An Investigation of the SAME Leader Development Program

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DEDICATION

Where do we begin? We have the privilege of being one of the first four person Ed.D. capstone teams at Vanderbilt University. During the past year we have come together as a cohesive group bringing our unique experiences and insights together into one substantial accomplishment. For each of us, the past three years have been an amazing adventure and period of significant growth. Growth that would not have happened without the support of so many people.

First to our amazing families. Without you, none of what we accomplished could have happened. Your support and encouragement alone mean more to us than any achievement ever could. Our spouses, children, and extended families provided us steadfast support through all the ups and downs that can happen over the course of time. Your willingness and sacrifice to provide us with the space and time to achieve our goals will always be remembered and appreciated more than you can know.

To our friends and colleagues who often asked us the question "WHY would you do this to yourself?", we thank you as you stood by us and understood the WHY behind our pursuits. You offered your encouragement and, at times, the distraction to help push us forward.

To the Vanderbilt LLO Faculty, from our first class together to the last you stood behind us, pushed us to be better, and listened to us when the chips were down. You provided us with a lane to be ourselves, asked us to stretch beyond our comfort zone as learners and as people who are constantly growing and learning. Over the course of reading, countless pages of writing, group projects, discussions, breakouts, after hours talks, R-Studio craziness, and more laughs than we can count we thank you! Your dedication to your craft and students is amazing. You were all an integral part of our success and helped make us better people along the way.

To our extra special cohort, we started this journey during uncertain times. Many of us nervous wondering what to expect and how we would make it to the end. Well, here we are, completing this journey together. The four of us have a tremendous amount of respect and gratitude toward each of you as you helped to make this cohort a wonderful sanctuary of learning and togetherness.

Finally, to Dr. Cynthia Nebel, the person who provided us with guidance, comfort, reassurance, and direction. We are indebted to you. From the first day of your wondering how this team of four would make it work, not bite off more than we could chew, and deliver something informative, grounded in research, and beneficial to our organization, you kept us focused. We will never know the challenges you faced managing your capstone teams. All we know is that you always made us feel like we were the only people in the room when we were together, and your only focus was on us.

Thank you,

Brandon, Mark, Ryan, and Todd

EXECUTIVE SUMMARY

This research effort evaluated the effectiveness of the Society of American Military Engineers (SAME) Leadership Development Program (LDP). Founded in 1920, SAME is a prominent advocate for addressing national security infrastructure challenges, working with industry and government to strengthen the architecture, engineering, and construction (AEC) professions. The SAME LDP, initiated in 2019 as a volunteer-executed program, has garnered positive feedback from both program participants and organizers. However, SAME's leadership recognizes the need for continuous improvement. This research project aims to assess the program's alignment with SAME's goals and provide recommendations for enhancement.

The research methods employed in this study included a qualitative document review, analysis of provided survey data, and focus group interviews. Five key findings emerged from the research. Firstly, the use of varied survey questions and methodologies resulted in inconsistent data, creating challenges for evaluation. Secondly, the curriculum weighting revealed that the three core components of the LDP—Know Yourself, Know Your Team, and Know Your Future—were not equally emphasized in terms of impact and importance. Thirdly, the selection of participants and their prior leadership experience significantly influenced their perception of program efficacy and impact. Fourthly, there is a need to improve the virtual classroom environment and enhance instructional practices. Lastly, limited opportunities were identified for participants to practice and apply their leadership skills.

Based on these findings, five recommendations were proposed to enhance the SAME LDP. Our first recommendation was to maintain consistent survey questions and methodologies to ensure reliable and comparable data for evaluation purposes. The second recommendation suggests adjusting the curriculum weighting to better reflect the importance of the three program goals, with a particular focus on elevating the significance of Know Yourself and Know Your Team. Our third recommendation focused on enhancing the participant selection process, considering factors such as leadership experience to ensure diverse and apposite participants. The fourth recommendation entailed improving the virtual classroom environment and strengthening the facilitation skills of instructors to maximize engagement and learning outcomes. Lastly, the fifth recommendation proposed incorporating role modeling and application-based scenarios to enhance the transfer of leadership skills into real-world settings.

Overall, the SAME LDP offers an excellent, well-rounded leadership training experience as indicated by data gathered and evaluated from multiple streams. As James G. March famously surmised in his work at Stanford Business School, leadership is a mix of plumbing and poetry (Badham, 2021). Engineers, given their training, skills, and interests, tend to both focus on, and be tasked with, the "plumbing" of life in both a literal and proverbial sense. SAME LDP does an admirable job of encouraging leaders in the realm of engineering to be adept at both. As with all efforts, there is, of course, room for improvement, and those specific findings and recommendations indicated above and discussed at length in the heart of this paper, offer a roadmap for incremental gains in participant efficacy and satisfaction.

ORGANIZATION CONTEXT

Partner Organization

The Society of American Military Engineers (SAME) was founded in 1920 and is the nation's leading advocate for solving national security infrastructure challenges. In layperson's terms, SAME works with both industry and government to strengthen the professions of architecture, engineering, and construction (AEC) to ensure our country's infrastructure remains safe and operational. Included in the mission and vision statements of SAME are the words lead, leaders, and leadership, and throughout its history SAME has taken pride in the fact that it is an organization comprised of leaders of the military departments, federal agencies, and private industry. Founding members of SAME include Brig. Gen. Charles Dawes (who would go on to be Vice President of the United States) as well as Brig. Gen. Douglas MacArthur, who was serving as the Superintendent of the U.S. Military Academy at West Point at the time of SAME's founding.

