GCB Model, the percentage of responses by members of

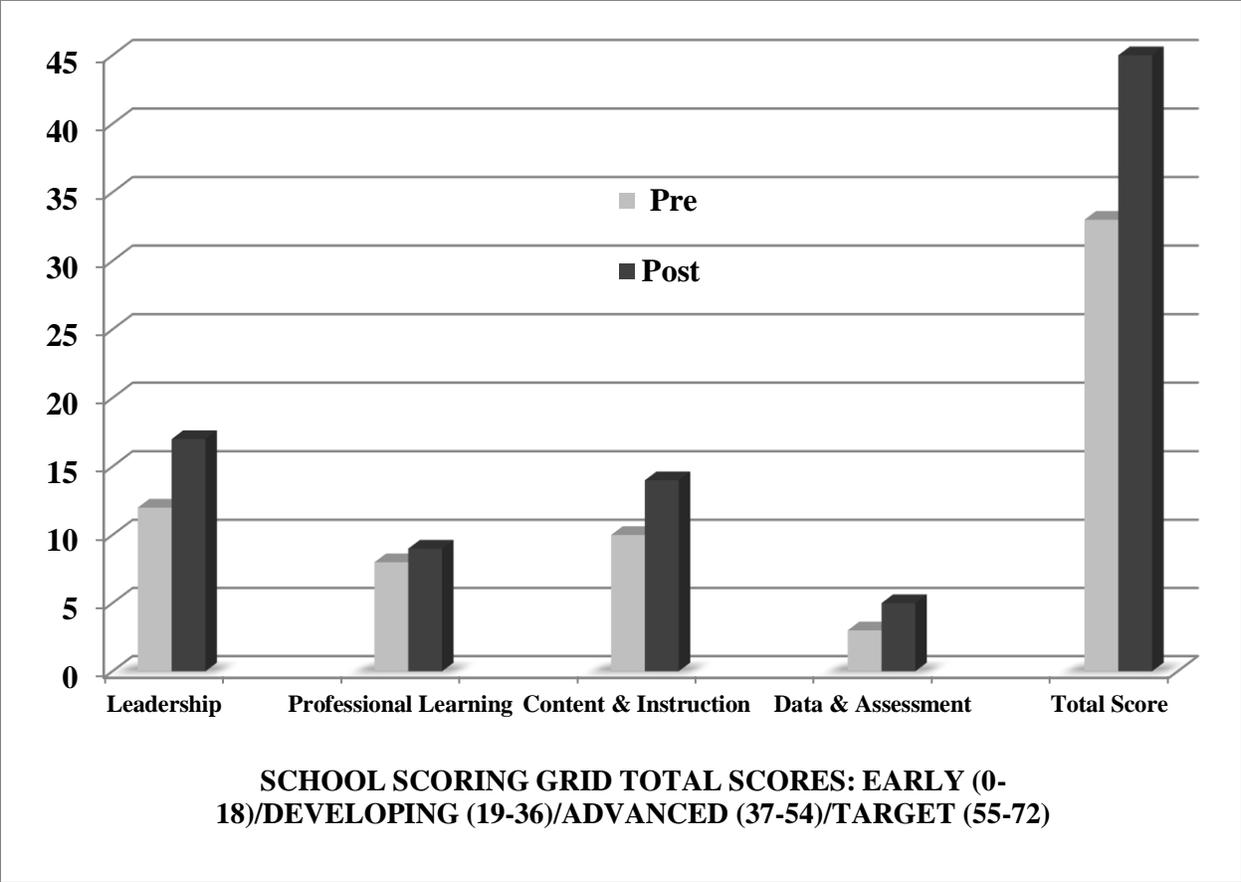


Figure 13. Grantee 1 digital learning progress rubric scores – pre and post assessment.

Table 17

Grantee 3: ECB Pre and Post Data Comparison – Individual Confidence Level Statements

| <i>My degree of knowledge and skills is ...</i> | Pre N=4 High | Post N=4 Very High- Somewhat High | % Change High |
|--|-----------------|---|------------------|
| Develop a logic model for evaluation planning | 25% | 50% | 25% |
| Design an evaluation plan | 25% | 50% | 25% |
| Develop strategic evaluation questions | 25% | 75% | 50% |
| Design data collection instruments (e.g., surveys and interview protocols) | 25% | 75% | 50% |
| Collect different types data (e.g., qualitative and quantitative data) | 50% | 50% | 0% |
| Analyze different types of data | 25% | 75% | 50% |
| Interpret evaluation results | 25% | 75% | 50% |
| Communicate evaluation findings | 50% | 50% | 0% |

Grantee 3's leadership team who ranked their individual self-confidence as very high to somewhat high grew in all but two of the eight areas surveyed (data and use statements 5 and 8). The mean change in perceived knowledge and skill for individuals increased 31% points between the pre and post assessments. Participants on the leadership team also expressed more frequent involvement in evaluation activities (see Appendix J: J-1 through J-8) in most areas assessed. From an organizational perspective Grantee 3 displayed growth in internal capacity to develop policies and procedures to improve program activity (see Appendix J: Chart J-9). During the focus group session, the leadership team stressed the importance of the training and engagement of external partners to build self-confidence and improve their abilities to successfully implement the project. The school's principal explained, "When the grant was announced, we felt as if we had jumped on a moving train and were just trying to hang on. Now, the leadership training has helped us get back into the driver's seat" (Grantee 3, Focus Group Workshop, August 16, 2017). The team of Grantee 3 also expressed how important it had been for them to have external stakeholders involved in the journey:

Without the engagement by our technical assistance and funding partners, it would have been less likely that we would have been back in the driver's seat at this point in time. We first thought the project was going to be a nightmare, but the partnership made it great (Grantee 3, Focus Group Workshop, August 16, 2017).

A comparison of teachers' abilities to effectively use technology to improve teaching and learning through pre and post STNA-T survey data revealed that self-expressed growth by teachers occurred in 77% (27 of 35) of the survey statements. Overall, Grantee 3 experienced an average growth of 11% points across the five construct categories (Chart J-10 in Appendix J) and conveyed increased use of technology (average 14% points) to apply performance-based assessments and collect and analyze student data to improve practice (Data & Assessment - see

Chart J-11 in Appendix J). Even though individual growth measured by STNA-T was moderate, Grantee 3's abilities to implement program activity improved. A teacher on the leadership team commented that they had gained more confidence in communicating and collaborating with school administrators and that team planning had contributed to a more collegial environment. Another teacher enthusiastically claimed, "This project has started the school on a journey of unity" (Grantee 3, Focus Group Workshop, August 16, 2017). The largest gain in teacher knowledge and skill occurred in the Content & Instruction scale (+21% points) with Data & Assessment (+14% points) identified as the second largest area where improvement occurred. One concern that arose in the post assessment was the reduced number (only 71% of initial survey population) of teachers that completed the post STNA-T survey. What conclusions might be drawn from having fewer teachers who took the time to complete the post assessment? What corollaries might this suggest about teacher buy-in and engagement?

Grantee 3 also experienced growth in their organizational capacity to implement digital learning based on the leadership team's pre and post assessments of progress on the readiness continuum outlined in the Digital Learning Progress Rubric. The team's original assessment ranked the school's baseline readiness to implement digital learning in the Developing phase with a total score of 29 (or 40% of available points), which is the lowest total score achieved by the cohort of grantees implementing digital learning through the school model. Grantee 3's score on the post assessment increased 13 points (total score of 42), which represents 58% of the available points. The post assessment score for Grantee 3 fell in the Advanced stage on the Progress Rubric growth continuum. The greatest improvement in raw score occurred in the Leadership category (+8 points or 71% increase over the baseline), but meaningful improvements also occurred in the Professional Learning (+67%), Data & Assessment (+50%)

and Content and Instruction (+46%) scales. Figure 14 displays the baseline and post Progress Rubric scores for Grantee 3.

Grantee 4 (rural, Piedmont Triad high schools). Grantee 4 is a rural district with two high schools that participated in the digital learning study cohort. A prior grant from Golden LEAF (GLF) was used by this grantee to implement digital learning in one of the district's three high schools during the 2015 academic year. Teacher leaders from the two remaining high schools (Grantee 4 S-1 and S-2) took part in some of the on-site professional development activities delivered by the Friday Institute in anticipation of scaling the project at their schools in 2016 through a second request to GLF. The district leadership team that was originally formed to initiate the digital learning initiative morphed into school leadership teams during the year. Administrators invited a larger pool of teachers to become members of school-based leadership teams. This *teacher-led* process served the district well and resulted in increased teacher buy-in from their involvement in the program planning, implementation, and monitoring activities. A participant in the focus group workshop explained, "I was anti-tech in the initial phase of the project, but being invited to be part of the leadership group and their encouragement has challenged me to grow" (Grantee 4, Focus Group Workshop, August 18, 2017). In addition, teachers who participated in the focus group workshops expressed greater comfort in taking risks to try new strategies to improve student success and described an environment where school administrators supported *failing forward*. One teacher commented, "The fear of trying something new is going away" (Grantee 4, Focus Group Workshop, August 18, 2017).

The district leadership team participated in the 2016 Leadership Institute, but was unable to attend the 2017 event. While only four of eight members completed the ECB pre-assessment, all eight responded to the post survey. ECB baseline data compiled for this grantee showed

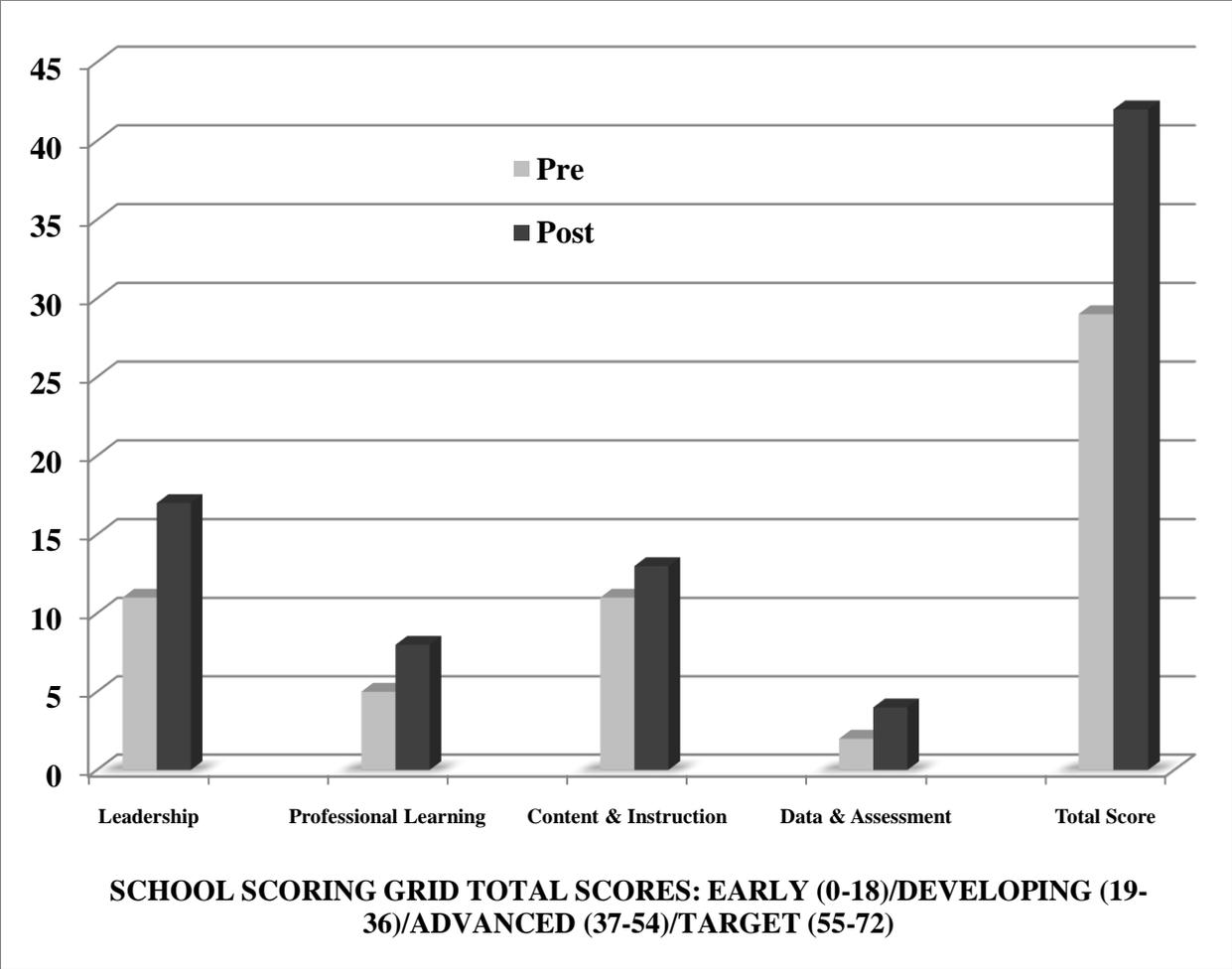


Figure 14. Grantee 3 digital learning progress rubric scores – pre and post assessment.

limited self-confidence in individual abilities to perform evaluation tasks (an average of 41% rated themselves high on survey statements 1-8) with only one statement from the ECB survey receiving a confidence rating above 50%. The post survey results showed much higher scores in all 8 areas measured (mean rating of 91%). Post assessment rankings for Grantee 4's team also indicated increased frequency in performing evaluation activities with seven of eight statements receiving higher marks on the ECB post survey. Graphs (see K-1 through K-8) were created to summarize the frequency of engagement by individuals in evaluation tasks and are displayed in Appendix K. An analysis of the pre and post ECB survey results indicated more involvement by members of the leadership team in evaluation planning and data collection and use than prior to program enactment. The only area where members did not express more frequent engagement in evaluation tasks occurred in statement #3 (see Chart K-3) where individual knowledge and skill to develop strategic evaluation questions did not change from the baseline assessment. An analysis of the pre and post data (see Table 18 for data) indicated significant improvements expressed by the district team in the knowledge and skill (66% point mean increase) needed to conduct program planning and evaluation design tasks (statements 1-4). Individual abilities related to data collection, analysis, interpretation, and communication also trended positively (average gain of 36% points across statements 5-8).

ECB survey results used to frame the organization's capacity to conduct program evaluation (statements 9-11) showed improvements in the grantee's ability to develop policies and procedures to undertake grant-supported activity, implement data informed changes, and marshal the resources to effectively undertake and use evaluation data for improvement. The district's ratings of organizational capacity to measure impact and use data to improve performance increased by an average 50% points (see Chart K-9 of Appendix K) between the

Table 18

Grantee 4: ECB Pre and Post Data Comparison – Individual Confidence Level Statements

| <i>My degree of knowledge and skills is ...</i> | Pre N=4 High | Post N=8 Very High- Somewhat High | % Change High |
|--|-----------------|---|------------------|
| Develop a logic model for evaluation planning | 0% | 88% | 88% |
| Design an evaluation plan | 0% | 88% | 88% |
| Develop strategic evaluation questions | 50% | 88% | 38% |
| Design data collection instruments (e.g., surveys and interview protocols) | 50% | 100% | 50% |
| Collect different types data (e.g., qualitative and quantitative data) | 50% | 88% | 38% |
| Analyze different types of data | 50% | 88% | 38% |
| Interpret evaluation results | 75% | 100% | 25% |
| Communicate evaluation findings | 50% | 88% | 38% |

baseline and post assessment surveys. While Grantee 4's data showed improved performance, the positive outcomes could have also been influenced from having a larger percentage of the team complete the post (100%) survey than the pre-assessment (50%). The remaining analysis of data for Grantee 4 will occur at the school level.

Grantee 4 school 1. Seventy-six (76%) percent of teachers who responded to the pre STNA-T survey from this school, which is the smaller of the two high schools, completed the post assessment. A comparison of data collected from the pre and post surveys showed increased affirmations (strongly agree or agree) on 66% of the 35 statements contained in the revised survey. School 1 achieved modest improvements in the following scales: Leadership (+5% points), Technology & Infrastructure (+2% points), and Content & Instruction (+8% points). Teachers did not express improved abilities in the Data & Assessment (-1% point) and Professional Learning (-1% point) categories. Chart K-10 (see Appendix K) is used to summarize results from the baseline and post STNA-T surveys completed by teachers at this school. A review of responses to inquiries about the frequency of use (see Appendix K, Chart K-11) indicated an overall decline in the frequency of technology use by teachers for training and productivity (Professional Learning: -11% points), but more frequent (Data & Assessment: +21% points in daily and weekly) utilization of technology to collect, analyze, and use student data to improve teaching and learning.

School 1 progressed to the Advanced stage on the growth continuum of the Progress Rubric gaining a total of 12 points over the initial baseline score of 36 (50% of total available points). The school's post assessment score was 48, which represents 67% of the total points available on the school version of the rubric. This high school showed improved capabilities in the Leadership (+6 points), Content & Instruction (+5 points), and Professional Learning

(+1 point) scales. No gain occurred in the Data & Assessment category. Baseline and post assessment scores from the Progress Rubric for School 1 are displayed in Figure 15. Members of this team stated that greater confidence resulted from a shift toward a culture that encouraged collaboration and from being part of a group with a common aim. This group affirmed that allowing staff to be strategically included on the leadership team was key to growing a broader foundation of success.

Grantee 4 school 2. Eighty-one (81%) percent of teachers from School 2 responded to the post STNA-T survey. Teachers from this school expressed improved performance on 80% of the survey statements (28 of 35) with a mean increase of 10% points occurring across the five survey constructs. Improvements happened in all but one area with the largest gains occurring in Data & Assessment (+23% points) followed by Professional Learning (+11% points), Technology & Infrastructure (+10% points), and Leadership (+8% points). The only scale where School 2 made no improvement was in the Content & Instruction category. Chart K-12 in Appendix K shows mean STNA-T scores by construct scale. School 2 also reported greater utilization of technology to aid professional learning (+16% points) and more frequent use of technology to analyze and use data to inform program improvement (+7% points). See Chart K-13 for a comparison of pre and post survey data.

School 2 also improved its position on the Progress Rubric from an initial baseline score of 37 to 43 points on the post assessment. See Figure 16 for Progress Rubric baseline and post assessment scores for School 2. The post assessment score represents a slight improvement (+16%) over the baseline total and achieved 60% of the total points available compared to 51% on the baseline assessment. Thus, School 2 grew its position in the Advanced scale of the

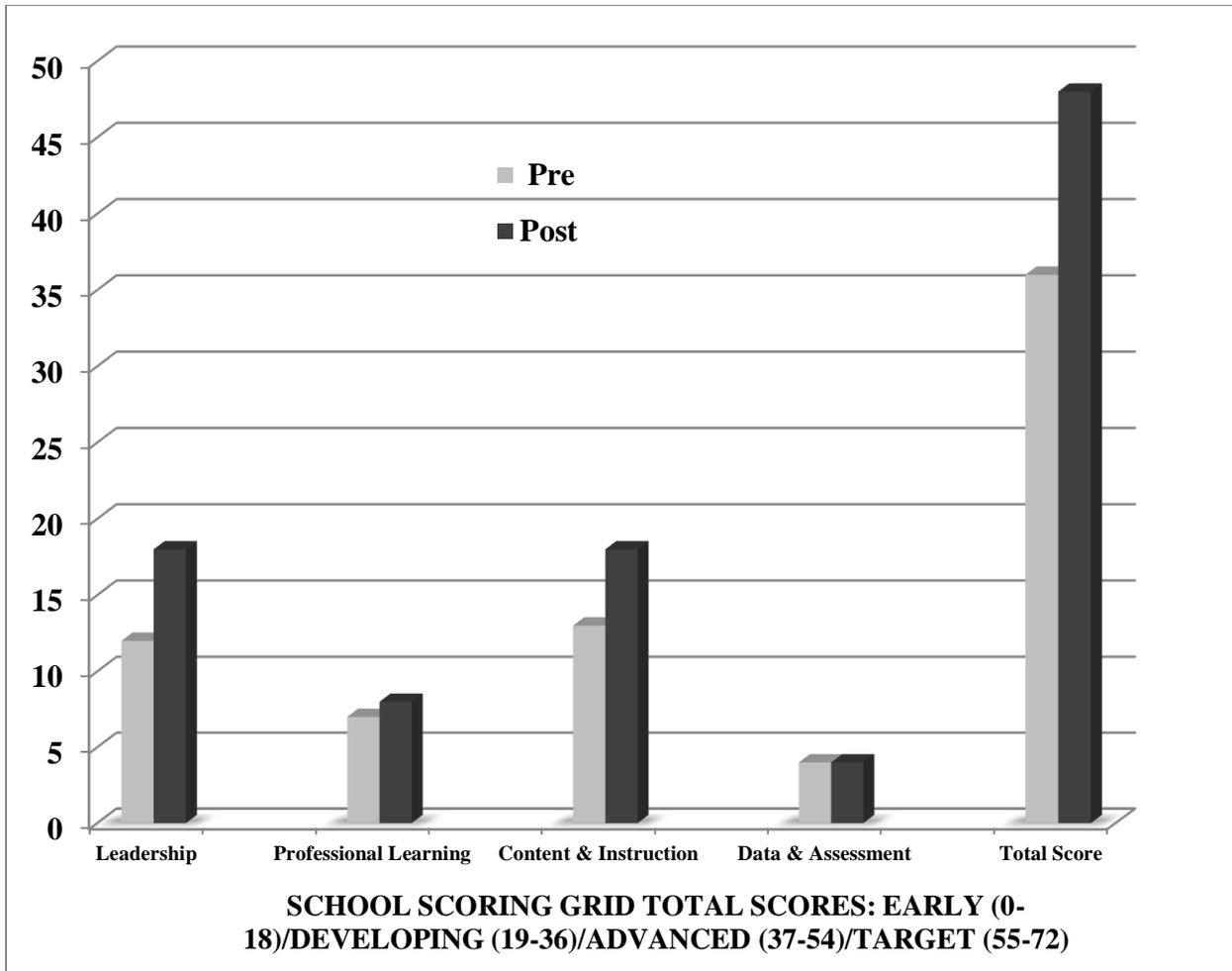


Figure 15. Grantee 4 S-1: digital learning progress rubric scores – pre and post assessment.

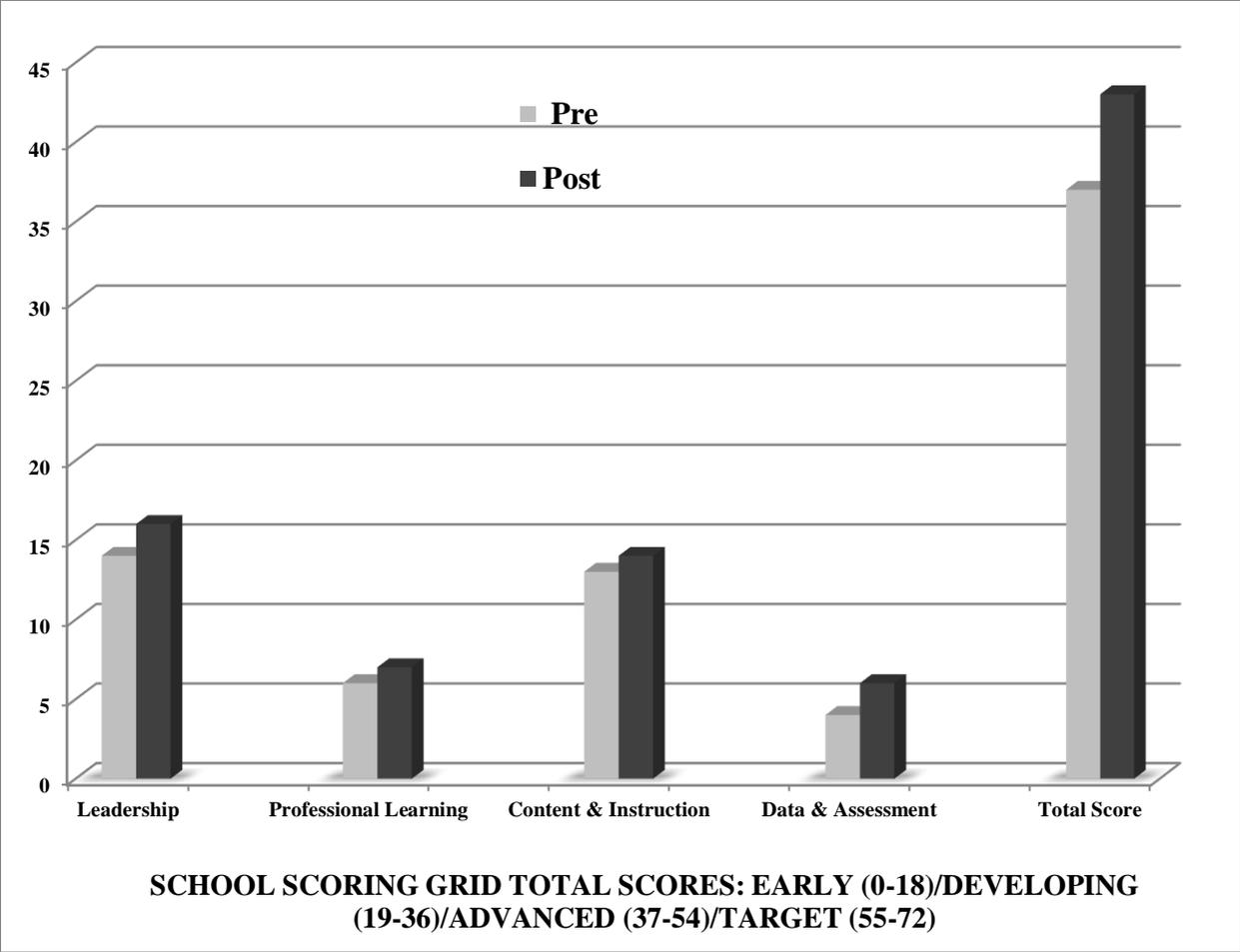


Figure 16. Grantee 4 S-2 digital learning progress rubric scores – pre and post assessment.

development continuum. The school improved by two points in both the Leadership (14% increase over the baseline score) and Data & Assessment (50% increase) areas. The school also increased its scores in each of the remaining two (Content & Instruction 8% increase and Professional Learning 17% increase) construct scales of the school version of the assessment instrument. During the focus group debrief, leaders from this school expressed initial excitement about the grant, but were hesitant about moving forward. They commented that the commitments made by Golden LEAF and the Friday Institute to get the team prepared made them much more confident in their abilities to achieve success. The team made positive comments about the benefits that accrued from participating in the GLF-GCB model:

If you never stop to assess and see if adjustments are needed to the process, you will continue to make the same mistakes over and over again. Allowing staff to be strategically included in the leadership group has been a key to growing a broader foundation of success (Grantee 4, Focus Group Workshop, August 18, 2017).

Grantee 5 (rural, western district). Grantee 5 is a rural school district that received a grant through Golden LEAF's regional Community Based Grant Initiative and matching funds sufficient to integrate technology in a majority of its schools. During the initial year of the three-year grant, teachers and administrators participated in professional development with pilot programs started in the spring at one traditional and two early college high schools. The district also made preparations for full-scale implementation at the remaining schools beginning in year two in grades 4-8. Slightly more than half (57%) of the leadership team rated their individual knowledge and skills in evaluation planning and design (statements 1-4) as high on the ECB survey. On average 93% of the team rated their initial confidence to conduct evaluation tasks and use data to improve action as high. Baseline and post survey results conveyed by the team appear in Table 19. Data from the survey revealed that Grantee 5 improved (average increase of 18%

Table 19

Grantee 5: ECB Data Survey Data – Individual Capacity Questions

| | Pre N=7 | Post N=7 | % Change |
|--|---------|-------------------------|----------|
| <i>My degree of knowledge and skills is ...</i> | High | Very High-Somewhat High | High |
| Develop a logic model for evaluation planning | 57% | 71% | 14% |
| Design an evaluation plan | 43% | 71% | 28% |
| Develop strategic evaluation questions | 57% | 71% | 14% |
| Design data collection instruments (e.g., surveys and interview protocols) | 71% | 86% | 15% |
| Collect different types data (e.g., qualitative and quantitative data) | 100% | 71% | -29% |
| Analyze different types of data | 100% | 71% | -29% |
| Interpret evaluation results | 100% | 71% | -29% |
| Communicate evaluation findings | 71% | 86% | 15% |

points) in the front-end planning and design activities, but declined in three of four areas (average decrease of 18% points) associated with collecting, analyzing, interpreting, and using evaluation data to inform practice. These reduced marks could be influenced from participants gaining a better understanding of evaluation from participating in sessions designed to build individual skill and enhance organizational capacity to perform evaluation tasks or from the limited choices (high vs. low) that were erroneously offered in the pre survey. A school administrator made reference to this during the focus group workshop:

Last year there was much fear and anxiety. In the beginning there was a lot we were unsure of, but we are over that because we focused on the logistics and got a solid plan. Now that we survived and did not have an implementation dip, we can focus on growing the body of work (Grantee 5, Focus Group Workshop, September 5, 2017).

Evidence of learning what was not known was also present in the change in frequency ratings for statements 1-8 on the ECB survey (see Charts L-1 through L-8). Original indications that participants were often or always involved in evaluation activities moderated with a greater number of members responding that they were sometimes, rarely, or often included in evaluation practice. Reactions by members of the leadership team to ECB survey statements about organizational capabilities also demonstrated declines in confidence and skill associated with institutional competences to develop policies and procedures to improve and access and use resources for program evaluation (see Appendix L – Table L-9).

Charts L-10 and L-11 of Appendix L are used to summarize the pre and post STNA-T survey results of Grantee 5's teachers. Initially 87 teachers from the district completed the STNA-T survey, but only 55 (63%) finished the post assessment. A comparison of pre and post STNA-T data (see Chart L-10) demonstrates that teachers felt more confident in the abilities across all 35 statements (100% of post statement responses increased over baseline percentages for agree and strongly agree options) included in the abbreviated survey tool. The mean

percentage (81%) of teachers that agreed or strongly agreed with statements on the post survey corresponded to an increase of 14% points over the baseline of 67%. Teachers also conveyed more frequent use of technology (see Chart L-11 of Appendix L) to aid in their personal growth and productivity (+7% points) and to enhance their abilities to assess student learning and use data to improve student outcomes (+12% points).

Grantee 5 also made significant progress on the readiness continuum of the Progress Rubric moving from the Developing scale with an initial score of 41 to the Advanced stage of the growth continuum with a total score of 58 (see Figure 17). The percentage of available points achieved by Grantee 5 increased from 41% to 58% (100 total points are available on the district version of the Progress Rubric) from the pre to post assessment. The biggest gains in readiness were accomplished in Professional Learning (33% point increase in available points), Leadership and Data & Assessment (+25% points each), Technology & Infrastructure (+8% points), and last Content & Instruction (+4% points). A teacher on the leadership team commented during the focus group session that having a set of tools to assess the process helped them see things through a different set of lenses. This individual also stressed how having to develop a sustainability plan highlighted the need for more school-based support in order to scale the initiative to other schools.

Grantee 7 (growing suburban, western district). This grantee used resources from Golden LEAF to support the professional development needs of the district to prepare teachers and administrators to deploy a cohort digital learning model that depended on annual appropriations from the county to purchase devices for classroom placement. Deployment occurred first in the district's four high schools using a badging system to identify teachers who had achieved digital competency, then Grantee 7 planned to scale the initiative to the middle and

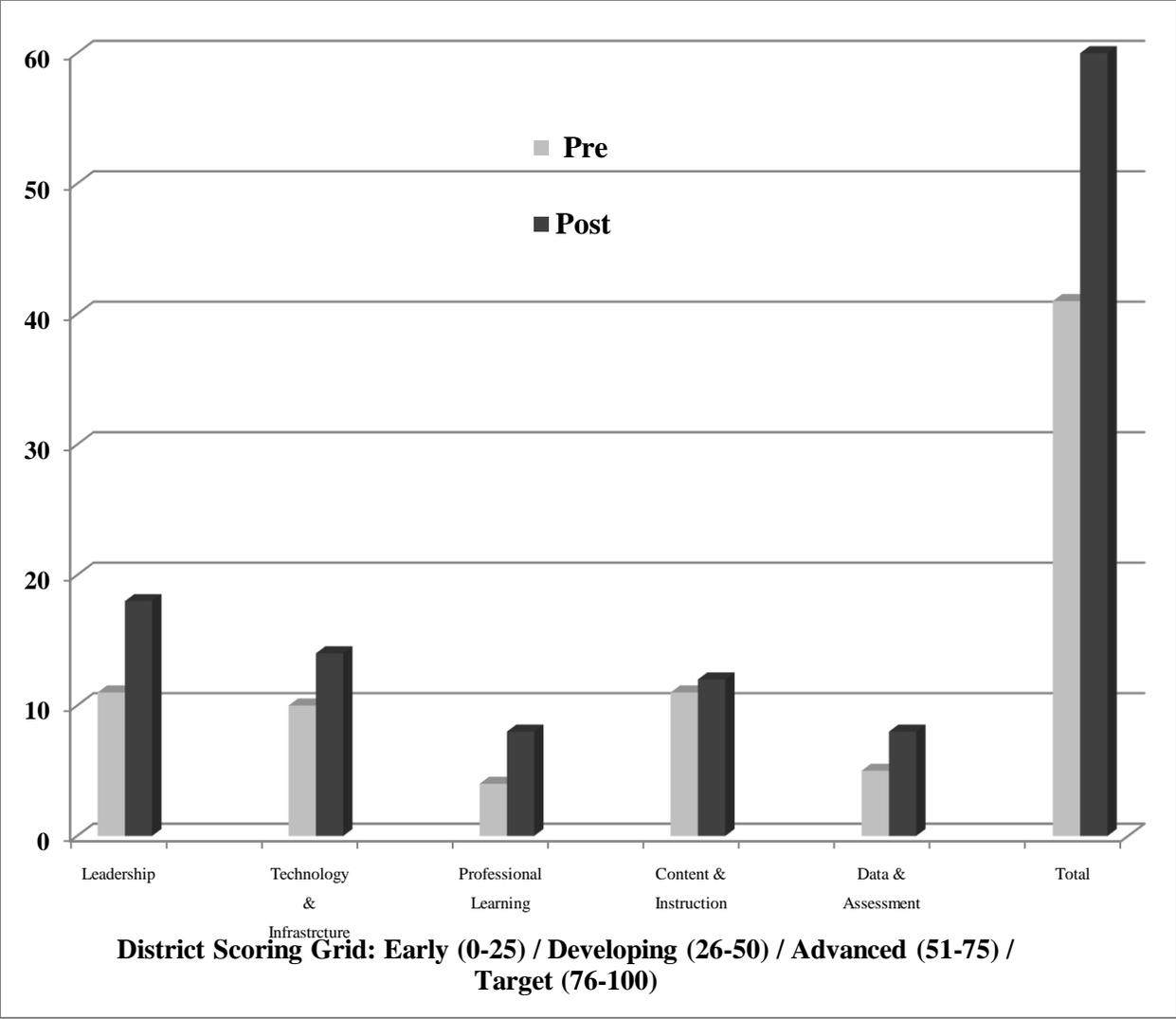


Figure 17. Grantee 5 digital learning progress rubric scores – pre and post assessment.

elementary schools in subsequent years. Ten members of the leadership team completed the pre evaluation capacity assessment with an average of 55% expressing confidence in their initial knowledge and understanding of the front-end tasks associated with evaluation planning and design (statements 1-4 on the ECB survey). Table 20 contains the baseline and post survey data for this grantee. The six members of Grantee 7's leadership team felt better prepared to develop an evaluation plan and design data collection tools post intervention (23% point increase in each statement), but did not express greater knowledge or abilities in using a logic model to aid evaluation planning and to develop strategic assessment questions (0% gains in statements 1, 3, and 6). Members of the leadership team of Grantee 7 indicated that the biggest improvement occurred in their abilities to collect different types of data (33% point gain). They also felt more confident in their preparedness to interpret evaluation results (20% point gain), but did not feel they were well prepared to communicate the findings from evaluation (13% point decline from baseline percentage). This lack of confidence may have resulted from the struggle the district experienced in lobbying the county commission for additional funding to purchase devices to scale the program. Efforts to acquire an appropriation sufficient to scale the project across all schools stalled with the commission only approving an initial tranche of funding for the high schools with intent to entertain future requests to grow the initiative incrementally rather than the district's request for a multi-year commitment. The leadership team of Grantee 7 expressed greater participation in evaluation activities with responses migrating from a majority indicating limited involvement (never, rarely, or sometimes) in the pre ECB survey toward more frequent engagement (sometimes and often) post implementation. Charts M-1 through M-8 are included in Appendix M to show the changes in pre and post assessment frequency data across the eight

Table 20

Grantee 7: ECB Data Survey Data – Individual Capacity Questions

| | Pre N=10 | Post N=6 | % Change |
|--|----------|-------------------------|----------|
| <i>My degree of knowledge and skills is ...</i> | High | Very High-Somewhat High | High |
| Develop a logic model for evaluation planning | 50% | 50% | 0% |
| Design an evaluation plan | 60% | 83% | 23% |
| Develop strategic evaluation questions | 50% | 50% | 0% |
| Design data collection instruments (e.g., surveys and interview protocols) | 60% | 83% | 23% |
| Collect different types data (e.g., qualitative and quantitative data) | 50% | 83% | 33% |
| Analyze different types of data | 100% | 100% | 0% |
| Interpret evaluation results | 80% | 100% | 20% |
| Communicate evaluation findings | 80% | 67% | -13% |

survey statements. One area where ECB survey respondents expressed less frequent engagement occurred in interpreting evaluation results (see Chart M-7). The team did not indicate growth by their institution in its ability to develop and implement systems to conduct and use evaluation data (see Chart M-9).

Grantee 7 experienced a significant reduction in the number of teachers that completed the post STNA-T survey with only 43% of the original 51 respondents completing the post assessment. This may have been a timing issue, but teacher motivation and buy-in could have been negatively affected when the district was not successful in lobbying the county for increased funding to deploy devices across the remaining high school teachers before starting a pilot program at the middle schools. A comparison of the STNA-T pre and post assessment data showed modest (+6% points) gains across the five construct scales that were aligned to the Progress Rubric. Charts M-10 and M-11 are used to contrast data from the STNA-T surveys. The district improved most in the Leadership (+8% points) scale with similar increases (+6% points) in the Professional Learning, Content & Instruction, and Data & Assessment scales. The smallest percentage increase (+3% points) occurred in the Technology & Infrastructure scale. Teachers indicated a significant uptick in the average use of technology to assess student performance and analyze and use data to inform practice (+21% points).

Grantee 7 made slight improvements in its readiness to use technology to improve teaching and learning, but persisted in the Developing scale on the Progress Rubric's growth continuum (see Figure 18). The post assessment score for this grantee was 42 compared to a baseline score of 38. The leadership team expressed improved performance in the Professional Learning (+8% points), Content & Instruction (+8% points), and Leadership (+3% points) scores, but felt as if they had not made progress as a district in growing their abilities in the Data

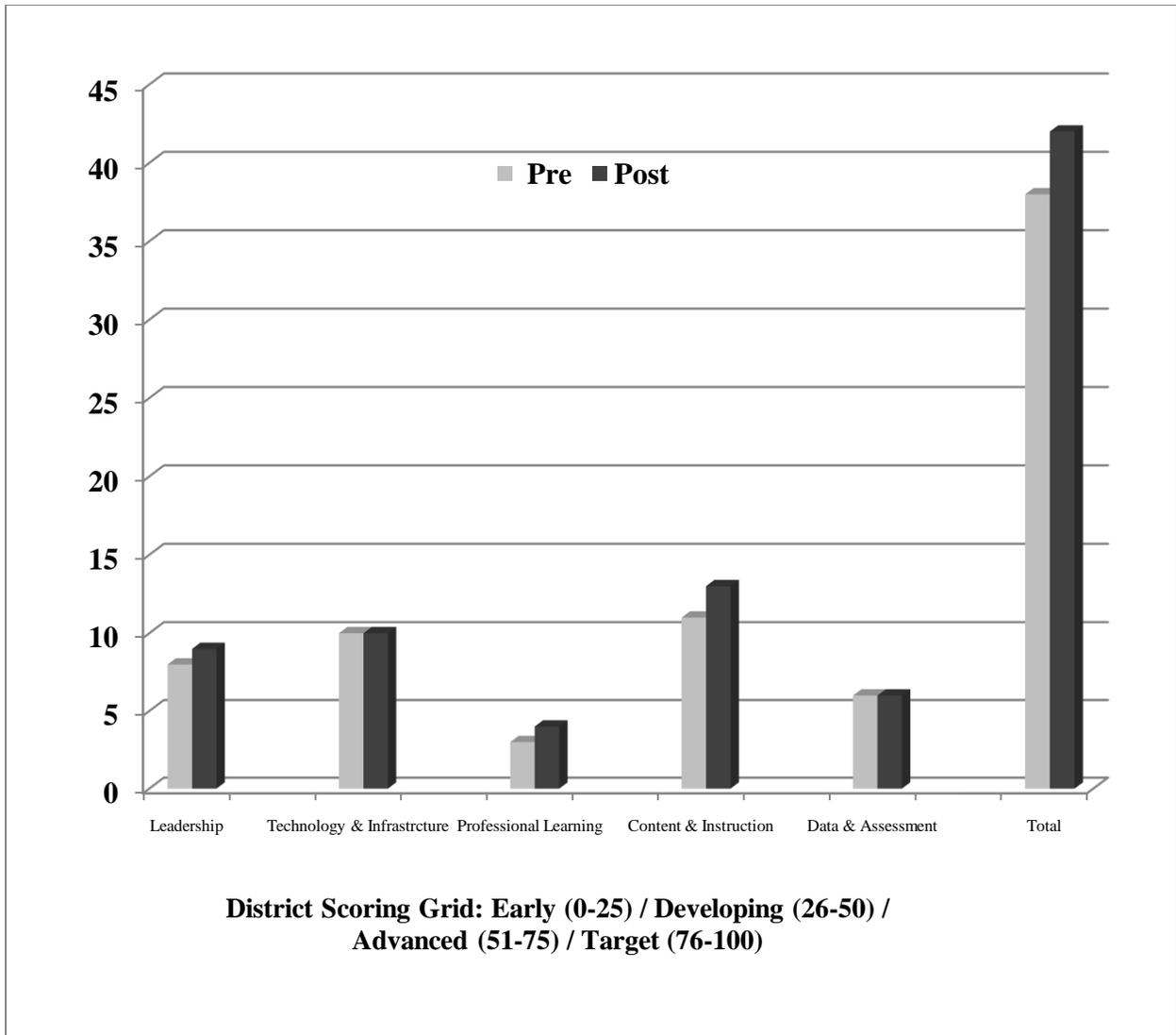


Figure 18. Grantee 7 digital learning progress rubric scores – pre and post assessment.

& Assessment and Technology & Infrastructure categories. This too is a likely result of having used a teacher cohort model to deploy devices in select classrooms rather than implementing across all teachers at a school or schools. A member of the leadership team referenced the positive contributions from having outside stakeholders involved who asked the hard, probing questions about scaling and sustainability. These external perspectives contributed to organizational growth from provoked thought and conversation about issues that would not have surfaced without forced accountability.

Grantee Data Summary

The capacity building phase of the Golden LEAF Grantee Capacity Building (GLF-GCB) Model was designed to prepare grantees with the individual knowledge and skills and organizational capacity to improve their abilities to successfully implement a complex initiative and better measure the impact of their work. The purpose of this study was to explore the utility and impact of the GLF-GCB Model to build grantee capacity to inform practice and sustain continuous improvement. First, baseline data were collected from seven grantees and used to determine their initial readiness to implement and measure the impact of grant-focused activity. Grantees then received technical assistance and on-site professional development to assist them with crafting implementation plans and enhancing individual skills and organizational practice to carry out a complex and comprehensive initiative designed to improve teaching and learning. After the initial implementation period, five of the seven grantees completed post survey assessments—ECB Survey, STNA-T, Progress Rubric, and focus groups—to determine to what extent and how the knowledge and skill of individuals improved their organizations' ability to successfully implement digital learning and evaluate their work.

Baseline data described in the beginning of Chapter Four painted a picture of the seven grantees as *works-in-progress* with all but one showing characteristics consistent with the Developing stage of the Progress Rubric. Initially grantees conveyed more confidence in their knowledge and skill to collect, analyze, interpret, and communicate impact (71% mean – high confidence ranking) than to undertake front-end responsibilities associated with evaluation planning and design (50% mean – high confidence ranking). See Table 7 in the Baseline Data Section of this chapter for detailed pre ECB data. A majority of the leadership team members indicated they were rarely or only sometimes involved in program and evaluation planning activities, but were more often asked to collect and use evaluation data (see Table 8). Teachers from the seven grantees completed STNA-T surveys that were used to craft customized professional development plans for each grantee to aid teachers and administrators in developing the skills and knowledge needed to effectively use digital learning to improve instructional practice and increase student achievement. Grantees also completed an organizational assessment by using the Progress Rubric to assess their entities initial readiness to implement digital learning. Overall, six of the seven grantees self-assessed their organization as developing the skills and practices required for success (see Figures 6 & 7). One grantee (Grantee 6) ranked their organizational readiness as Advanced, but the district had invested time and resources the year prior to receiving the grant from Golden LEAF to prepare the leadership team and a cohort of 20 teachers for the transition to digital learning.

A second round of assessments were completed by five grantees after the initial implementation period. Additionally, focus group workshops were held where grantees were tasked with using pre and post data to examine their initial performances and plan for the upcoming year. Data from the evaluation capacity survey showed increased confidence and skill

by grantees in program and evaluation planning and design activities (28% point average increase over the baseline). They also expressed enhanced abilities (12% point average increase over the baseline) to collect and use evaluation data. A comparison of pre and post ECB data can be found in Table 15 in the Aggregated Data section of Chapter Four. The five grantees saw slight improvements in their organizational abilities to develop policies and procedures for program improvement, implement changes informed by evaluation data, and marshal the resources to collect and use data to improve (3% point average gain – see Table H-9 in Appendix H). All five grantees demonstrated improvements as expressed by teachers—STNA-T surveys—in the skills and the frequency of using technology for student assessments and to increase individual productivity (see Figures H-11 through H-17 in Appendix H). The three grantees (Grantees 1, 3, and 4 - see Figure 10) who implemented the project at designated schools made meaningful progress in moving from either the late Developing or early Advanced phases of the growth continuum well into the Advanced scale. They improved on the readiness scale from an average baseline of 47% of available points (72) to 61%, which represents a 30% increase in aggregated raw scores. Both grantees (5 and 7) that used a district/cohort model to deploy also improved after the initial period, see Figure 11. These findings displayed positive trends that can be interpreted as evidence that the GLF-GCB Model enhanced the individual and organizational capabilities of grantees to improve program implementation and measure the impact of grant-supported work.

Case Studies

Two case studies were developed to examine how the process and tools from the GLF-GCB Model were utilized by grantees to help inform action for organizational improvements and aid with program sustainability. The following factors were considered in selecting two grantees

from the remaining five for case analysis. First, grantee representation in the case studies would include one entity from each of the two models—school vs. district / cohort—used by grantees to implement digital learning. Second, the case studies would examine how the capacity building framework was used by and benefited grantees that focused their initial work on middle and/or high school deployment. For the case analysis, qualitative data collected from the focus group workshops were correlated with quantitative data presented in the previous section to highlight and describe core themes that emerged from the grantees' work. Discussion for the case analyses will be organized through the framework of distributive leadership, continuous improvement, and accountability.

Case Study One – Prototype School (Grantee 1)

Prototype School is one of two middle schools in a district located in northeastern North Carolina in a county that has frequently been classified by the North Carolina Department of Commerce as *most economically distressed*. The region is also considered the most economically challenged prosperity zone in the state (NC Department of Commerce, 2017) due to having the largest number of Tier I counties of any other region in the state.

The school experienced declines in student enrollment over the past few years with a student population of 592 in 2015, which was down from the 631 students enrolled the prior year. In 2015, Prototype School was rated low performing with end of grade proficiency scores significantly lagging state averages in Career and College Ready and Grade Level Proficiency Scores (NC Department of Public Instruction, 2017). The school performance grade for Prototype School in the 2015 school year was D, and it did not meet expected growth.

In 2015, Prototype School (Grantee 1) approached Golden LEAF for resources to help increase the educational opportunities available to their rural, disadvantaged students by

implementing a program that would integrate technology into instructional practice and create STEM (Science, Technology, Engineering, and Math) lab stations in the library to augment student learning. Leadership from the school, with support from the central office, submitted an application to Golden LEAF. The grant made Prototype School the first school in the district to implement digital learning. The request for support included an appeal that funding would aid the district's longer-term desire to implement digital learning at other schools by using Prototype School as a model program so others in the district could learn from and pattern themselves after the model developed by Prototype. At the time of application, the district's student to technology device ratio was higher than the state average meaning the district had less access to technology than the average school. In addition to digital learning, Prototype School requested a portion of the funds be used to retool the media center with the goal of enhancing student learning through STEM application labs that could be also used to introduce students to STEM careers and advanced training programs in higher education. The school planned to equip and use a portion of the media center for creation/automation stations designed to extend student experiences by integrating learning opportunities that challenged students to apply knowledge acquired in core subjects to solve authentic, real-world problems and learn about STEM careers.

The new principal of Prototype School had prior experience in a district that successfully transitioned to digital learning in grades 6-12. New to the district, the administrator thoughtfully went about the process of assembling a team that could provide leadership and help tackle the challenges of implementing a complex initiative in a low performing school. School staff populated the leadership team of this grantee with limited or no participation from the central office. The principal described the initial steps taken to start the transformation:

The digital learning initiative was a school-based decision. In order to create buy-in, we started with a small group. The members of the group were key to creating momentum

and accountability. The seven-member team was strategically chosen to include teachers experienced with digital learning, others who could serve as “cheerleaders, and a few *naysayers*.” It was my hope that with proper training and guidance from the high-flyers, the school would embrace the project. The team ended up performing well as a pilot group. The initiative gained momentum because the remaining staff saw that teachers were fully engaged. The leadership team helped build a higher level of commitment (Grantee 1, Focus Group Workshop, September 25, 2017).

One of the leadership team’s first tasks was to use the Digital Learning Progress Rubric (Friday Institute, 2016) to self-assess and rate the school’s readiness to implement digital learning. The initial rating for Prototype School fell in the Developing stage of the growth continuum. Baseline data collected from the ECB Assessment and STNA-T surveys (Friday Institute, 2016) were also used to identify opportunities for individual and organizational growth in areas deemed important for success in program implementation and evaluation. After the initial year of work, Prototype School reassessed themselves. Quantitative data from this grantee, which were summarized in the Comparison of Pre and Post Data section of Chapter Four and Appendix I, showed improvements and/or growth across all metrics assessed by the survey tools used for this study. The remainder of the discussion for this case study is focused on comparing the qualitative and quantitative data from this grantee to highlight how the GLF-GCB Model was used by and benefitted Prototype School.

Initially leadership appeared to be an area of strength for Prototype School and continued as a core asset that grew more robust from having a broader foundation of capacity. Strong governance and inclusive practice were key factors that contributed to progress the school made during the early implementation period. The Friday Institute coach assigned to this school described the principal, instructional coach, and leadership team as very strong in notes drafted to summarize an early site visit. The qualitative data collected and used to assess the leadership capacity of Prototype School showed growth in program implementation and evaluation capacity

by both the organization and the individuals involved in the project. During the focus group workshop, the leadership team reflected on data from their initial year of work and identified the following as evidence that the individual knowledge and skill and the organizational leadership capacity had in fact improved. First, the leadership team mentioned an increased willingness by staff to collaborate and learn from each other. This trust and bond helped seed a culture of learning that delivered important contributions to the team. These attributes also allowed staff to focus as they purposely tested all aspects of the project before moving to broader dissemination thus saving time and resources with software, strategies, and other applications that were not well suited for this school and its staff. Second, teachers who served on the leadership team described the important role administrators played in modeling expectations and creating a *fail forward* environment that supported rather than penalized risk-taking. The team expressed greater confidence in and understanding of how to self-evaluate and use information gleaned from those assessments to come up with a plan to guide action and improve performance in targeted areas. Next, members of the leadership team noted how in the beginning they felt as if they were better prepared than they actually were. They claimed that having access to the assessment and planning tools embedded in the GLF-GCB Model and requiring grantees to evaluate their progress and plan future action as part of their reporting process established a higher level of accountability that ultimately grounded them in reality. Information collected from the assessment process gave the leadership of Prototype a more realistic picture of their state of readiness and subsequent accomplishments. Prototype's principal made the following statement, "We have gotten much better at measuring our progress from both student and organizational perspectives" (Grantee 1, Focus Group Workshop, September 25, 2017).

Statements from members of Prototype School's leadership team authenticated growth (42% increase over the baseline) in the leadership scale of the Progress Rubric and highlighted the important role that distributive leadership played in building internal capacity to implement grant-supported activity and measure the impact of their work. Examination of the qualitative data also provided insight into the school's capacity to improve and sustain momentum. The team noted areas within the leadership construct where they needed to improve, which included becoming more deliberate and consistent in using the self-assessment tools to maintain momentum and continuously improve. They also stated that more time was needed for shared reflection so they could more consistently evaluate their overall organizational effectiveness. The leadership of Prototype School faced challenges at times from having conflicting priorities with the district, which led to frustrations. The leadership team and plan were focused at the school level with no members from the central office engaged in the process, nor were any district representatives actively engaged in the day-to-day work of the leadership team. The lack of involvement by central office staff in the planning and assessment process appeared to have derailed or at least stymied efforts to extend the initial vision that included using Prototype as a model to scale digital learning to other district schools. With no formal plan to address migration from middle to high school, students faced the challenge of moving from the eighth to ninth grade without access to the technology and personalized instruction they had become accustomed to using in middle school to enhance their academic attainment. This lack of action to plan out how to grow the initiative to include student transitions to high school could have been averted or minimized if representation on the leadership team had purposely expanded to include individuals from the central office and/or high school administration.

Quantitative data previously presented for Prototype School showed growth in both the individual and organizational abilities needed to assess the impact of their work and use data to continuously improve. Confidence levels expressed by members of the leadership team regarding individual knowledge and skill to complete evaluation tasks outlined in the ECB survey (see Table 16) improved in both planning and design responsibilities (+26% point increase) and collecting and using data to inform practice (+34% mean increase). They also indicated through the survey that members became more often engaged in evaluation activities during implementation than prior to beginning the project. This grantee also indicated growth in its organizational capacities to develop policies and procedures for program improvement (+22% point increase) and marshal the resources to conduct and use evaluation data (+33% point increase), see Appendix I, Chart I-9. Data taken from the pre and post Progress Rubric assessments show a 66% increase in Prototype School's capabilities to assess and use student data for instructional improvement as measured by statements in the Data & Assessment construct scale. Teachers also responded more favorably to STNA-T survey statements in the Content & Instruction construct (+21% point increase), see I-10 of Appendix I.

Qualitative data generated during the Focus Group workshop supports evidence from the quantitative data that Prototype School's abilities to undertake evaluation tasks and use data to improve performance grew stronger from participating in the GLF-GCB Model. A member of the leadership team stated that the process provided them with a better understanding of where growth did and did not occur so they could be more strategic in targeting priority areas for improvement. The principal expanded on that thought by stating, "The support and tools made available have benefitted our work and forced us to go through a planning and evaluation cycle that has made us more effective in using available resources" (Grantee 1, Focus Group

Workshop, September 25, 2017). Similarly, a teacher explained that the model provided a system to use in navigating the process vs. focusing only on classroom content and thus broadened their understanding of how what happens in the classroom impacts the organization. Another member reflected on prior practice and indicated that previously they were locked into perpetual cycles of having to retrace steps year after year, but now the team had a system in place that involved teachers in the planning and evaluation process. This evolution toward systems thinking appeared to have made replicating the work each school year more efficient and less time consuming.

Progress made by Prototype School resulted in a broader leadership foundation, a more inclusive approach to program design and implementation, and an increase in the confidence and skill of individuals who were needed to lead, guide, and evaluate program activity. Those accomplishments also contributed to the team's efforts to develop more evolved systems to aid the school with continuous improvement, thereby improving transparency and accountability. In addition, enrollment declines appeared to soften based on a teacher's comment that during the past year some students left the school for a time, but soon returned after learning that the personalized supports available at Prototype School to help them succeed were not present at alternate schools. Another important piece of evidence worth noting is that Prototype School did not incur a performance dip from implementing the digital learning initiative as one might expect when teachers were asked to try new strategies and implement additional programs aimed at improving student performance. Prototype School did not increase its school performance grade above the grade of D, but did meet growth expectations during 2016. Table 21 displays Prototype School's performance scores and grades for the 2015-16 and 2016-17 years.

Table 21

Grantee 1: Prototype School Achievement Indicators for 2015 & 2016 School Years

| Achievement Indicators | 2015 | 2016 |
|--------------------------|------|------|
| School Performance Score | 50 | 51 |
| School Performance Grade | D | D |
| EVASS Growth | Met | Met |

Note. Data retrieved from https://ncreportcards.ondemand.sas.com/SASVisualAnalyticsViewer/VisualAnalyticsViewer_guest.jsp?reportPath=/ReportCard/NC_SRC&reportName=NC+Report+Cards

During the planning portion of the focus group workshop, the leadership team of Prototype School identified the following strategies for program improvement for the 2017-18 school year. These were recognized by the team as priorities for sustaining forward momentum for the upcoming year and were used by the leadership team to update their sustainability plans and financial projections.

- Develop a more robust communication plan to address two-way flow of information
- seek to increase parent awareness of the initiative and its purpose.
- Increase parent and community involvement by adding external stakeholders to the Digital Learning Leadership Team.
- Be more consistent in professional development to stress differentiation and blended learning strategies.
- Be more deliberate in creating dedicated time for reflection and planning to more consistently evaluate organizational effectiveness.
- Become more diligent and maintain focus on using the tools from the capacity building framework to repeat the continuous improvement process—plan-do-study-act.

Case Study Two – Assimilator District (Grantee 5)

Assimilator District is located in a rural, economically disadvantaged county in western North Carolina. The local education agency is comprised of one comprehensive high school, two early college high schools, one alternative school, three elementary schools, and two K-8 schools. The average school size for Assimilator was significantly lower than the state average at both the high school (494 district vs. 860 state) and elementary grades (165 vs. 493) in 2015. The district's academic performances on end of course (EOC) proficiencies during 2015 were slightly

below the state average on both Career and College Readiness and Grade Level Proficiencies. Assimilator's end of grade (EOG) proficiency scores for students in grades 3-8 were also below the state average, but with larger achievement gaps than the high school scores (NC Department of Public Instruction, 2017).

The district made application to Golden LEAF (GLF) through the Community Based Grant Initiative (CBGI), a regional grant program that migrated across the state to reach all eight prosperity zones over a four-year cycle. During the CBGI cycle in the western region, the county chose Assimilator (Grantee 5) as one of its three priority projects for the grant competition. Funds were requested from GLF by the district to integrate digital learning into instructional practice for all middle and high school students and to implement STEM education programs that aligned with the employment needs of area businesses and connected with career pathway programs available at local institutions of higher learning. The STEM programs were focused on business sectors in advanced manufacturing, healthcare, and computer information technology.

Assimilator's preparation for the initiative started prior to GLF's regional grant program. A team from the district first participated in professional development for administrators and teachers through a regional consortium of school districts formed in 2004 to increase broadband access to schools in this mountainous area. Assimilator formed a leadership team to develop a strategy for how it would compete for funds accessible through GLF's regional grant program, which allowed each county in the region to submit up to three projects with an aggregate request of no more than \$1.5 million. In the planning phase, the district scrambled to identify the required 20% match for the CBGI. In the process of exploring potential sources for the local match, district leaders approached a private benefactor who committed funds to ensure both of the district's two smallest schools that are located in isolated communities were included, but

conditioned the funding on additional resources being made available from the county. This community champion served as a critical lever that was used by Assimilator to induce the county commissioners and school board to pledge the additional resources needed for the initiative to reach all schools in the district rather than being limited to only a few.

Assimilator received notification from GLF that they had been awarded a grant in the spring of 2016 and immediately began planning how they would implement the program. The amount received from GLF represented approximately a third of Assimilator's \$2.5 million total project budget. The biggest challenge faced by the district was how to implement a large-scale initiative and ensure that the schools were adequately positioned with the internal talent and support from the district to succeed. The leadership team was established with individuals from the central office, including the superintendent, school administrators, teachers, and support personnel. As mentioned in the prior summary for Grantee 5, Assimilator's leadership team initially expressed apprehension and distress about the enormity of the project, but displayed a meticulous dedication to program design and an openness to learn. The Friday Institute coach assigned to Grantee 5 described the leadership team as having a keen focus and sincerity to learn how to most efficiently scale the work across the district. They did not assume they already knew how to move ahead. One member of the leadership team explained that they overcame the anxiety and fear by fixating on the details, learning from others, and forging a conservative three-year plan that included input from those charged with carrying out the work as well as external stakeholders.

Initial assessments completed by the leadership team of Assimilator portrayed a grantee in the Developing phase of readiness to implement digital learning. Assimilator's baseline data collected from the evaluation capacity building (ECB) survey were similar to other grantees. In

the beginning, individuals on the leadership team expressed greater confidence and abilities to collect and use evaluation data (93% mean) than their initial preparedness to engage in planning and design tasks (57%), see Table 19. A comparison of pre and post data showed mixed results regarding evaluation capacity. Assimilator's post ECB data showed higher marks in statements related to front-end planning and design capabilities than pre-assessment rankings (mean growth of 18% points in statements 1-4). On the other hand, the team's post assessment of confidence and abilities to collect, interpret, and use evaluation data declined (18% mean decrease across statements 5-8). This raised questions about the team's initial ratings. Were the initial ratings of confidence and skill elevated from not having deep knowledge about or experience in conducting evaluation tasks other than those dependent on student assessment data? Or, were the district's responses skewed toward higher ratings due to the formatting error discovered on the ECB pre-assessment? During the focus group session, the team expressed that as they started the journey they lacked comfort in and knowledge about broader performance-based assessments. A teacher affirmed by signaling, "having a set of tools to assess the process helped me as a teacher see things very differently" (Grantee 5, Focus Group Workshop, September 5, 2017). Responses from the leadership team to statements about the frequency of engagement also support the notion that the team rated their confidence levels higher in statements assessing individual and organizational abilities on the ECB pre-assessment than actually existed. The post assessment ratings for the Assimilator team indicated less frequent (never, rarely, or sometimes) engagement in all statements on the ECB survey. Data regarding the frequency of engagement in evaluation tasks can be found in Appendix L (see Charts L-1 through L-8).

STNA-T data from Assimilator's teachers revealed improved knowledge and skill across all thirty-five statements. An analysis of pre and post survey responses from teachers who

indicated agreement or strong agreement showed an average increase of 14% points across the five survey constructs. Assimilator made its greatest advances in the Technology & Infrastructure scale (+18% points) followed by Leadership (+14% points), Professional Learning and Data & Assessment (+13% points), and Content & Instruction (+12% points). Teachers also indicated more frequent use of technology (+12% points) to collect and use data to improve student learning on post ratings.

Assimilator also demonstrated strong growth in the organization's readiness to implement the program as measured by the Progress Rubric, see Figure 17. Their overall score on the Digital Learning Progress Rubric improved from a beginning mark of 41 to 58 (42% increase in score) after the initial implementation period. The greatest improvements made by this grantee on the Progress Rubric occurred in the Professional Learning (+33% points) and Leadership and Data & Assessment (25% point gain in each) scales. In summary, quantitative data collected from Assimilator illustrated improvements were made in both the individual knowledge and skill and organizational capacity needed to successfully implement the project and measure the impact of their work. The remainder of the case analysis will be focused on using the qualitative data to support the quantitative evidence that Assimilator District benefitted from participating in the GLF-GCB Model.

As noted by the Friday Institute coach, Assimilator's approach to leadership was one of the key factors that contributed to its success. Strong leadership played an important role in assembling the resources to implement a program of work that would, over time, benefit all students in this economically challenged county instead of having only enough funds to initiate the program in a few of its schools. Visionary and disciplined leaders were instrumental in constructing an implementation plan that took into context the developmental needs of the

individuals involved and the organizational capabilities required to effectively use the resources to imbue digital learning and STEM content into the curriculum to improve teaching and learning. Rather than attempt to implement the project at all schools simultaneously, Assimilator strategically chose to first implement at the three high schools, of which two had small populations, then deploy at the K-8 schools in the second and third years of the grant. A member of the leadership team reflected on the decision process:

Learning to use tools like logic models and assessment rubrics to build a common vision and assist in guiding our implementation process has worked well. Without this, the work would have taken much longer and the conversation and learning would not have been as rich (Grantee 5, Focus Group Workshop, September 5, 2017).

The team acknowledged that using distributive leadership practice as a governance approach brought a variety of perspectives to the table that proved beneficial and meaningful to Assimilator's success. The openness to learn from each other and acquire insight from external players who were more experienced in digital learning were noted as a vital characteristics of the team that contributed to personal growth and the journey of learning.

The systems used by Assimilator evolved as well. For example, a member of the team noted that a more intentional planning approach and inclusive process had emerged. Another example of the shift to a systems approach was noted when Assimilator's leadership team explained how administrators had redesigned the process for hosting and running principal meetings. The team explained that the district had implemented a daylong planning meeting that occurred once a month where the agenda was fluid and focused on school-based assessments, shared reflection, and planning for a host school. They proclaimed more time was now available to review evaluation data gathered from the framework's assessment tool kit to enhance accountability. The leadership team also pointed to benefits that accrued to them from the technical assistance sessions they attended. They felt having training sessions designed where

they learned how to use the assessment tools, were given opportunities to immediately apply the knowledge learned to their project plan, and were then required to use the tools to continually reassess progress and identify improvement targets proved critical to their learning experiences. Members also noted the mentality of teachers shifting toward collaborative versus individual learning as observed through teacher initiated peer-to-peer learning networks. These evidences clearly support the quantitative data previously summarized and demonstrate that the individual knowledge and skill of staff engaged in the initial work improved during the primary implementation period.

During the initial implementation period, Assimilator encountered a challenge when the superintendent resigned to take a similar position in another district. Golden LEAF's prior experiences with turnover in key leadership roles by grantees often resulted in performance setbacks that were hard to overcome. Stumbling blocks were typically encountered from having to revisit established goals that defined why the initiative was undertaken in the first place and/or why it should remain a priority under new leadership. In the case of Assimilator, the breadth of leadership and buy-in to the vision and purpose were strong assets that undergirded and sustained momentum. Assimilator's coach commented that the leadership team and school staff continued to work hard in support of the project and wanted to see the interim superintendent succeed because she was part of the leadership team and had been instrumental in soliciting the additional resources needed to benefit all students in the district. Assimilator's ability to overcome this challenge provided further evidence of the growth in leadership that occurred and the solid foundation that was created.

Qualitative data collected from the leadership team during Assimilator's focus group session also supported the quantitative evidences that the organization's program and evaluation

capabilities were enhanced. Assimilator's team frequently made comments about the benefits generated from now having access to a set of tools with more dedicated time to analyze and reflect on their performance and identify strategies for advancement. They also stressed the importance of using an inclusive planning process that encouraged movement toward more routine use of continuous improvement practices. A comment made by a member of leadership team implied that having been required to formulate a sustainability plan had helped Assimilator's team identify the need to increase the level of support available at each school as the district scaled the initiative to reach all students. During the debriefing session of the focus group workshop, a member of the leadership team commented, "The reflective process used today has caused us to dig deeper into the process and examine core ideas for how we can improve" (Grantee 5, Focus Group Workshop, September 5, 2017). Another professed that having the data organized with all tools aligned to one instrument—the Progress Rubric—saved time, which in turn provided increased opportunities to study the data and use it to improve.

In addition to enhanced leadership abilities and improved skills to implement and evaluate program activity, Assimilator also exhibited signs of greater accountability. As previously mentioned, the team strategically decided to implement slowly by first deploying at the three high schools rather than deciding to *make it happen* at all of the district's school simultaneously. Stakeholder enthusiasm and excessive pressures to benefit all students concurrently have at times forced grantees to deploy before they are ready. A grantee's decision to deploy quickly often results in growing pains from not taking the time to develop the human capacity to support the transformation and leads costly mistakes that end up wasting valuable resources. The leadership team's dedication to learning and planning helped them avoid this pitfall. A member of the team explained how having the team use the tools to navigate the

process caused them to work together to build a thoughtful implementation plan that resulted in greater accountability and higher achievements. One school administrator emphatically proclaimed:

I know of five students that would not have graduated without having been given this opportunity. Having access to technology allowed our teachers to meet these students' individual needs, which helped them get the support they needed to be successful (Grantee 5, Focus Group Workshop, September 5, 2017).

Assimilator, like Prototype School, did not experience an implementation dip during the initial year of implementing the new initiative. Performance data for Assimilator's high schools are listed in Table 22. The comprehensive high school and both of the early colleges improved their overall school performance scores and maintained grades levels and growth.

During the planning portion of the focus group workshop, the leadership team of Assimilator District identified the following strategies for program improvement for the 2017 school year. The team selected these strategies as priority areas for improvement and to sustain momentum for the upcoming year. The team used these ideas to update their sustainability plans and financial projections for 2017. The strategies included:

- Revisit the sustainability plan to focus the conversation and intent around identified priorities and the reallocation of existing resources to maximize return on investment
- Continue making targeted, on-going Professional Development available for all teachers
- Become more deliberate and actionable regarding stakeholder meetings – i.e. use consistent messaging and efforts to mobilize Parent Teacher Organizations and other stakeholders to aid in scaling and sustaining the initiative
- Focus on sustainability and succession planning
- Broaden the foundation of support—technical and instructional—available for staff

Table 22

Grantee 5: Assimilator District Performance Data 2015 & 2016 School Years

| Achievement Indicators | Comprehensive HS | | EC #1 | | EC#2 | |
|--------------------------|------------------|---------|-------|------|------|------|
| | 2015 | 2016 | 2015 | 2016 | 2015 | 2016 |
| School Performance Score | 71 | 77 | 58 | 61 | 86 | 90 |
| School Performance Grade | B | B | C | C | A | A |
| EVAAS Growth | Exceeds | Exceeds | Met | Met | Met | Met |

Note. Data retrieved from

https://ncreportcards.ondemand.sas.com/SASVisualAnalyticsViewer/VisualAnalyticsViewer_guest.jsp?reportPath=/ReportCard/NC_SRC&reportName=NC+Report+Cards

- Be intentional about branding the initiative and use messaging to target specific stakeholder groups with purpose – i.e., external funding from the community

Emerging Themes

A number of rich insights emerged during the study concerning the internal practices of the five grantees as they undertook the complicated tasks of infusing digital learning into schools to improve teaching and learning. These five grantees participated in an innovative—process-driven, people-centered—capacity building (GLF-GCB) model created by the Golden LEAF and the Friday Institute over several years to improve grantees’ performance to implement and evaluate the impact of complex educational and workforce initiatives. The ultimate goal of the Foundation in utilizing the framework was to enhance the capacity of its grantees to implement and measure the impact of grant-supported activity. Grantees progressed through a structured framework designed to provide leadership teams and staff with training, technical assistance, and a set of tools purposely integrated into the grant-making process to enhance the individual and organizational abilities necessary to effectively use the resources and measure and report the impact of grant-supported activity. Data collected from five grantees that participated in the GLF-GCB Model presented promising findings and trends that indicated improvements occurred at both the individual and organizational levels. The final section of this chapter is used to outline common themes and/or shared concepts that were identified, observed, and supported by the qualitative and quantitative data collected for the study.

First, it is clear that leadership matters. Grantees experienced a number of positive outcomes from using the distributive leadership approach, which was intentionally embedded in the model to help grantees plan, organize, and monitor grant-supported activity. A clear advantage that accrued to grantees from embracing this governance approach was more

extensive buy-in and engagement from the individuals tasked with carrying out the transformative work. The inclusive method employed by grantees to populate the membership of leadership teams garnered broad commitment early on and throughout program implementation. Grantee leadership teams regularly commented on the iterative shifts in culture that occurred from including teachers and support staff in the leadership conversation. Transformative changes that occurred included a greater willingness by individuals to collaborate and take risks. Feedback from study participants described a change in organizational culture that moved school and/or district eco-systems from a fixed to a growth or learning mind-set that encouraged collaboration and risk-taking. Grantees also broadly claimed that by including other staff in the planning and design process they were able to develop more thoughtful and informed plans to guide their work as a result of vetting a more diverse set of perspectives. In addition, the distributive approach to governance appeared to improve the collegiality that existed internally. Team members expressed greater accord within their organization compared to a fragmented—*staff vs. management*—atmosphere prior to participating on the leadership team. The broader leadership foundation and inclusive approach permeated into all phases of the work and cultivated a unifying effect that paid great dividends.

The shift toward growth and learning cultures noted above moved grantees toward systems that provided more opportunities for formal and informal teamwork and incorporated greater acceptance to try new things—*risk taking*—even if they didn't work the first time. Grantees explained how they benefitted from structured peer-to-peer learning opportunities that required them to learn how to use the tools from the model to self-assess individual and organizational readiness, continuously monitor progress, and use data to inform future action. These structured events allowed grantees to learn how the assessment tools could be integrated

into their evolving practices. The methods used by these grantees to measure progress matured to include learning walks, redesigned principal meetings, and internal and external networks that were established to drive growth and support collaborative learning. The changes in practice that were observed appeared to be an important first step by grantees to routinize change and sustain new organizational systems. Increased emphasis on peer-to-peer learning and shared reflection were noted often as key drivers for continuous improvement with grantees regularly stating they wanted to be more deliberate about carving out dedicated time from their busy schedules to analyze data, engage in reflective conversation, and plan future action. Having a more collaborative work environment appeared to have also contributed to the unification effect mentioned by members of the leadership teams through increased clarity of purpose and aligned outcomes. They bought into the *why* and collectively were better able to articulate the vision and their enthusiasm to students, parents, and the community.

A third contributor to progress cited by grantees was the advantage of having access to a set of common metrics and assessment tools to use in analyzing, interpreting, and using data to measure progress and report impact. The tools included in the GLF-GCB model were viewed by grantees as critical supports that helped them better measure accomplishments, identify where they could improve as they were progressing through the process, and develop their capacity to self-assess and evaluate the effect that their individual contributions made to the organizations' missions. They were appreciative that the assessment tools had been aligned to one core instrument and commented how alignment had saved time and thus created more opportunities for them to study the data and use it to inform action. Grantees felt that having access to a set of assessment tools, common performance metrics, and technology allowed them to become more organized, which increased their personal productivity. Enhanced productivity created bonuses

for grantees that will continue to pay off into the future as grantees become more adept at using impact data to communicate the return on investment through more broadly developed and meaningful success indicators that aren't limited to student performance on standardized tests. Grantees now have strategies and tools that can be used to assess how well they have utilized the resources made available to them to navigate through a process. In short, the model appears to have benefitted grantees' organizationally through more evolved and defined systems—policies, procedures, and practices—that were used to replicate the cycle of continuous improvement. The framework also armed the grantees with assessment tools that proved beneficial in monitoring and managing program operations and produced useful information to communicate impact more broadly to interested parties.

A number of new practices emerged that appeared to become more systematized by the grantees as their work unfolded. During the focus group sessions, grantees were tasked with examining data from their first year of work to identify areas for improvement. All mentioned the importance of using data to inform action and sustain momentum. Comments by grantees revealed an increased awareness of and importance for sustainability planning as a routine organizational function. It also increased their commitment to using the data to more strategically brand the initiative and craft messages for external stakeholders about the purpose and impact of their work. Increased awareness of sustainability planning was mentioned in recurring references by grantees that their upcoming implementation plans should allocate additional time for collective planning. Grantees also noted how the technical assistance and support by the partners had contributed to growing their abilities to analyze data and use it to articulate the impact of their work. The grantees declared that the knowledge and skills acquired from the technical assistance sessions had prepared them to better support their colleagues through improved

coaching and feedback mechanisms that became part of their regular work duties. Systems thinking emerged as a fourth theme that gave rise to grantees developing and using new approaches to data collection and assessment. The grantees developed better tools and instituted other practices and procedures that broadened the methods they used to continuously improve.

A fifth value mentioned by grantees that propagated from the GLF-GCB Model was the importance of having engaged partners that were committed to helping them navigate the complicated landscape of designing, planning, and implementing an innovative program and sustaining their work. The capacity building framework focused on increasing the individual and organizational capacities needed for success and incorporated a process that required grantees to reliably complete and repeat the cycle of continuous improvement. Leadership teams were tasked with creating vision statements and implementation plans, developing sustainability models, and then annually reassessing performance so they could chart how to proceed during the next phase of work. Many grantees noted that this was the first time anyone had required them to craft long-term plans detailing how they would sustain work initiated from external seed funding. Two grantees stated that having the funder care enough to engage in the work with them made the team want to try even harder to maximize results. One area of concern that surfaced was how to maintain this level of dedication to continuous improvement after the engagement. Another was focused on how to structure ongoing accountability for long-term sustainability. Can business and community stakeholders become more intimate, long-term partners? What must grantees do to foster more enduring relationships with local partners?

A sixth theme that is correlated to the continuous improvement discussion was the expression by grantees that they are now better prepared to use data to inform practice and report impact. The process embedded in the GLF-GCB Model forced grantees to look more deeply at

their work through a more comprehensive set of evaluation lenses. Staff who were previously never asked to be part of the front-end program design and planning process were invited to the table, which made them better prepared to carry out the work. Through this inclusive practice, they became contributing members of the team and acquired a crisp understanding of why the project was important to the organization and external stakeholders. This forced accountability that occurred from having external partners involved in the process created a stronger desire to succeed and elevated the commitment of internal stakeholders to higher levels causing them to want to do more and try harder. It also increased the probability that evaluation metrics used by grantees were more closely aligned to those used by the funder to determine how well it was doing in meeting its mission.

Grantee participation in the model showed positive attributes in the areas of improved leadership capabilities, enriched organizational cultures, enhanced assessment tools and skills, and more evolved systems to collect, analyze, and use data for continuous improvement. Involvement also benefited grantees by elevating the importance of establishing meaningful and lasting relationships with external partners. Continued efforts by grantees to routinize these practices through a continuous cycle of improvement should translate into greater transparency and long-term accountability and make these grantees better prepared to compete for external funding. Figure 19 summarizes the six themes that emerged from the study.

Conclusion

In Chapter Four, baseline data was used to frame the beginning readiness of the original seven-grantee cohort to implement and evaluate grant-supported activity. After participating in the capacity building phase, five grantees used the assessment tools to reassess their individual and organizational capacities. A comparison of the aggregate pre and post survey data, showed

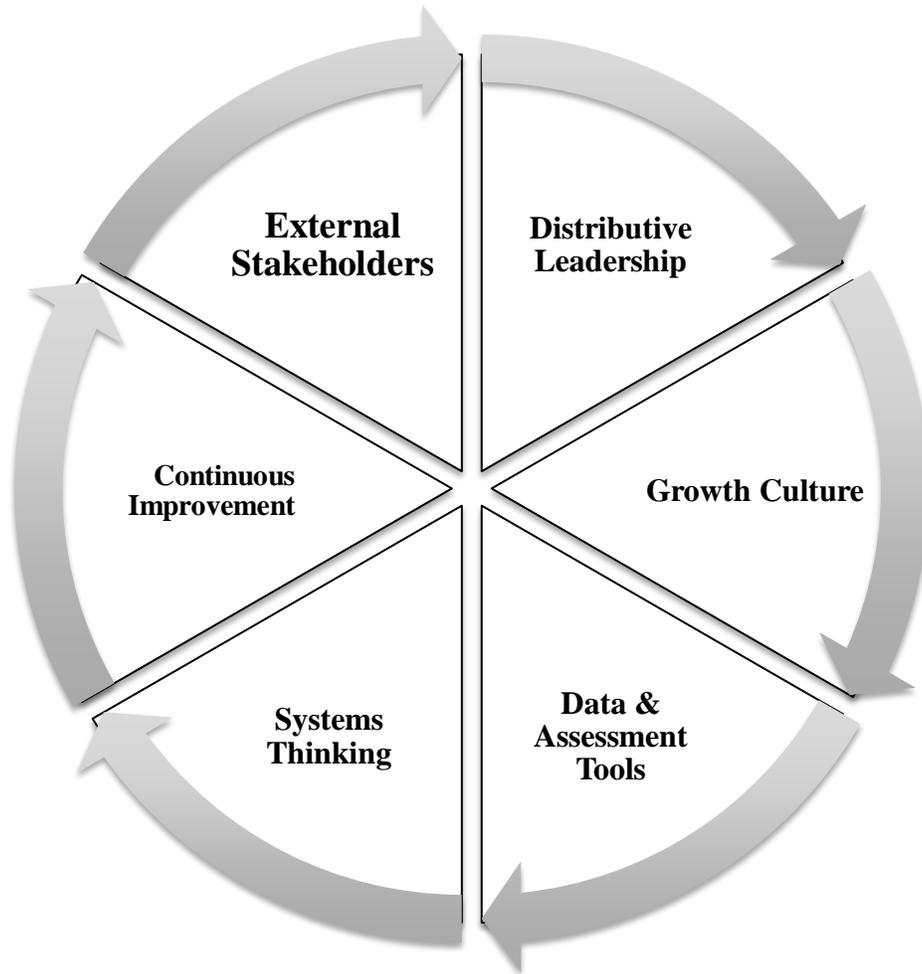


Figure 19. Six emerging themes.

improvements across all levels. Quantitative data were then correlated with qualitative data to present grantee specific stories about their journeys to prepare and use technology for instructional improvement. Case studies were presented to show how the GLF-GCB Model was used to improve the individual and organizational capacities for two grantees. From this analysis, six themes emerged.

The themes depicted in Figure 19 appeared as important attributes that contributed to the growth and success of the five grantees as they progressed through their first year of work. The individual and organizational enhancements that accrued to these grantees established a solid foundation to build upon and replicate as best practices. An on-going dedication and focus by these organizations to these and other success factors are essential to continual improvements in their abilities to compete for and attract external funding. There are also areas where additional examination into the model and how it is deployed may produce greater efficiencies and reduced costs and prove useful in closing the gap between theory and practice. The following questions were identified for discussion in Chapter Five to further close the gap between research and practice, address policy implications, and suggest additional opportunities for research to further the knowledge and practice for building the capacity of grant-seeking organizations.

- What role does skills mapping play in defining the initial and evolving roles and responsibilities of leadership teams?
- How can business and community stakeholders become enduring partners to strengthen collective impact through aligned purpose and forced accountability?
- What modifications are needed to the process and tools to make the model more effective and less demanding?

- What recommendations should be considered as strategies to increase efficiencies in the time and resources needed for replication in other initiatives?

CHAPTER FIVE: DISCUSSION AND IMPLICATIONS

Introduction

Both quantitative and qualitative data collected during the study produced evidence that individuals were empowered by the distributive leadership approach used by grantees to plan, organize, and carry out the work. Distributive leadership was intentionally rooted in the model to ensure a broad foundation of skills and perspectives were brought to the table and included in the program design, implementation, and evaluation process. Assessments conducted using the NC Digital Learning Progress Rubric (Friday Institute, 2016) indicated significant gains were made by both cohorts (School Model grantees +39% & District Model +42%) in measuring progress along the Leadership growth scale. Additionally, teachers responded that leadership improvements occurred—School Technology Needs Assessment – Teachers Survey (Friday Institute, 2016)—during the initial implementation period, which contributed to their preparedness to effectively use technology to improve instruction. Teachers emphasized the importance of having been included on the leadership teams. Their presence in the leadership conversation proved critical to individual and organizational growth and resulted in increased buy-in to the vision and commitment to the program. They felt empowered as a member of the team and possessed a clearer understanding of *why* the project was important organizationally.

The GLF-GCB Model was designed to mimic the cycle of continuous improvement. It included assessment tools and common metrics that required grantees to continuously assess their performance, reflect on the data, and use it to plan future activities. Participation in this process provided grantees the support they needed to grow individually and organizationally in the knowledge, skill, and capacities necessary to successfully implement grant-supported activity and measure impact. Teachers on the leadership team indicated that having used the tools to

assess development throughout the process made them see things differently and allowed them to better understand how what they did in the classroom contributed to the organizations' success. A team explained how having used the tools to navigate the process had caused them to work collectively with their peers. This resulted in greater accountability and higher levels of achievement.

- Grantees also indicated that individual knowledge and skills improved, as did the capacity of their organization to undertake and evaluate grant-supported activity. Aggregate data from the Evaluation Capacity Assessment (Friday Institute, 2013) showed gains in both the degree of knowledge and skill possessed by individuals on the grantee leadership teams (mean increase of 28% points) and the organizational abilities (mean increase 12% points) to perform evaluation tasks, see Table 15. After taking part in the project, members from the five leadership teams indicated that they were more frequently involved in program evaluation activities. Teachers who were tasked with implementing digital learning in their classrooms responded similarly by stating their skills (Content & Instruction +11% points, Data & Assessment +10% points, and Professional Learning +7% points) to use technology for instructional practice, to assess student work, and to use data to inform practice had increased. These findings were again supported by qualitative data collected during the Focus Group Workshops. For example, a principal that served on a school leadership team stated that having gone through the planning and evaluation process forced the team to be more strategic in prioritizing responsibilities and had helped them identify how best to focus and use the available resources. Another team stated they were hesitant to move forward initially, but found that the effort made by the external stakeholders

to get them prepared produced greater confidence in their abilities to achieve success. Teachers likewise grew in their abilities to utilize technology to analyze, interpret, and use data to personalize learning for students. A teacher leader commented:

- Before I did not have time to crunch numbers and relied on gut feelings to decide what to do next. Without accurate information, I was teaching to the middle. Now I have learned to react to the data and use it to drive instructional decisions (Grantee 7, Focus Group Workshop, September 22, 2017).

Organizational learning was another area where the five grantees felt improvements had occurred. Feedback from study participants described cultural changes that transpired moving their organizations' environments from fixed to growth or learning mind-sets where collaboration and risk-taking were encouraged. Leadership played a key role in transforming the cultures of participating organizations. The process of strategically placing and rotating staff on leadership teams to solicit input from a diverse group of individuals helped fuel the transformation. Through the use of inclusive practices, leadership teams were open to and mindful of the diverse perspectives represented by stakeholder groups across the whole institution.

The five grantees repeatedly made statements regarding the value of having access to practical learning opportunities, evaluation tools, and a broader set of metrics to self-assess growth. A member of one team explained how the assessment tools had helped them navigate the process and caused the staff to work together to build a more comprehensive planning document, which allowed them to be more transparent and accountable in reporting accomplishments. Another leadership member commented that having a set of tools to measure advancement had helped them see things differently.

Overall, four of five grantees progressed from the Developing to Advanced phase on the growth continuum of the Progress Rubric demonstrating improved readiness—skill, knowledge, and organizational abilities—to successfully deploy digital learning. The one grantee that did not score in the Advanced phase of the growth continuum explained that using a cohort model to deploy digital learning in select classrooms had made it difficult to measure progress from a system or district lens, but felt confident in the growth that occurred with their pilot teachers.

Data from the study showed that grantees improved their individual knowledge and skills and organizational capacities to implement and measure the impact of grant-supported activity. Additionally, these five grantees were able to implement the innovation without incurring implementation dips that often occur when teachers are required to implement new programs. Table 23 is included to show school performance metrics for the three grantees (3, 4, and 7) that were not part of the case analysis. Data for Grantees 1 and 5 are displayed in Tables 21 and 22 (see Chapter Four).

Both quantitative and qualitative data collected from the five grantees provide evidence of improved skill and ability to undertake program and evaluation activities. In addition, the author identified six emerging themes that rose out of the data analysis of the study. Those findings will now be tested through the conceptual lenses and recurring practices summarized in the literature review (see Chapter Two).

Conceptual Review

Evaluation capacity was described in Chapter Two as a deliberate process to empower individuals, increase knowledge and skills, and use data to drive decision-making and organizational learning to improve performance (Labin et al., 2012; Naccarella, Pirkis, Morley, Burgess, & Blashki, 2007). Evidence gathered from this study showed favorable signs that the

Table 23

Grantee School Performance Data 2015 & 2016 School Years

| School Data | Performance Grade | | Performance Score | | EVASS Growth | |
|------------------|-------------------|------|-------------------|------|--------------|--------------|
| | 2015 | 2016 | 2015 | 2016 | 2015 | 2016 |
| Grantee 7 (HS 1) | B | B | 73 | 76 | Met | Met |
| Grantee 7 (HS 2) | B | B | 83 | 84 | Exceeds | Exceeds |
| Grantee 7 (HS 3) | B | B | 78 | 83 | Exceeds | Exceeds |
| Grantee 7 (HS 4) | B | B | 81 | 74 | Exceeds | Did Not Meet |
| Grantee 4 S1 | B | B | 72 | 76 | Met | Exceeds |
| Grantee 4 S2 | C | C | 67 | 68 | Did Not Meet | Did Not Meet |
| Grantee 3 (MS) | C | C | 61 | 61 | Met | Did Not Meet |

Note. Data retrieved from

https://ncreportcards.ondemand.sas.com/SASVisualAnalyticsViewer/VisualAnalyticsViewer_guest.jsp?reportPath=/ReportCard/NC_SRC&reportName=NC+Report+Cards

Golden LEAF Grantee Capacity Building Model (GLF-GCB) was useful in building the capacity of grantees to implement and evaluate grant-supported activity. Participation in the model produced positive outcomes for the five grantees through increased commitment by internal stakeholders, improved individual knowledge and skills, and enhanced organizational capabilities to collect and use data to inform decisions. As a result, grantees realized improvements in their performance as they worked to infuse technology into instructional practice to advance teaching and learning. A brief summary of findings was presented in the prior section to support this claim. Now a case will be made to demonstrate that the GLF-GCB Model conforms to best practices identified in the literature review from Chapter Two.

The purpose of this study was to evaluate the utility of the Golden LEAF Grantee Capacity Building (GLF-GCB) Model to build the individual knowledge and skill and organizational capacity to implement and measure the impact of grant supported activity. The detailed analysis of data presented in the previous chapter showed positive outcomes accruing to grantees from participating in the model. In addition, the investigation of the model's utility led to the identification of six themes that were described in the Emerging Themes section of Chapter Four. Figure 19 was used to provide a graphic organization of the emerging themes: (1) External Stakeholders, (2) Continuous Improvement, (3) Growth Culture, (4) Systems Thinking, (5) Data & Assessment Tools, and (6) Distributive Leadership.

A comparison of the emerging themes identified from the research to the conceptual framework used by Labin and colleagues (2012) and Naccarella and colleagues (2007) to define evaluation capacity showed strong correlations between the two sets of findings. GLF grantees felt empowered from the governance approach used in the model, which decentralized decision-making and invited broad participation from individuals representing the various functions of the

school or district, not just a narrow team of usual suspects. Distributive leadership was a lever that migrated participant organizations toward cultures they characterized as growth tenets that encouraged collaborative learning and supported risk-taking. Those shifts proved to be motivating factors that resulted in increased skill and confidence for individuals and produced new approaches—policies, procedures, and practices—to organize, carry out, and assess the work. Grantees were provided new assessment tools and given opportunities to learn how to use those instruments to continuously measure accomplishments, reflect on progress, and adjust plans to improve performance. This led to increased confidence and ability to self-assess and use data to inform future action.

Grantees repeatedly emphasized the important role external stakeholders played in enhancing their individual and organizational capacities to successfully implement and evaluate the impact of grant-support work. Even though the role of external stakeholders in building grantee capacity is not explicitly noted in the conceptual framework used by Labin and colleagues (2012) and Naccarella and colleagues (2007) to define ECB, it is referenced in several other studies identified in Chapter Two. Involvement by external partners was noted by the grantees as a motivating factor that contributed to individual and organizational learning.

A crosswalk of the study findings and literature criteria was completed to contrast the emerging themes against criteria from the conceptual framework presented above. From this examination, it was concluded that the GLF-GCB Model is consistent with the theoretical outline developed by Labin and colleagues (2012) and Naccarella and colleagues (2007) and represented a practical framework that moved evaluation practice from simple accountability to more advanced functions of learning and produced greater alignment with and engagement by funders.

Table 24 illustrates how the six themes identified from GLF-GCB Model intersect with each of the four theoretical concepts and thus frame a practical approach to close the gap between theory and practice for these grantees. A close review of the data contrast presented in Table 24 shows strong alignment between the recurring themes and conceptual criteria used by the research teams to define ECB. For example, distributive leadership practice was described by grantees as a motivating factor (empowerment) that inspired staff to try new things without the fear of failure and to learn from each other. Inclusive leadership was also part of the architecture that supported movement toward learning cultures (organizational learning) where new policies, procedures, and practices were established. These shifts in philosophy contributed to improved individual abilities and organizational readiness to effectively undertake and evaluate grant-supported activity. Systems thinking caused organizations to strategically examine their program and evaluation capabilities, continuously measure progress against clearly defined benchmarks, and use data to decide future action. This aligned relationship held firm across all themes and criteria.

An analytical lens will now be applied to contrast the emerging themes with recurring practices identified in literature.

Analytical Review

From the prior discussion, evidence was presented demonstrating that the GLF-GCB Model contains criteria consistent with literature used to define evaluation capacity. The model incorporated strategies that were similar to the definition of ECB outlined in the literature review (Labin et al., 2012; Naccarella et al., 2007). It also included core interventions and support that were deemed necessary to nurture and grow the skills and abilities of grantees to effectively implement and evaluate grant-supported work. Brock et al., (2012) outlined factors that affect

Table 24

Analytical Table Comparing Emerging Themes to Criteria Used to Define Evaluation Capacity

| Emerging Themes | Criteria Used to Define ECB | | | |
|----------------------------|-----------------------------|-----------------------------|-------------------------------|-------------------------|
| | Empowerment | Increased Knowledge & Skill | Data Informed Decision-making | Organizational Learning |
| 1. External Stakeholders | X | X | | X |
| 2. Continuous Improvement | X | X | X | X |
| 3. Growth Culture | X | X | X | X |
| 4. Data & Assessment Tools | | X | X | X |
| 5. Systems Thinking | X | X | X | X |
| 6. Distributive Leadership | X | X | X | X |

nonprofit capacity in their publication *Room for Improvement: Foundations' Support for Nonprofit Performance Assessment*. In the article, they recommended philanthropic organizations devote more time and effort to aid grantees with program evaluation. In making this recommendation, the authors outlined five areas of need where collaboration between grant-seekers and grant-makers would benefit grantee performance. The development needs of nonprofits were organized in the following order of importance: (a) how to develop the skills of staff to collect and interpret data, (b) how to interpret and use data, (c) what data to collect, (d) how to identify and set appropriate outcome metrics and, (e) what is learned about their performance (Brock et al., 2012).

A systematic comparison of GLF-GCB Model and recurring subjects identified in the ECB literature will now be used to demonstrate the utility of the grantee capacity building framework used in this study to close the gap between theory and practice. First, a brief summary of the GLF-GCB Model and recurring topics documented from the literature review will be outlined. Then each of the six emerging themes will be examined through the theoretical lenses presented in Chapter Two.

Capacity Building Framework

The GLF-GCB Model immersed grantees in a cycle of continuous improvement where grantees assessed their initial skills and abilities to implement and evaluate program activity (ECB Assessment-STNA-T-Progress Rubric), participated in structured peer-to-peer technical assistance sessions, completed on-site professional development for teachers and administrators, and reassessed progress using the assessment tools after the initial implementation period. Acting as change agent, the author/funder was actively involved with the Friday Institute and GLF program officers in the training and support activities made available to GLF grantees through

the model. This interaction among funder and grantee proved useful and was cited by members of grantee leadership teams as an important strategy in building individual and organizational capacity.

As previously discussed, a comparison of pre and post data showed improvements by grantees in planning, collecting, interpreting, and using data for decision-making. Grantee leadership teams stated individuals tasked with evaluation responsibilities acquired greater confidence and skills. They also felt their organizations' capacity to develop policies, procedures, and practices to improve, implement program changes, and acquire the resources to conduct and use evaluation data had matured. Teachers also expressed greater confidence and skill in using technology for instruction and to analyze student data. Organizationally, the five grantees demonstrated growth in their abilities to implement digital learning by moving up the growth continuum of the Progress Rubric. Four of five grantees progressed to the Advanced stage of development.

Focus group sessions challenged grantees to analyze, interpret, and use data to plan activities for the upcoming year. Qualitative data collected from grantees during these workshops provided compelling evidence that the interactions by the funder and its partner were appreciated by grantees and contributed to organizational growth. For example, grantee teams consistently emphasized the important contributions made by external stakeholders to help them learn how to use common assessment tools to plan, monitor, and interpret and use their data to inform action. Again, the model appeared consistent with research outlining requirements for successful capacity building programs.

The following discussion will be used to link the recurring topics from the literature review (Summary of Findings Section) presented in Chapter Two to the emerging themes that

were identified from analyzing the quantitative and qualitative data summarized in Chapter Four. The author classified the following items as recurring topics recognized from the literature review:

1. Increased accountability continues to gain momentum placing greater demands on grant-making and grant-supported organizations to be more effective at measuring and reporting impact;
2. ECB must be an intentional process that purposefully seeks to establish longer-term and more meaningful relationships between stakeholders;
3. To transform ECB into practice, grantees must utilize adult learning theory in the development process so that knowledge gained is immediately applied in a real-world context;
4. The process of establishing a shared vision includes assessment as a core organizational function that supports a culture of learning;
5. The process of building evaluation capacity must be inclusive of stakeholders from across the organization and utilize a systems approach;
6. Collaborative strategies are used to promote authentic learning, instill cross-institutional ownership, empower individual learning, and incorporate decentralized decision-making procedures; and,
7. The transfer of knowledge and understanding of ECB into practice was noted as an essential step in mainstreaming evaluation as a core organizational function.

External Stakeholders

The importance of external stakeholders was recognized as one of the six emerging themes presented in Chapter Four. It was also noted as a recurring theme identified in the

Literature Review. Gopalakrishnan et al. argued in their 2013 publication that evaluation practice was evolving through a variety of strategies that included disbursing the varied responsibilities needed to support continuous improvement among internal and external stakeholders. The roles played by external stakeholders in the GLF-GCB Model to help grantees design, implement, monitor, and routinize continuous improvement and evaluation practices were important factors that contributed to improved performance by the study participants. Continued engagement by external partners will play into the long-term, systems change needed for the grantees to mainstream new practices introduced through the model. One leadership member summed up their team's opinion about the role of external partners:

The fact that external partners cared enough to participate in the process was a key motivator to try harder to achieve success. Their contributions were critical to connecting the work of education to the broader picture of economic development and the needs of employers (Grantee 5, Focus Group Workshop, September 5, 2017).

The use of external stakeholders by the five grantees was primarily restricted to GLF and the Friday Institute with the exception of Grantee 5. The leadership team from this district engaged external partners to gather input from area businesses regarding the skills they required for employment. They then used this information to incorporate career experiences and training that challenged students to apply Science, Technology, Engineering, and Math (STEM) concepts to solve real-world problems. They also used a private benefactor to help them advocate for and raise the additional funds needed to extend program activity to all students in grades 6-12. The other grantees recognized the importance of engaging community and business partners while examining their initial performance data during the focus group workshops. This led grantees to crafting strategies as priority action items for year two that emphasized using their logic models, social media, and other communication techniques to target key constituents and engage community partners to help them grow and sustain the initiatives.

Long-term commitments by grant-making organizations are not typical arrangements in philanthropy due to foundation boards' desires to be innovative and try something new. The challenges faced by disadvantaged communities did not occur overnight and won't be resolved as a result of short-term investments. It will take persistence and longer-term commitments to create lasting change. The inclusion of external stakeholders—community, business, and philanthropy—is an extremely important ingredient that grant-seeking organizations must embrace and use early in the program design process to help with economic transformation and program sustainability. More emphasis must be placed on cultivating these partnerships by both grant-seeking and grant-making organizations if innovative program activity is to take hold, be sustained, and make a difference. In a survey of nonprofit leaders, Brock et al. (2012) assert that the relationship between funder and grantee must transform from a mostly compliance centered perspective to one that is more focused on coaching and support. Statements from the five grantees indicated the relationship with GLF stressed accountability, but was framed from a collective impact model with appropriate coaching and support mechanisms included to help them navigate the headwinds encountered.

Continuous Improvement

As society's social problems have become more complex and poverty more widespread and persistent, the importance for organizations to value assessment as an essential function for decision making and planning has grown more profound (Gopalakrishnan et al., 2013). In short, accountability has become more important for both grant-making and grant-seeking organizations. This has been especially true of grant-seeking entities that now have to rely on philanthropic and other external sources of funding to keep pace with the rapid economic and social changes occurring from globalization and advances in technology and automation.

Education is no different. On-going budgetary pressures and a rapidly changing economy are just two forces that have challenged education to retool the way institutions operate.

Innovation is necessary and traditional policies, procedures, and practices are no longer sufficient to guide and measure organizational performance. Preskill and Boyle (2008) pointed out that even though considerable effort had been focused on ECB over the years, few thorough contextual frameworks or models had been developed to (a) guide practitioners' efforts to build evaluation capacity and/or (b) test evaluation processes, activities, and outcomes. The GLF-GCB model was developed over time to support grantees as they navigated the complicated progressions involved with digital integration by using the cycle of continuous improvement—plan, do, study, act—as a core function to drive an incessant assessment process. Educators cannot just drop computers into classrooms and expect test scores to increase. It takes time, persistence, and deliberate action to succeed and new assessment tools are needed to help grantees monitor their progress through a complicated and elongated process. The model includes assessment tools that were developed for grantees to use prior to initiating program activity to establish baselines and annually to measure progress. Structured technical assistance sessions were also included where grantees learned how to use the tools to continuously assess their abilities and progress, to develop vision statements and action plans, and to reflect on their data to inform future action and sustain program activity.

Grantees found the improvement process used in the GLF-GCB Model very beneficial. It proved to be useful in enhancing organizations' abilities to effectively initiate complex program activity, maintain student success, and better measure overall performance. They expressed support for on-going use of the assessment tools and process, but consistently pointed out the constraints of time and stressed the significance of having to be deliberate in finding the space in

constrained and often conflicting schedules for the leadership teams to engage in shared reflection and planning. One team member stated that using the continuous improvement cycle had caused them to look more at the details and view innovation as an evolving process that does not take hold overnight. Another grantee emphasized that they needed to be diligent and maintain focus on using the tools to repeat the continuous improvement process and expressed that more reflection time was needed to constantly evaluate their organizational effectiveness. Most grantees developed strategies for their year two action plans that were dedicated to staying focused and allowing time for the team to collectively reflect on their data and plan future action.

The ability of and dedication by grantees to sustain the continuous improvement process is a question that will take time to discern, but several articles in the literature section of Chapter Two provided key insights that were noted as suitable levers for mainstreaming practice. Preskill and Boyle (2008) found that most ECB programs struggle to transfer gains in skill and knowledge into action and identified application as a way to routinize practice. They went further to clarify how evaluation practice could be sustained and proposed that participants must be provided with the leadership support, incentives, resources, and opportunities to transfer their learning about evaluation to their everyday work. The GLF-GCB Model was aligned with this practice by using structured learning events where grantees were required to use the tools to build customized plans and engage in a continuous improvement cycle to monitor their progress based on data analysis. The partners provided coaching and support interventions to help grantees learn how to use the tools to continuously assess performance and plan future action. A grantee explained that having outside stakeholders who asked the hard probing questions provoked thought about issues that likely would not have been considered without the forced accountability coming from the partner organizations. This highlighted the importance of having

external stakeholders involved who could serve as levers to sustain practice. Danseco (2013) points to another key to mainstreaming practice by claiming that leaders must create a learning or growth culture. This leads to a discussion of the third emerging theme identified in the study.

Growth Culture

Labin et al. (2012) also stressed the importance for grant-seeking organizations to answer the question *why*. The authors claimed it was a vital step to successfully moving organizational practice from the current mindset of reporting as a compliance requirement imposed by grantmakers to a more holistic culture where evaluation is carried out to inform decision making for program improvement and to build organizational talent. The GLF-GCB Model required grantee leadership teams to develop logic models as a means to craft and refine vision statements, then develop implementation plans. The process proved useful and challenged grantees to establish a common language that explained why the initiative was important and defined how success would be measured. The logic models helped create buy-in from staff and became valuable tools for grantees to use when communicating the attributes of the project to external stakeholders. In her research, Mary Arnold (2016) found that utilizing logic models established a mutual landscape and a common language for educators. One principal explained the importance of the experience. “Using the elevator speech exercise as an initial step in creating a logic model was extremely beneficial. Principals are now using it with staff to develop school level vision statements to increase buy-in” (Grantee 5, Focus Group Workshop, September 5, 2017).

Focus group participants also described how using the distributive leadership approach to organize the work caused a shift in culture that moved their organizations from a traditional or fixed set of values to guide organizational behavior toward an environment described by grantees

as growth and/or learning environments. The process of inviting a diverse group to populate the leadership teams and decentralizing the decision-making authority became transformative. The leadership teams consistently stressed how the governance approach had benefitted their work through the creation of more carefully crafted implementation plans and increased buy-in and commitment by staff. One member declared, “Increased collaboration has caused teachers to become risk takers who are now more willing to try new things and replicate what is happening in their building. They no longer feel like they are isolated on an island” (Grantee 7, Focus Group Workshop, September 22, 2017).

The inclusive process used to plan, deploy, and evaluate digital learning also challenged all stakeholders to be leaders and placed more responsibility on individuals to learn and share with their peers. In their journal publication, *A Research Synopsis of the Evaluation Capacity Building Literature*, Labin and colleagues (2012) emphasized the critical role that leadership plays in forming collective values that either reinforce or encumber transformative change. Grantees affirmed through comments made during the focus group workshops that being invited into the leadership process had increased buy-in from their peers and created much clearer understandings of why the project was important and how it contributed to the school and/or district’s mission. Teams also expressed that the networking that occurred with other grantees had been vital to their personal growth in the journey of learning.

Systems Thinking

Preskill and Boyle (2008) alleged that sustainable evaluation requires the development of systems, processes, policies, and plans that help embed evaluation into the ways the organization accomplishes its mission and strategic goals. The ECB model developed by GLF and the Friday Institute entrenched evaluation practice into the design and deployment process and challenged

leadership teams to take a longer-term view of their work to determine how to sustain the continuous improvement process as a core organizational function. This was accomplished by first having grantees attend a kick-off event where diverse leadership teams organized around core program responsibilities, developed initial implementation plans, and learned to use assessment tools to measure their progress in transforming teaching and learning through the integration of technology. After the initial performance period, grantee leadership teams participated in structured learning events where they had to analyze, reflect, and use data to make action plans for their second year of activity. The introduction of technology into the assessment process made it easier for grantees to assess accomplishments and analyze data, created shorter feedback loops, and increased individual productivity.

The evaluation sequence was designed to facilitate grantees' efforts to regularly replicate the assessment cycle and thereby increase the likelihood that program activity would be sustained and student achievement increased through informed decision-making. Grantees responded positively to the model and affirmed that the process had given them a better understanding of where they had and had not grown, what had contributed to and/or prohibited progress, and what action was needed to move them closer to their success targets.

Participation in the model also inspired grantees to come up with new procedures and practices that could be used to drive improved performance. As previously mentioned, several administrators described how principal meetings had been retooled, learning walks instituted, and new observation tools and procedures installed to further improve the assessment and planning process used by their schools and districts.

A concern expressed by grantees was time. During the focus group sessions, most if not all grantees expressed the challenges of scheduling and the desire to be more intentional in

planning to allocate appropriate time for leadership team meetings to facilitate using the continuous improvement process as a routine practice.

Data and Assessment Tools

The author, GLF program officers, and Friday Institute staff served as change agents who performed a variety of functions that supported grantees through training, coaching, focus group facilitation, data collection, and impact analysis. As revealed in earlier discussions, this included constructing new assessment tools to help grantees navigate the complicated transformation process, reflect on their progress, and adjust action plans to sustain momentum. New assessment tools and metrics were developed by GLF and the Friday Institute to avoid the challenge of relying on traditional standardized scores to measure implementation fidelity and organizational performance. This was important because it allowed GLF to measure the progress grantees made during the startup and initial implementation phases and assisted grantees with the development of longer-term sustainability plans. From an accountability lens, this was important because it can often take two to three years after new, innovative programs are introduced in the classroom before improvements in student test scores occur.

Coupled with technology, the assessment tools and training benefitted teachers. They indicated through surveys that their confidence and skill to assess and use data to enrich student learning through personalized instruction had improved. Teachers indicated as well that they had increased their personal productivity. A teacher spoke to the benefits of having access to the tools and technology to analyze student data:

Before I did not have time to crunch numbers and relied on gut feelings to decide what to do next. Without accurate information, I was teaching to the middle. Now I have learned to react to the data and use it to drive instructional decisions (Grantee 7, Focus Group Workshop, September 22, 2017).

Other members conveyed that they now have a better understanding of how to self evaluate and come up with action plans to guide improvement. A school administrator made the following statement about how the tools had helped them organizationally:

Learning to use tools like logic models and assessment rubrics to build a common vision and assist in guiding implementation has worked well. Without this, the work would have taken longer and the conversation would not have been as rich (Grantee 5, Focus Group Workshop, September 5, 2017).

The challenge of relying on traditional methods to evaluate innovative programs was examined in Hallie Preskill's 2012 blog, *A Call to Evaluate Social Innovation...Differently*. Preskill described pioneering practices that were being tested to initiate more responsive and effective change through systems building, cross-sector partnerships, collective impact design, policy development, and the construction of organizational networks. Other researchers including Rodriguez-Campos and Coulbertson (2011); Bakken et al. (2014); Sridharan et al. (2009); Rotondo (2012); Corn et al. (2012); Danseco (2013); Arnold (2006); and Huffman and Thomas (2008) reasoned that evaluation design must become an integral component of the program development process and be constructed in concert with key stakeholders. They recognized that change takes time and requires persistent commitments by grant-seeking and grant-making organizations. The GLF-GCB Model incorporated new metrics, assessment tools, and adult learning theory to immerse grantees in an integrated program and evaluation design process that modeled a continuous improvement framework.

Leadership

Preskill and Boyle (2008) emphatically claimed in their multidisciplinary study of ECB that leadership matters. This came through clearly in the GLF-GCB study. Leadership was observed as an essential ingredient for successful change. On the other hand, evidence from the study also confirmed that effective leadership consists of multiple qualities that typically are not

found in a single individual (Larsen & Rieckhoff, 2014). A broad array of roles and responsibilities are involved in implementing innovative programs such as digital learning. Overlaid with program coordination and evaluation duties, the scope of work used to introduce innovative programs was described by the researchers as complex. This was the impetus for Golden LEAF to insist that grantees establish diverse leadership teams that possessed the myriad of skills needed for success and included stakeholders from multiple levels within the organization. In addition to having a broader set of skills and perspectives present at the leadership table, other advantages accrued to grantees from embracing this decentralized governance approach. These included, in addition to others, more extensive buy-in and stronger commitments from the individuals tasked with carrying out the work. Transformative changes also occurred in participants' beliefs about the organizational ethos that evolved. Staff described the shift in cultures that transformed their organizations from a fixed or traditional set of values to environments that represented more nurturing values, which encouraged collaboration and peer-to-peer learning. These new learning environments translated into more robust and comprehensive plans and an atmosphere of collegiality. One grantee claimed participation had set them on a journey of unity.

Rotondo (2012) stated that new approaches to evaluation are needed which promote decentralized decision-making, increase reliance on local talent, institute shared leadership through team building, create a shared vision, establish an enabling culture, and utilize technology to facilitate quick and broad dissemination of information. Based on data collected from the study, it was concluded that the GLF-GCB Model accomplished each of these and accelerated the growth curve of the five digital learning grantees in the study when judged against earlier investments made by GLF prior to implementing the model.

Table 25 is used to provide the reader a visual crosswalk of the emerging themes identified from the study compared to the recurring practices for ECB as documented in the Summary Findings section of Chapter Two. Based on that comparison, it is reasonable to conclude that the model used for this study integrated best practices identified from the literature search. Thus, the model embodied a comprehensive approach to ECB, which helped improve the individual knowledge and skill and organizational capacities of these five grantees to effectively implement and evaluate their impact.

In addition to the emerging themes, there were a number of suppositions made by grantees or observed by the change agent and its partners that could strengthen the model and transition ECB to a more mature state. These policy, practice, and research implications will be explored next.

Study Implications

Through this study, a number of policy, practice, and research suggestions were recognized that could aid grantees' efforts to effectively implement grant-supported activity, improve the capacity building framework and process used for this study, and advance knowledge through additional exploration to further close the gap between theory and practice. The following policy, practice, and research propositions are presented for consideration.

Policy

During the study, the change agent and grantees identified several issues or concerns that need additional attention and could be resolved through local and/or state policy. Strategic policy decisions are suggested in three areas to strengthen the likelihood that new processes and practices initiated by grantees are sustained and become routine functions to aid continuous improvement. First, the five grantees indicated that time was a premium and additional attention

Table 25

Analytical Comparison of Emerging Themes from the Study and Best Practices in ECB Literature

| Recurring Themes | External Stakeholders | Continuous Improvement | Growth Culture | Data & Assessment Tools | Systems Thinking | Distributive Leadership |
|---|-----------------------|------------------------|----------------|-------------------------|------------------|-------------------------|
| 1. Increased accountability | X | X | X | X | X | X |
| 2. Stakeholder relationships | X | | X | | X | X |
| 3. Adult Learning Theory | | X | X | X | X | X |
| 4. Assessment as a core organizational function | | X | X | X | X | X |
| 5. Inclusive, systems approach | X | X | X | X | X | X |
| 6. Collaborative strategies | X | X | X | X | X | X |
| 7. Mainstreaming practice | X | X | X | X | X | X |

to how time is used will be required if momentum and practice are to be sustained. Specifically, the availability and allocation of time were expressed concerns that became focal points for grantees as they revised their implementation plans for year two. During the planning portion of the focus group sessions, grantees crafted strategies into their second year action plans to address these concerns. These strategies included desires to be more intentional in how on-going professional development was used and scaled to advance the learning of administrators and teachers. Grantees also drafted strategies that emphasized the need to be more deliberate in using the limited time available to continue the collective process of analyzing, reflecting, and using data to inform future action.

To address the concerns of time, educators have two local options available. One is for districts to be creative and flexible in scheduling so that the school and district calendars are aligned and organized to place a priority on the time needed for professional learning and to repeat the assessment and continuous improvement processes as core organizational functions. A second option is for districts to incentivize participation in training and leadership team duties through reduced teaching loads, release time, and/or a rewards system for assuming additional responsibilities. Educators must also be willing to repurpose the existing resources to maximize outcomes rather than doing things the way they have always been done.

The state must likewise place urgency on the need to assist districts with the preparation, readiness, and experiences required to successfully implement improvement strategies by making sure adequate funding is available to support a comprehensive approach to change. The State must also allow sufficient time for the process to unfold across the system rather than expecting all districts and schools to make these transitions happen in short, unrealistic timeframes. Without dedicated resources—funding and reasonable time—for planning,

preparation, and networking, educational innovations like digital learning will continue to be marginalized and the likelihood of failure increased. Numerous prior efforts to reform education have failed due to unfunded mandates and unreasonable transition expectations. Districts also need flexibility to use funding to meet individual needs that differ across communities based on the core assets possessed by their organizations. The State has developed a plan to shape how digital learning is used to improve teaching and learning. To ensure success, it must appropriate satisfactory levels of funding to help schools and districts prepare and effectively deploy technology through planning, professional development, coaching and support, and structured networking. If adequate funding and scale-up periods are not made available, districts will be forced to *boot strap* their efforts, which will more than likely result in low levels of implementation fidelity and higher probabilities of failure from a lack of preparation and motivation to succeed.

A second issue that needs to be settled through policy is setting expectations about the quality, content, and framework for the training, preparation, and experiences districts and schools need to drive successful transformations. To maximize the probabilities for success, a comprehensive professional development plan is required. The plan must include training and time for grantees to organize leadership teams, build vision statements, craft plans to guide implementation, and learn how to use new assessment tools and practices. The process must also provide training for instructional support personnel to learn how to model technology-rich instruction, coach teachers during their transition, and develop teacher leaders who can assist with scaling the initiative across the institution. Teachers must also be trained in using technology to supplement and extend pedagogy. Technology cannot make bad instruction good.

Therefore, districts cannot haphazardly expect to train themselves, rely on technology and software vendors to train staff, or assume that teachers and administrators can make the transition to effective use of technology as tool to improve instructional practice once they have attended a few hours of training. The practice of *learning fast and scaling quickly* is a recipe for disaster because the initiative, more likely than not, will become technology focused and not driven by effective instructional practice. Rather than implement fast and learn slow, districts must move slowly, learn quickly, and then scale iteratively (Bryk et al., 2016).

Professional development must be high quality and grounded in adult learning theory where learning is immediately applied through work-centered applications. Technical assistance is also necessary to help districts navigate the complex path to change and solidify new practices. In addition to on-site training, structured learning opportunities are important so individuals and teams that are tasked with carrying out grant-supported work are exposed to other more experienced educators and have opportunities to build network relationships. They need to know what to do when they don't know what to do. Thus the importance of having access to a reliable network that districts and individuals can access, lean on, and learn from. Building relationships with other entities that are doing similar work is an important step to moving change toward sustained practice. Relationships are similarly important with external partners who can bring new perspectives and assets to the table that are essential to broadening the focus to include workforce alignment and sustainability.

It is difficult if not impossible to successfully seed innovative through traditional structures (Christensen, Horn, and Johnson, 2008). New approaches are required. Therefore, state policy must be used to frame expectations around the design and composition of training, identify qualified training providers, and appropriate funds to support the work. The State must

take a long-term view of the work and time it will take for a successful transition to occur. If not, the core mistake of scaling too quickly will doom the chances of success, as the focus on technology will quickly outpace the human talent required to support the transition.

Taking a long-term view regarding change is a third policy target that is critical from a funding perspective. Often state dollars are appropriated without much thought about the time it takes to gear-up, execute, and scale a large initiative. Instead, the attention is placed on getting the money out the door and spent before the end of the year to avoid reversions. For success to occur, the State must learn to be a patient funder and gain a clear understanding of the process involved to sow the seeds of change and scale the work across multiple agencies and many schools. Successful change won't happen in the short-term. It will take several years to get it right.

Foundations' boards of directors must also embrace the long-term nature of change. This is particularly true in working with disadvantaged communities that often have limited resources and bench strength with regard to staffing. These communities and their institutions did not fall into distressed conditions overnight and expecting them to transition out quickly through a one-time investment is, at best, wishful thinking and unrealistic. Foundations should become more deliberate and persistent to aid communities and organizations that need help the most by making longer-term commitments. In addition to money, philanthropy must join in the work as committed partners so that change becomes deep-seated in practice and doesn't become one in a long line of futile, short-lived programs that were good ideas but never took root. As noted in the study by one grantee, external funders that engage in the work are motivational and serve to establish greater levels of commitment and accountability by grantees.

Practice

In addition to policy implications, there are other practical suggestions that arose from the study that could be used to improve the GLF-GCB Model and create greater efficiencies in the process, and thereby reduce the burden on grantees. First, several new assessment tools were created to aid participants with evaluating their progress in implementing digital learning. It was determined that some of the tools could possibly be streamlined or integrated into other report forms making them less time intensive and burdensome to use in the assessment and reporting process. For example, the current process requires grantees to develop approved budgets and use expense-tracking forms to report expenditures from grant and matching funds. In addition, grantees are expected to annually assess and report organizational growth, then use data from the Progress Rubric and other assessment surveys to identify improvement strategies, update implementation plans, and create a financial spreadsheet showing the projected costs for subsequent year activity. In this instance, the load of creating and updating two different financial spreadsheets could potentially be collapsed into one integrated document.

Another opportunity exists to create more streamlined assessment tools and lessen the time to administer and interpret data for informed decision making. The exercise to reduce the STNA-Teacher Survey from 87 to 35 questions and align it to the Progress Rubric made the survey more manageable for grantees and the author. Grantees also mentioned that having the assessment tools aligned to one core document—the Progress Rubric—made the assessments more meaningful and helped them see how their individual accomplishments contributed to the organization’s goals and mission. This is one example where changes to the existing assessment tools proved beneficial. Recommendations have been made to the Friday Institute to consider a

more comprehensive review of the primary instruments used for this study and the broader implications these suggestions might have in scaling digital learning across the state.

Other opportunities are possible and will continue to be vetted by GLF and its partner including the development of additional metrics to ensure the components of the capacity building wheel are appropriately addressed in the evaluation process. One example would be creating an assessment tool or questions within existing instruments to measure the strength of and frequency in using networks and/or external partners to boost performance. Another improvement opportunity identified in the year-end meeting between GLF and the Friday Institute was developing a more consistent time line to use in deploying the model. This would be useful in streamlining the process and creating clearer expectations concerning the time when assessments are to be completed. Currently there are no procedures outlining deadlines for assessments to be administered. Based on the timing of the grant award, grantees are often measuring performance at different times making it more challenging to schedule and deliver structured learning and technical assistance events.

Lastly, GLF and the Friday Institute need to identify how community partners can be inserted into the capacity building process earlier to accelerate learning and program sustainability. Relationships established between grantees and external partners became motivating factors that contributed to program readiness and advancement. One grantee noted how a community benefactor became a lever that aided them in locating the additional financial resources needed to scale the initiative to other schools in the district. The experiences with external stakeholders also produced important insights for this grantee about the skills needed by area businesses for employment. This allowed the district to better align the learning opportunities students would experience in STEM enrichment programs to local employment

with area businesses making learning more relevant for students. Other grantees recognized the importance of these relationships, but only after the initial year of work. More attention to this critical component of the capacity building wheel can produce increased learning opportunities and greater improvements in performance.

Research

Evidence presented from the study shows the GLF-GCB Model as an effective capacity building prototype to advance digital learning. The five grantees that participated in the study demonstrated increased readiness to undertake the complex, transformational task of integrating technology into instructional practice to advance teaching and learning. They achieved growth in the individual and organizational abilities required to effectively implement and measure the impact of their work. The model also outlined a capacity building framework that can be used to further align theory and practice. As previously described in literature summary in Chapter Two, evaluation capacity is in the early stages of development and must transition from a singular focus of accountability to broader beliefs that include problem solving, leadership empowerment and continuous improvement (Leviton, 2013; Wandersman, 2013; Labin et al., 2012; Suarez-Balcazar et al., 2013).

The capacity building prototype was tested under the limits of digital learning. To become more broadly applicable, additional research is needed to examine how the capacity building wheel applies in a variety of contexts and/or programs. What new assessment tools are needed to migrate the model to assist grant-seekers whose mission is to deliver human service, workforce preparedness, or other programs targeting poverty and the social ills faced by our nation and world? How can external stakeholders be used early in the grantmaking process to increase alignment with community needs and improve the likelihood of program sustainability

after the grant term expires? What roles, responsibilities, and skills are required to organize a strong leadership team and how do those talents and positions need to morph over time to meet the evolving needs and challenges as the project matures? How well do grantees sustain program and evaluation practice over longer horizons that extend beyond grant performance periods? What role can networks play in sustaining and growing program and evaluation activity? These and other developments are worthy of further discovery.

Capacity issues are not limited to digital learning, but cross into the core abilities of grant-seeking organizations to effectively implement grant-supported activity and measure the impact of their work. Capacity constraints are especially apparent in rural communities. Therefore, I challenge others interested in the field of ECB to use the capacity building framework as a model to further close the gap between theory and practice by applying it to other contexts and programs.

Conclusion

The purpose of this study was to assess the utility of an innovative—process-driven, people-centered—grantee capacity building model to enhance the individual and organizational capacities of grantees to improve implementation performance, better measure the impact of grant-supported work, and sustain program and evaluation practice. Evidence from the study demonstrated that the GLF-GCB Model was an effective framework that helped grantees implement digital learning initiatives effectively and better measure the impact of their work during the initial phase of grant-supported activity. To draw this conclusion, the author utilized the following four questions to inform the overall study problem.

- Overarching Question – How does the GLF-GCB Model impact individual and organizational capacity to inform practice and sustain continuous improvement?

- Sub Question 1 – What was the initial capacity and readiness of grantees to implement and measure the impact of grant-focused activity?
- Sub Question 2 – How did the GLF-GCB Model improve the individual knowledge and skill necessary to successfully implement digital learning and evaluation practice?
- Sub Question 3 – How did the GLF-GCB Model guide organizational improvement efforts of grantees?

Grantee accomplishments were measured using three assessment tools. Surveys were administered to establish baselines and measure the evaluation capacity of grantee leadership teams (ECB Assessment Survey), organizational readiness to use digital learning to improve teaching and learning (Progress Rubric), and teacher development to transition from traditional to technology-rich instructional practice (STNA-T). Baseline data collected during the study confirmed that the grantees were in the developing stage of readiness to implement digital learning. Leadership teams assessed themselves as possessing low levels of confidence and skill to undertake evaluation design and planning activities, but with slightly more confidence and skill to collect, analyze, and use data to inform practice. Leadership team and teacher survey results also identified areas where skills and abilities needed to improve in order to successfully enhance teaching and learning through digital integration and use data to continuously improve.

A comparison of pre and post assessment data showed strong improvements occurring in both grantees' readiness to implement digital learning and their abilities to better evaluate grant-supported activity. Leadership teams expressed greater skill and more frequent engagement by a broader foundation of individuals who were better prepared to plan, implement, and measure the results of grant-supported activities. They expressed greater confidence and skill in planning,

collecting, interpreting, and using evaluation findings to inform practice. Teachers similarly expressed greater confidence and felt better prepared in their individual skills and knowledge to use technology to enhance their instructional practice, improve student learning, and use technology to collect and interpret data to personalize and enhance student performance. Organizationally, the five grantees recognized improvements in their internal abilities to lead innovation, grow through professional learning, improve instructional practice, and use data to improve overall performance. Four of the five study participants progressed from the Developing to Advanced stage on the growth continuum of the Progress Rubric during the initial implementation phase. The one grantee that did not advance beyond the Developing stage used a classroom model to implement digital learning, but assessed readiness across the district, not just in the pilot schools. The district's improvements were concentrated in high school classrooms where devices were deployed, but with limited resources to scale the initiative across other schools they encountered challenges that prevented the district from reaching a more advanced stage of organizational readiness. This brings into question the efficacy of using the classroom cohort model for deployment without a clearly delineated and thoughtful plan that includes committed funding to scale the initiative across the school or district.

The GLF-GCB Model utilized a framework that emerged as a capacity building wheel which positions distributive leadership at the core or hub of the process. From distributive leadership, five practices emerged as essential mechanisms or spokes of the framework that fueled improvements in individual knowledge and skill and organizational abilities. The study participants, partners, and change agent noted these mechanisms as indispensable strategies that enhanced grantees' abilities to more effectively implement grant-supported activity and measure the impact of their work. The practices that rose from using distributive leadership practice

included: growth culture, continuous improvement, systems thinking, external stakeholders, and data and assessment. Figure 20 is used to recast the graphic organizer from Chapter Four depicting the six emerging themes into a hub and spoke design or Capacity Building Wheel to show the importance of distributive leadership in the capacity building process.

Distributive leadership practice acted as an accelerator that helped grantees transition from traditional to growth or learning cultures. Inclusive leadership teams united to craft shared vision statements for the initiative and create thoughtful plans to guide action. Though this process, they gained a clear understanding of why the initiative was important to the mission of the organization and developed a common language to articulate the imperative for success. This resulted in increased buy-in and broader commitment across the participating institutions. Forward momentum was further propelled through the infusion of continuous improvement and systems thinking that served to imbue incessant reflection and collective planning to inform future action and result in a more unified force. The process was strengthened through the use of external stakeholders who provided wide-ranging perspectives inclusive of funder, community, and business interests. Engaging external partners created greater alignment of purpose, which heightened the importance of transparency, accountability, and program sustainment. In short, grantees exhibited greater fidelity in effectively implementing digital learning and displayed enhanced capacity to measure and report the impact of their work.

A number of conclusions can be drawn from the study. First, the mechanisms that combine to form the Capacity Building Wheel are not all equal. Leadership is at the hub and the remaining themes are spokes that rise from the center to form a wheel. The five spokes or strategies that rise from the hub to form the wheel are foundational elements or anchor principles that flow from effective design and use of distributive leadership as a governance architecture to

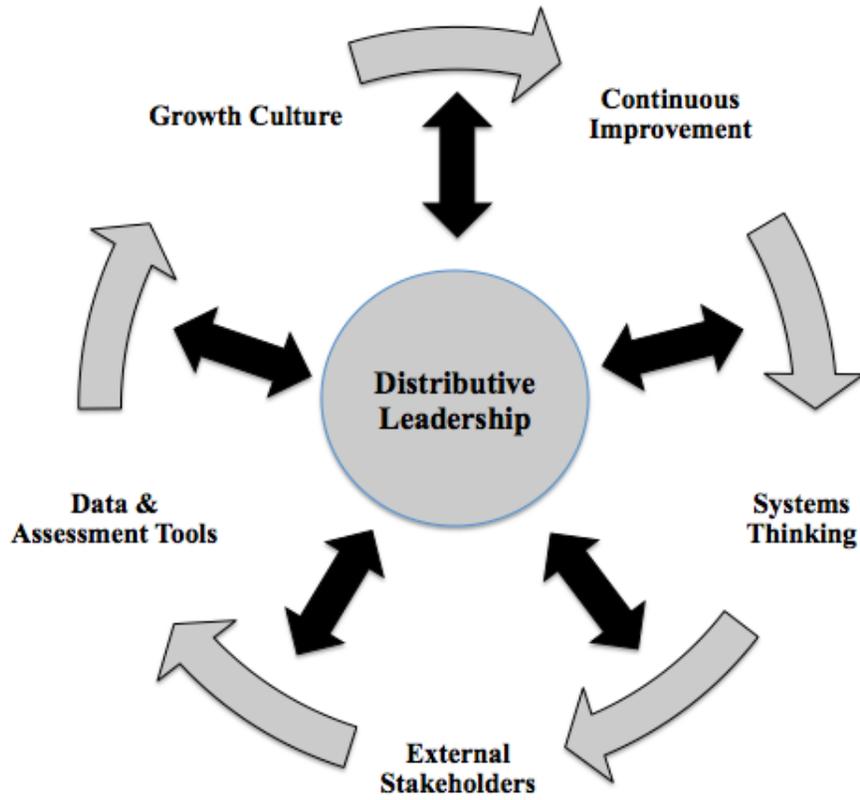


Figure 20. GLF-GCB model – capacity building wheel.

drive innovation and improvement. These foundational elements should be viewed as interdependent principles that function as a unified whole to advance knowledge, skill, and abilities to more advanced states of readiness and higher levels of motivation to frame the architectural edifice for innovation to take hold. The anchor principles of the Capacity Building Wheel work in concert with each other, not as independent units. For example, you can have everything else in an advanced state of readiness, but if you don't have dynamic, inclusive leadership the framework will most likely struggle to produce forward movement. To be effective, you must focus on all the principles and avoid the tendency to concentrate on one element at a time. Forward movement is created from unified action that turns feat into energy. If all the principles that make up the Capacity Building Wheel are not emphasized and pursued with vigor, the framework will either act like an out-of-balance tire or bounce back like a Romper Room Punching Bag.

In addition to leadership, the role of external stakeholders is an important lever to sustaining momentum. More work and study is needed to determine how to best introduce and use philanthropic, community, and business partners to move change to routine practice. In addition, funders must consider and find ways to make longer-term commitments of time and resources to help grant-seeking organizations make lasting change in disadvantaged communities. It is also important to learn how building strong peer-to-peer networks can aid in sustaining momentum. These relationships are critically important and serve as motivational tools to propel organizations to higher levels of achievement.

The Capacity Building Wheel that emerged from the GLF-GCB Model demonstrates promise in closing the gap that exists between evaluation capacity building theory and practice. The model proved beneficial within the context of preparing grantees to be more poised, skilled,

and effective in using digital learning to improve instructional practice. The Capacity Building Wheel that emerged created an architecture that facilitated fertile outcomes—advancements in teaching and learning—and increased the likelihood of sustainability. The study provided valuable insights into the form and function of improving grantee performance and routinizing program and evaluation practices. With increased emphasis on accountability, grant-making organizations want and deserve both. The mechanics of the Capacity Building Wheel represent essential ingredients for building the capacity of grant-seeking organizations. All elements must be emphasized in the process, but distributive leadership practice remains at the core. Inclusive leadership formed the architectural cornerstone or basis from which the other practices—growth culture, continuous improvement, systems thinking, data and assessment, and external stakeholders—arose. Grant-making organizations should use the Capacity Building Wheel to advance ECB practice by testing the framework in other program contexts.

Other important lessons that surfaced from the study include the following. Grant-making entities need to more patient investors to allow time for grantees to organize, plan, implement, and continuously assess and modify action. Too often, funders are eager to award grants and get the money out the door so they can move on to the next best thing. To be successful in implementing innovative programs, grantees need time, resources, and support to rethink how they should collectively organize and structure their work around a continuous improvement process. This requires a longer-term perspective that allows and supports grantees as they create new structures and replicate the cycle. Grant-making organizations must also engage in the work as change advocates and not play the traditional *hands-off* role of providing money and reading reports. Funders should take more active roles as change agents to facilitate the continuous

improvement process—plan, do, study, act—and provide opportunities and encouragement for grantees to establish strong learning networks through structured technical assistance events.

Another lesson learned focuses on the importance of involving external stakeholders from inception. The role of external partners in the study was significant. They served as levers to help grantees with growing and sustaining program activity and ensuring that program activity was aligned with and met community and business interests. Grantees need to develop and sustain relationships with external partners to institute greater alignment of purpose and elevate the importance of transparency, accountability, and program sustainment.

More research is needed to further examine how the principles of the Capacity Building Wheel applied in the GLF-GCB Model can be useful in building the capacity of grantees to improve program and evaluation practice in other contexts. It is similarly important to take a longer-term view for future research to study how practice can be sustained by grantees after grant terms expire and identify what roles external stakeholders and networks can play in assisting grantees with sustaining practice and momentum. Funders are also encouraged to utilize the Capacity Building Wheel in other contexts and program areas to further test the concept as an effective framework to augment practice.

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APPENDIX A: INSTITUTIONAL REVIEW BOARD APPROVAL

*East Carolina
University*



EAST CAROLINA UNIVERSITY
University & Medical Center Institutional Review Board Office
4N-70 Brody Medical Sciences Building · Mail Stop 682
600 Moye Boulevard · Greenville, NC 27834
Office 252-744-2914 · Fax 252-744-2284 · www.ecu.edu/irb

Notification of Exempt Certification

From: Social/Behavioral IRB
To: [Mark Sorrells](#)
CC: [Matthew Militello](#)
Date: 11/30/2016
Re: [UMCIRB 16-002158](#)
Building Grantee Capacity

I am pleased to inform you that your research submission has been certified as exempt on 11/29/2016. This study is eligible for Exempt Certification under category #1 & 2

It is your responsibility to ensure that this research is conducted in the manner reported in your application and/or protocol, as well as being consistent with the ethical principles of the Belmont Report and your profession.

This research study does not require any additional interaction with the UMCIRB unless there are proposed changes to this study. Any change, prior to implementing that change, must be submitted to the UMCIRB for review and approval. The UMCIRB will determine if the change impacts the eligibility of the research for exempt status. If more substantive review is required, you will be notified within five business days.

The UMCIRB office will hold your exemption application for a period of five years from the date of this letter. If you wish to continue this protocol beyond this period, you will need to submit an Exemption Certification request at least 30 days before the end of the five year period. The Chairperson (or designee) does not have a potential for conflict of interest on this study.

RB00000705 East Carolina U IRB #1 (Biomedical) IORG0000418
IRB00003781 East Carolina U IRB #2 (Behavioral/SS) IORG0000418

APPENDIX B: NC DIGITAL PROGRESS RUBRIC

NORTH CAROLINA

DIGITAL LEARNING PLAN

Digital Learning Progress Rubric

Version 2

Prepared by the Friday Institute for Educational Innovation



Introduction

The North Carolina Digital Learning Progress Rubric is a strategic planning tool, or “roadmap,” intended to support North Carolina’s educators and communities in the transition to digital-age teaching and learning. The rubric is designed to help school district teams reflect on the current stage of their transition, plan next steps, and track their progress moving forward.

This rubric contains five main areas: *Leadership*; *Technology and Infrastructure*; *Content and Instruction*; *Professional Learning*; and *Data and Assessment*. Each main area is broken down

into three to seven key elements (e.g., “Shared Vision,” “Professional Development Format,” “Access to Digital Content,” etc.).

Guide for Use

Members of a district leadership team can work individually or together to rate their district’s progress on each of the 25 key elements. They may rate the progress as either “Early” (the least achieved ranking), “Developing,” “Advanced,” or “Target” (the most achieved ranking). A district may consider having different individuals or groups determine ratings separately, and then schedule a time for all parties to come together and form consensus for each key element score. The more data (quantitative or qualitative, formal or informal, etc.) that can be used to inform the ranking process, the more accurate and effective the strategic planning process will be. A glossary of terms used throughout the rubric may be found in Appendix A.

To make the scoring system the most effective, the following rule should be used: all indicators (sub-bullets) within a particular cell should be marked as “achieved” for a district to give itself the particular ranking assigned to that cell (Early, Developing, Advanced, or Target). For example, if the district has achieved two of three indicators listed in the Advanced cell, then the district should rank itself as Developing. The district can rank itself as Advanced once it has achieved all three indicators listed. A scoring sheet may be found in Appendix A.

Once a self-assessment on the rubric has been completed, the user should reflect on the results and identify priority areas for improvement. The user might ask, “What are one to three action steps that can be taken to move closer to achieving the desired goals?” A guide for data interpretation and transition planning may be found in Appendix A.

NOTE: Every school and district in North Carolina must identify and comply with all relevant federal (e.g., FERPA, CIPA), state, and local laws related to digital teaching and learning.

LEADERSHIP

| | Early | Developing | Advanced | Target |
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| Shared Vision | <ul style="list-style-type: none"> <input type="checkbox"/> A district leadership team is being created for the purposes of planning and leading digital teaching and learning. <input type="checkbox"/> A vision for digital teaching and learning has not yet been created. <input type="checkbox"/> A planned effort to discuss the eventual vision for digital teaching and learning with faculty, staff, and other stakeholders has not yet been put in place. <input type="checkbox"/> There is no consistent effort to have district and school leaders consistently communicate about digital teaching and learning practices. | <ul style="list-style-type: none"> <input type="checkbox"/> A district leadership team, consisting of a <i>few</i> individuals, collaboratively crafts <i>the vision</i> for digital teaching and learning. <input type="checkbox"/> A <i>vision</i> for digital teaching and learning guides district digital education activities. <input type="checkbox"/> District and school leadership <i>annually</i> promote the district vision for digital teaching and learning <i>to faculty and staff</i>. <input type="checkbox"/> School leaders <i>communicate about digital teaching and learning practices but do not model effective use of digital resources</i>. | <ul style="list-style-type: none"> <input type="checkbox"/> A district leadership team, consisting of <i>many</i> individuals, collaboratively crafts <i>the vision, goals, and strategies</i> for digital teaching and learning. <input type="checkbox"/> The <i>vision, goals, and strategies</i> for digital teaching and learning exist as a <i>self-contained initiative</i>. <input type="checkbox"/> District and school leadership <i>occasionally</i> promote the district vision for digital teaching and learning <i>to all stakeholders, including faculty, staff, students, parents, and community members</i>. <input type="checkbox"/> School leaders <i>serve as lead learners for digital teaching and learning practices, modeling effective use of high quality digital resources</i>. | <ul style="list-style-type: none"> <input type="checkbox"/> A <i>diverse, representative</i> district leadership team, <i>consisting of district and school administrators, teachers, students, parents, and community members</i>, collaboratively crafts <i>the vision, goals, and strategies</i> for digital teaching and learning. <input type="checkbox"/> The <i>vision, goals, and strategies</i> for digital teaching and learning are <i>integrated as core components of the district's strategic plans and other high-level guiding frameworks</i>. <input type="checkbox"/> District and school leadership <i>consistently</i> promote the district vision for digital teaching and learning <i>to all stakeholders, including faculty, staff, students, parents, and community members</i>. <input type="checkbox"/> District and school leaders <i>serve as lead learners for digital teaching and learning practices, modeling effective use of high quality digital resources</i>. |

LEADERSHIP

| | Early | Developing | Advanced | Target |
|---------------------|--|---|--|---|
| L2 Personnel | <ul style="list-style-type: none"> <input type="checkbox"/> District schools require teacher leaders and other faculty to lead, learn, and share together about digital teaching and learning in meetings before or after school. <input type="checkbox"/> Schools within the district do not yet make digital teaching and learning skills a requirement or priority for any teaching position. <input type="checkbox"/> District schools do not yet identify teacher-leaders for digital teaching and learning. | <ul style="list-style-type: none"> <input type="checkbox"/> Every school within the district has <i>at least one part-time instructional coach for technology or at least one full-time certified school library media coordinator.</i> <input type="checkbox"/> Schools within the district recruit, hire, and develop <i>a few</i> teachers on their faculty to have high quality digital teaching and learning skills. <input type="checkbox"/> Every district school has <i>informal pathways to identify current teacher-leaders</i> for digital teaching and learning. | <ul style="list-style-type: none"> <input type="checkbox"/> Every school within a district has <i>at least one full-time instructional coach for technology and at least one full-time certified school library media coordinator.</i> <input type="checkbox"/> Schools within the district recruit, hire, and develop <i>many</i> teachers on their faculty to have high quality digital teaching and learning skills. <input type="checkbox"/> Every district school has <i>informal pathways to identify and develop current and future teacher-leaders</i> for digital teaching and learning. | <ul style="list-style-type: none"> <input type="checkbox"/> Every school within the district has <i>at least one full-time instructional technology facilitator and at least one full-time certified school library media coordinator.</i> <input type="checkbox"/> Schools within the district recruit, hire, and develop <i>all</i> teachers on their faculty to have high quality digital teaching and learning skills. <input type="checkbox"/> Every district school has <i>formal pathways to identify and develop current and future teacher-leaders</i> for digital teaching and learning. |

LEADERSHIP

| | Early | Developing | Advanced | Target |
|---|--|---|--|--|
| L3 Communication & Collaboration | <ul style="list-style-type: none"> <input type="checkbox"/> Digital tools are <i>rarely</i> used to provide just-in-time information about important district activities and to connect parents, community members, and other stakeholders to the district using two-way communication. <input type="checkbox"/> School leaders do not yet maintain a digital culture within their schools, in which the collaborative, transparent, free-flow exchange of information takes place among sub-groups of school faculty and staff. | <ul style="list-style-type: none"> <input type="checkbox"/> Digital tools are <i>occasionally</i> used to provide just-in-time information about important district activities and to connect parents, community members, and other stakeholders to the district using two-way communication. <input type="checkbox"/> <i>Few</i> school leaders maintain a digital culture within their school, in which the collaborative, transparent, free-flow exchange of information takes place among sub-groups of school faculty and staff. | <ul style="list-style-type: none"> <input type="checkbox"/> Digital tools are <i>consistently</i> used to provide just-in-time information about important district activities and to connect parents, community members, and other stakeholders to the district using two-way communication. <input type="checkbox"/> <i>Many</i> school leaders maintain a digital culture within their school, in which the collaborative, transparent, free-flow exchange of information takes place among sub-groups of school faculty and staff. | <ul style="list-style-type: none"> <input type="checkbox"/> Digital tools are <i>continuously</i> used to provide just-in-time information about important district activities and to connect parents, community members, and other stakeholders to the district using ongoing, two-way communication. <input type="checkbox"/> <i>All</i> school leaders maintain a collaborative, transparent digital culture within their school, in which the free-flow exchange of school information takes place among all school faculty and staff. |

L4 Sustainability

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| <ul style="list-style-type: none"> <input type="checkbox"/> The district has not yet considered a sustainability and scalability plan for maintaining and expanding digital services for more students in more contexts. <input type="checkbox"/> The district has not yet developed a long-term funding plan for digital teaching and learning. <input type="checkbox"/> The district leadership team is not yet considering options for supporting digital teaching and learning through managed services. <input type="checkbox"/> The district is not yet considering efficiency, effectiveness, or the total cost of ownership for services to be purchased. | <ul style="list-style-type: none"> <input type="checkbox"/> The district <i>is considering developing</i> a sustainability and scalability plan for maintaining and expanding digital services for more students in more contexts, <i>but has not yet studied financial projections or budget items.</i> <input type="checkbox"/> The district has a long-term funding plan that <i>provides ongoing funding for digital teaching and learning with discretionary funds and accommodates for refresh cycles.</i> <input type="checkbox"/> The district leadership team is exploring options for supporting digital teaching and learning through managed services. <input type="checkbox"/> The district <i>is building their capacity to evaluate</i> efficiency, effectiveness, or the total cost of ownership for services to be purchased. | <ul style="list-style-type: none"> <input type="checkbox"/> The district <i>has a sustainability and scalability plan for maintaining and expanding digital services for more students in more contexts that is updated with new financial projections, budget items, and priority areas every couple years.</i> <input type="checkbox"/> The district has a long-term funding plan that <i>includes: ongoing funding for digital teaching and learning as a core operating cost; leverage of at least one external funding source; and accommodations for refresh cycles.</i> <input type="checkbox"/> The district leadership has identified options for supporting digital teaching and learning through managed services. <input type="checkbox"/> The district <i>occasionally evaluates</i> efficiency, effectiveness, or the total cost of ownership for services to be purchased. | <ul style="list-style-type: none"> <input type="checkbox"/> The district <i>has a sustainability and scalability plan for maintaining and expanding digital services for more students in more contexts that is continually updated with new financial projections, budget items, and priority areas and is aligned to the district improvement plan.</i> <input type="checkbox"/> The district has a comprehensive long-term funding plan that <i>includes: ongoing funding to fully fund digital teaching and learning; leverage of multiple external funding sources; and accommodations for refresh cycles, product upgrades, and expansion of services.</i> <input type="checkbox"/> The district uses options for supporting digital teaching and learning through managed services. <input type="checkbox"/> The district consistently evaluates efficiency, effectiveness, or the total cost of ownership for services to be purchased. |
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L5 Policy

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| <ul style="list-style-type: none"> <input type="checkbox"/> District-specific Terms of Use agreements including policies for data privacy and confidentiality <i>are not yet in place.</i> <input type="checkbox"/> District and school digital technology policies include language for an Acceptable Use policy, but have not been updated within the past two years and do not yet have a systematic process for consistent policy updates. <input type="checkbox"/> District leaders <i>have not yet considered</i> policies that enable and support: 24/7 access to devices and content, student-owned mobile devices in the school setting, flexible uses of time, and alternative assessments. <input type="checkbox"/> School and district digital technology policies <i>are not yet aligned</i> to the district | <ul style="list-style-type: none"> <input type="checkbox"/> District-specific Terms of Use agreements including policies for data privacy and confidentiality <i>have been discussed by leadership and are in the process of being created.</i> <input type="checkbox"/> District and school digital technology policies <i>include an Acceptable Use policy, but do not have a systematic process for consistent or continual policy updates.</i> <input type="checkbox"/> District leaders <i>are considering</i> policies that enable and support: 24/7 access to devices and content, student-owned mobile devices in the school setting, flexible uses of time, and alternative assessments. <input type="checkbox"/> School and district digital technology policies <i>are in the process of being aligned</i> to the | <ul style="list-style-type: none"> <input type="checkbox"/> District-specific Terms of Use agreements include policies for data privacy and confidentiality <i>have been adopted by the district.</i> <input type="checkbox"/> District and school digital technology policies <i>have shifted from an Acceptable Use policy to Responsible Use guidelines, but do not have a systematic process for consistent or continual policy updates.</i> <input type="checkbox"/> District leaders <i>have adopted policies that enable or support at least one of the following:</i> 24/7 access to devices and content, student-owned mobile devices in the school setting, flexible uses of time, and alternative assessments. <input type="checkbox"/> School and district digital technology policies <i>have been aligned</i> to the district improvement plan and <i>do not mention</i> the role of digital technology in furthering the district toward the | <ul style="list-style-type: none"> <input type="checkbox"/> District-specific Terms of Use agreements include policies for data privacy and confidentiality <i>have been communicated (e.g. public forums, parent information nights, media sent home with students, faculty memos, etc.) with all stakeholder groups, and serve as a guide for purchasing and service agreements for new product acquisition.</i> <input type="checkbox"/> District and school digital technology policies <i>incorporate Responsible Use guidelines that encourage proactive, positive behavior with digital technologies and have a systematic process for consistent or continual policy updates.</i> <input type="checkbox"/> District leaders <i>have adopted and communicated policies to enable and support:</i> 24/7 access to devices and content, student-owned mobile devices in the school setting, flexible uses of time, and alternative assessments. <input type="checkbox"/> School and district digital technology policies <i>have been aligned</i> to the district improvement plan and |
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LEADERSHIP

| | Early | Developing | Advanced | Target |
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| | <p>improvement plan and <i>do not mention</i> the role of digital technology in furthering the district toward the goals outlined in the improvement plan.</p> <p><input type="checkbox"/> School and district policies do not yet mention the role of digital technology in a student-centered learning environment.</p> | <p>district improvement plan and <i>do not mention</i> the role of digital technology in furthering the district toward the goals outlined in the improvement plan.</p> <p><input type="checkbox"/> School and district leaders are discussing the role of digital technology in a student-centered learning environment.</p> | <p>goals outlined in the improvement plan.</p> <p><input type="checkbox"/> School and district leaders have adopted policy regarding the role of digital technology in a student-centered learning environment.</p> | <p><i>explicitly delineate</i> the role of digital technology in furthering the district toward the goals outlined in the improvement plan.</p> <p><input type="checkbox"/> School and district leaders have worked with a variety of stakeholder groups to create and adopt policy regarding the role of digital technology in a student-centered learning environment and have a systematic process in place to continuously advocate for this policy with relevant stakeholder groups.</p> |

| LEADERSHIP | | | | |
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| | Early | Developing | Advanced | Target |
| L6 Continuous Improvement | <ul style="list-style-type: none"> <input type="checkbox"/> The district <i>is not yet considering</i> continuous improvement plans for digital learning initiatives. <input type="checkbox"/> Continuous improvement systems have not yet been identified or established. <input type="checkbox"/> Data is not yet being used or collected related to digital learning initiatives. | <ul style="list-style-type: none"> <input type="checkbox"/> District leaders <i>are considering</i> continuous improvement plans for digital learning initiatives. <input type="checkbox"/> <i>Digital learning initiatives are seen as separate from the rest of the teaching-and-learning process and little effort is given regarding overall evaluation.</i> <input type="checkbox"/> Limited data are being used to continuously improve the implementation of digital teaching and learning. | <ul style="list-style-type: none"> <input type="checkbox"/> District leaders <i>have begun to develop</i> continuous improvement plans for digital learning initiatives. <input type="checkbox"/> <i>Digital learning initiatives are improved every 1-2 years based upon summative results of continuous improvement data (e.g., based on findings professional development is adjusted; schedules are changed; content access protocols are improved; policies are updated; etc.).</i> <input type="checkbox"/> Mostly high-level data (e.g. student grades and test scores) are being used to continuously improve the implementation of digital teaching, <i>but district leaders are beginning to develop plans for the collection of more nuanced, informative data.</i> | <ul style="list-style-type: none"> <input type="checkbox"/> <i>A team of stakeholders that includes district leadership and representatives of some other groups such as, school administrators, teachers, parents, students, and/or community members have developed</i> continuous improvement plans for digital learning initiatives aligned to the district improvement plan. <input type="checkbox"/> <i>Digital learning initiatives are continuously improved based on results of the ongoing data collection (e.g., based on findings professional development is adjusted; schedules are changed; content access protocols are improved; policies are updated; etc.).</i> <input type="checkbox"/> Multiple and varied sources of data (e.g., student performance data, classroom observation data, web analytics, participation tracking, survey data, etc.) are being used to continuously improve the implementation and impact of digital teaching and learning. |

| LEADERSHIP | | | | |
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| | Early | Developing | Advanced | Target |
| L7 Procurement | <ul style="list-style-type: none"> <input type="checkbox"/> District-procured digital content is purchased <i>as a package</i>. <input type="checkbox"/> The accessibility and usability of digital content is not addressed. <input type="checkbox"/> Procured licenses for each student and teacher and are not transferrable between individuals as needed. | <ul style="list-style-type: none"> <input type="checkbox"/> District-procured digital content is purchased <i>by course</i>. <input type="checkbox"/> Accessibility and usability of digital content for all students with disabilities or special needs is <i>partially addressed by at least asking the vendor to provide assurances</i>. <input type="checkbox"/> Procured licenses are <i>based on enrollment count, and are not licensed to individual students and teachers</i>. | <ul style="list-style-type: none"> <input type="checkbox"/> District-procured digital content is purchased <i>by unit</i>. <input type="checkbox"/> Accessibility and usability of digital content for all students with disabilities or special needs is <i>addressed by providing alternatives for inaccessible content</i>. <input type="checkbox"/> Procured licenses are <i>based on a flexible licensing model on the number of concurrent users</i>. | <ul style="list-style-type: none"> <input type="checkbox"/> District-procured digital content is purchased <i>by topic, enabling teachers to customize content from multiple sources and create curriculum tailored to their standards</i>. <input type="checkbox"/> All digital content is accessible and useable by all students with disabilities or special needs. <input type="checkbox"/> Procured licenses are <i>based on a flexible licensing model that allows for transferability among users, or on the total enrollment of the school</i>. |

TECHNOLOGY INFRASTRUCTURE & DEVICES

| | Early | Developing | Advanced | Target |
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| TI School Networks | <ul style="list-style-type: none"> <input type="checkbox"/> Network and Internet connection bandwidth are <i>not yet sufficient to support average district access needs.</i> <input type="checkbox"/> Wireless access points are <i>not yet</i> managed by a central controller. <input type="checkbox"/> Wireless network is <i>not yet available in all classrooms, or is not yet sufficient to meet demand.</i> <input type="checkbox"/> Wireless connectivity is <i>not yet sufficient</i> to support one device per student with some performance degradation during average use. <input type="checkbox"/> Network performance monitoring is <i>not yet in place.</i> | <ul style="list-style-type: none"> <input type="checkbox"/> Network and Internet connection bandwidth are <i>sufficient to meet average district access needs (though not peak demand).</i> <input type="checkbox"/> <i>Some</i> wireless access points are managed by a central controller. <input type="checkbox"/> Wireless network access is <i>generally available in computer labs and classrooms; wireless access is available in some common spaces.</i> <input type="checkbox"/> Wireless connectivity is <i>sufficient to support one device per student with some performance degradation during average use.</i> <input type="checkbox"/> Network performance monitoring is <i>in place at MDF and core switching equipment.</i> | <ul style="list-style-type: none"> <input type="checkbox"/> Network and Internet connection bandwidth are <i>sufficient to support all district access needs with some performance degradation at peak access times.</i> <input type="checkbox"/> <i>All</i> wireless access points are managed by a central controller. <input type="checkbox"/> Wireless access is <i>available in all instructional and indoor common areas.</i> <input type="checkbox"/> Wireless connectivity is <i>sufficient to support one device per student without performance degradation during average use.</i> <input type="checkbox"/> Network performance monitoring is <i>in place for the wired and wireless networks including individual access points.</i> | <ul style="list-style-type: none"> <input type="checkbox"/> Network and Internet connection bandwidth <i>support all district access needs without performance degradation even during times of maximum use.</i> <input type="checkbox"/> All wireless access points are managed by a central controller with <i>redundancy and traffic routing.</i> <input type="checkbox"/> Wireless access is <i>available and reliable in all instructional spaces and indoor/outdoor common areas.</i> <input type="checkbox"/> Wireless connectivity is <i>sufficient to support two or more devices per student without performance degradation during average use.</i> <input type="checkbox"/> Network performance monitoring is <i>in place for the wired wireless network and can measure usage at the device level.</i> |

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| T2 End-User Devices | <ul style="list-style-type: none"> <input type="checkbox"/> District-owned devices are available in a fixed location on a limited or scheduled basis for teacher and learner use. <input type="checkbox"/> District-owned devices are not yet configured for remote management or update. <input type="checkbox"/> Standards for the alignment of district-owned devices to instructional programs (e.g. NC Test Specifications) do not yet exist. <input type="checkbox"/> District does not yet allow students to bring their own devices. | <ul style="list-style-type: none"> <input type="checkbox"/> District-owned devices are available to entire classes on a rotating basis in the classroom for teacher and learner use. <input type="checkbox"/> Some district-owned devices are configured for remote management or update. <input type="checkbox"/> <i>Some</i> district-owned devices meet standards for the alignment of district-owned devices to instructional programs (e.g. NC Test Specifications, modern LMS, instructional applications). <input type="checkbox"/> District allows students to bring any devices. | <ul style="list-style-type: none"> <input type="checkbox"/> District-owned devices are available to all students and teachers during the school day. <input type="checkbox"/> District-owned devices are configured for remote management or update at the school. <input type="checkbox"/> <i>Most</i> district-owned devices meet standards for the alignment of district-owned devices to instructional programs (e.g. NC Test Specifications, modern LMS, instructional applications). <input type="checkbox"/> District provides support for schools to implement a "Bring Your Own Device" (BYOD) program. | <ul style="list-style-type: none"> <input type="checkbox"/> District-owned devices are available to all students and teachers 24/7. <input type="checkbox"/> District-owned devices are configured for remote management or update across the district. <input type="checkbox"/> <i>All</i> district-owned devices meet standards for the alignment of district-owned devices to instructional programs (e.g. NC Test Specifications, modern LMS, instructional applications). <input type="checkbox"/> District requires BYOD, student-owned devices used on campus to meet specifications that ensure they can be used for core learning applications. |
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TECHNOLOGY & INFRASTRUCTURE

| | Early | Developing | Advanced | Target |
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| T3 Learning Environments | <ul style="list-style-type: none"> <input type="checkbox"/> All instructional spaces <i>do not yet have a dedicated large display.</i> <input type="checkbox"/> Classrooms have <i>fewer than five power receptacles available for student use.</i> <input type="checkbox"/> Peripheral devices (e.g., document cameras, 3-D printers, assistive/adaptive devices, etc.) are <i>not yet available in the classroom, or do not function.</i> <input type="checkbox"/> Learning spaces are <i>not yet</i> designed and furnished to provide flexibility for students to work individually and collaboratively. | <ul style="list-style-type: none"> <input type="checkbox"/> All instructional spaces <i>have a large display system that is hard-wired to a single device.</i> <input type="checkbox"/> Classrooms have <i>enough receptacles to allow students to rotate for access to power.</i> <input type="checkbox"/> Peripheral devices are <i>available for use in the classroom, are functional, but are only for teacher use.</i> <input type="checkbox"/> <i>A few</i> learning spaces are designed and furnished to provide flexibility for students to work individually and collaboratively. | <ul style="list-style-type: none"> <input type="checkbox"/> All instructional spaces <i>have a large <u>fixed</u> display system that is hard wired to a single device.</i> <input type="checkbox"/> Classrooms have <i>sufficient power receptacles available, but are not conveniently located for student use.</i> <input type="checkbox"/> Peripheral devices are <i>available in the classroom and can be used by students.</i> <input type="checkbox"/> <i>Many</i> learning spaces are designed and furnished to provide flexibility for students to work individually and collaboratively. | <ul style="list-style-type: none"> <input type="checkbox"/> All instructional spaces <i>have a large display system with the ability to show teacher and student screens wirelessly.</i> <input type="checkbox"/> Classrooms have <i>sufficient power receptacles available, located in positions that allow students to charge devices.</i> <input type="checkbox"/> Peripheral devices are <i>available in the classroom and controlled by both teacher and student devices.</i> <input type="checkbox"/> <i>All</i> learning spaces are designed and furnished to provide flexibility for students to work individually and collaboratively. |

T4 Technical Support

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| <ul style="list-style-type: none"> <input type="checkbox"/> Technical support response time is a barrier to instructional delivery and normal business operations. <input type="checkbox"/> Technical support response time is typically more than four days. <input type="checkbox"/> Technical support is provided primarily by Instructional personnel (e.g., instructional technology facilitators, coaches, or other instructional positions). <input type="checkbox"/> No defined technical support procedures exist yet. <input type="checkbox"/> Technical support requests are not yet tracked. <input type="checkbox"/> Inventory of digital technology assets (i.e. counts of devices) has been formalized. | <ul style="list-style-type: none"> <input type="checkbox"/> Technical support responses are sometimes a barrier to instructional delivery and normal business operations. <input type="checkbox"/> Technical support is available within two to three business days, in most cases. <input type="checkbox"/> Instructional personnel provide "first level" technical support. <input type="checkbox"/> A technical support procedure exists only at the individual school level. <input type="checkbox"/> Technical support requests are tracked, but are not reviewed for trends. <input type="checkbox"/> Inventory and tracking of portable digital technology assets is cataloged and linked to individuals. | <ul style="list-style-type: none"> <input type="checkbox"/> Technical support responses are rarely a barrier to instructional delivery and normal business operations. <input type="checkbox"/> Technical support is available within 24 hours, in most cases. <input type="checkbox"/> Instructional personnel serve as back-up technical support. <input type="checkbox"/> A well-defined technical support procedure is in place, but is not consistently enforced. <input type="checkbox"/> Technical support requests are tracked and reviewed for trends periodically. <input type="checkbox"/> Inventory and tracking of portable and fixed digital technology assets is cataloged and linked to individuals and spaces. | <ul style="list-style-type: none"> <input type="checkbox"/> Technical support is available enough that instructional and business operations are minimally impacted. <input type="checkbox"/> Technical support is generally available within the same day. <input type="checkbox"/> Technical support does not rely primarily on instructional technology facilitators, coaches, or other instructional positions. <input type="checkbox"/> A well-defined technical support procedure is in place and consistently enforced. <input type="checkbox"/> Technical support requests are logged, tracked, and annotated. <input type="checkbox"/> Inventory and tracking of portable and fixed technology assets is cataloged and linked to individuals and spaces and incorporates repair history and refresh plans. |
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TECHNOLOGY & INFRASTRUCTURE

| | Early | Developing | Advanced | Target |
|----------------------------|--|---|--|--|
| IS Network Services | <ul style="list-style-type: none"> <input type="checkbox"/> Equipment is replaced <i>at the point of failure</i>. <input type="checkbox"/> Single-sign-on is <i>not yet in use</i>. <input type="checkbox"/> Content filtering is <i>not yet differentiated by user type</i>. <input type="checkbox"/> Content filtering exclusively restricts and often prevents teachers and students from accessing instructional tools/resources. <input type="checkbox"/> Guest devices <i>do not yet have wireless access</i>. | <ul style="list-style-type: none"> <input type="checkbox"/> Equipment is replaced <i>sporadically as funding is available</i>. <input type="checkbox"/> Single-sign-on is <i>in use only for basic services (i.e., network logins, content filtering, and email systems)</i>. <input type="checkbox"/> Content filtering is <i>differentiated by staff and students</i>. <input type="checkbox"/> Content filtering sometimes prevents the use of some instructional websites. <input type="checkbox"/> Upon request guest devices can be connected to the district wireless network. | <ul style="list-style-type: none"> <input type="checkbox"/> A routine and comprehensive replacement cycle exists <i>for some</i> devices and digital technology infrastructure. <input type="checkbox"/> Single-sign-on is <i>in use for basic services and some additional applications</i>. <input type="checkbox"/> Content filtering is <i>differentiated by school level and user role</i>. <input type="checkbox"/> Content filtering seldom prevents the use of instructional websites. <input type="checkbox"/> Guest devices can connect to the district wireless network but no system is in place for access control. | <ul style="list-style-type: none"> <input type="checkbox"/> A routine and comprehensive replacement cycle exists <i>for all</i> devices and digital technology infrastructure. <input type="checkbox"/> Single-sign-on <i>and identity management are integrated across all applications</i>. <input type="checkbox"/> Content filtering is <i>in place at the school level, grade level, and by user role</i>. <input type="checkbox"/> Content filtering does not restrict Internet usage beyond legal requirements and local responsible use policies. <input type="checkbox"/> Guest devices connect to the district wireless network through a system with multiple and varied rates and that tracks users. |

T6 Outside of School

| | | | |
|---|--|--|---|
| <ul style="list-style-type: none"> <input type="checkbox"/> <i>Fewer than 50%</i> of teachers and students have Internet/broadband access outside the school day. <input type="checkbox"/> Partnerships with the community groups (e.g. public libraries, community centers, municipalities, downtown areas, and Internet providers) to support out-of-school Internet access <i>are not yet established</i>. <input type="checkbox"/> Commercial Internet/broadband providers <i>do not yet offer discounts</i> for rural or economically disadvantaged families. <input type="checkbox"/> Student and teacher devices <i>are not yet filtered</i> off-premises. | <ul style="list-style-type: none"> <input type="checkbox"/> <i>50%</i> of teachers and students have Internet/broadband access outside the school day <i>at least two days per week</i>. <input type="checkbox"/> Partnerships with the community groups (e.g. public libraries, community centers, municipalities, downtown areas, and Internet providers) to support out-of-school Internet access <i>are brief and rare</i>. <input type="checkbox"/> Commercial Internet/broadband providers <i>offer modest discounts</i> for rural or economically disadvantaged families. <input type="checkbox"/> <i>Limited content filtering</i> operates on student and teacher devices off-premises. | <ul style="list-style-type: none"> <input type="checkbox"/> <i>Most</i> teachers and students have Internet/broadband access outside the school day <i>3-5 days per week</i>. <input type="checkbox"/> Partnerships with the community groups (e.g. public libraries, community centers, municipalities, downtown areas, and Internet providers) to support out-of-school Internet access <i>exist with a small number of organizations or individuals</i>. <input type="checkbox"/> Commercial Internet/broadband providers <i>offer substantial discounts</i> for rural or economically disadvantaged families. <input type="checkbox"/> <i>Sufficient content filtering</i> operates on student devices when they are off-premises. | <ul style="list-style-type: none"> <input type="checkbox"/> <i>All</i> teachers and students have Internet/broadband access outside the school day <i>6-7 days a week</i>. <input type="checkbox"/> Partnerships with the community groups (e.g. public libraries, community centers, municipalities, downtown areas, and Internet providers) to support out-of-school Internet access <i>are continuous and leverage multiple types of organizations</i>. <input type="checkbox"/> Commercial Internet/broadband providers <i>offer free service</i> for rural or economically disadvantaged families <input type="checkbox"/> <i>Sufficient content filtering</i> operates on student and teacher devices when they are off-premises. |
|---|--|--|---|

PROFESSIONAL LEARNING

| | Early | Developing | Advanced | Target |
|--|---|--|--|---|
| P1 Professional Development Focus | <ul style="list-style-type: none"> <input type="checkbox"/> Digital learning-focused professional development focuses on <i>sharing information about digital technology tools and resources.</i> <input type="checkbox"/> Professional development on pedagogy in a digital learning environment <i>has not yet been provided.</i> <input type="checkbox"/> Digital learning-focused professional development <i>has not yet been provided on content-specific strategies for integrating digital technology into the curriculum.</i> | <ul style="list-style-type: none"> <input type="checkbox"/> Digital learning-focused professional development focuses on <i>engaging with digital technology tools and resources.</i> <input type="checkbox"/> Professional development on pedagogy in a digital learning environment <i>introduces digital learning frameworks (e.g., TPACK, SAMR, 4Cs, etc.).</i> <input type="checkbox"/> Digital learning-focused professional development <i>has been provided on content-specific strategies for integrating digital technology into the curriculum for CCSS subjects (ELA, mathematics).</i> | <ul style="list-style-type: none"> <input type="checkbox"/> Digital learning-focused professional development focuses on <i>curriculum planning integrated with digital technology tools and resources.</i> <input type="checkbox"/> Professional development on pedagogy in a digital learning environment <i>explores digital learning frameworks (e.g., TPACK, SAMR, 4Cs, etc.) for the effective uses of digital technology to support instructional strategies.</i> <input type="checkbox"/> Digital learning-focused professional development <i>has been provided on content-specific strategies for integrating digital technology into the curriculum for ELA, mathematics, social studies, and science.</i> | <ul style="list-style-type: none"> <input type="checkbox"/> Digital learning-focused professional development focuses on <i>curriculum planning and student-learning activities integrated with digital technology tools and resources.</i> <input type="checkbox"/> During professional development on pedagogy in a digital learning environment, <i>teachers reflect on and revise their implementation of digital learning frameworks (e.g., TPACK, SAMR, 4Cs, etc.).</i> <input type="checkbox"/> Digital learning-focused professional development <i>has been provided on content-specific strategies for integrating digital technology into the curriculum for all subject areas.</i> |

P2 Professional Development Format

| | | | |
|---|--|---|--|
| <ul style="list-style-type: none"> <input type="checkbox"/> Digital learning-focused professional development is typically delivered in a large-group via lecture. <input type="checkbox"/> Digital learning-focused professional development is designed to address large group needs as determined by district goals or initiatives. <input type="checkbox"/> Digital learning-focused professional development does not yet include ongoing support through coaching, mentoring, or learning communities. <input type="checkbox"/> Digital learning-focused professional development is rarely delivered in face-to-face or synchronous settings. <input type="checkbox"/> Teachers do not have the opportunity to discuss digital learning in professional | <ul style="list-style-type: none"> <input type="checkbox"/> Digital learning-focused professional development is typically delivered in small group settings via lecture. <input type="checkbox"/> Digital learning-focused professional development is designed to address large group needs identified through perceptions of district leaders. <input type="checkbox"/> Digital learning-focused professional development includes ongoing support through coaching, mentoring, and/or learning communities. <input type="checkbox"/> Digital learning-focused professional development is delivered in face-to-face or synchronous settings. <input type="checkbox"/> Teachers occasionally share lessons and activities about digital learning through infrequent professional learning community meetings (e.g., quarterly early release days). | <ul style="list-style-type: none"> <input type="checkbox"/> Digital learning-focused professional development is typically delivered in small group settings using an appropriate pedagogical strategy (e.g., job-embedded, ongoing, relevant, or sustainable). <input type="checkbox"/> Digital learning-focused professional development is designed to address large group needs identified through data (e.g., surveys, teacher evaluations). <input type="checkbox"/> Digital learning-focused professional development includes ongoing support through coaching, mentoring, and professional learning communities. <input type="checkbox"/> Digital learning-focused professional development is delivered in face-to-face or synchronous settings and informal opportunities are encouraged. <input type="checkbox"/> Teachers frequently share lessons and activities about digital learning in | <ul style="list-style-type: none"> <input type="checkbox"/> Digital learning-focused professional development is typically delivered in small group settings using multiple pedagogical strategies (e.g., job-embedded, ongoing, relevant, and sustainable). <input type="checkbox"/> Digital learning-focused professional development is personalized based on participants' professional learning needs identified through data (e.g., surveys, teacher evaluations). <input type="checkbox"/> Digital learning-focused professional development includes ongoing support through peer observation, assessment, coaching, professional learning communities, and mentoring. <input type="checkbox"/> Digital learning-focused professional development is delivered in face-to-face or synchronous settings and includes intentional opportunities for informal and |
|---|--|---|--|

| PROFESSIONAL LEARNING | | | | |
|-----------------------|-------------------------------------|------------|--|--|
| | Early | Developing | Advanced | Target |
| | <i>learning community meetings.</i> | | <i>their regular professional learning communities (e.g., weekly common planning periods).</i> | <i>anytime, anywhere learning.</i> <input type="checkbox"/> <i>Teachers frequently share lessons and activities about digital learning in their regular professional learning communities, guiding their work with research-based framework (e.g., Marzano, DuFour, Senge, Hord, etc.).</i> |

| PROFESSIONAL LEARNING | | | | |
|--|--|--|--|--|
| | Early | Developing | Advanced | Target |
| P3 Professional Development Participation | <input type="checkbox"/> <i>Teachers are responsible for pursuing digital learning-focused professional development independently.</i> <input type="checkbox"/> <i>District provides information to administrators about opportunities for teacher professional development on digital learning.</i> <input type="checkbox"/> <i>The district has no additional CEU requirements specific to digital learning.</i> | <input type="checkbox"/> <i>District provides some digital learning-focused professional development typically available after school or during planning time.</i> <input type="checkbox"/> <i>Administrators attend professional development on digital learning with their teachers.</i> <input type="checkbox"/> <i>The district encourages teachers to pursue professional development opportunities specific to digital learning.</i> | <input type="checkbox"/> <i>District provides multiple opportunities to meet the professional development needs of all teachers, including some release time to participate in professional learning opportunities.</i> <input type="checkbox"/> <i>Administrators participate in professional development on leading digital learning initiatives.</i> <input type="checkbox"/> <i>The district requires 1 CEU specific to digital learning during a renewal cycle.</i> | <input type="checkbox"/> <i>District provides multiple and varied opportunities to meet the individual professional development needs of all teachers, including some release time to participate in professional learning opportunities.</i> <input type="checkbox"/> <i>Administrators participate in professional development on leading digital learning initiatives, including evaluating authentic digital learning.</i> <input type="checkbox"/> <i>The district requires 2 or more CEUs specific to digital learning during a renewal cycle.</i> |

CONTENT & INSTRUCTION

| | Early | Developing | Advanced | Target |
|------------------|---|---|--|--|
| CI Educator Role | <ul style="list-style-type: none"> <input type="checkbox"/> Shifts in educator role in a digital learning environment, in which teachers do more facilitation, <i>are not yet being addressed.</i> <input type="checkbox"/> <i>Teachers do not demonstrate proficiency with the “NC Digital Learning Competencies for Teachers” (focus areas include: Leadership in Digital Learning, Digital Citizenship, Digital Content and Instruction, Data and Assessment).</i> | <ul style="list-style-type: none"> <input type="checkbox"/> Shifts in the educator role in a digital learning environment, in which teachers do more facilitation, <i>are driven at the teacher level and are not systemic.</i> <input type="checkbox"/> <i>Few teachers demonstrate proficiency with the “NC Digital Learning Competencies for Teachers” (focus areas include: Leadership in Digital Learning, Digital Citizenship, Digital Content and Instruction, Data and Assessment).</i> | <ul style="list-style-type: none"> <input type="checkbox"/> Shifts in the educator role in a digital learning environment, in which teachers do more facilitation, <i>are driven at the school-leader level and are not systemic.</i> <input type="checkbox"/> <i>Many teachers demonstrate proficiency with the “NC Digital Learning Competencies for Teachers” (focus areas include: Leadership in Digital Learning, Digital Citizenship, Digital Content and Instruction, Data and Assessment).</i> | <ul style="list-style-type: none"> <input type="checkbox"/> Shifts in the educator role in a digital learning environment, in which teachers do more facilitation, <i>are driven at the district level and are systemic.</i> <input type="checkbox"/> <i>All teachers demonstrate proficiency with the “NC Digital Learning Competencies for Teachers” (focus areas include: Leadership in Digital Learning, Digital Citizenship, Digital Content and Instruction, Data and Assessment).</i> |

| CONTENT & INSTRUCTION | | | | |
|------------------------------|--|---|---|---|
| | Early | Developing | Advanced | Target |
| C2 Student-Centered Learning | <ul style="list-style-type: none"> <input type="checkbox"/> Students <i>do not participate in</i> digital learning activities that develop critical thinking, communication, collaboration, and creativity skills. <input type="checkbox"/> Students <i>do not have the ability</i> to use digital tools to select their own learning paths. | <ul style="list-style-type: none"> <input type="checkbox"/> Students <i>have a few opportunities to participate in</i> digital learning activities that integrate critical thinking, communication, collaboration, and creativity skills. <input type="checkbox"/> Students <i>have few opportunities to use</i> digital tools to select personalized learning paths based on their learning differences. | <ul style="list-style-type: none"> <input type="checkbox"/> Students <i>have many opportunities to participate in</i> digital learning activities that integrate critical thinking, communication, collaboration, and creativity skills. <input type="checkbox"/> Students <i>have many opportunities to use</i> digital tools to select personalized learning paths based on their learning differences. | <ul style="list-style-type: none"> <input type="checkbox"/> Students <i>have consistent opportunities to participate in</i> digital learning activities that integrate critical thinking, communication, collaboration, and creativity skills. <input type="checkbox"/> Students <i>have consistent opportunities to use</i> digital tools to select personalized learning paths based on their learning differences. |

| CONTENT & INSTRUCTION | | | | |
|------------------------------|--|---|--|--|
| | Early | Developing | Advanced | Target |
| C3 Access to Digital Content | <ul style="list-style-type: none"> <input type="checkbox"/> Students <i>do not have access to</i> digital content and resources. <input type="checkbox"/> Teachers <i>do not have access to</i> digital content and resources <i>for instructional use in the classroom.</i> <input type="checkbox"/> Parents <i>do not have access to</i> teacher-generated and curated digital content. | <ul style="list-style-type: none"> <input type="checkbox"/> Students <i>have few opportunities to access</i> digital content and resources. <input type="checkbox"/> Teachers <i>have few opportunities to access</i> digital content and resources <i>for instructional use in the classroom.</i> <input type="checkbox"/> Parents <i>have few opportunities to access</i> teacher-generated and curated digital content. | <ul style="list-style-type: none"> <input type="checkbox"/> Students <i>have many opportunities to access</i> digital content and resources. <input type="checkbox"/> Teachers <i>have consistent opportunities to access</i> digital content and resources <i>for instructional use in the classroom.</i> <input type="checkbox"/> Parents <i>have many opportunities to access all</i> teacher-generated and curated digital content. | <ul style="list-style-type: none"> <input type="checkbox"/> Students <i>have anytime/anywhere access to</i> digital content and resources. <input type="checkbox"/> Teachers <i>have anytime/anywhere access to</i> digital content and resources <i>for instructional use throughout the entire school.</i> <input type="checkbox"/> Parents <i>have consistent access to all</i> teacher-generated and curated digital content <i>and the work submitted by their students.</i> |

| CONTENT & INSTRUCTION | | | | |
|-------------------------------------|--|--|---|---|
| | Early | Developing | Advanced | Target |
| C4 Learning Management System (LMS) | <ul style="list-style-type: none"> <input type="checkbox"/> The district <i>does not have a policy regarding a learning management system.</i> <input type="checkbox"/> A learning management system <i>is not used by teachers.</i> | <ul style="list-style-type: none"> <input type="checkbox"/> The district provides <i>flexibility and support to schools in choosing a learning management system.</i> <input type="checkbox"/> A learning management system is used by <i>some teachers.</i> | <ul style="list-style-type: none"> <input type="checkbox"/> The district provides <i>an integrated learning management system(s) but not all are schools are using it.</i> <input type="checkbox"/> A learning management system is used by <i>most teachers.</i> | <ul style="list-style-type: none"> <input type="checkbox"/> The district provides <i>support in implementing a comprehensive, integrated learning management system(s) to help teachers plan and organize curriculum, provide student activities, and track students' progress.</i> <input type="checkbox"/> A district-provided learning management system is used by <i>all teachers.</i> |

| CONTENT & INSTRUCTION | | | | |
|------------------------------|---|--|---|--|
| | Early | Developing | Advanced | Target |
| C5 Curation & Development | <ul style="list-style-type: none"> <input type="checkbox"/> District-supported digital content and instructional resources are selected <i>without teacher input</i>. <input type="checkbox"/> Teachers <i>do not have access to a searchable repository</i> to share their curated and/or developed digital content. <input type="checkbox"/> Teachers are not yet able to customize digital content aligned to their standards from any sources. | <ul style="list-style-type: none"> <input type="checkbox"/> District-supported digital content and instructional resources are selected <i>with teacher input</i>. <input type="checkbox"/> Teachers <i>have access to a searchable grade-level or subject-area repository</i> to share their curated and/or developed digital content. <input type="checkbox"/> Teachers are able to customize digital content aligned to their standards from <i>a few sources</i>. | <ul style="list-style-type: none"> <input type="checkbox"/> District-supported digital content and instructional resources are selected <i>with input from teachers and content/pedagogy experts</i>. <input type="checkbox"/> Teachers <i>have access to a searchable school-level repository</i> to share their curated and/or developed digital content. <input type="checkbox"/> Teachers are able to customize digital content aligned to their standards from <i>many sources</i>. | <ul style="list-style-type: none"> <input type="checkbox"/> District-supported digital content and instructional resources are selected <i>through a vetting process with input from teachers and content/pedagogy experts</i>. <input type="checkbox"/> Teachers <i>have access to a searchable district-level repository</i> to share their curated and/or developed digital content. <input type="checkbox"/> Teachers are able to customize digital content aligned to their standards from <i>unlimited sources</i>. |
| C6 Data-Informed Instruction | <ul style="list-style-type: none"> <input type="checkbox"/> Teachers <i>do not yet use</i> digital tools to access a variety of data to inform instruction. <input type="checkbox"/> Teachers <i>do not yet engage in data-driven re-teaching</i>. | <ul style="list-style-type: none"> <input type="checkbox"/> <i>Few teachers</i> use digital tools to access a variety of data to inform instruction. <input type="checkbox"/> Teachers engage in <i>large group</i> data-driven re-teaching on a few key standards with which <i>the majority of students</i> are struggling. | <ul style="list-style-type: none"> <input type="checkbox"/> <i>Many teachers</i> use digital tools to access a variety of data to inform instruction. <input type="checkbox"/> Teachers engage in <i>small group</i> data-driven re-teaching on a few key standards with which <i>particular groups of students</i> are struggling. | <ul style="list-style-type: none"> <input type="checkbox"/> <i>All teachers</i> use digital tools to access a variety of data to inform instruction. <input type="checkbox"/> Teachers engage in <i>personalized</i> data-driven re-teaching to <i>individual students</i> who are struggling. |

| DATA & ASSESSMENT | | | | |
|---------------------|--|--|--|--|
| | Early | Developing | Advanced | Target |
| D1 Data Systems | <ul style="list-style-type: none"> <input type="checkbox"/> Learner data storage plan is <i>not yet developed</i>. <input type="checkbox"/> <i>A process for collecting, managing, and accessing learner data in place.</i> <input type="checkbox"/> Learning and content tools do <i>not yet share assessment, grading, or analytics data with a central repository</i> (e.g. a learning management system or student information system). | <ul style="list-style-type: none"> <input type="checkbox"/> Learner data is <i>stored by individual teachers</i> according to school/district policy or procedure. <input type="checkbox"/> <i>A process for collecting, managing, and accessing learner data is used by some educators and administrators.</i> <input type="checkbox"/> Some learning and content tools <i>share assessment data with a central repository.</i> | <ul style="list-style-type: none"> <input type="checkbox"/> Learner data is <i>housed in centralized applications</i> but is <i>not accessible through a single portal.</i> <input type="checkbox"/> <i>A process for collecting, managing, accessing, and analyzing learner data is used by some educators and administrators in real time.</i> <input type="checkbox"/> Most learning and content tools <i>share assessment data with a central repository.</i> | <ul style="list-style-type: none"> <input type="checkbox"/> Learner data is <i>housed in centralized applications</i> and is <i>accessible through a single portal.</i> <input type="checkbox"/> Educators, administrators, parents, and students <i>access individualized learner data in real-time.</i> <input type="checkbox"/> Most learning and content tools <i>share assessment and analytics data with a central repository.</i> |
| D2 Learner Profiles | <ul style="list-style-type: none"> <input type="checkbox"/> Student-level learner profiles are <i>not available district wide.</i> <input type="checkbox"/> Teachers make <i>limited use of student data from state level systems.</i> <input type="checkbox"/> School Administrators make limited use of student data from state level systems. | <ul style="list-style-type: none"> <input type="checkbox"/> Student learner profiles exist <i>district wide and include historical student performance data.</i> <input type="checkbox"/> Teachers use learner profiles to <i>plan instruction at the classroom level.</i> <input type="checkbox"/> School Administrators use learner profiles to make general plans to support schoolwide instructional goals. | <ul style="list-style-type: none"> <input type="checkbox"/> Student learner profiles exist <i>district wide and include historical student performance data and real-time formative assessment data.</i> <input type="checkbox"/> Teachers and students use learner profiles to <i>make just in time adjustments for differentiated instruction.</i> <input type="checkbox"/> School Administrators use learner profiles to support schoolwide instructional goals at the grade/subject level. | <ul style="list-style-type: none"> <input type="checkbox"/> Student learner profiles exist <i>district wide and include historical student performance data, real-time formative assessment data, information on student learning differences and other contextual out of school factors.</i> <input type="checkbox"/> Teachers and students use learner profiles to <i>personalize learning at the student level.</i> <input type="checkbox"/> School Administrators use learner profiles to support schoolwide instructional goals at the classroom level. |

DATA & ASSESSMENT

| | Early | Developing | Advanced | Target |
|---|--|---|--|---|
| D3 Multiple & Varied Assessments | <ul style="list-style-type: none"> <input type="checkbox"/> Multiple and varied assessments are <i>not yet in place</i>. <input type="checkbox"/> A few teachers use multiple and varied assessments at the classroom level as indicators of student learning. <input type="checkbox"/> <i>Teachers independently create multiple and varied assessments.</i> <input type="checkbox"/> <i>Rubrics that measure critical thinking, communication, collaboration, and creativity across content areas are not yet in place.</i> | <ul style="list-style-type: none"> <input type="checkbox"/> Multiple and varied assessments <i>are used to identify grade- or subject-level needs and strengths for learning goals.</i> <input type="checkbox"/> Most teachers use multiple and varied assessments at the classroom level as indicators of student learning. <input type="checkbox"/> <i>Teachers collaborate informally to create multiple and varied assessments.</i> <input type="checkbox"/> <i>Rubrics that measure critical thinking, communication, collaboration, and creativity across content areas are in place in individual classrooms.</i> | <ul style="list-style-type: none"> <input type="checkbox"/> Multiple and varied assessments are <i>embedded into instruction and are used to identify classroom-level needs and strengths for learning goals.</i> <input type="checkbox"/> Schools encourage and support the use of multiple and varied assessments as indicators of student learning. <input type="checkbox"/> <i>Teachers work across grade- or subject-level teams to create multiple and varied assessments.</i> <input type="checkbox"/> <i>Rubrics that measure critical thinking, communication, collaboration, and creativity across content areas are in use and are vertically-aligned at the school level.</i> | <ul style="list-style-type: none"> <input type="checkbox"/> Multiple and varied assessments are <i>embedded into instruction and are used to identify individual student needs and strengths for learning goals.</i> <input type="checkbox"/> Districts encourage and support the use of multiple and varied assessments as indicators of student learning. <input type="checkbox"/> <i>Teachers work district wide in grade- or subject-level teams to create multiple and varied assessments.</i> <input type="checkbox"/> <i>Rubrics that measure critical thinking, communication, collaboration, and creativity across content areas are in use and are vertically-aligned at the district level.</i> |

Digital Learning Progress Rubric: Scoring Sheet

District Name: _____

Date Rubric Completed: _____

Names and/or participation numbers of district staff completing the rubric:

District administrators:

School administrators:

Teachers:

Other:

Enter the identified ranking or “score” into the blank boxes beside each key element name, and calculate overall score (sum).

Early = 1

Developing = 2

Advanced = 3

Target = 4

| Leadership | Score |
|----------------------------------|-------|
| L1 Shared Vision | _____ |
| L2 Personnel | _____ |
| L3 Communication & Collaboration | _____ |
| L4 Sustainability | _____ |
| L5 Policy | _____ |
| L6 Continuous Improvement | _____ |
| L7 Procurement | _____ |
| Overall Leadership Score | |

| Technology Infrastructure & Devices | Score |
|-------------------------------------|-------|
|-------------------------------------|-------|

T1 School Networks

T2 End-User Devices

T3 Learning Environments

T4 Technical Support

T5 Network Services

T6 Outside of Schools

Overall Tech Infrastructure & Devices Score

| Professional Learning | Score |
|-----------------------|-------|
|-----------------------|-------|

P1 Professional Development Focus

P2 Professional Development Format

P3 Professional Development Participation

Overall Professional Learning Score

| Content & Instruction | Score |
|-----------------------|-------|
|-----------------------|-------|

C1 Educator Role

C2 Student Centered Learning

C3 Access to Digital Content

C4 Learning Management System (LMS)

C5 Curation & Development

C6 Data-Informed Instruction

Overall Content & Instruction Score

| Data & Assessment | Score |
|-------------------|-------|
|-------------------|-------|

D1 Data Systems

D2 Learner Profiles

D3 Multiple & Varied Assessments

Overall Data & Assessment Score

Below, enter each main area's overall score (e.g. Leadership = 15), and calculate your district's overall rubric score (sum).

| Digital Learning Progress | Score |
|--|-------|
| Leadership | |
| Technology Infrastructure & Devices | |
| Professional Learning | |
| Curriculum & Instruction | |
| Data & Assessment | |
| Overall DLP District Rubric Score | |

Our district's overall rank on the North Carolina Digital Learning Progress Rubric for Districts is:

(Circle one.)

EARLY (0-25) **DEVELOPING** (26-50) **ADVANCED** (51-75) **TARGET** (76-100)

APPENDIX C: SCHOOL TECHNOLOGY NEEDS ASSESSMENT

Revised GLF STNA

Page One

The School Technology Needs Assessment (STNA, say “Stenna”) is intended to help school-level decision makers—administrators, technology facilitators, media coordinators, or technology committee members—collect data to plan and improve uses of technology in teaching and learning activities. The STNA is designed to be completed by teachers and other educators working directly with students, and should be administered to the entire staff of any school for which needs are being assessed. STNA results are not scored or reported for each individual respondent. Instead, each person’s responses are combined with those of other educators in their building, and reported at the school level in terms of how many times each possible response is selected for each item. Pilot testing indicates that it should take approximately 25 minutes to complete the STNA.

On this paper-pencil copy of the STNA, responses are coded for use with the STNA Scoring Tool spreadsheet. The numbers located next to the response checkboxes have no meaning and are provided only to aid scoring.

Select school or district*

- Grantee 1
 - Grantee 2
 - Grantee 3
 - Grantee 4-S1
 - Grantee 4-S2
 - Grantee 5
 - Grantee 6
 - Grantee 7
-

"In my school...."

I. Supportive Environment for Technology Use

Selecting Responses – Section I

1. For each item, check the box below the response that best matches how much you agree with the statement - “Strongly Agree,” “Agree,” “Disagree,” or “Strongly Disagree.”
2. If you do not have enough information to form an opinion about the topic of an item, select “Do Not Know.”
3. If you have enough information to form an opinion but are simply split between “Agree” and “Disagree,” select “Neither Agree nor Disagree.”*

| | Strongly Disagree | Disagree | Neither Agree nor Disagree | Agree | Strongly Agree | Do Not Know |
|---|--------------------------|-----------------|-----------------------------------|--------------|-----------------------|--------------------|
| A vision for technology has been developed through an effective collaboration among stakeholders, e.g., administrators, specialists, teachers, students, and community members. | () | () | () | () | () | () |
| The vision for technology use has been effectively communicated to the community. | () | () | () | () | () | () |
| Administrators model effective uses of technology. | () | () | () | () | () | () |
| Administrators support changes in school-level systems, policies, and practices related to technology. | () | () | () | () | () | () |

| | | | | | | |
|--|-----|-----|-----|-----|-----|-----|
| When administrators are evaluating teachers, they consider technology literacy and leadership for technology. | () | () | () | () | () | () |
| Technology is used to communicate and collaborate with the community about school programs designed to enhance student learning. | () | () | () | () | () | () |
| Electronic systems for communicating within the school are adequate, e.g., e-mail among teachers and staff, network drives to upload lesson plans and grades to the main office. | () | () | () | () | () | () |
| Reliability and speed of external connections are sufficient for connecting to the Internet, using online databases, viewing online video, and accessing other resources. | () | () | () | () | () | () |

| | | | | | | |
|--|-----|-----|-----|-----|-----|-----|
| Students can access appropriate web resources and tools that teachers would like them to use without being blocked by filters. | () | () | () | () | () | () |
| Teachers have ready access to technical support, e.g., to troubleshoot hardware or software problems, maintain systems. | () | () | () | () | () | () |

“I would benefit from professional development on...”

II. Professional Development

Selecting Responses – Section II

1. For each item, check the box below the response that best matches how much you agree with the statement - “Strongly Agree,” “Agree,” “Disagree,” or “Strongly Disagree”
2. If you do not have enough information to form an opinion about the topic of an item, select “Do Not Know”.
3. If you have enough information to form an opinion but are simply split between “Agree” and “Disagree,” select “Neither Agree nor Disagree.”*

| | Strongly Disagree | Disagree | Neither Agree nor Disagree | Agree | Strongly Agree | Do Not Know |
|---|--------------------------|-----------------|-----------------------------------|--------------|-----------------------|--------------------|
| Performance-based student assessment of my students. | () | () | () | () | () | () |
| The use of data for reflecting on my professional practices | () | () | () | () | () | () |
| Learner-centered | () | () | () | () | () | () |

| | | | | | | |
|--|-----|-----|-----|-----|-----|-----|
| teaching strategies that incorporate technology, e.g., project-based or cooperative learning. | | | | | | |
| Uses of technology to increase my professional productivity. | () | () | () | () | () | () |
| Ways to use technology to communicate and collaborate with families about school programs and student learning. | () | () | () | () | () | () |
| Alignment of lesson plans to content standards and student technology standards. | () | () | () | () | () | () |
| Use of research or action research projects to improve technology-enhanced classroom practices. | () | () | () | () | () | () |
| Use of data to make decisions about the use of technology. | () | () | () | () | () | () |
| Use of technology to participate in professional development activities, e.g. online workshops, hands-on training in a computer lab. | () | () | () | () | () | () |

| | | | | | | |
|---|-----|-----|-----|-----|-----|-----|
| Educators in charge of professional development use data from teachers' needs assessments to determine technology professional development topics and activities. | () | () | () | () | () | () |
| Technology professional development is timely. | () | () | () | () | () | () |
| Technology professional development is relevant. | () | () | () | () | () | () |
| Technology professional development is ongoing. | () | () | () | () | () | () |
| The impact of technology professional development is tracked using data on classroom practice. | () | () | () | () | () | () |
| The impact of technology professional development is tracked using data on student learning. | () | () | () | () | () | () |

“In the settings where I work with children...”

III. Teaching and Learning

Selecting Responses – Section III

1. For each item, check the box below the response that comes closest to indicating how often you do the described activity - “Daily,” “Weekly,” and so on.

2. If you do not have enough information to select a number response for an item, select “Do Not Know.”*

| | Daily | Weekly | Monthly | Once per Grading Period | Never | Do Not Know |
|---|--------------------------|--------------------------|--------------------------|--------------------------------|--------------------------|--------------------------|
| I apply performance-based student assessment to technology enhanced lessons, e.g., student portfolios, student presentations. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I use technology regularly to collect and analyze student assessment data. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I use technology to support and increase my professional productivity. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| | | | | | | |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| I use technology to participate in professional development activities, e.g. online workshops, hands-on training in a computer lab. | <input type="radio"/> |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|

"In the settings where I work with children..."

IV. Impact of Technology
 Selecting Responses – Section IV

1. For each item, check the box below the response that best matches how much you agree with the statement - "Strongly Agree," "Agree," "Disagree," or "Strongly Disagree."
2. If you do not have enough information to form an opinion about the topic of an item, select "Do Not Know."
3. If you have enough information to form an opinion but are simply split between "Agree" and "Disagree," select "Neither Agree nor Disagree."*

| | Strongly Disagree | Disagree | Neither Agree Nor Disagree | Agree | Strongly Agree | Do Not Know |
|---|--------------------------|-----------------------|-----------------------------------|-----------------------|-----------------------|-----------------------|
| My teaching is more student-centered and interactive when technology is integrated into instruction. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Technology has helped my students become more socially aware, confident, and positive about their future. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

| | | | | | | |
|--|-----|-----|-----|-----|-----|-----|
| Technology has helped my students become independent learners and self-starters. | () | () | () | () | () | () |
| Technology has helped my students work more collaboratively. | () | () | () | () | () | () |
| Technology has increased my students' engagement in their learning. | () | () | () | () | () | () |
| Technology has helped my students achieve greater academic success. | () | () | () | () | () | () |

Thank You!

Thank you for taking our survey. Your response has been recorded.

APPENDIX D: EVALUATION CAPACITY BUILDING SURVEY

Golden LEAF Digital Learning Evaluation Capacity Assessment

Evaluation capacity refers to the collective and ongoing policies, strategies, resources, and other actions to increase organizational power to implement project evaluation.¹ Building evaluation capacity refers to enhancing an individual’s knowledge and skills and the organizational practices that support internal evaluation efforts.

In the first column, please rate your perceived degree of knowledge and skills aligned with each evaluation activity listed below (circle the appropriate number (1-Very Low, 2- Low, 3-Somewhat Low, 4- Neutral, 5 - Somewhat High, 6 – High, and 7- Very High)).

In the second column, please indicate how often you engage in each activity listed below *when conducting/implementing project evaluation* (circle your response).

| Evaluation Capacity Areas | | |
|---|--|--|
| | My degree of knowledge and skills is . . . | The frequency at which I engage in this activity is . . . |
| 1. Develop a logic model for evaluation planning | <i>Very Low</i> <i>Very High</i> 1 2 3 4 5 6 7 | <i>Never – Rarely – Sometimes – Often – Always</i> |
| 2. Design an evaluation plan | 1 2 3 4 5 6 7 | <i>Never – Rarely – Sometimes – Often – Always</i> |
| 3. Develop strategic evaluation questions | 1 2 3 4 5 6 7 | <i>Never – Rarely – Sometimes – Often – Always</i> |
| 4. Design data collection instruments (e.g., surveys and interview protocols) | 1 2 3 4 5 6 7 | <i>Never – Rarely – Sometimes – Often – Always</i> |
| 5. Collect different types data (e.g., qualitative and quantitative data) | 1 2 3 4 5 6 7 | <i>Never – Rarely – Sometimes – Often – Always</i> |
| 6. Analyze different types of data | 1 2 3 4 5 6 7 | <i>Never – Rarely – Sometimes – Often – Always</i> |
| 7. Interpret evaluation results | 1 2 3 4 5 6 7 | <i>Never – Rarely – Sometimes – Often – Always</i> |
| 8. Communicate evaluation findings | 1 2 3 4 5 6 7 | <i>Never – Rarely – Sometimes – Often – Always</i> |

¹ (Newmann, King, & Young, 2000, as cited in Fullan, 2005, p. 40)

| <i>Evaluation Capacity Areas</i> | |
|---|---|
| My organization has the ability to . . . | <i>Very Low</i> <i>Very High</i> 1 2 3 4 5 6 7 |
| 9. develop policies and procedures to improve an initiative/program | 1 2 3 4 5 6 7 |
| 10. implement programmatic changes informed by evaluation findings | 1 2 3 4 5 6 7 |
| 11. identify and utilize the necessary resources to conduct and use evaluations | 1 2 3 4 5 6 7 |
| To what extent do you believe that . . . | <i>Not at All</i> <i>Very Much</i> 1 2 3 4 5 6 7 <input type="checkbox"/> |
| 12. evaluation can improve organizational practices | 1 2 3 4 5 6 7 |
| 13. evaluation can support decision making efforts | 1 2 3 4 5 6 7 |
| 14. evaluation yields useful information | 1 2 3 4 5 6 7 |
| 15. evaluation adds value to the organization | 1 2 3 4 5 6 7 |

Note: Several items were derived from [Preskill, H., & Boyle, S. \(2008\). A multidisciplinary model of evaluation capacity building. American Journal of Evaluation, 29\(4\), 443-459.](#)

APPENDIX E: FOCUS GROUP PROTOCOL

GLF Grantee Capacity Building Model Evaluation Capacity Building Focus Group Protocol

Introduction

Thank you for taking time from your busy schedules to meet with me today. I appreciate your willingness to participate in this focus group exercise and will limit the time to approximately one and a half to two hours.

- My name is (XXXX). I will serve as the facilitator for the session with assistance from (XXX) who will observe and record notes. I am conducting research as a graduate student at East Carolina University. This experience is part of a study to assess the utility of the Golden LEAF Grantee Capacity Building Model for evaluation in building individual and organizational capacity to inform and sustain evaluation practice for continuous improvement?

The purpose of the research project is to assess the digital learning evaluation framework used by Golden LEAF to assess the extent to which individual and organizational capacity to perform and sustain program evaluation is improved. Lessons learned from studying this innovative evaluation model will provide valuable insight for the Foundation to use in improving its grant monitoring practices so GLF and its grantees are better equipped to measure the impact of grant supported work.

Disclosures:

- Your participation in the study is voluntary. It is your decision whether or not to participate and you may elect to stop participating in the exercise at any time.
- An assistant will accompany the session facilitator to observe group interaction and take hand written notes of the group's responses in order to capture a comprehensive record of your work. All information collected will be kept confidential. Any information collected during the session that may identify any participant will only be disclosed with your prior permission. A coding system will be used in the management and analysis of the focus

group data with no names or school identifiers associated with any of the recorded discussion.

- The exercise will be conducted using a semi-structured and informal format. Data from School Technology Needs Teacher Surveys (STNA-T) and teacher focus group interviews should be circulated to leadership team participants at least a week in advance of the exercise to allow time for participants to review their data. The team will first be divided into affinity groups based on three sub-classifications; administrators, instructional support staff, and teachers. Each affinity team will then be asked to discuss quantitative data from STNA-T surveys collected at the beginning and end of the most recent school year and qualitative data generated from teacher focus group interviews completed by the Friday Institute coaches last spring. Each Affinity Group will be tasked with creating and presenting to the Leadership Team a visual product (poster, charts or pictures) that responds to prompts related to growth indicators within the implementation rubric construct categories (Leadership, Professional Learning, Content & Instruction, Data & Assessment, and technology Infrastructure) identified in data from the first year of implementing the digital learning initiative. The subgroups will reform into the leadership team and then be asked to revisit the data to identify challenges and/or barriers to progress in each construct categories. The team will produce a map of activities to help guide action during the second year of implementation using the Implementation Checklist. Guiding questions will be asked in both segments regarding the individual knowledge and skills gained and the organization practices used. It is our hope that everyone will contribute to the conversation and the work will result in a data informed plan to sustain momentum and drive continuous improvement. To close the session,

participants will be asked to reflect on the experience by responding to four basic questions.

- The exercise will last approximately one and a half to two hours.

Focus Group Exercise

Task #1 – Introductions – 10 minutes

To begin, please introduce yourself and describe your role on the leadership team and involvement in implementing the digital learning project at your school or district. Start with the first person to the right and continue left till all participants have introduced themselves.

Task #2 - Affinity Group Exercise – 45 minutes

Ask participants to form affinity groups based on their role in the project: administration, instructional support, or teacher. Provide copies of the STNA-T and summary focus group data previously circulated along with copies of the team’s Logic Model and Project Management Plan – Activities. Each group should also have poster board, makers, colored paper, magazines, glue sticks, tape, and other materials. Each affinity group should discuss the data then use the materials provided to produce a visual road map demonstrating progress made in implementing digital learning in their school and/or district.

Prompts – Using the quantitative and qualitative data, identify areas where your school and/or district made progress or achieved growth during the initial implementation period? What factors contributed to the growth? Were those accomplishments at, above, or below expectations? What data supports your conclusions?

Allow 10 minutes for discussion, then encourage teams to start mapping out their accomplishments and the strategies that contributed to the success or growth identified in the construct categories.

Presentation – 5-10 minutes - Ask each subgroup to present their findings and poster to the team.

Task #3 - Team Planning – 45 minutes

Direct participants to reassemble as a leadership team and revisit the data to identify challenges and/or areas where growth did not occur or performance lagged expectations.

Prompt - Based on the challenges and performance shortfalls identified from the data, what barriers, challenges and/or factors were encountered that prohibited growth? Use Yellow, Red & Green post-it note pads to identify what needs to Start, Stop, or Continue.

Provide each team copies of the implementation checklist and ask that the group identify strategies needed during year two to sustain momentum and address needs identified or implementation challenges. The Leadership Team should add to the roadmap four core strategies that undergird improvement targets for year two.

Task #4 – Reflection – 20 minutes

Question #1 – What knowledge or skills have you learned or improved upon during the initial phase of implementation? How did your participation on the leadership team enhance your understanding of and appreciation for program evaluation?

Question #2 – Do you feel more confident in your ability to measure the impact of your work now vs. prior to participating in the project? If yes, what was useful in building your confidence? If you are not more confident, what help do you need to improve? What would you want to learn more about?

Question #3 – What additional resources or adjustments are needed from your organization to mainstream evaluation practice (input, process, output, and satisfaction outcomes) as a regular function in your school and/or district?

Question #4 – Was this exercise beneficial and if so how can what you learned be used to improve performance for and measure the impact of your organization's work in digital learning?

APPENDIX F: FRIDAY INSTITUTE DATA ACCESS APPROVAL LETTER

SEP



THE WILLIAM & IDA
FRIDAY INSTITUTE
FOR EDUCATIONAL INNOVATION

1890 Main Campus Drive ■ Raleigh, NC 27606 ■ 919.513.8500 ■ www.fi.ncsu.edu

March 1, 2018

Memo

To: Mark Sorrells

From: Jeni Corn, Friday Institute for Educational Innovation

Re: Data Use

Hi Mark,

Please accept this letter as support for your use of the existing data from the various Golden Leaf Foundation evaluations conducted by the Friday Institute. As you know, we have been contracted to evaluate several programs. There were three major areas that we examined while evaluating this program: a) student outcomes, such as engagement and course taking, b) teacher outcomes, such as level of technology integration in classroom teaching and technology skills, and c) administrator outcomes, such as leadership for innovation.

Thank you and we look forward to our continued partnership with you and Golden LEAF.

Jeni Corn, Director of Evaluation Programs

APPENDIX G: FOCUS GROUP WORKSHOP CONSENT FORM

Focus Group Workshop Consent Form for Participants

*East Carolina
University*



Consent to Take Part in Research that has Potentially Greater than Minimal Risk Information You Should Think About Before Agreeing to Take Part in This Research

Title of Research Study: Building Grantee Capacity through an Innovative—Process-Driven, People-Centered—Evaluation Framework

Principal Investigator: Mark Sorrells, under the guidance of Dr. Matthew Militello

Researchers at East Carolina University (ECU) study issues related to society, health problems, environmental problems, behavior problems and the human condition. To do this, we need the help of volunteers who are willing to take part in research.

Why am I being invited to take part in this research?

The purpose of this study is to implement and analyze an innovative— process-driven, people-centered— grantee capacity building model. The intent of the framework is to build individual and organizational capacity in order to improve and sustain program evaluation. As a member of a school and/or district leadership team, you are being invited to take part in this research to seek your perceptions, viewpoints, and insights about the Golden LEAF Grantee Capacity Building Model. You are being asked to take part in the study by participating in a focus group exercise. Your participation in this study is voluntary. The decision to take part in the research is yours to make. You have the right to participate, to choose not to participate, or to stop participating at any time without penalty. By conducting this research, we hope to obtain findings to the following research questions:

- **Overarching Question:** How does the GLF-GCB Model build individual and organizational capacity to inform practice and sustain continuous improvement?

Sub Question 1 – What is the initial/baseline capacity and readiness of grantees to implement and measure the impact of grant-focused activity?

Sub Question 2 – To what extent and how do individuals of grant-supported organizations improve knowledge and skill to successfully implement digital learning and evaluation practice using the GLF-GCB Model?

Sub Question 3 – How does the GLF-GCB Model guide organizational improvement efforts of grantees?

If you volunteer to participate in this research, you will be one of about 40 people to do so.

Are there reasons I should not take part in this research?

There are no known reasons for why you should not participate in this research study. In addition, there are no known risks to participating in the focus group interview.

What other choices do I have if I do not take part in this research?

You can choose not to participate.

Where is the research going to take place and how long will it last?

The session will be conducted at your school or district central office. The total amount of time you will be asked to volunteer for this study is approximately two hours.

What will I be asked to do?

You will be asked to participate in a focus group exercise with other members of your school or district digital learning leadership team. The session will be conducted using a semi-structured and informal format. Participants will be asked to review quantitative and qualitative data from the initial implementation period and work in groups to respond to several prompts about accomplishments and challenges experienced then reflect on improved skills and organizational practices. This process should take approximately two hours. Outcomes from the session will be recorded through participant generated artifacts and notes gathered from participant comments in order to capture a comprehensive record of the experience. All information collected will be kept confidential. Discussions and responses from the session will not be digitally recorded. Any information collected during the session that may identify any participant will only be disclosed with your prior permission. A coding system will be used in the management and analysis of the focus group data with no names or school identifiers associated with any of the recorded discussion.

What might I experience if I take part in the research?

I do not know of any risks (the chance of harm) associated with this research. Any risks that may occur with this research are no more than what you would experience in everyday life. I do not know if you will benefit from taking part in this study. There may not be any personal benefit to you but the information gained by doing this research may help others in the future.

Will I be paid for taking part in this research?

I will not be able to pay you for the time you volunteer while being in this study.

Will it cost me to take part in this research?

It will not cost you any money to be part of the research.

Who will know that I took part in this research and learn personal information about me?

ECU and the people and organizations listed below may know that you took part in this research and may see information about you that is normally kept private. With your permission, these people may use your private information to do this research:

- Any agency of the federal, state, or local government that regulates human research. This includes the Department of Health and Human Services (DHHS), the North Carolina Department of Health, and the Office for Human Research Protections.

- The University & Medical Center Institutional Review Board (UNCIRB) and its staff have responsibility for overseeing your welfare during this research and may need to see research records that identify you.

How will you keep the information you collect about me secure? How long will you keep it?

The information in the study will be kept confidential to the full extent allowed by law. Data will be stored securely on a computer and in a location of which only the researcher has access. No reference will be made in oral or written reports that could link you to the study.

What if I decide I do not want to continue in this research?

You can stop at any time after it has already started. There will be no consequences if you stop and you will not be criticized. You will not lose any benefits that you normally receive.

Who should I contact if I have questions?

The people conducting this study will be able to answer any questions concerning this research, now or in the future. You may contact the Principal Investigator at phone number 252-955-4064 (Monday - Friday, 8:00 am – 5:00 pm) or email masorrells12@gmail.com.

If you have questions about your rights as someone taking part in research, you may call the Office of Research Integrity & Compliance (ORIC) at phone number 252-744-2941 (days, 8:00 am – 5:00 pm). If you would like to report a complaint or concern about this research study, you may call the Director of the ORIC at 252-744-1971.

I have decided I want to take part in this research. What should I do now?

The person obtaining informed consent will ask you to read the following and if you agree, you should sign this form:

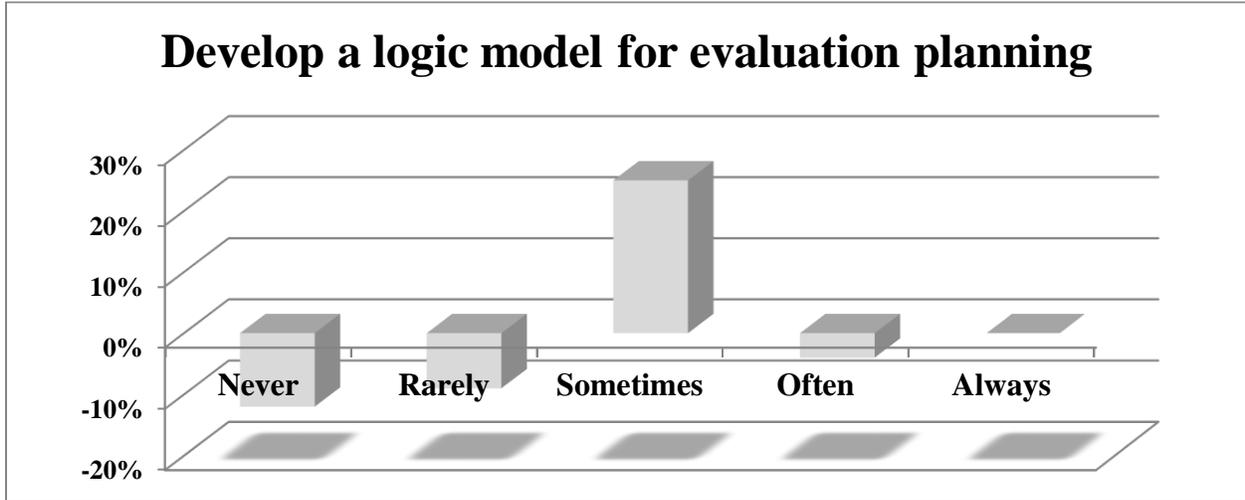
- I have read (or had read to me) all of the above information.
- I have had an opportunity to ask questions about things in this research I did not understand and have received satisfactory answers.
- I know that I can stop taking part in this study at any time.
- By signing this informed consent form, I am not giving up any of my rights.
- I have been given a copy of this consent document, and it is mine to keep.

| | | |
|-----------------------------------|------------------|-------------|
| Participant's Name (PRINT) | Signature | Date |
|-----------------------------------|------------------|-------------|

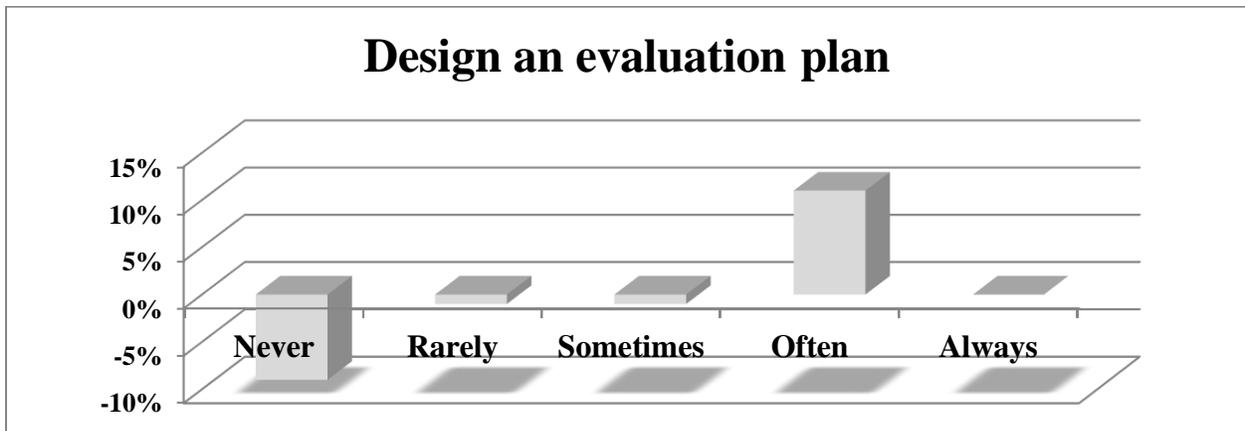
Person Obtaining Informed Consent: I have conducted the initial informed consent process. I have orally reviewed the contents of the consent document with the person who has signed above and answered all of the person's questions about the research.

| | | |
|---|------------------|-------------|
| Person Obtaining Consent (PRINT) | Signature | Date |
|---|------------------|-------------|

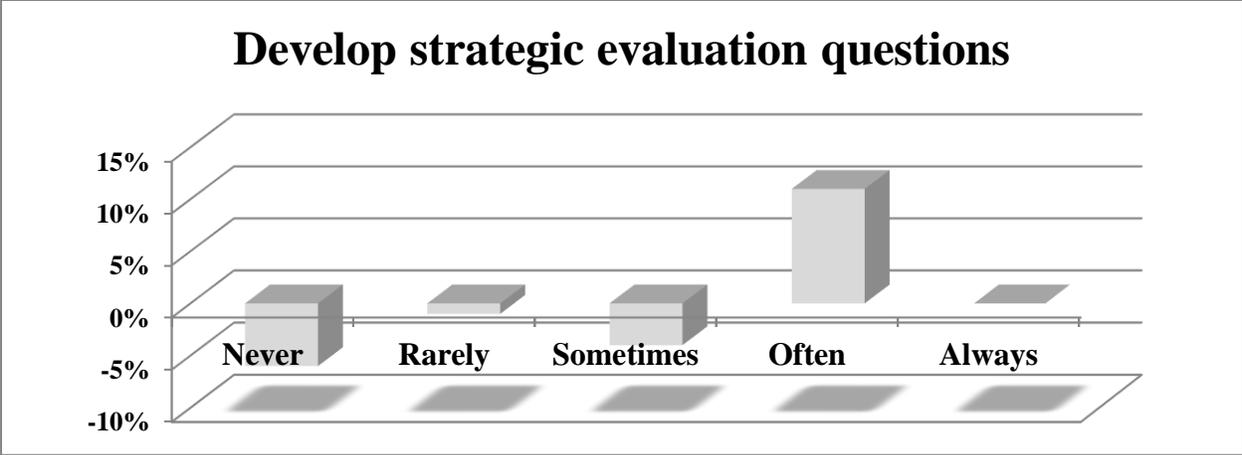
APPENDIX H: AGGREGATED GRANTEE DATA



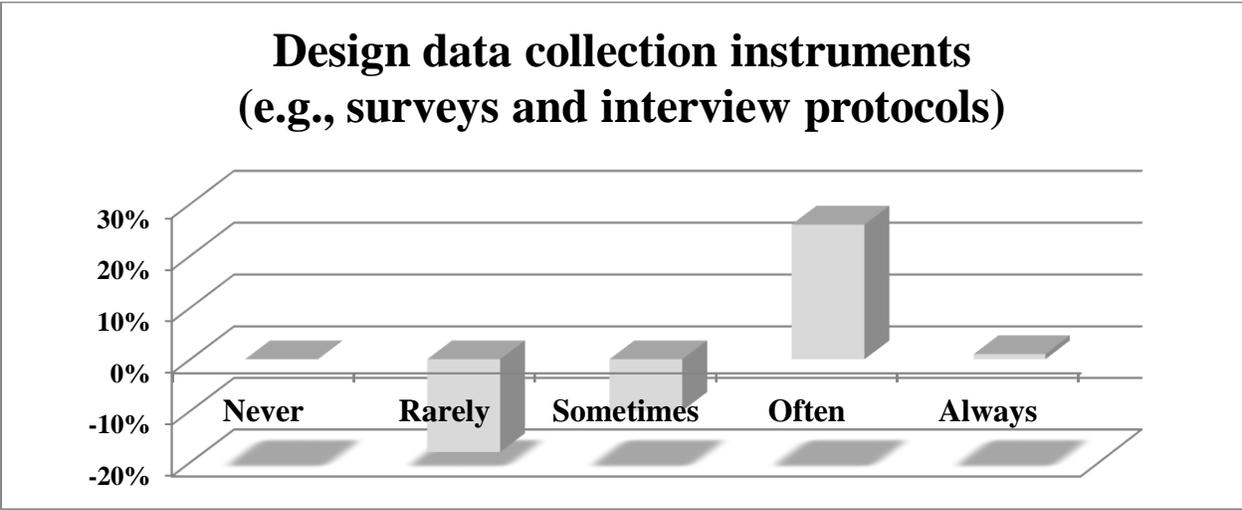
H-1: Aggregate ECB data: individual capacity - change in frequency



H-2: Aggregate ECB survey data: individual capacity questions – change in frequency

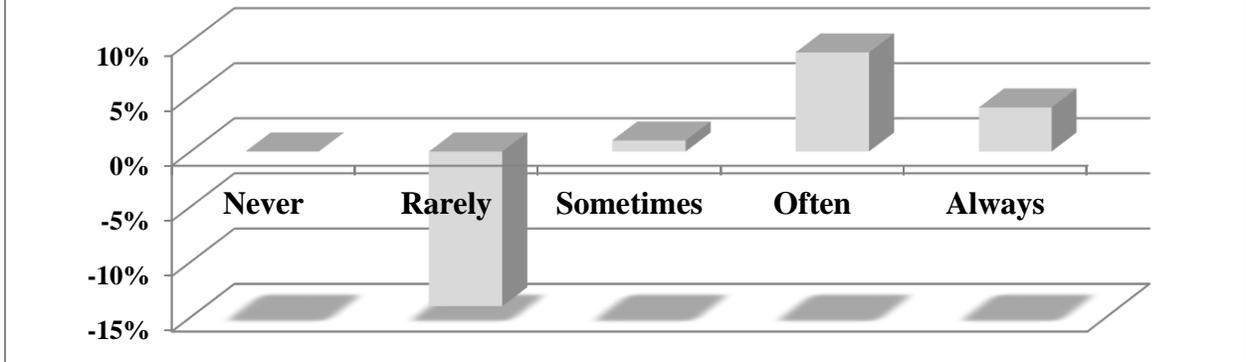


H-3: ECB survey responses to individual capacity questions – change frequency



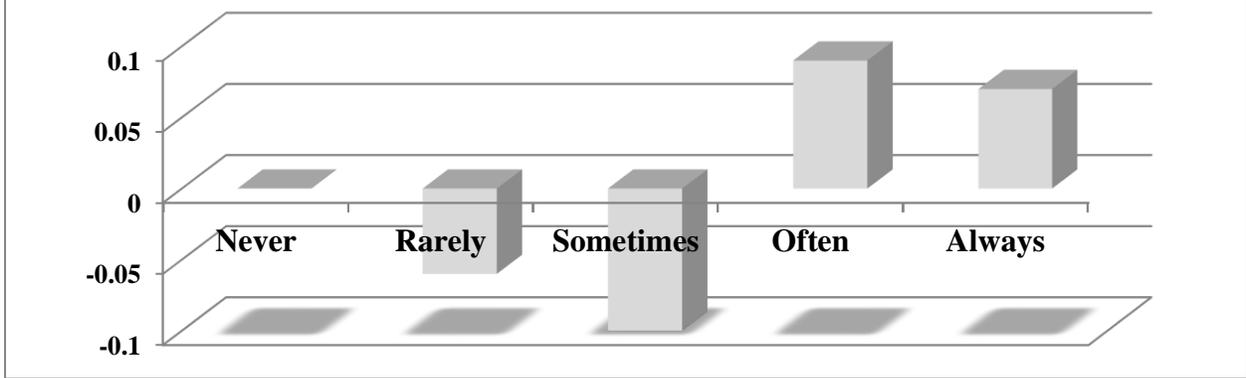
H-4: ECB survey responses to individual capacity questions – change frequency

Collect different types data (e.g., qualitative and quantitative data)

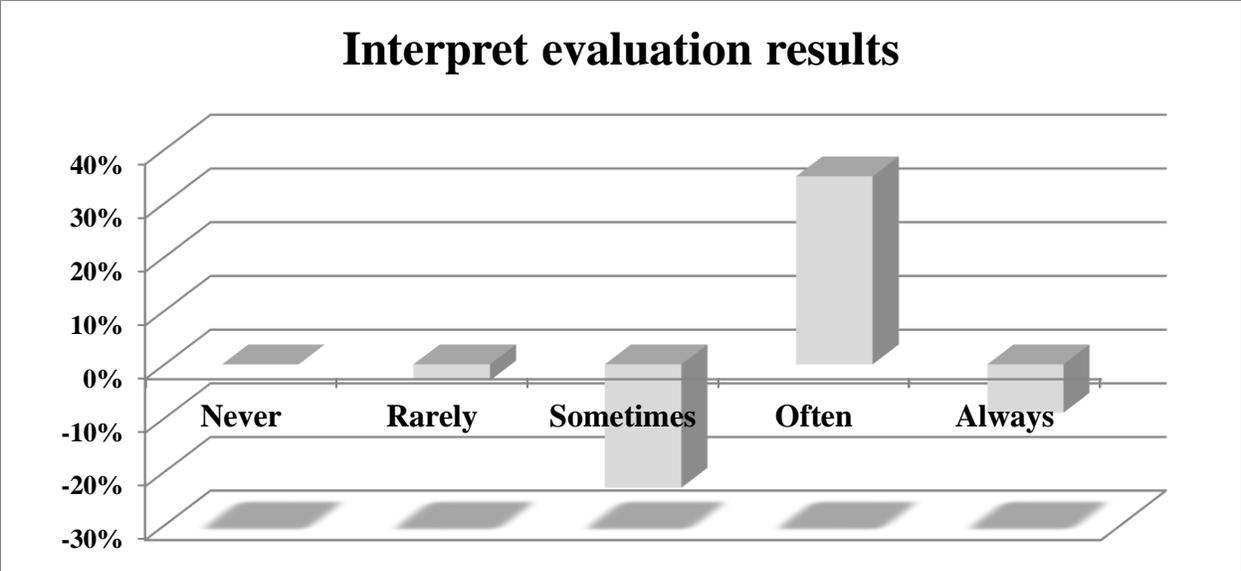


H-5: ECB survey responses to individual capacity questions – change frequency

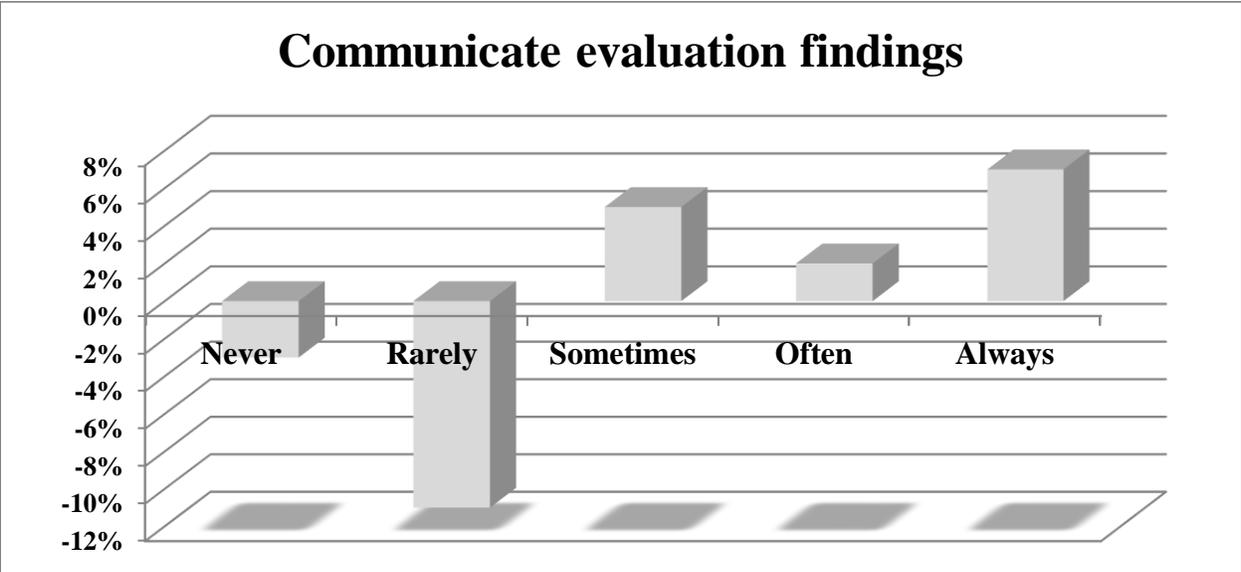
Analyze different types of data



H-6: ECB survey responses to individual capacity questions – change frequency



H-7: ECB survey responses to individual capacity questions – change frequency



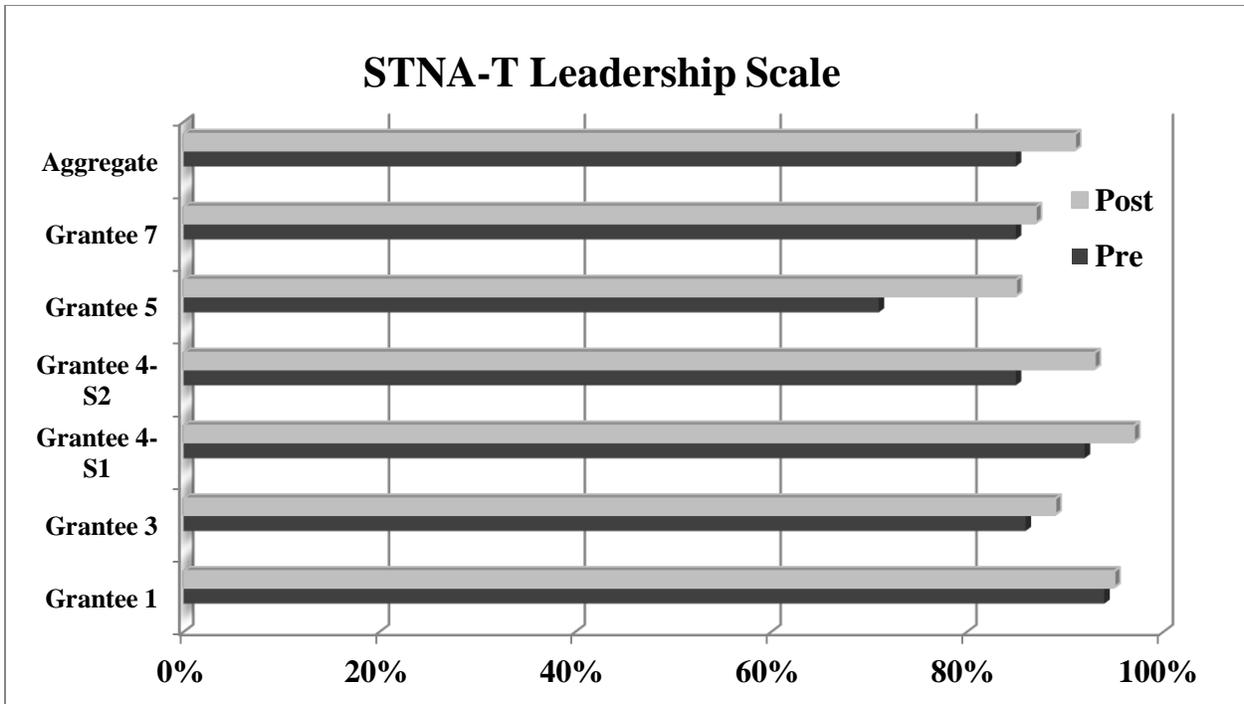
H-8: ECB survey responses to individual capacity questions – change frequency

| <i>My organization has the capacity to</i> | Pre- ECB Assessment (N=34) | | Post ECB Assessment (N=30) | | % Change |
|---|----------------------------|------|----------------------------|------|----------|
| | Low | High | Low | High | High |
| Develop policies and procedures to improve an initiative/program | 15% | 85% | 3% | 97% | 12% |
| Implement programmatic changes informed by evaluation findings | 12% | 88% | 7% | 93% | 5% |
| Identify and utilize the necessary resources to conduct and use evaluations | 15% | 85% | 10% | 90% | 5% |

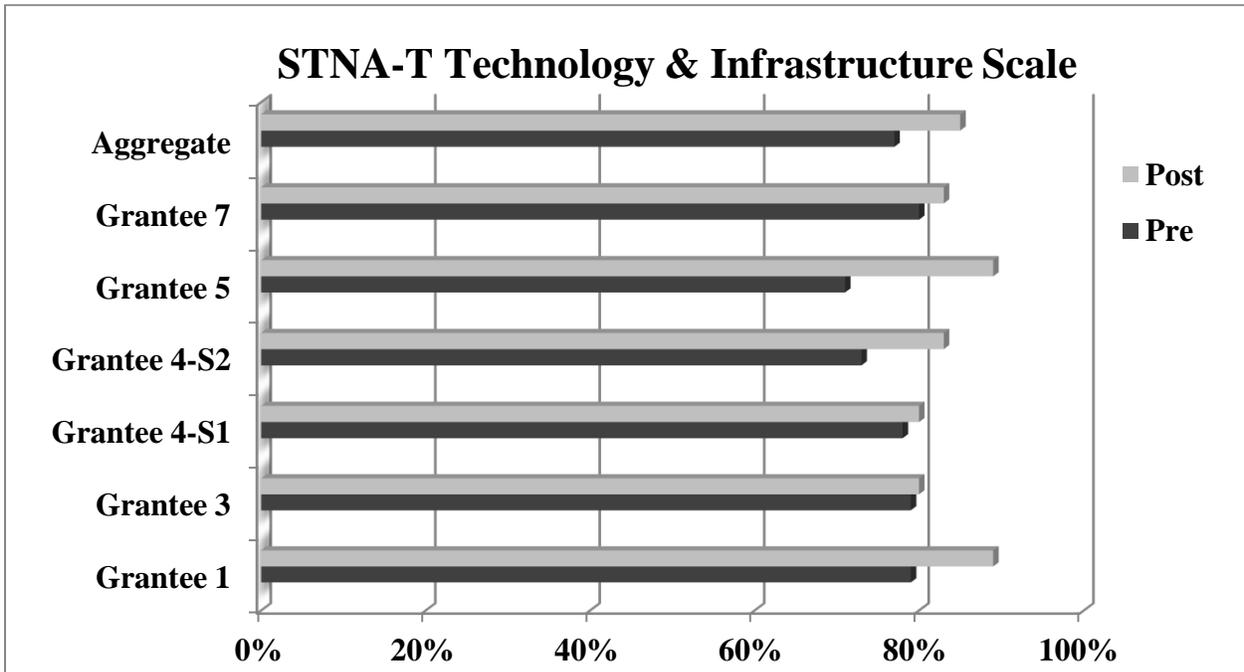
H-9: ECB survey responses to organizational capacity

| <i>My organization has the capacity to....</i> | Pre- ECB Assessment (N=34) | | Post-ECB Assessment (N=30) | | % Change |
|---|----------------------------|-----------|----------------------------|-----------|----------|
| | Not at All | Very Much | Not at All | Very Much | |
| Evaluation can improve organizational practices | 0% | 100% | 0.00% | 100.00% | 0.00% |
| Evaluation can support decision making efforts | 0% | 100% | 0.00% | 100.00% | 0.00% |
| Evaluation yields useful information | 0% | 100% | 0.00% | 100.00% | 0.00% |
| Evaluation adds value to the organization | 0% | 100% | 0.00% | 100.00% | 0.00% |

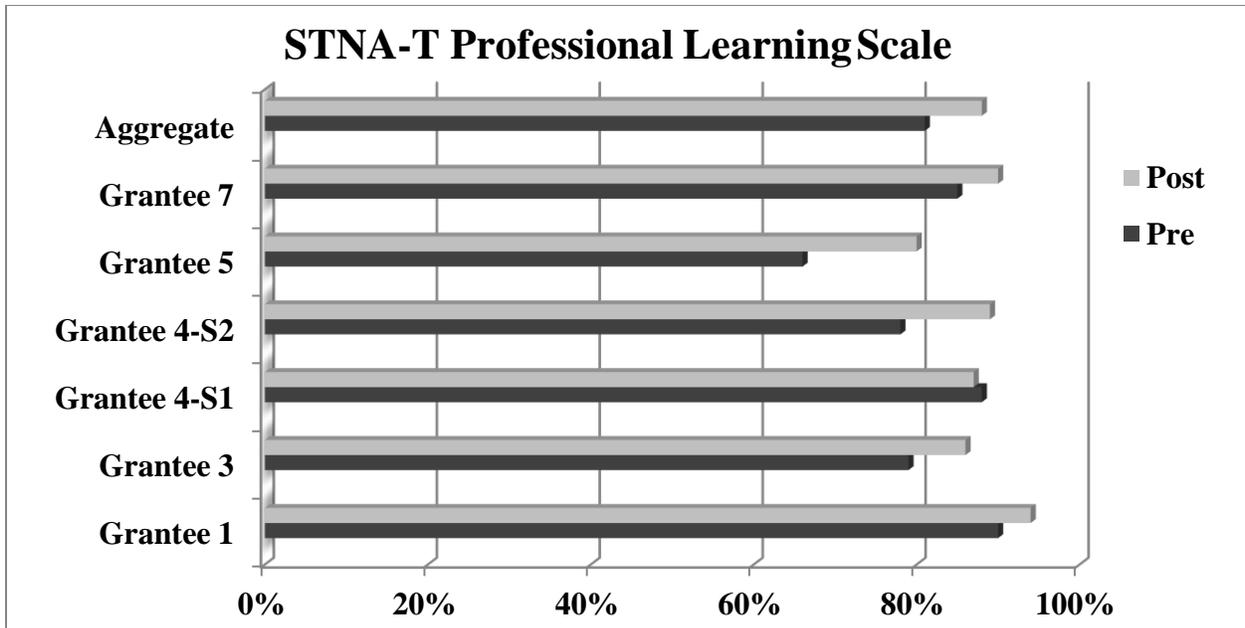
H-10: ECB survey responses to organizational capacity – frequency



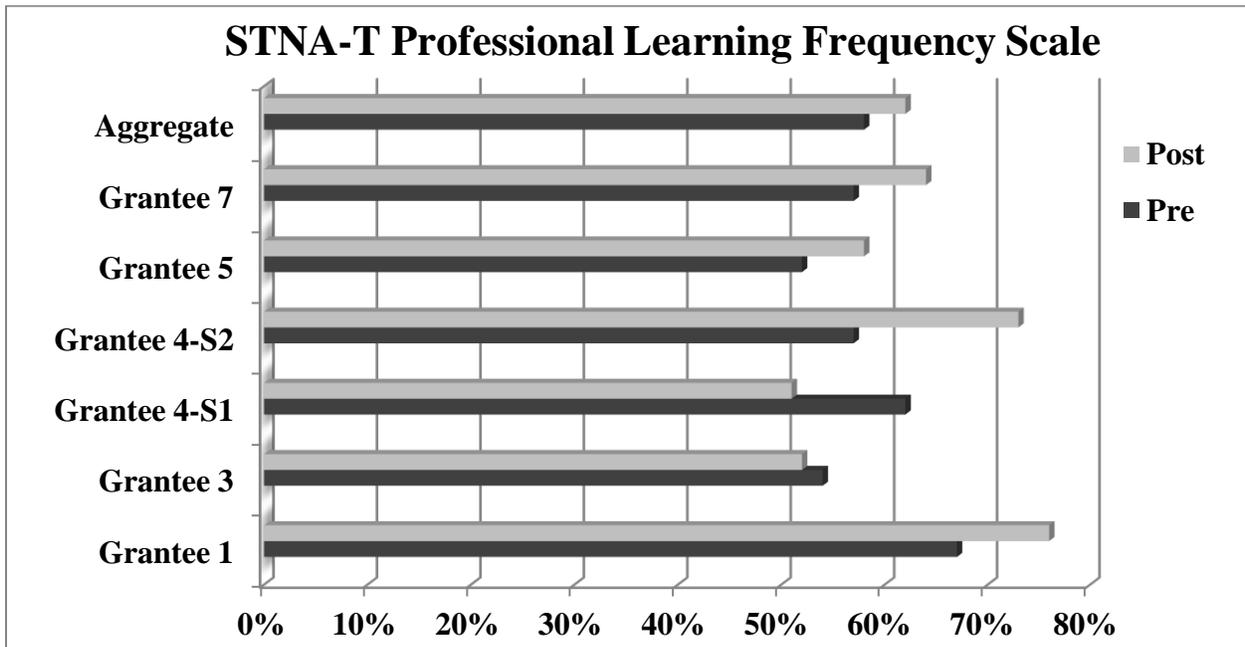
H-11: STNA-T – mean scores for strongly agree & agree responses



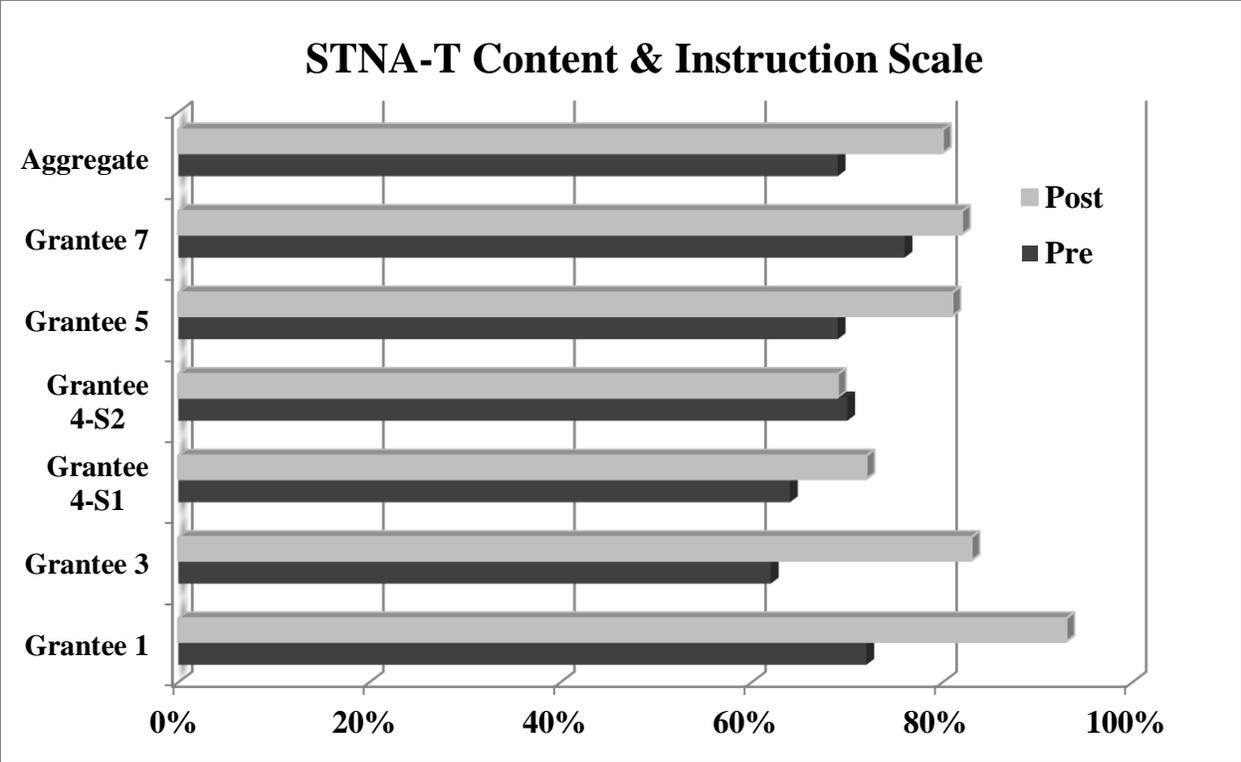
H-12: STNA-T – mean scores strongly agree & agree responses



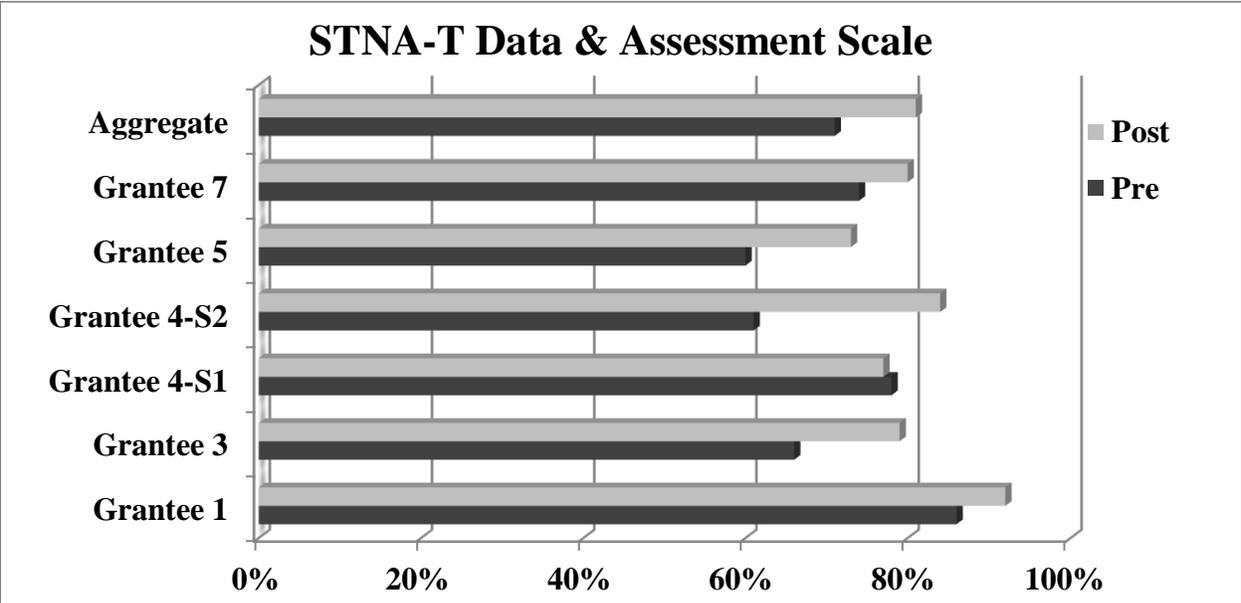
H-13: STNA-T – mean scores for strongly agree & agree responses



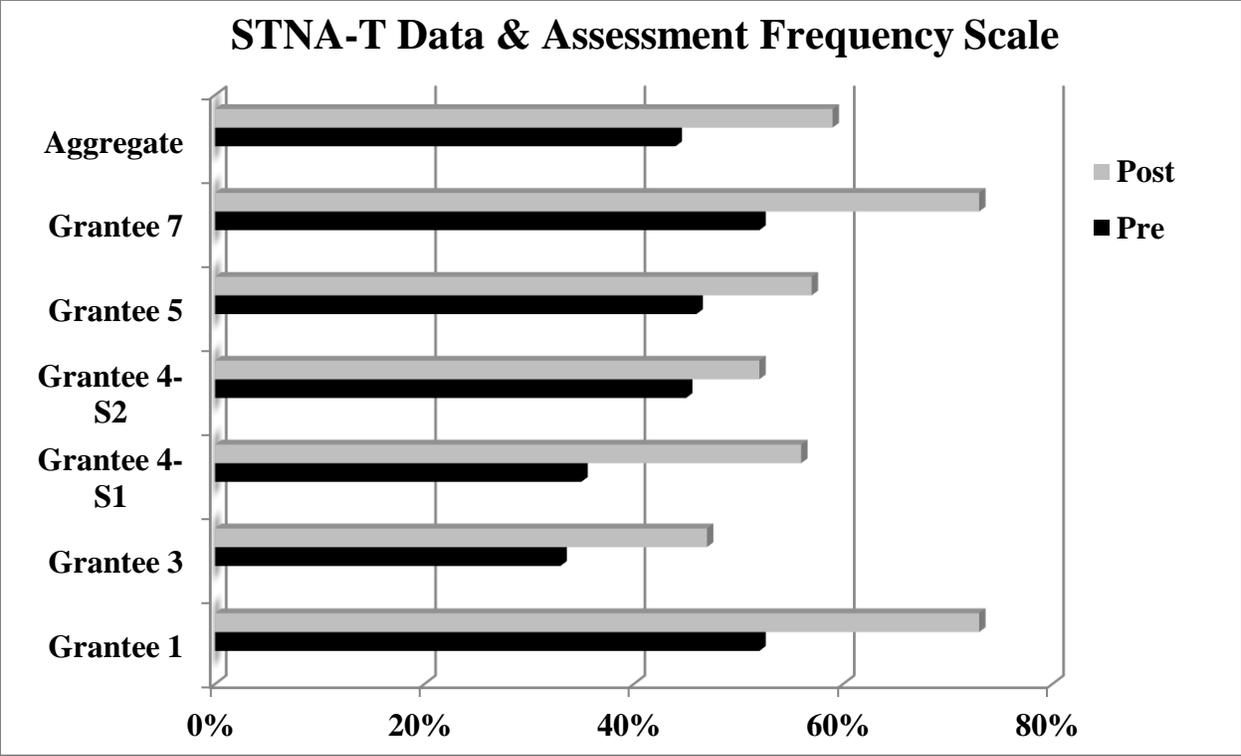
H-14: STNA-T – mean scores for frequency responses daily and weekly utilization



H-15: STNA-T mean scores for strongly agree & agree responses

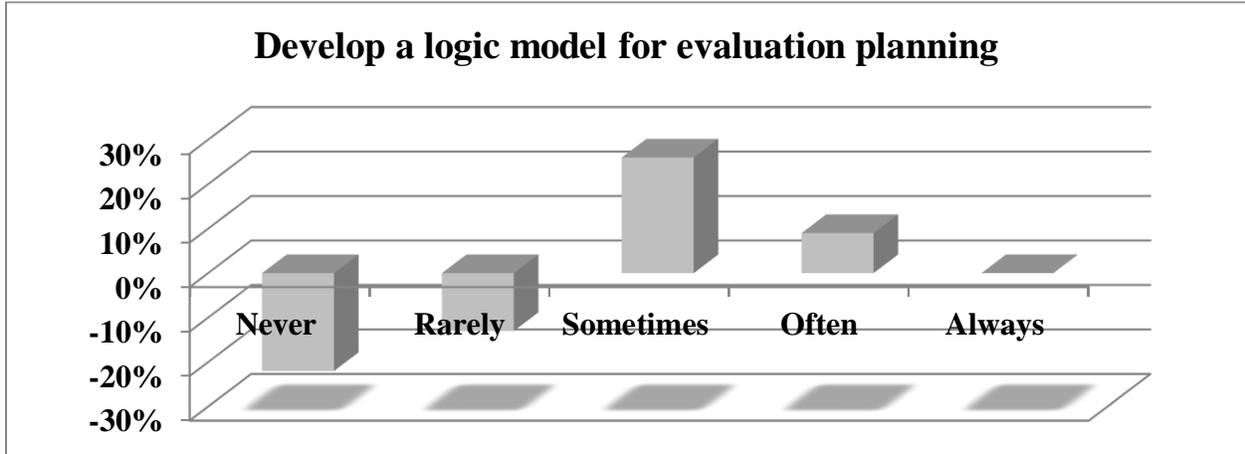


H-16: STNA-T mean scores strongly agree & agree responses

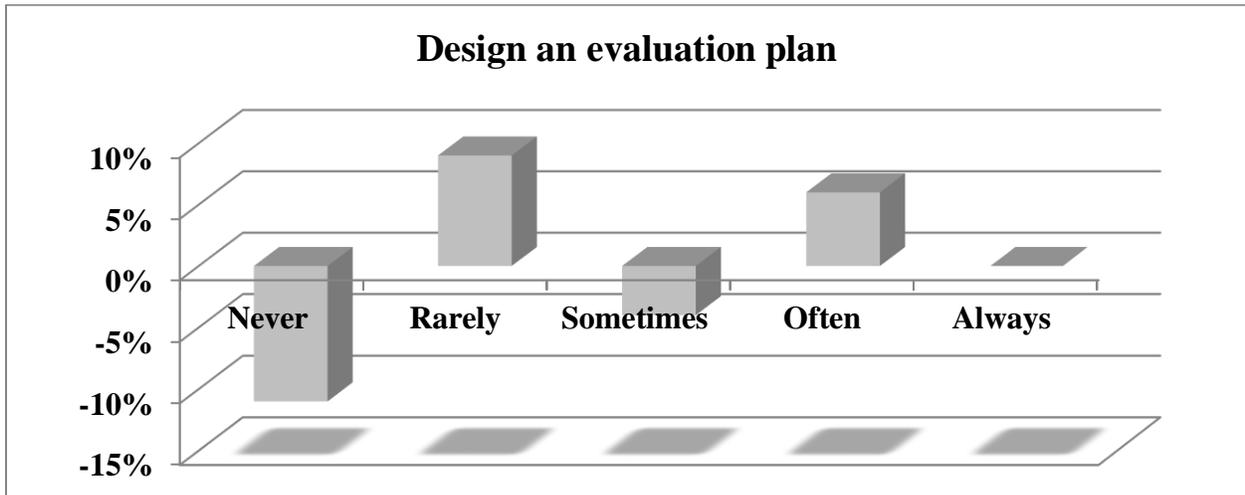


H-17: STNA-T mean scores for frequency responses for daily and weekly utilization

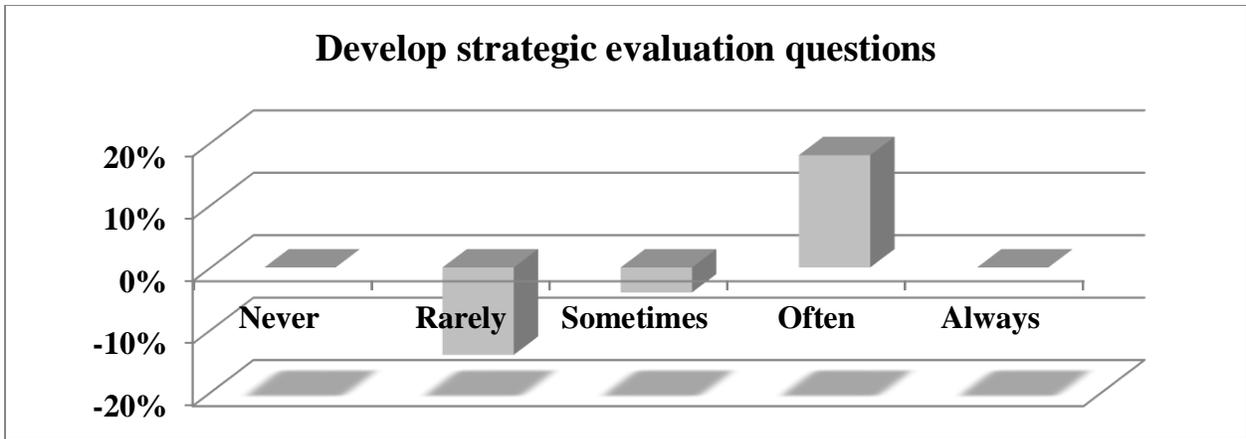
APPENDIX I: GRANTEE 1 DATA



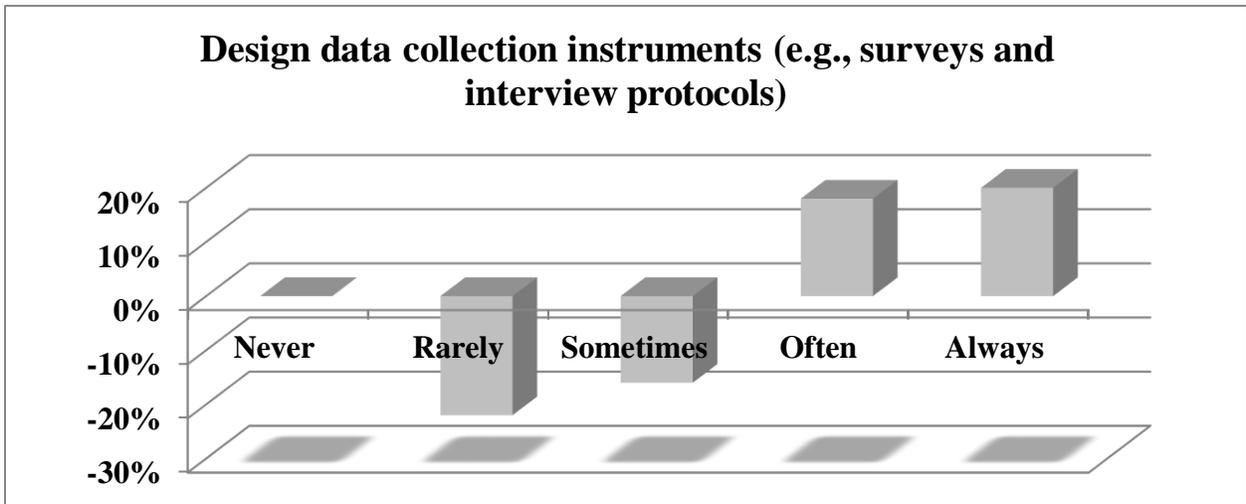
I-1: Grantee 1 ECB survey responses to individual capacity questions – change frequency



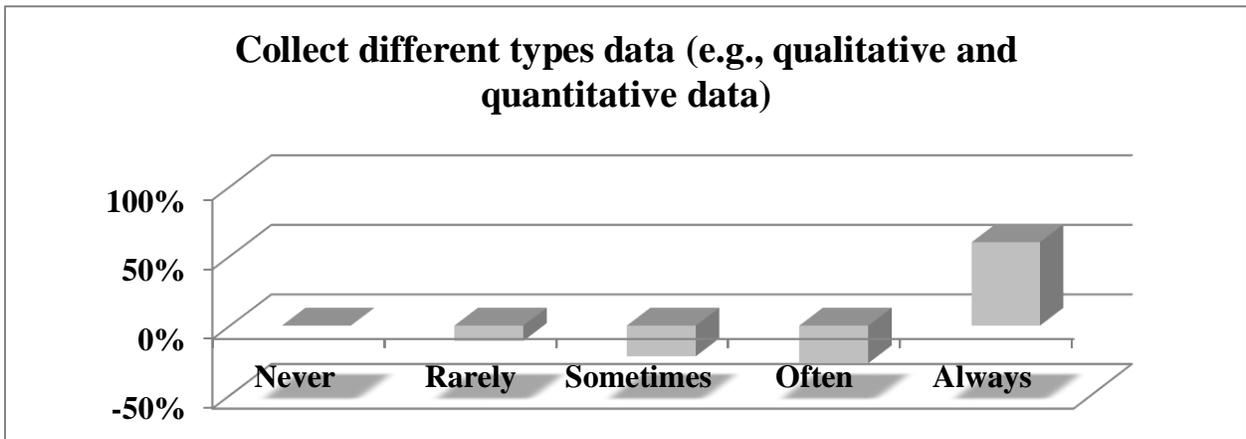
I-2: Grantee 1: ECB survey responses to individual capacity questions – change frequency



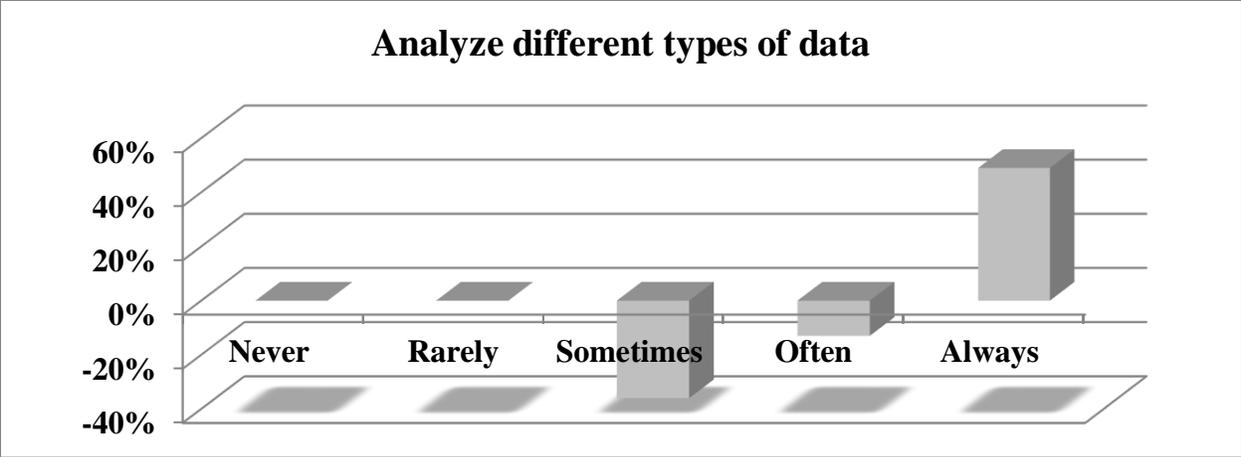
I-3: Grantee 1: ECB survey responses to individual capacity questions – change frequency



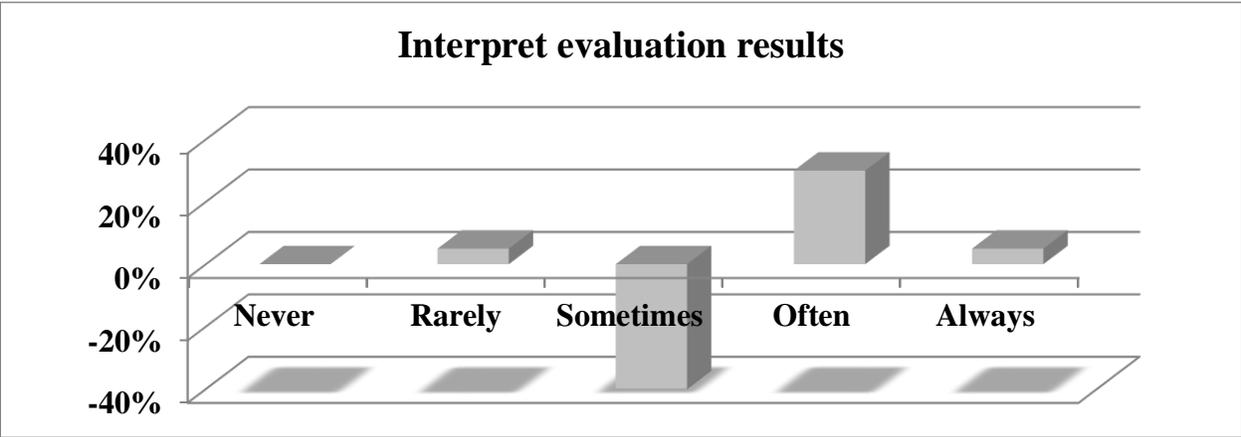
I-4: Grantee 1: ECB survey responses to individual capacity questions – change frequency



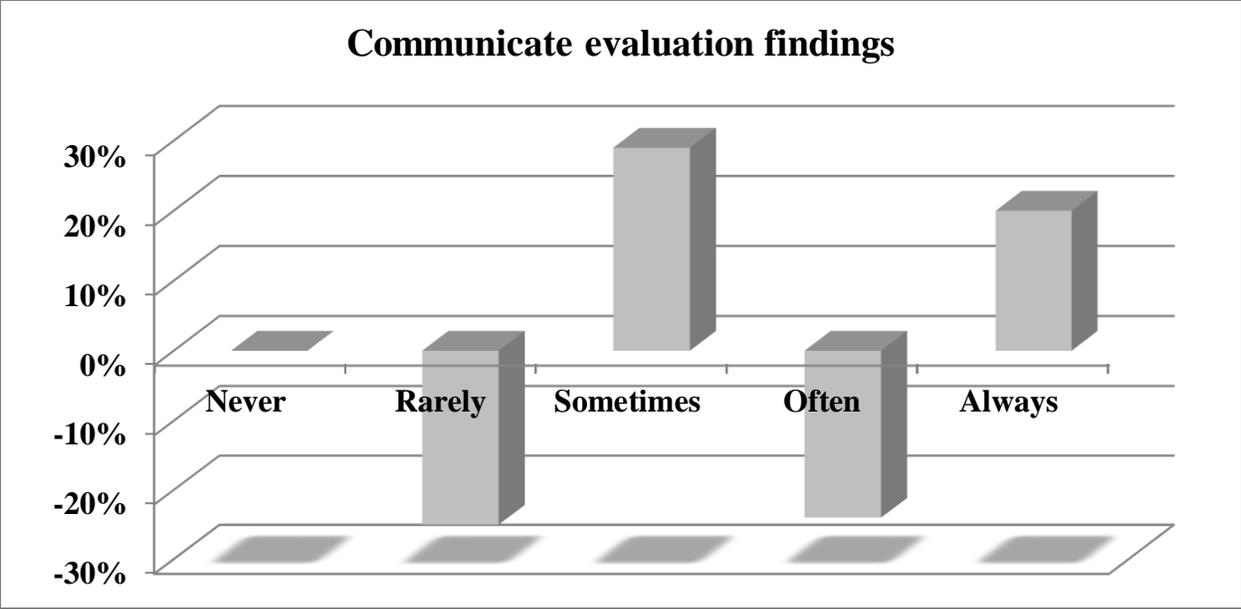
I-5: Grantee 1: ECB survey responses to individual capacity questions – change frequency



I-6: Grantee 1: ECB survey responses to individual capacity questions – change frequency



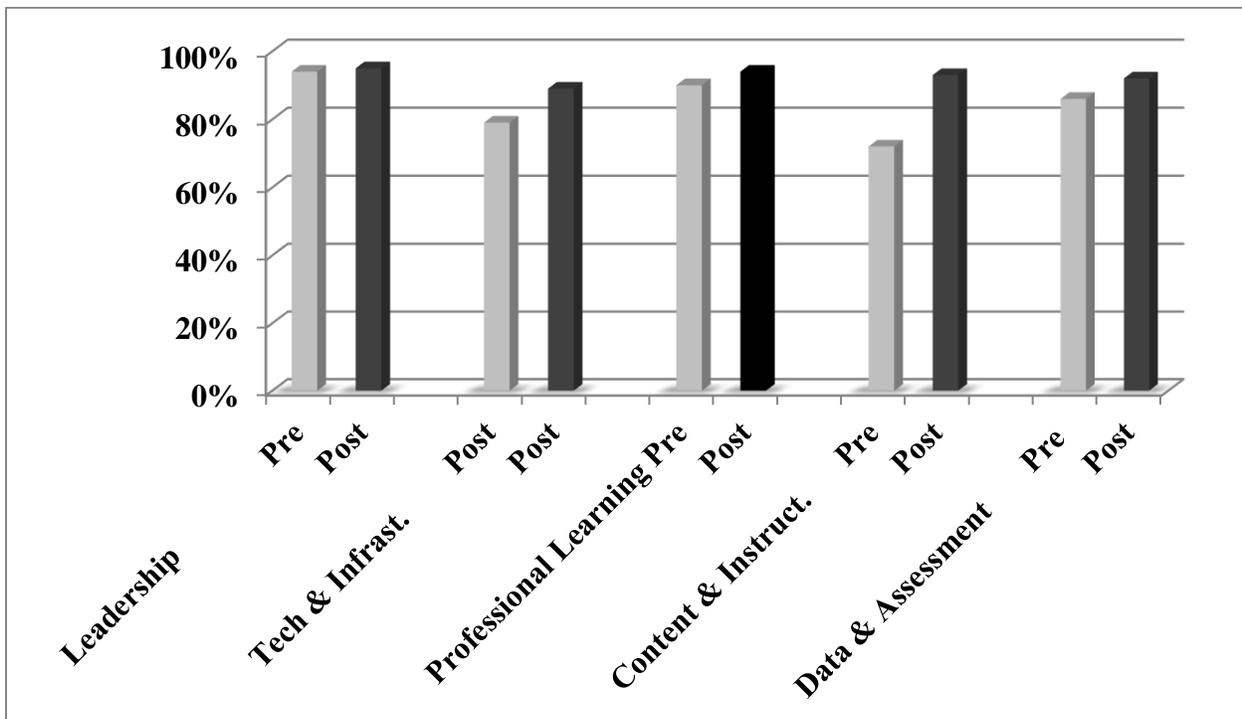
I-7: Grantee 1: ECB survey responses to individual capacity questions – change frequency



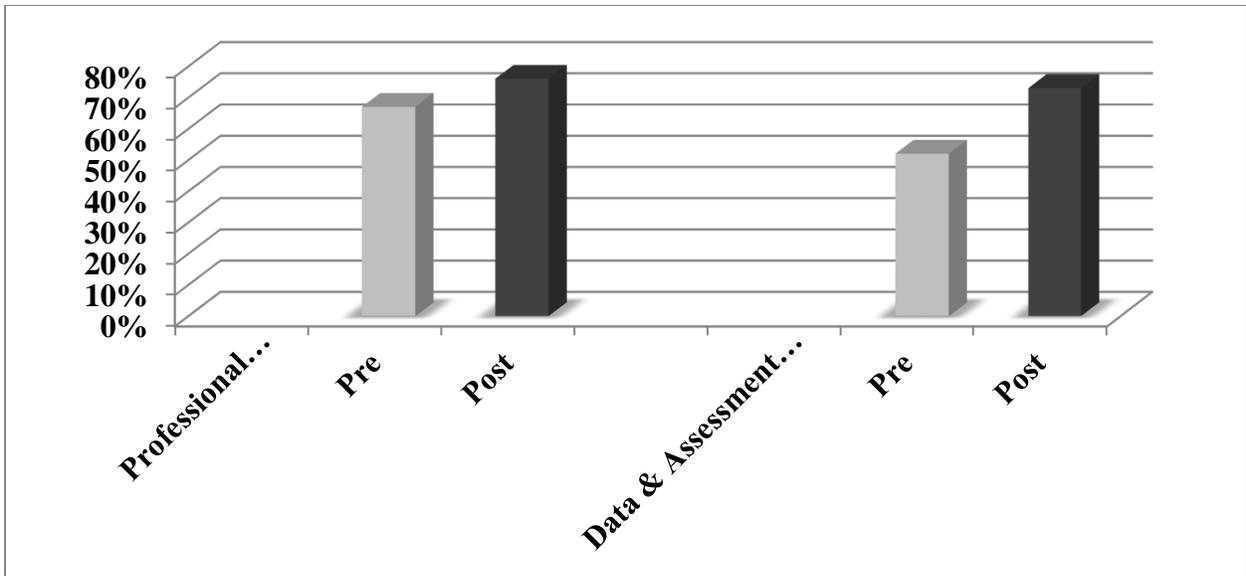
I-8: Grantee 1: ECB survey responses to individual capacity questions – change frequency

| <i>My organization has the capacity to</i> | Pre- ECB Assessment (N=9) | | Post ECB Assessment (N=5) | | % Change |
|---|---------------------------|------|---------------------------|------|----------|
| | Low | High | Low | High | High |
| Develop policies and procedures to improve an initiative/program | 22% | 78% | 0% | 100% | 22% |
| Implement programmatic changes informed by evaluation findings | 11% | 89% | 14% | 86% | -3% |
| Identify and utilize the necessary resources to conduct and use evaluations | 33% | 67% | 0% | 100% | 33% |

I-9: Grantee 1: ECB survey response to organizational capacity questions

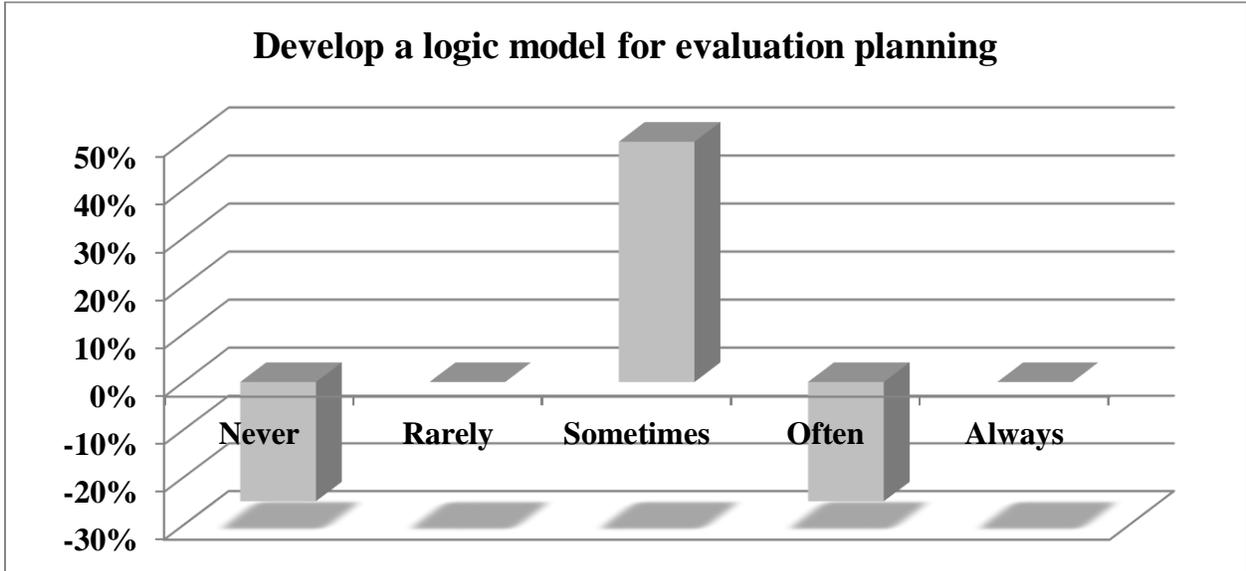


I-10: Grantee 1: STNA-T mean scores by construct category

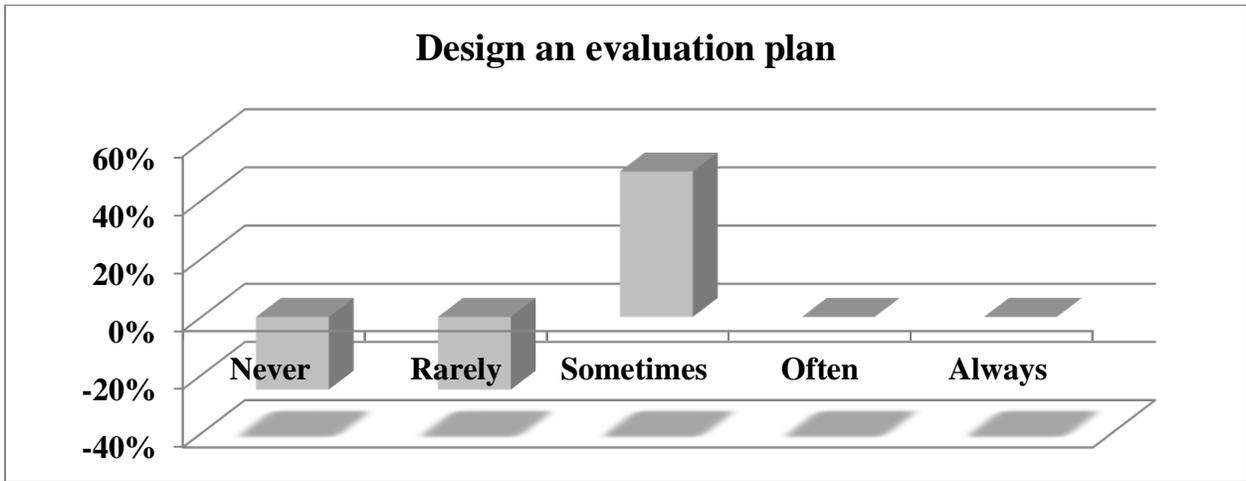


I-11: Grantee 1: STNA-T mean frequency scores

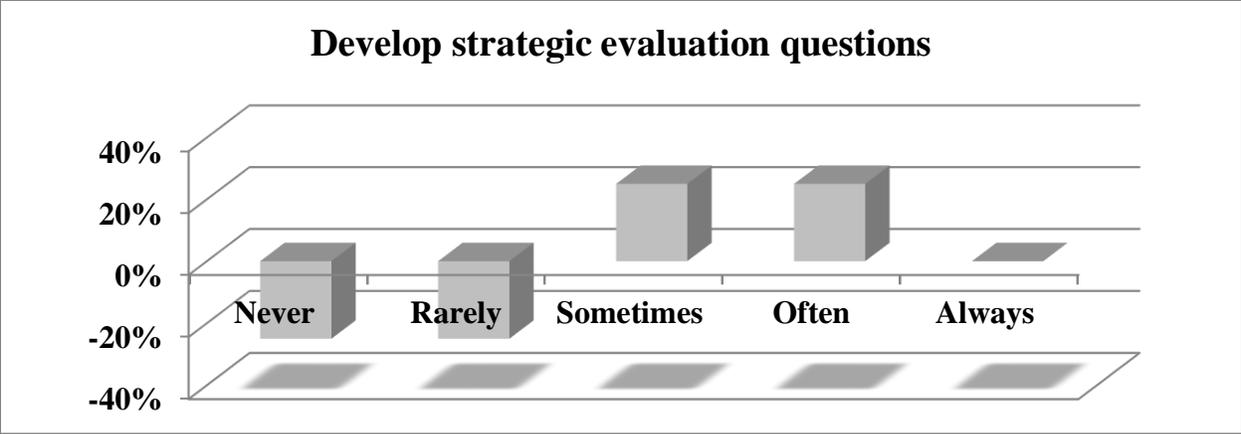
APPENDIX J: GRANTEE 3 DATA



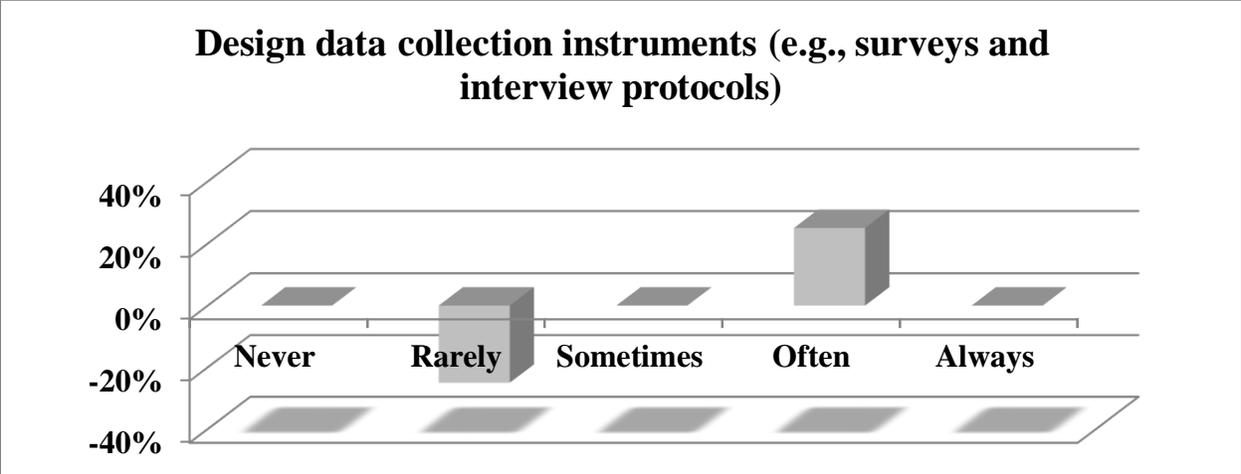
J-1: Grantee 3: ECB survey responses to individual capacity questions – change frequency



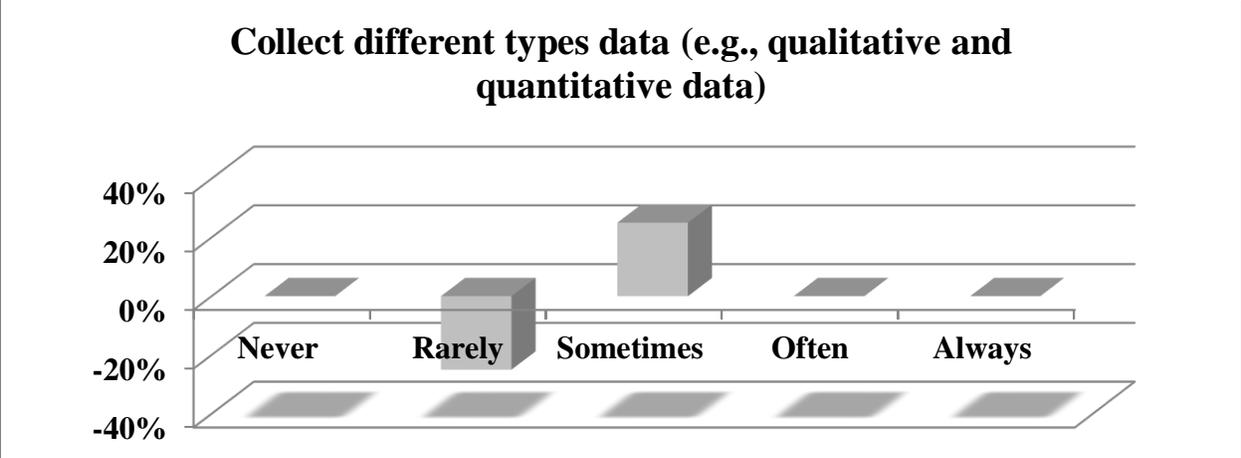
J-2: Grantee 3: ECB survey responses to individual capacity questions – change frequency



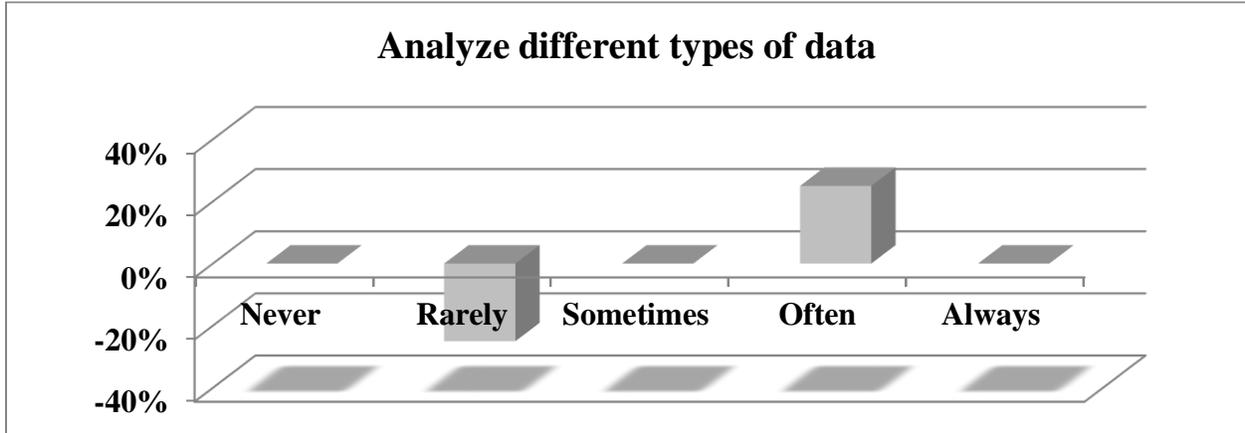
J-3: Grantee 3: ECB survey responses to individual capacity questions – change frequency



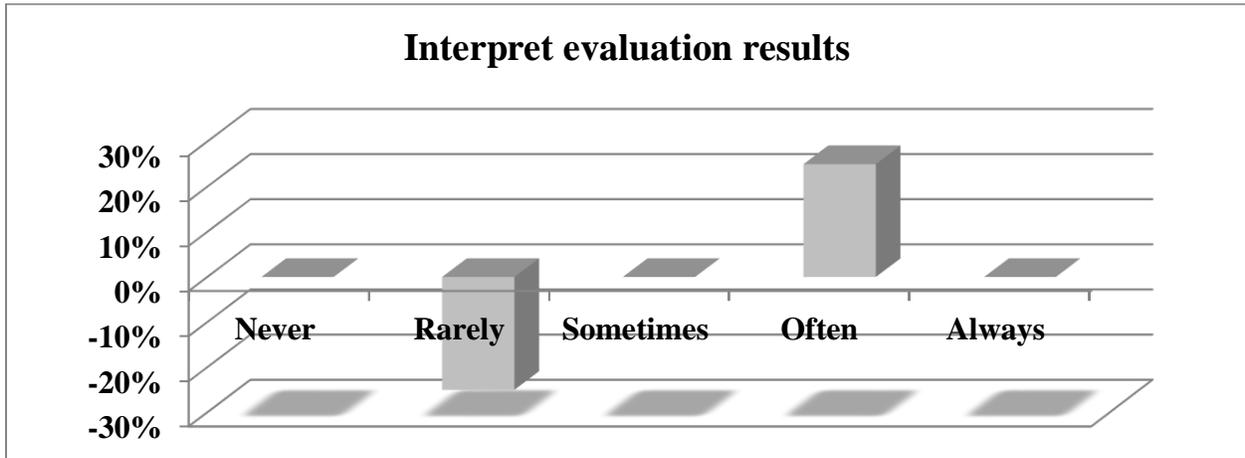
J-4: Grantee 3: ECB survey responses to individual capacity questions – change frequency



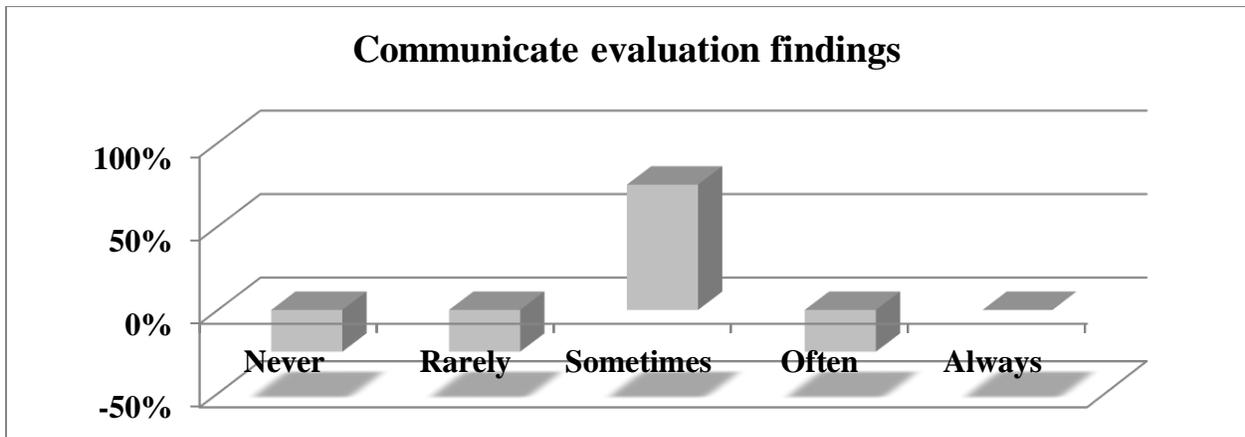
J-5: Grantee 3: ECB survey responses to individual capacity questions – change frequency



J-6: Grantee 3: ECB survey responses to individual capacity questions – change frequency



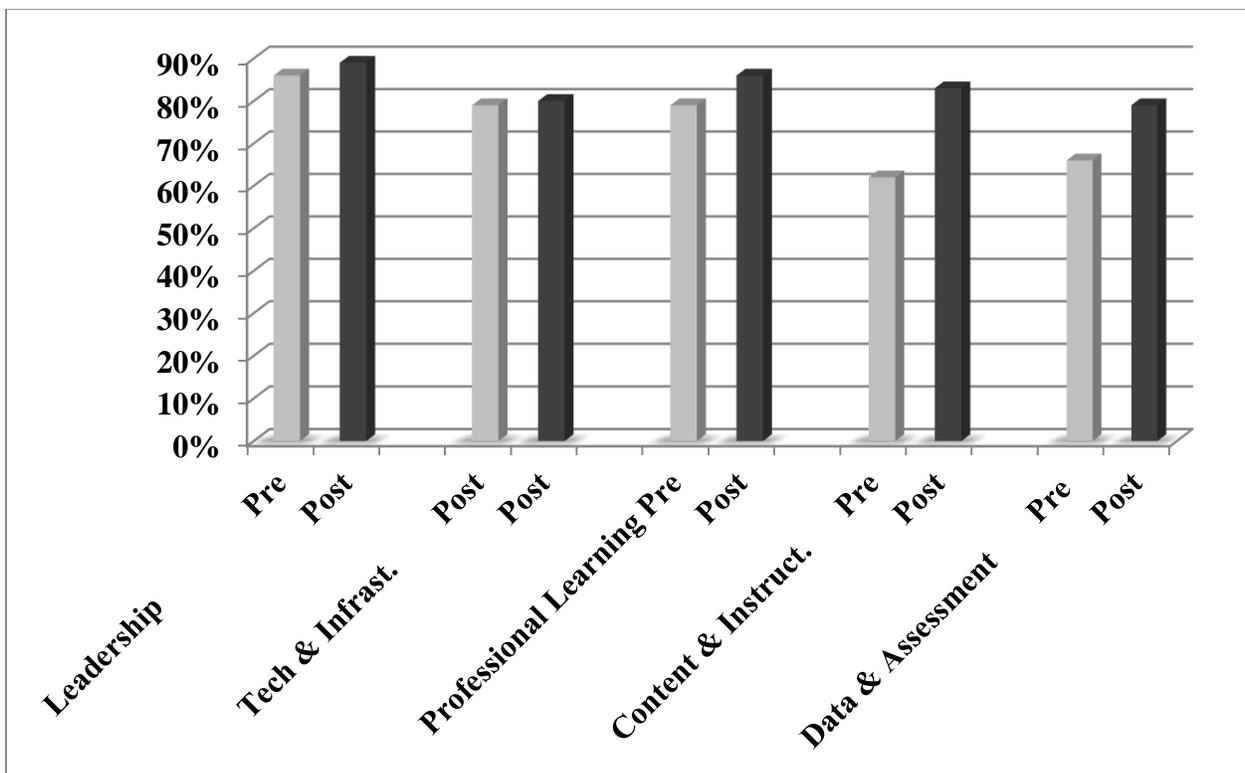
J-7: Grantee 3: ECB survey responses to individual capacity questions – change frequency



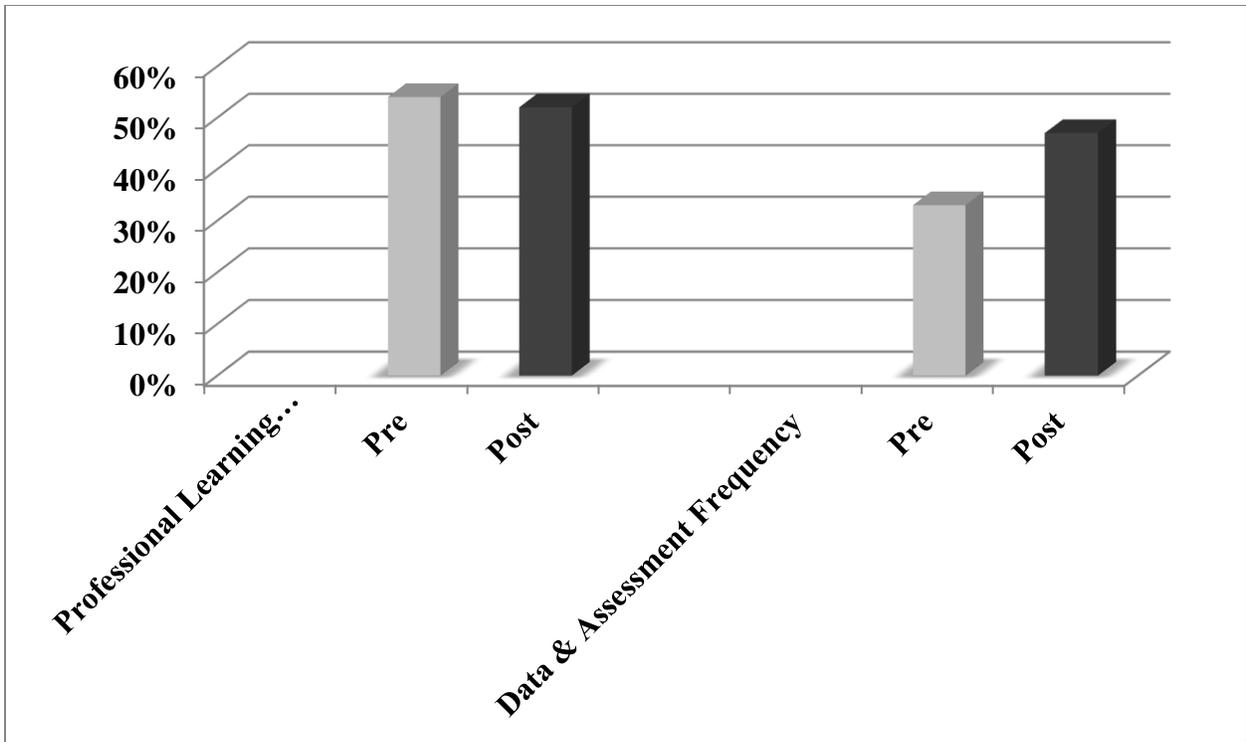
J-8: Grantee 3: ECB survey responses to individual capacity questions – change frequency

| <i>My organization has the capacity to</i> | Pre- ECB Assessment (N=4) | | Post ECB Assessment (N=4) | | % Change High |
|---|---------------------------|------|---------------------------|------|---------------|
| | Low | High | Low | High | |
| Develop policies and procedures to improve an initiative/program | 25% | 75% | 0% | 100% | 25% |
| Implement programmatic changes informed by evaluation findings | 0% | 100% | 0% | 100% | 0% |
| Identify and utilize the necessary resources to conduct and use evaluations | 0% | 100% | 0% | 100% | 0% |

J-9: Grantee 3: ECB Survey responses to organizational capacity questions

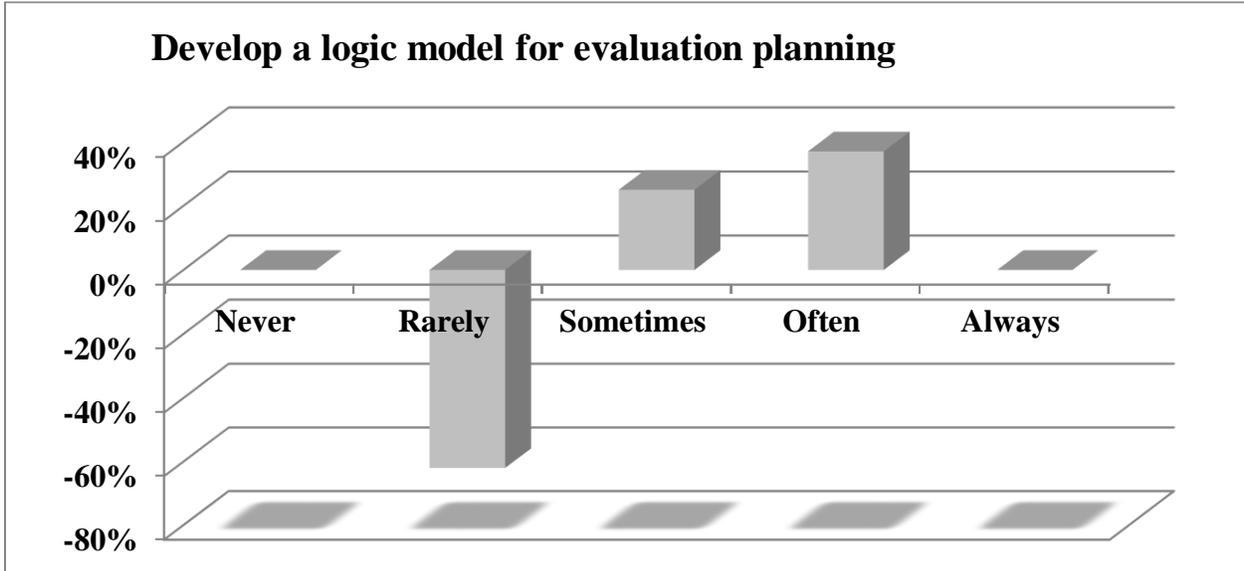


J-10: Grantee 3: STNA-T survey responses by construct scale

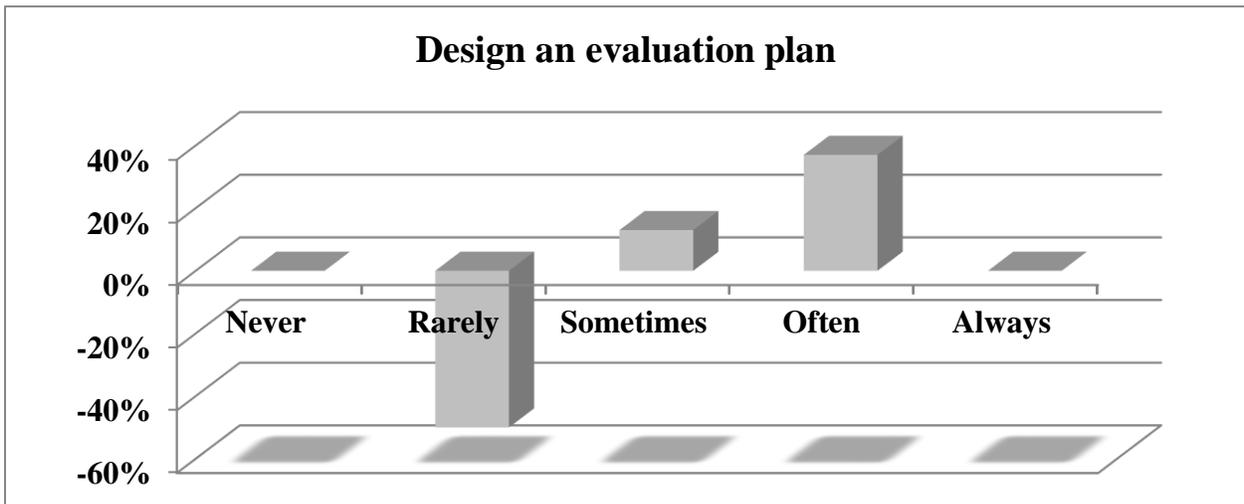


J-11: Grantee 3: STNA-T survey mean frequency scores

APPENDIX K: GRANTEE 4 DATA



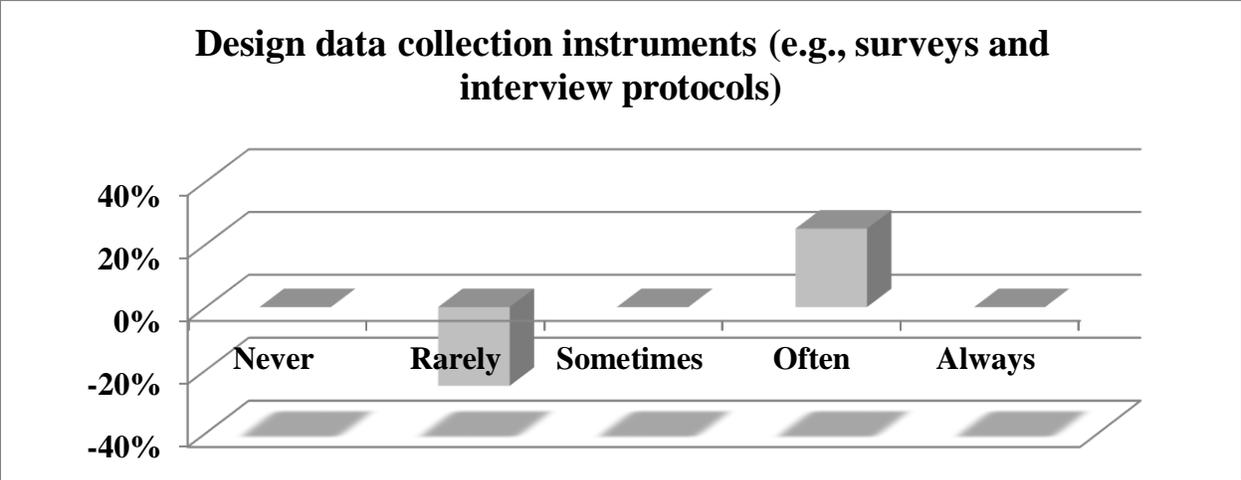
K-1: Grantee 4: ECB survey responses to individual capacity questions – change frequency



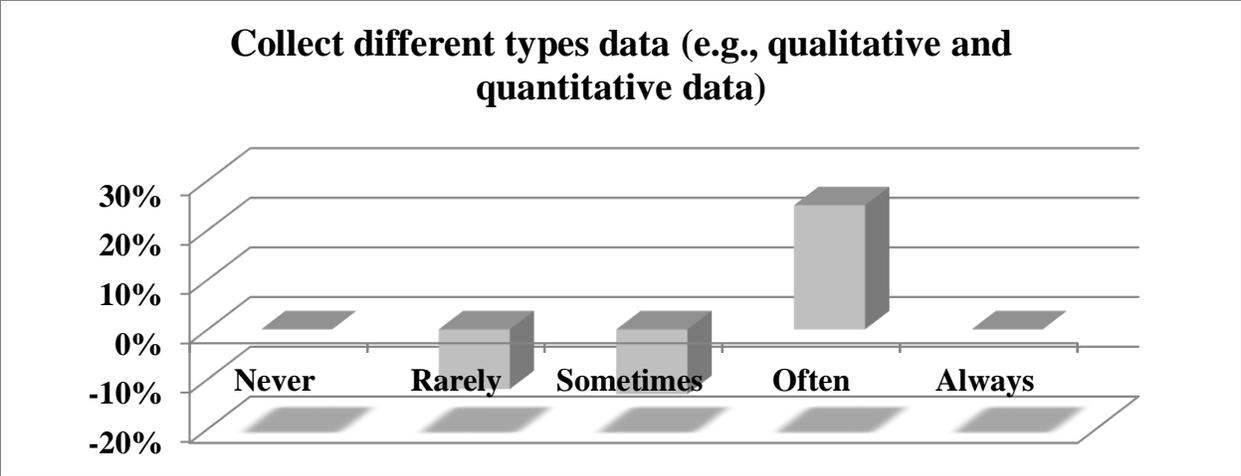
K-2: Grantee 4: ECB survey responses to individual capacity questions – change frequency



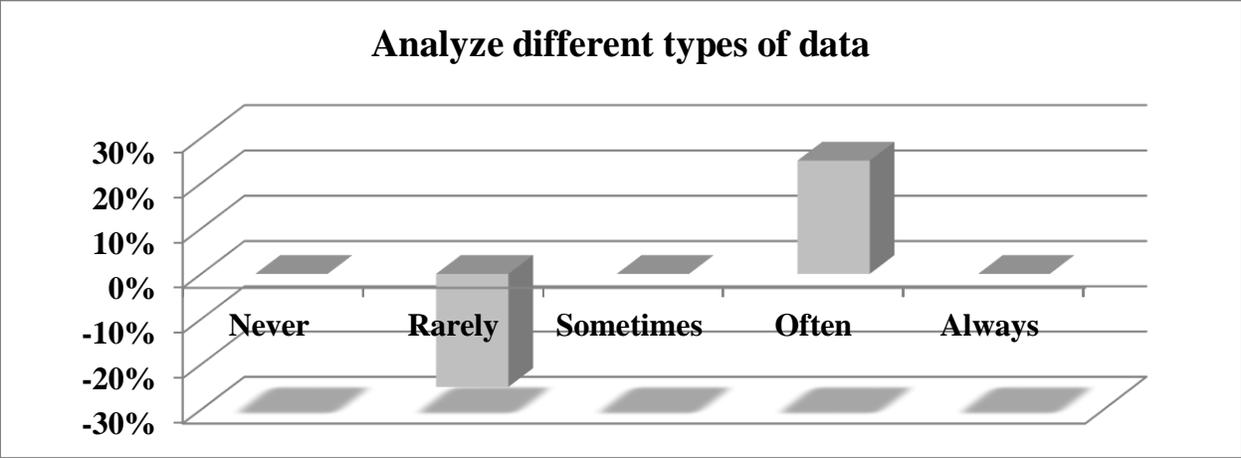
K-3: Grantee 4: ECB survey responses to individual capacity questions – change frequency



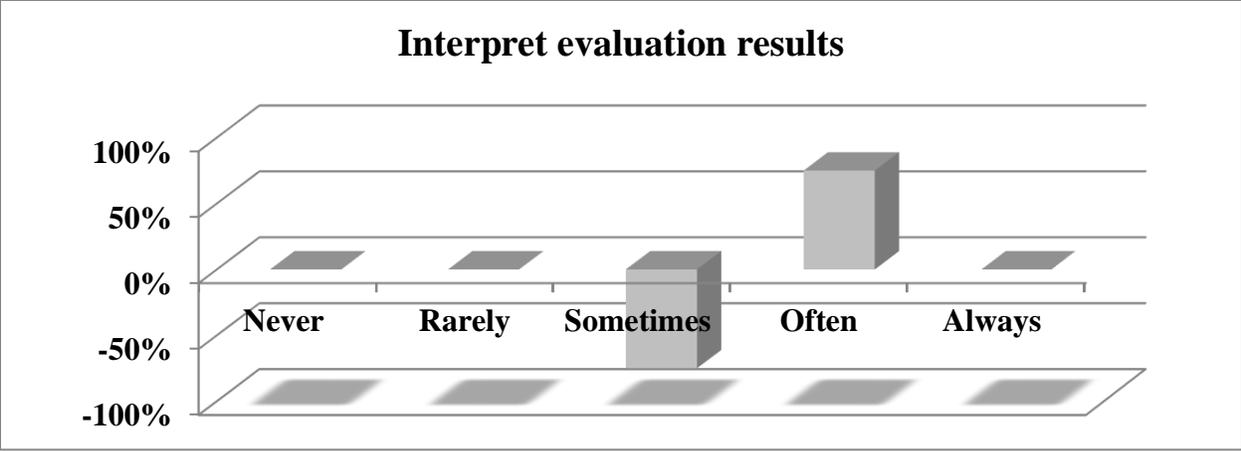
K-4: Grantee 4: ECB survey responses to individual capacity questions – change frequency



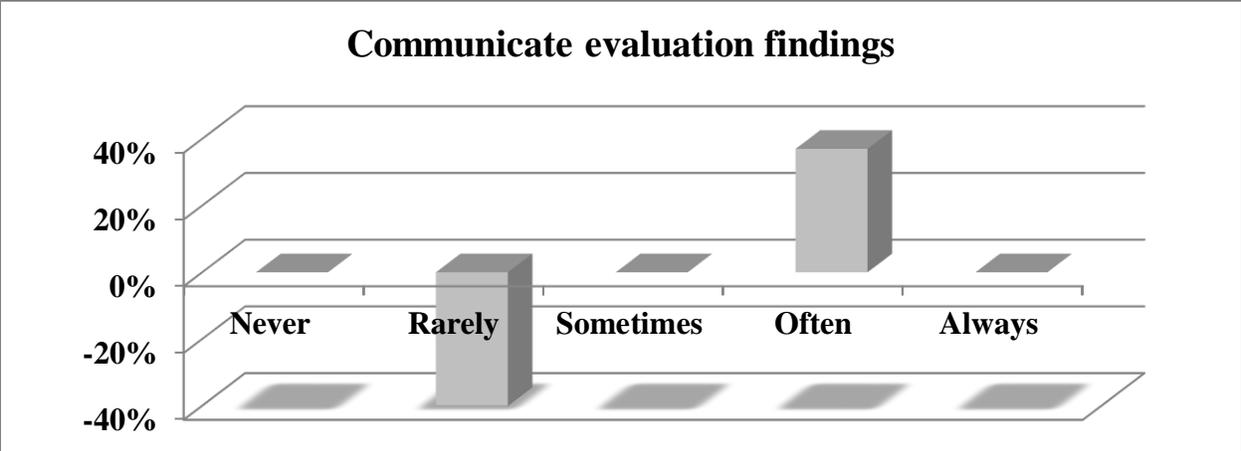
K-5: Grantee 4: ECB survey responses to individual capacity questions – change frequency



K-6: Grantee 4: ECB survey responses to individual capacity questions – change frequency



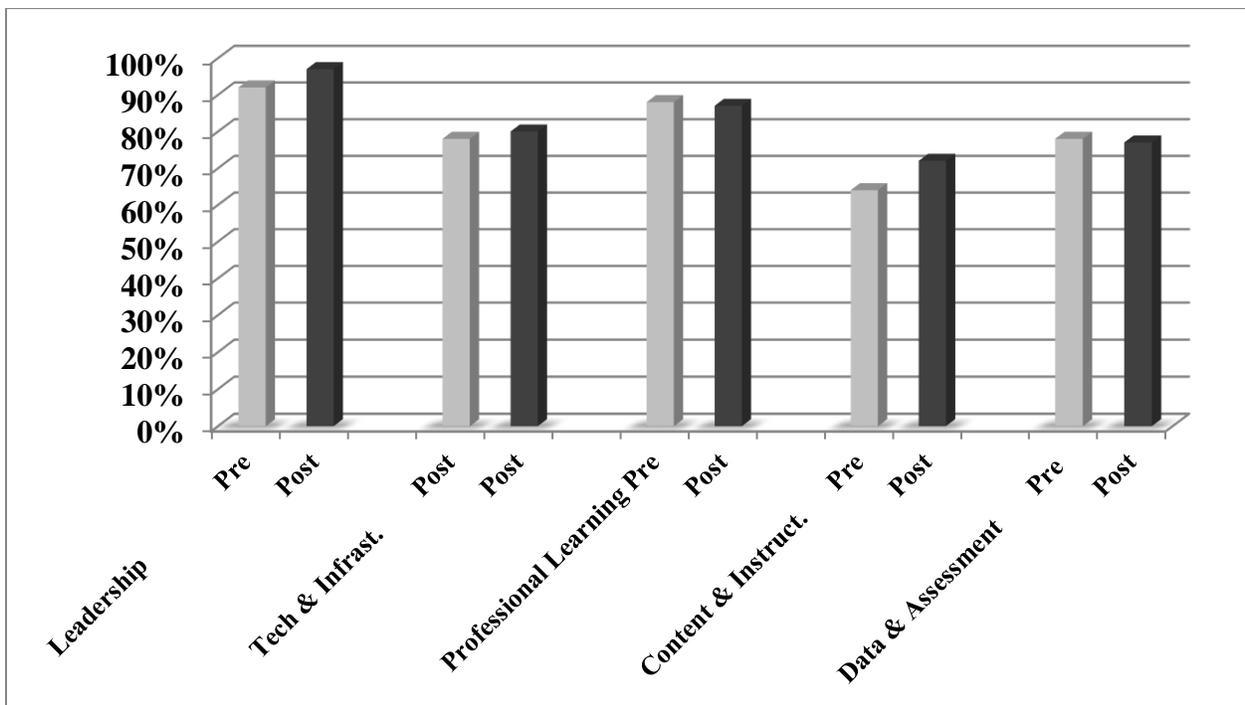
K-7: Grantee 4: ECB survey responses to individual capacity questions – change frequency



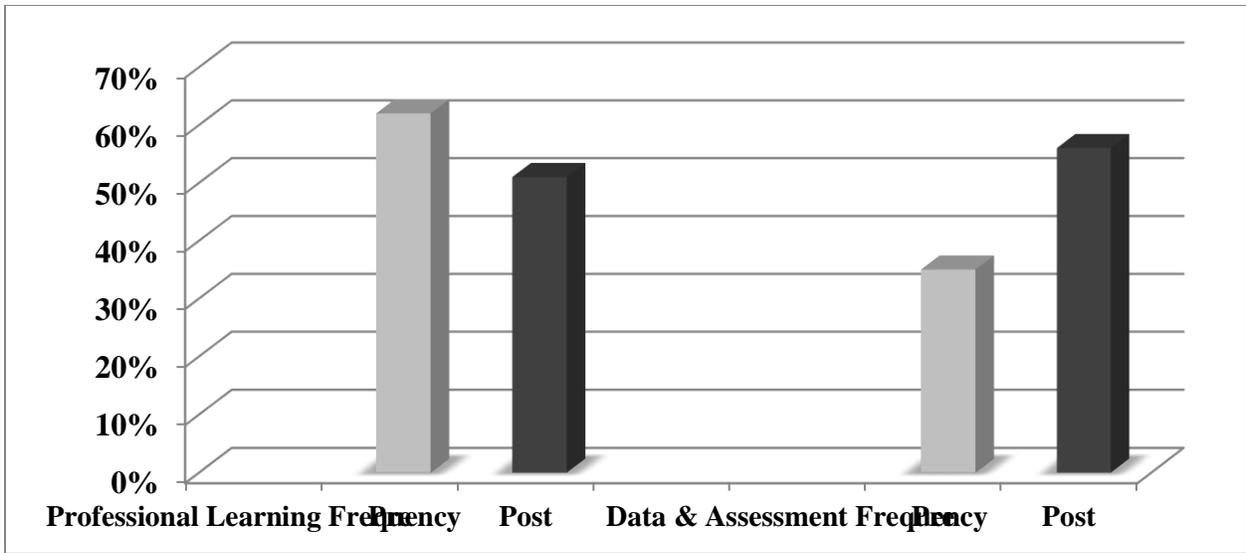
K-8: Grantee 4: ECB survey responses to individual capacity questions – change frequency

| <i>My organization has the capacity to</i> | Pre- ECB Assessment (N=4) | | Post ECB Assessment (N=8) | | % Change High |
|---|---------------------------|------|---------------------------|------|---------------|
| | Low | High | Low | High | |
| Develop policies and procedures to improve an initiative/program | 50% | 50% | 0% | 100% | 50% |
| Implement programmatic changes informed by evaluation findings | 75% | 25% | 0% | 100% | 75% |
| Identify and utilize the necessary resources to conduct and use evaluations | 25% | 75% | 0% | 100% | 25% |

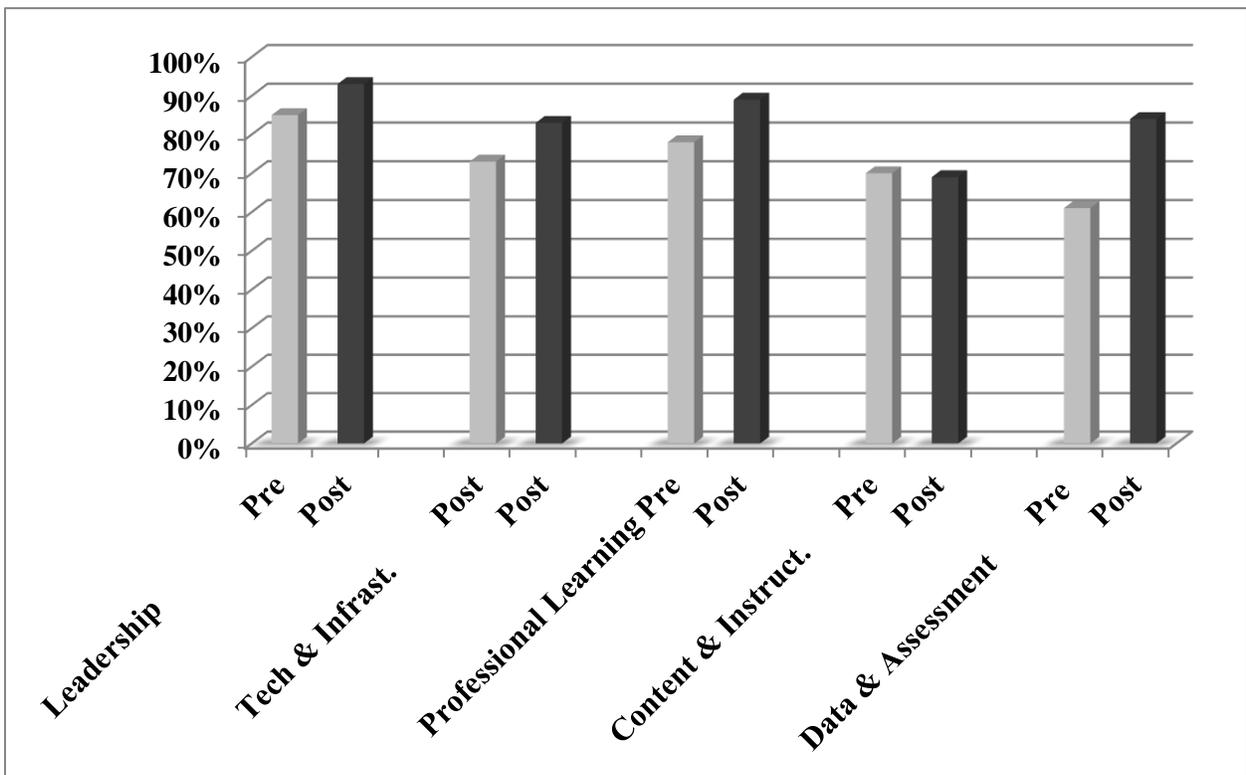
K-9: Grantee 4: ECB survey responses to organizational capacity questions



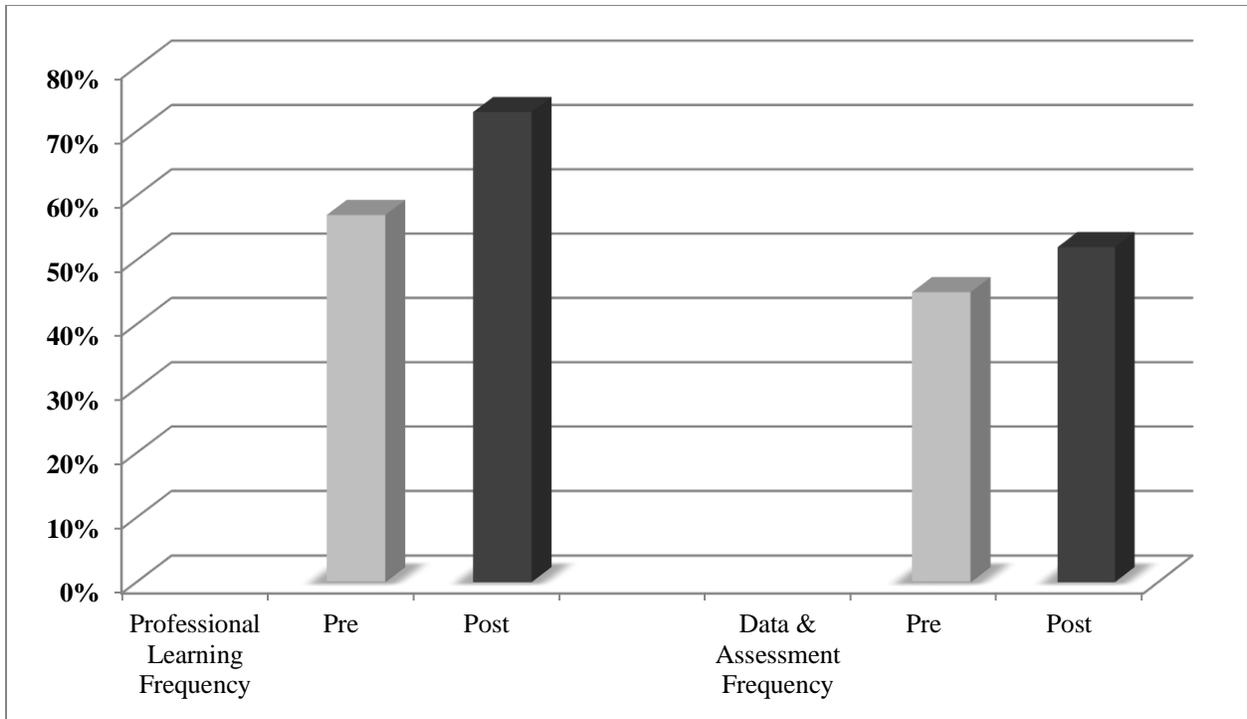
K-10: Grantee 4-S1: STNA-T mean survey responses by construct scale



K-11: Grantee 4-S1: STNA-T survey mean frequency scores

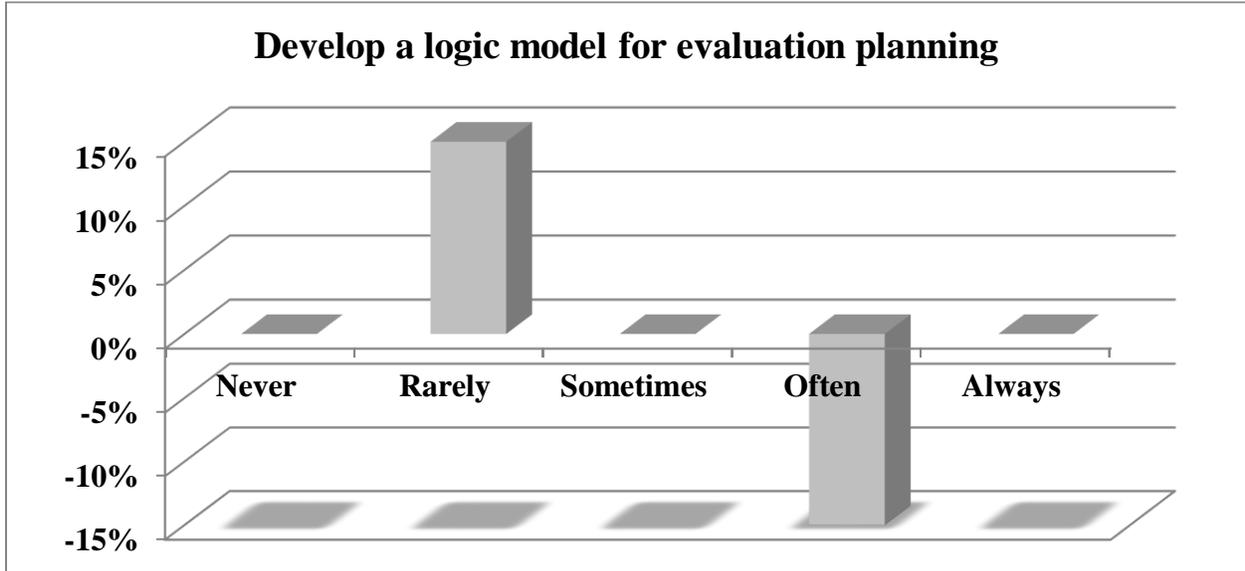


K-12: Grantee 4-S2: STNA-T survey mean scores by construct scales

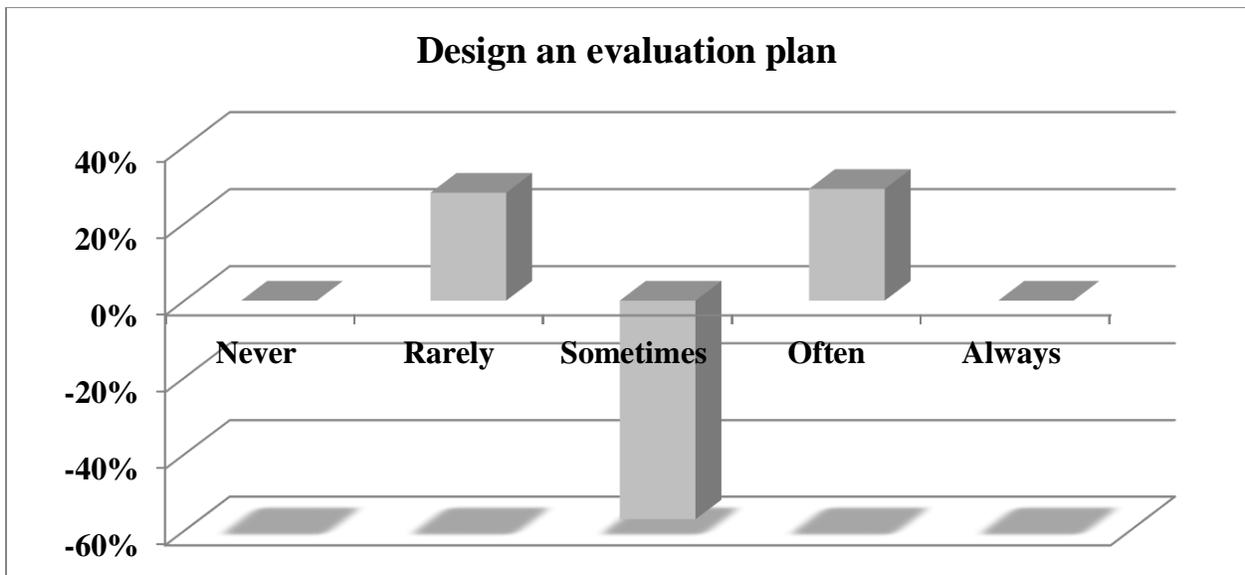


K-13: Grantee 4-S2: STNA-T survey mean frequency scores

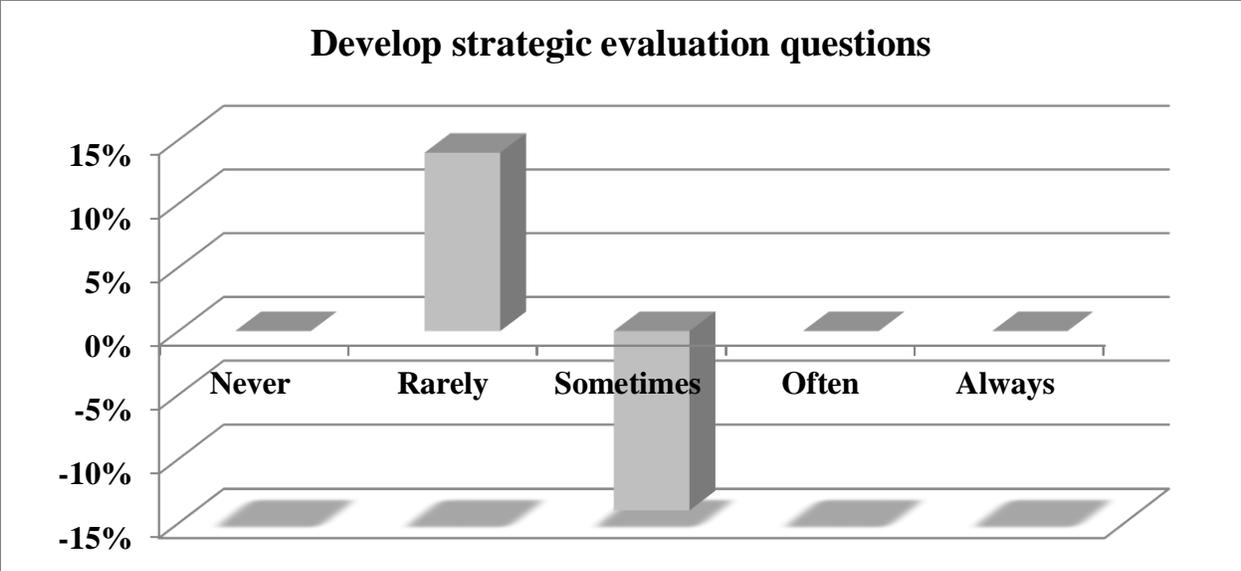
APPENDIX L: GRANTEE 5 DATA



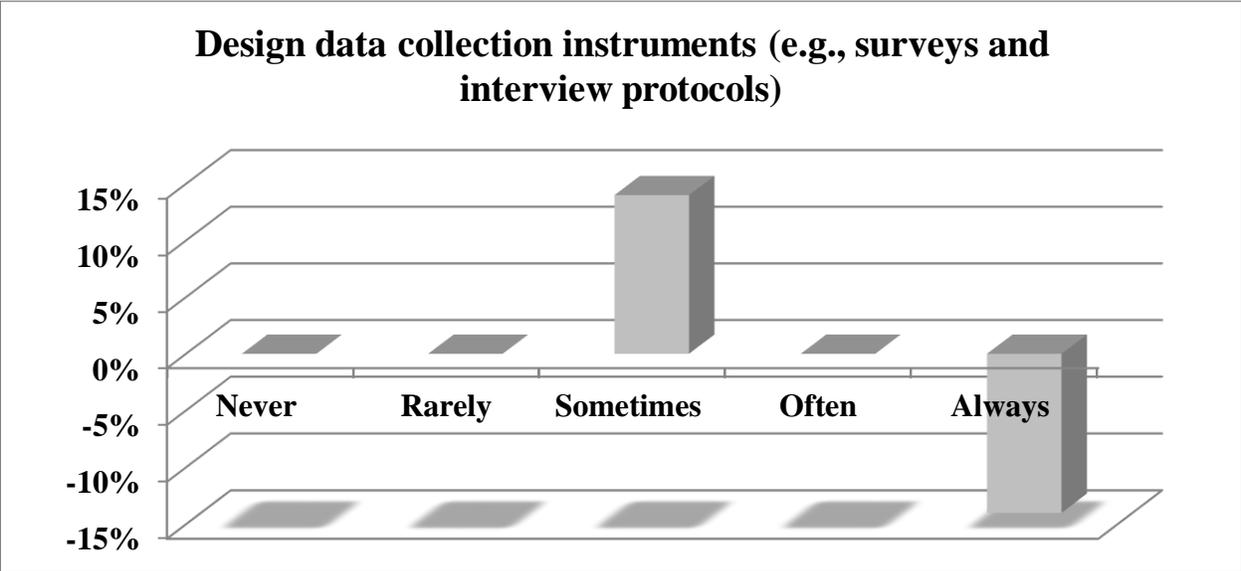
L-1: Grantee 5: ECB survey responses to individual capacity questions – change frequency



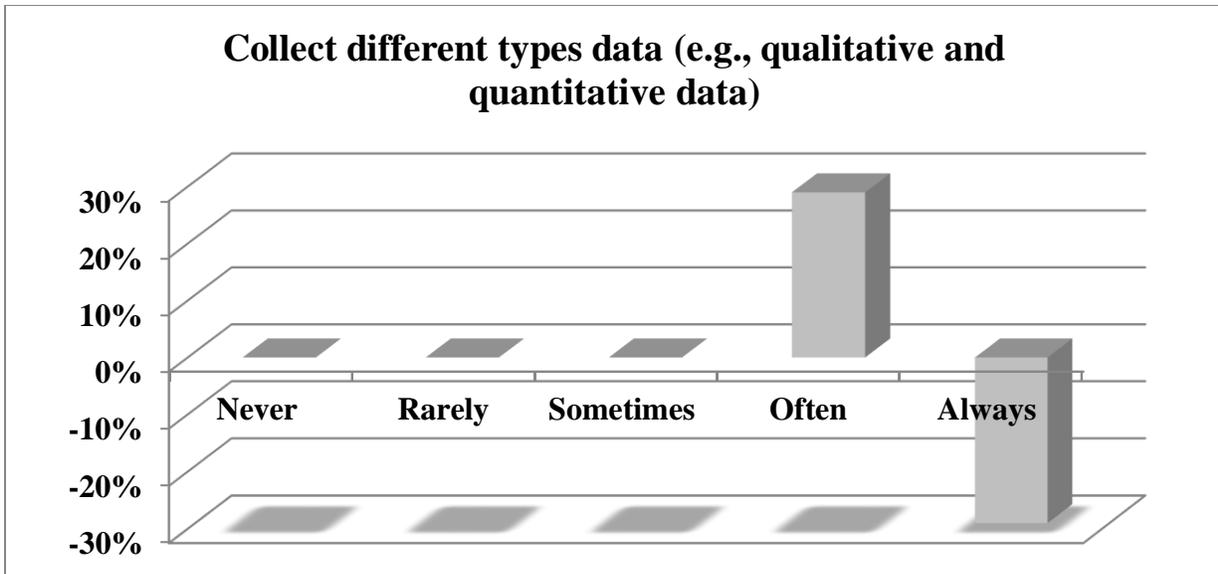
L-2: Grantee 5: ECB survey responses to individual capacity questions – change frequency



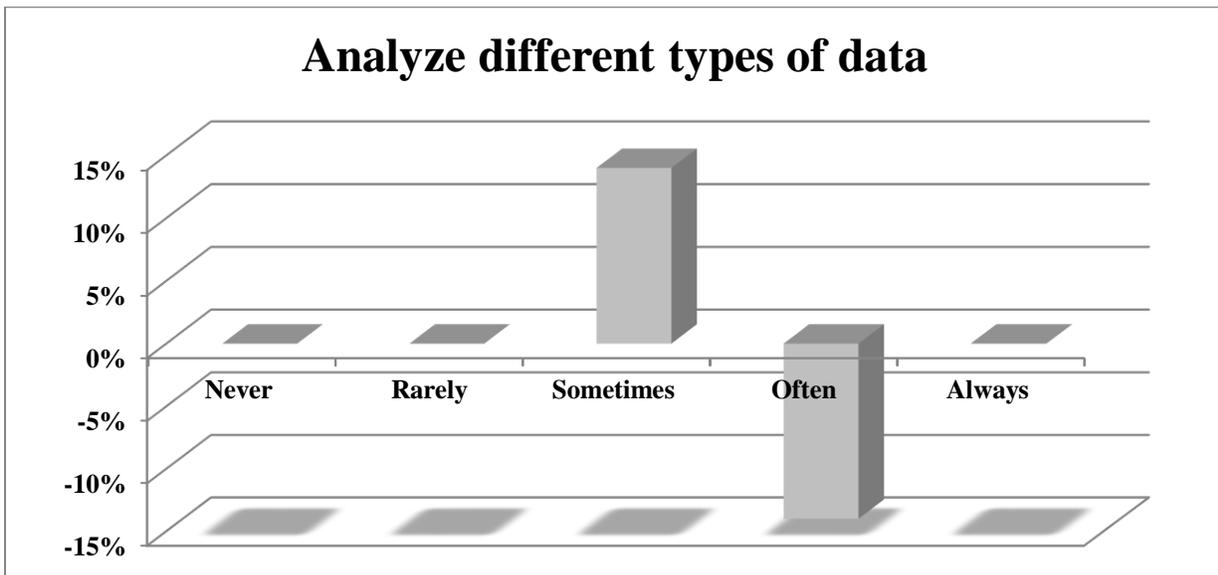
L-3: Grantee 5: ECB survey responses to individual capacity questions – change frequency



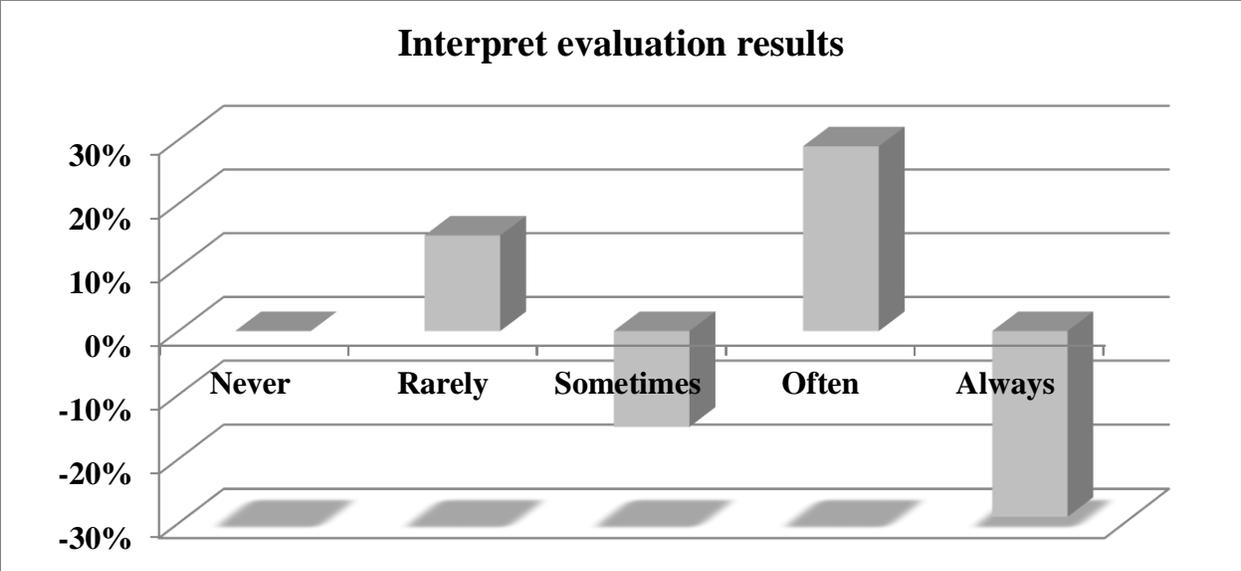
L-4: Grantee 5: ECB survey responses to individual capacity questions – change frequency



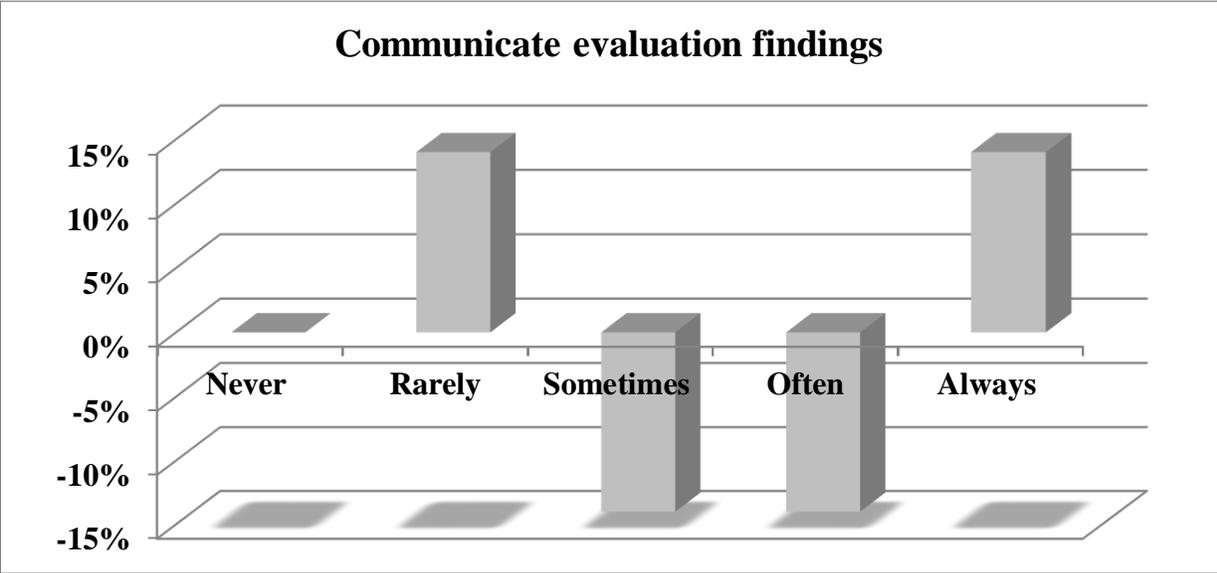
L-5: Grantee 5: ECB survey responses to individual capacity questions – change frequency



L-6: Grantee 5: ECB survey responses to individual capacity questions – change frequency



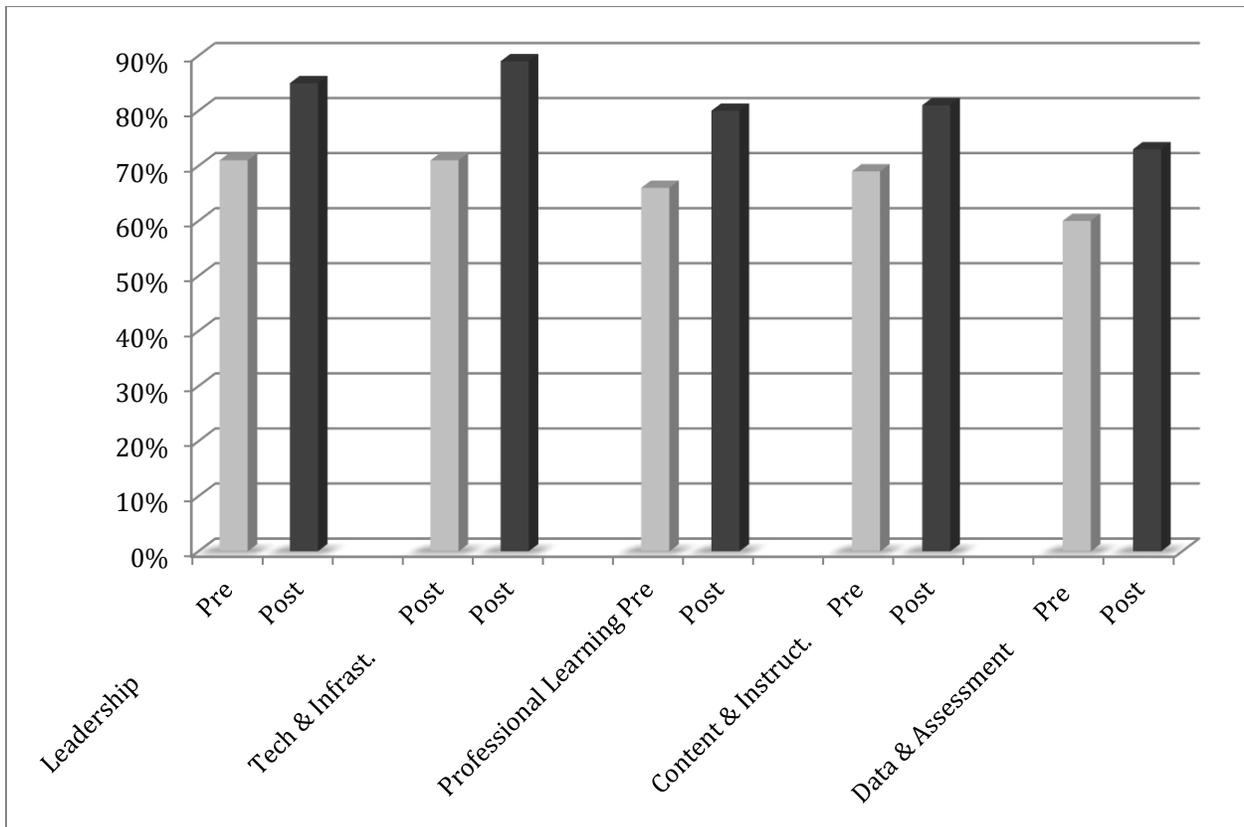
L-7: Grantee 5: ECB survey responses to individual capacity questions – change frequency



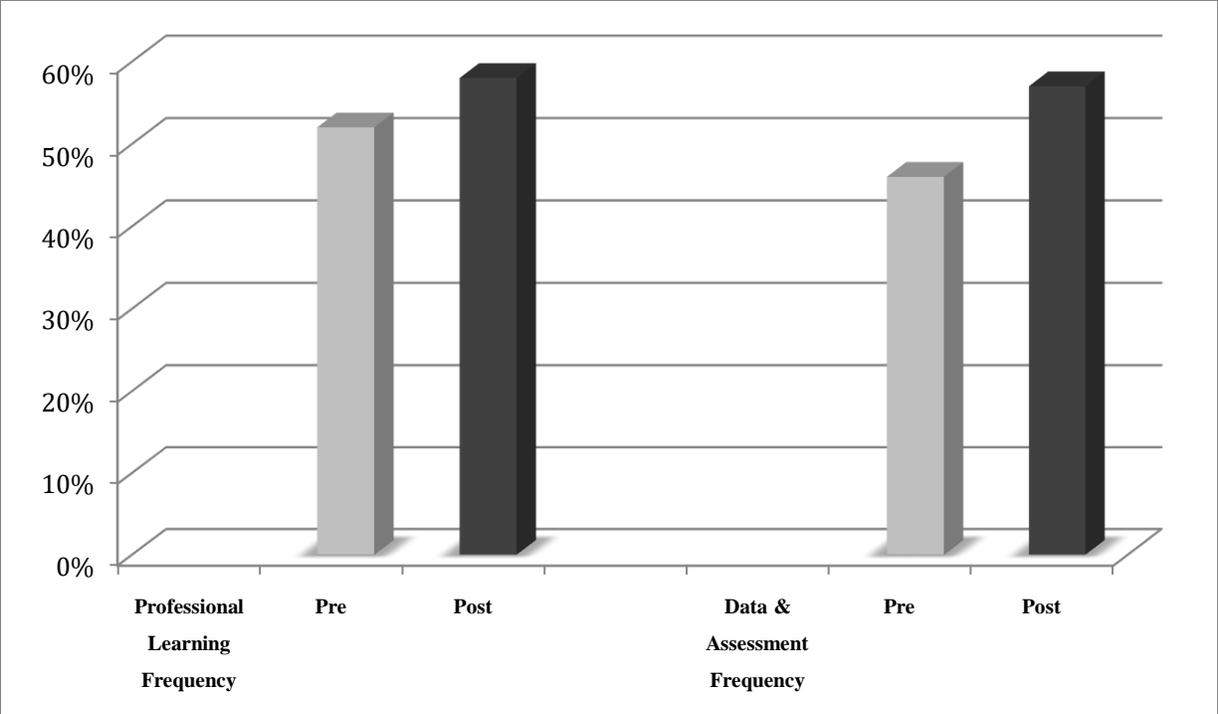
L-8: Grantee 5: ECB survey responses to individual capacity questions – change frequency

| <i>My organization has the capacity to</i> | Pre- ECB Assessment (N=7) | | Post ECB Assessment (N=7) | | % Change High |
|---|---------------------------|------|---------------------------|------|---------------|
| | Low | High | Low | High | |
| Develop policies and procedures to improve an initiative/program | 0% | 100% | 17% | 83% | -17% |
| Implement programmatic changes informed by evaluation findings | 0% | 100% | 0% | 100% | 0% |
| Identify and utilize the necessary resources to conduct and use evaluations | 0% | 100% | 17% | 83% | -17% |

L-9: Grantee 5: ECB survey responses to organizational capacity questions

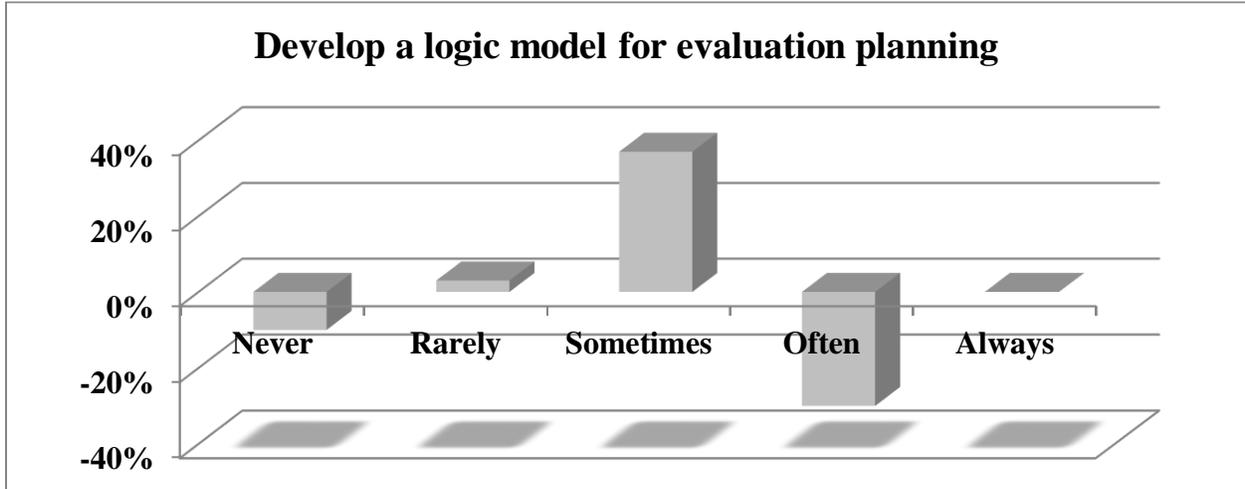


L-10: Grantee 5: STNA-T survey mean scores by construct scales

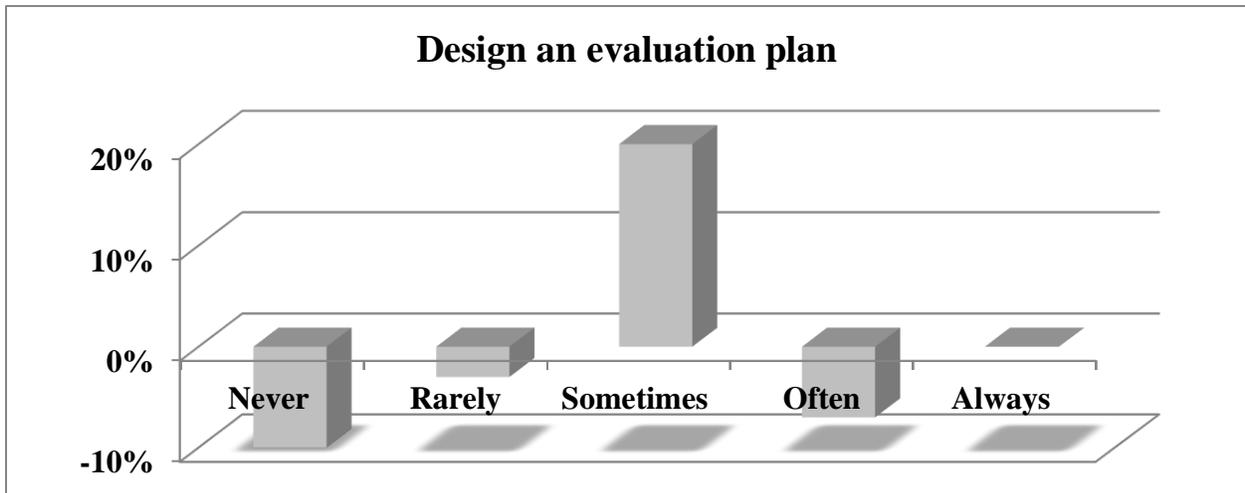


L-11: Grantee 5: STNA-T survey mean frequency scores

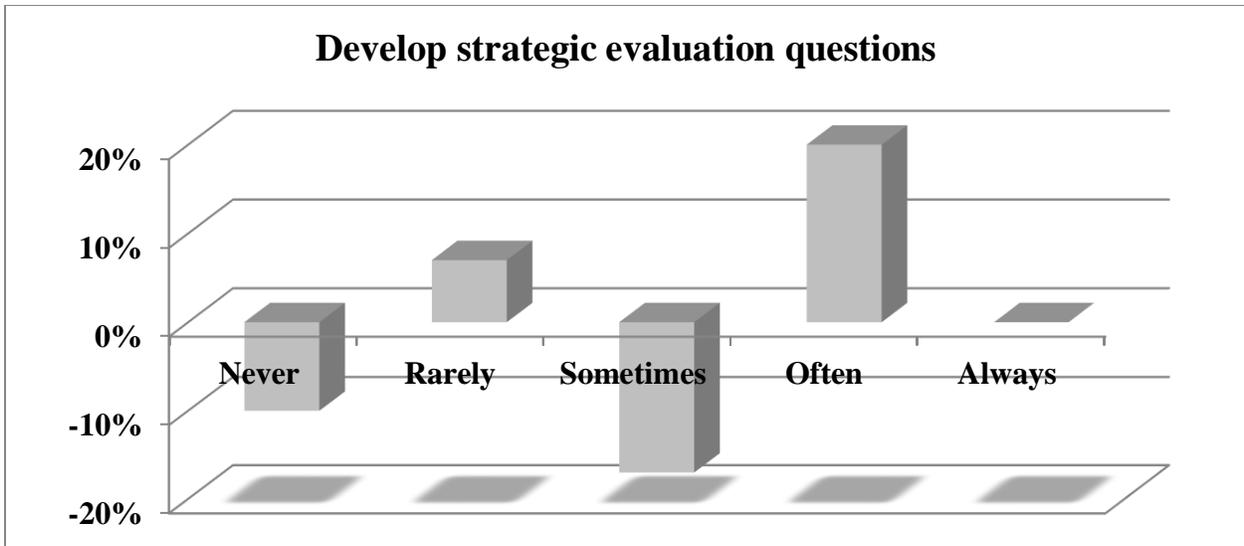
APPENDIX M: GRANTEE 7 DATA



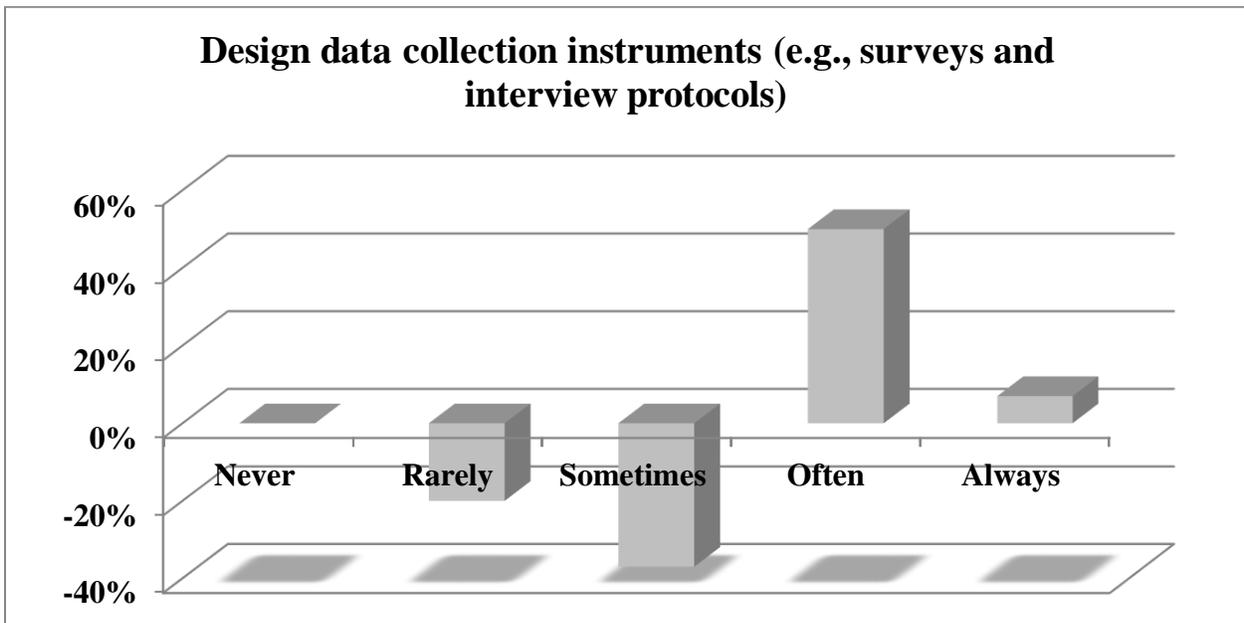
M-1: Grantee 7: ECB survey responses to individual capacity questions – change frequency



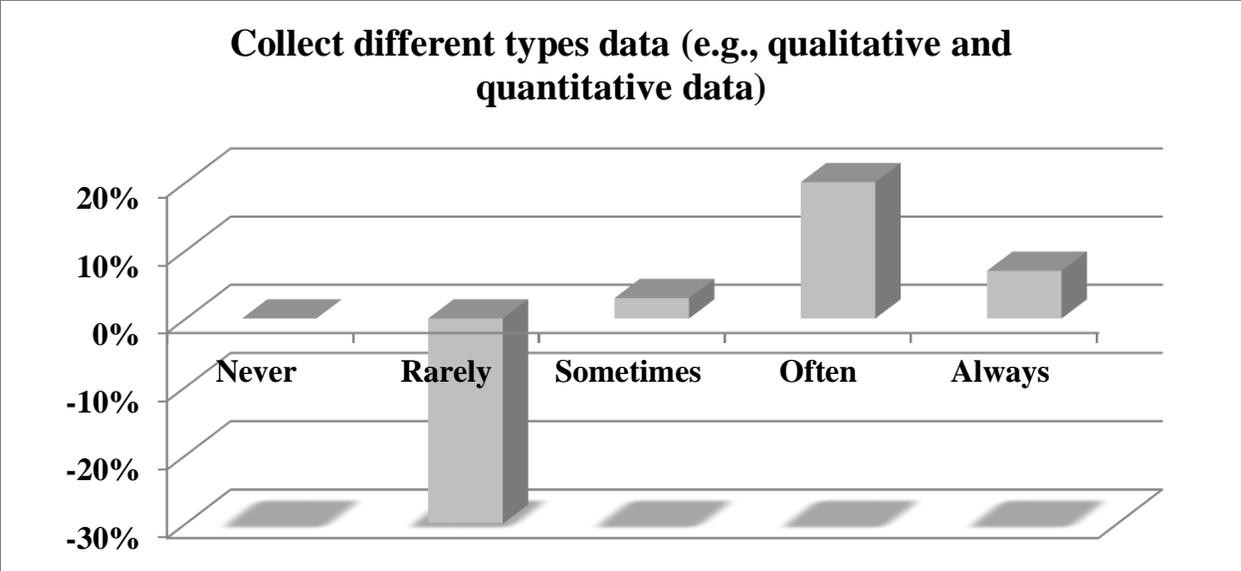
M-2: Grantee 7: ECB survey responses to individual capacity questions – change frequency



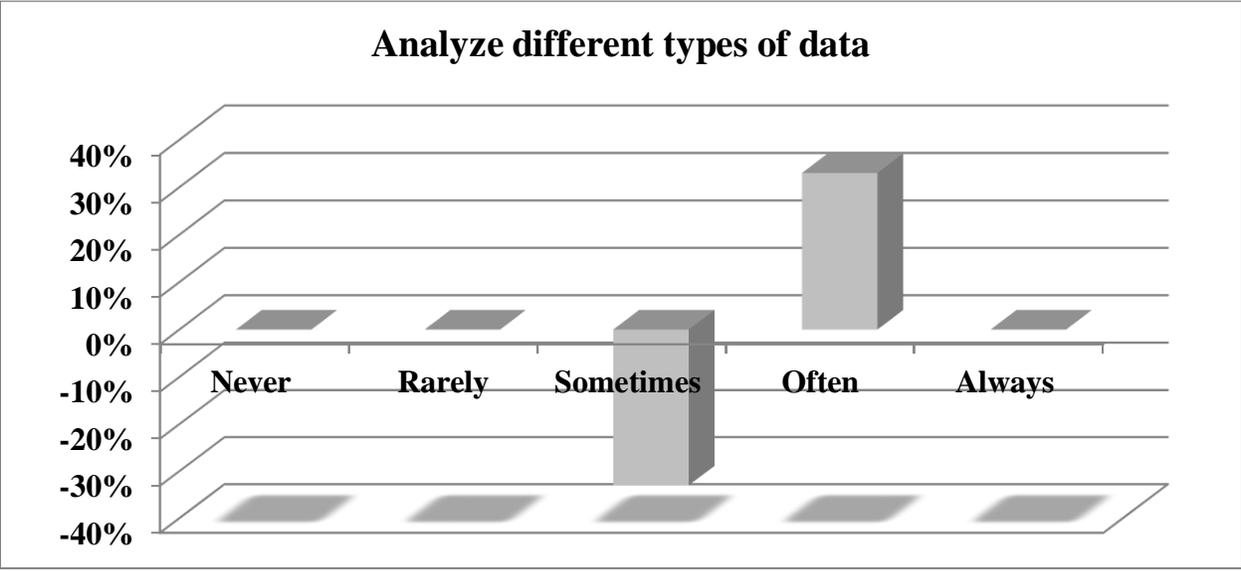
M-3: Grantee 7: ECB survey responses to individual capacity questions – change frequency



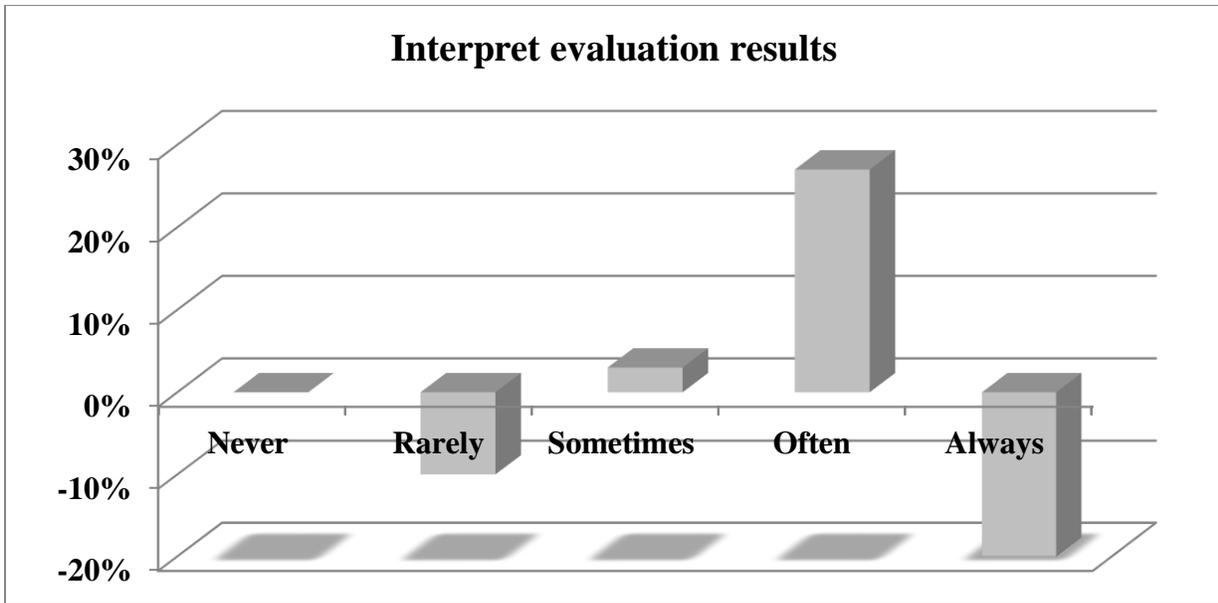
M-4: Grantee 7: ECB survey responses to individual capacity questions – change frequency



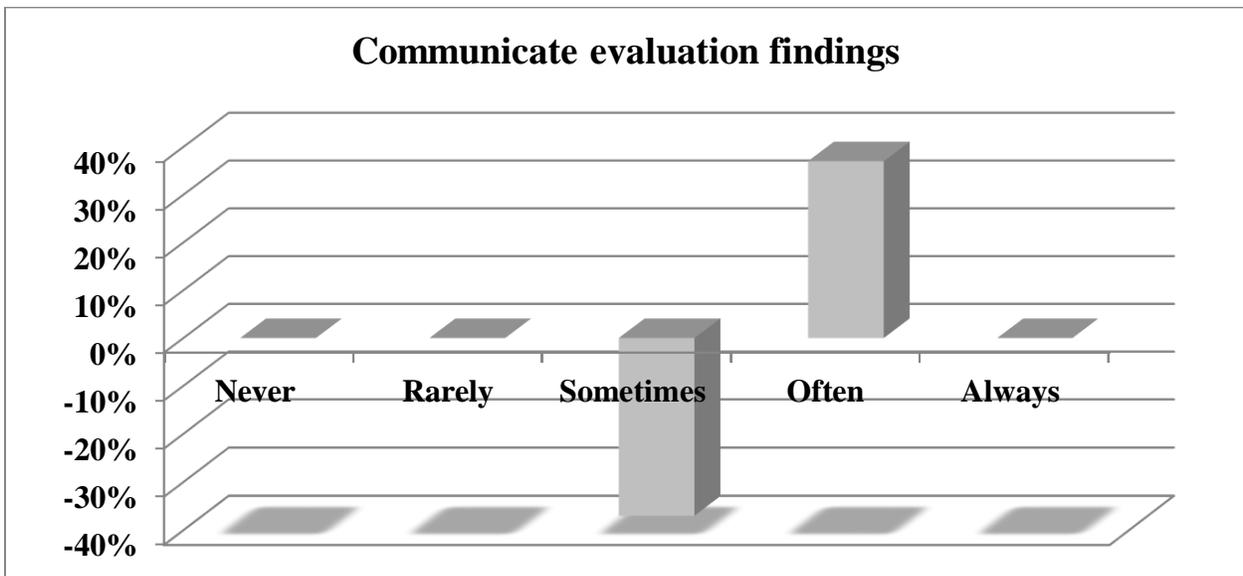
M-5: Grantee 7: ECB survey responses to individual capacity questions – change frequency



M-6: Grantee 7: ECB survey responses to individual capacity questions – change frequency



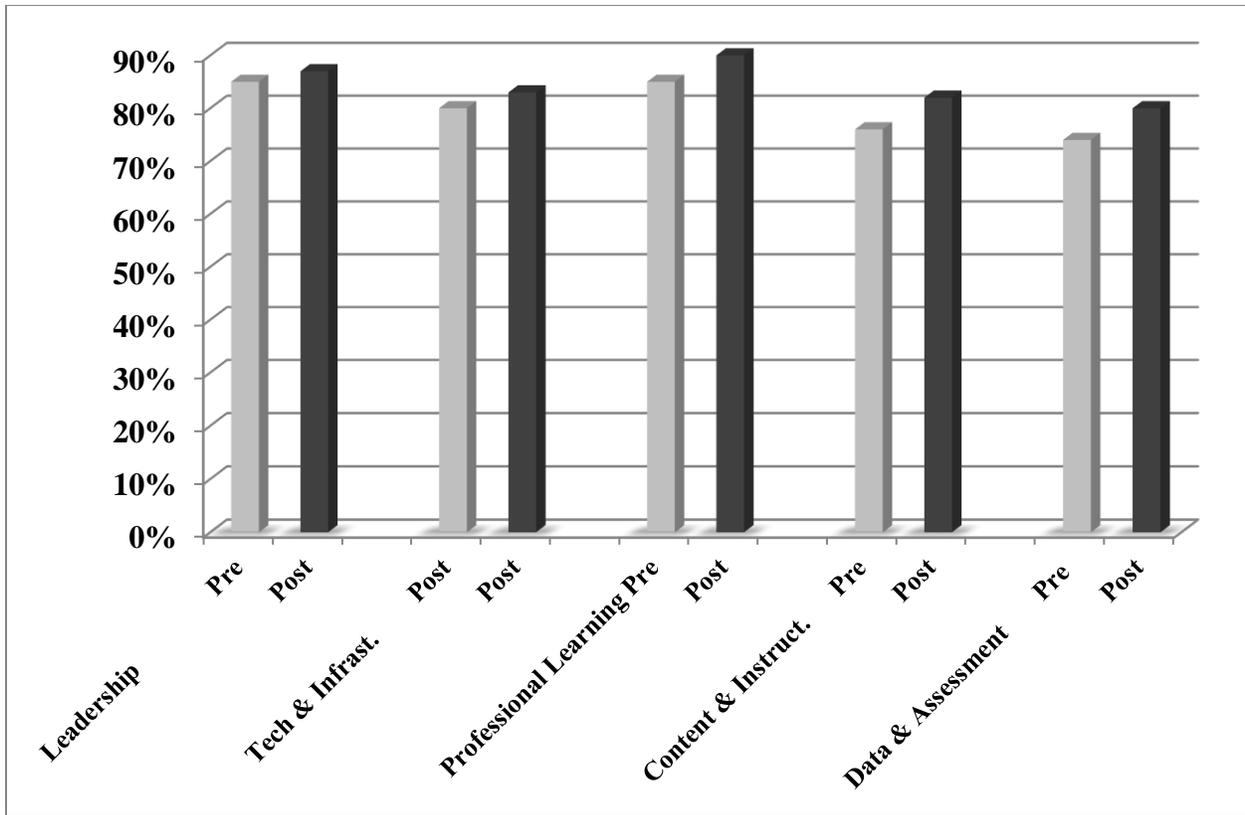
M-7: Grantee 7: ECB survey responses to individual capacity questions – change frequency



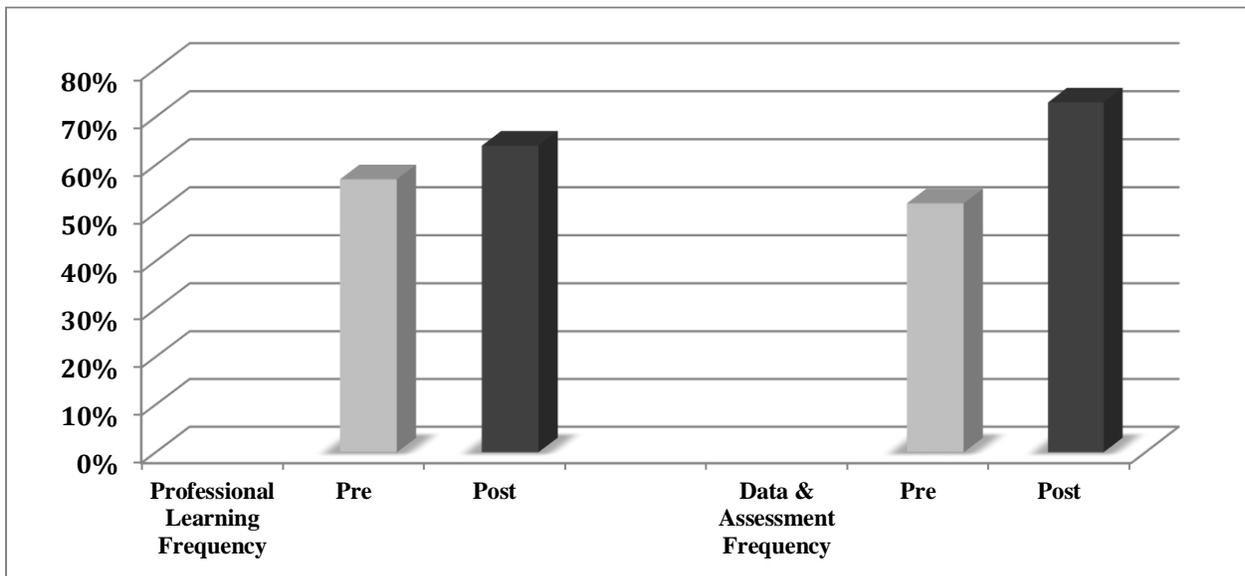
M-8: Grantee 7: ECB survey responses to individual capacity questions – change frequency

| <i>My organization has the capacity to</i> | Pre- ECB Assessment (N=10) | | Post ECB Assessment (N=6) | | % Change |
|---|---------------------------------------|-------------|--------------------------------------|-------------|-----------------|
| | Low | High | Low | High | High |
| Develop policies and procedures to improve an initiative/program | 0% | 100% | 0% | 100% | 0% |
| Implement programmatic changes informed by evaluation findings | 0% | 100% | 14% | 86% | -14% |
| Identify and utilize the necessary resources to conduct and use evaluations | 10% | 90% | 14% | 86% | -4% |

M-9: Grantee 7: ECB survey responses to organizational capacity questions



M-10: Grantee 7: STNA-T survey mean scores by construct scales



M-11: Grantee 7: STNA-T survey mean scores – frequency responses