SAME is made up of over 28,000 members in over 150 Posts, Field Chapters, and Student Chapters around the world. SAME celebrated its Centennial in 2020 and is poised for rapid growth in the coming years due to the increase in infrastructure spending through the $1.2 trillion Infrastructure Investment and Jobs Act. This unprecedented investment is a once-in-a-generation opportunity to improve the nation's infrastructure, and SAME wants to ensure they are prepared with the leaders who can help execute this astounding volume of critical work.

Leader Development Program Background

In 2019 SAME began conducting its own volunteer-executed Leader Development Program (LDP). The SAME LDP program runs from May to May each year with a class size of 18-20 participants selected from SAME posts across the globe. Prior to 2019, SAME members selected for additional leadership development in support of the society attended the interdisciplinary Emerging Leaders Alliance (ELA) conference. In 2017, after attending the ELA training paid for by SAME, a SAME Fellow asked the national leadership why they were not hosting their own leadership training program. SAME leaders did not have a good answer and proceeded to empower the SAME Fellow the

responsibility of establishing what would eventually become the SAME LDP. With the help of a variety of SAME members with diverse experience, that SAME Fellow and their team created the curriculum and structure of the program over the next two years. Applications for the first LDP class were submitted in the fall of 2018, and the first LDP class began their LDP journey in June 2019.

The four completed cohorts of the LDP program have all been viewed as very successful by both the staff and the participants. As the fifth cohort continues their journey, the SAME LDP program leaders continue to ask themselves what they can do to make the program better. In our initial discussions with the LDP volunteer leaders, the following areas of concern were identified:

1. Accreditation: Is there an accreditation program that the SAME LDP should be pursuing? Is there a certificate program or licensing opportunity which the SAME LDP should be aligning itself with to award to program graduates?

2. Curriculum: With over 28,000 members, including thousands of current and former military personnel as well as leaders across the AEC industry, there is a vast amount of leadership experience available for the LDP to tap into. What is the most effective curriculum for this one-year LDP operated and attended by volunteers?

3. How should SAME measure the return on investment (ROI) for the LDP? There are considerations regarding both the ROI for SAME in terms of future participation as a leader in the Society, as well as whether graduating from the LDP is advancing the careers of the program graduates as leaders within their organizations.

In subsequent months, it was determined that accreditation would not be a focus of this Capstone project due to the limited research requirements involved in answering that question. Due to the lack of a widely accepted leadership accreditation program, accreditation is not recommended for the SAME LDP. However, both curriculum and ROI remained as valid areas of inquiry for this capstone project.

PROBLEM OF PRACTICE

The SAME LDP is viewed by almost everyone in the Society as a resounding success. However, when you ask the people closest to the program if there are issues they need to work toward, you receive an equally emphatic "YES" response. As a leadership program run by volunteers in an all-volunteer organization, there are lots of areas for continuous improvement that the program administrators simply do not have time to address. This project is designed to investigate the various ways in which the LDP program can be improved, specific to ROI and curriculum.

Stakeholders

The primary stakeholders in the SAME LDP program are as follows:

- National LDP Co-Chairs
- National Leader Development (LD) COI Chair
- LDP Monthly Webinar Lead
- LDP Book Discussion POC
- LDP Mentor POC
- LDP UPIC Projects Lead
- LDP Classroom and Curriculum Leads
- SAME's National Officers

Purpose of Evaluation

The purpose of this capstone project is to help SAME structure their Leader Development Program to maximize the benefits to the individual participants, improve the effectiveness of the LDP graduates for the companies they work for, and provide active future leaders for SAME as a Society. Specifically, we worked with members of the SAME LD Community of Interest (COI), as well as the members of the LDP staff.

LITERATURE REVIEW

To address the issues regarding curriculum and ROI, we first reviewed the extant literature associated with leadership and leadership development programs.

What is good leadership?

Finding the answer to this question is harder than it may appear. There have been thousands of studies and more than five hundred books, chapters, and articles written about leadership (Gin, 1997; Winston & Patterson, 2006; Silva, 2016). Throughout all this work, few definitions of leadership have been provided (Gini, 1997; Pearce & Conger, 2003). Many people may think of leaders related to the position they hold or what they do, and often leaders are confused with 'supervisor' or 'manager' (Gini, 1997). Others view leadership in a democratic context working toward a common goal or a collegial context where leaders influence others in a unifying manner (Summerfield, 2014).

In an article about moral leadership, Gini (1997) views leadership as a multi-layered combination of process, person, and role. In the article, he writes about the need for leaders to be "value-laden" and manage the values of an organization. Leaders must also be attentive to the dynamic of the 'leader-follower' relationship, and the real power of leadership resides in the ability of the leader to influence followers. Gini continues that the leader (and followers) must be intent on real and substantive change and not managing the status quo and that the true process of leadership must include mutual purpose and goals. According to Gini, leaders must also embody character, charisma, and ambition. In addition to those personal characteristics, he writes that within the job of leaders, they must create and communicate a vision, be able to effectively manage people and stakeholders, and take responsibility for choices and commitments. Summerfield (2014) tried to employ a more simplified definition of leadership. He noted that there were many definitions that were broad or more specific to characteristics or traits that suited a particular role. In his reflection, Summerfield noticed that in all the definitions that he found in his research with all the many differentiations, a common thread was for leaders to "make things better" (p. 252).

This expands the view of who might be a leader. It moves beyond the traditional hierarchical view of leaders and promotes the idea that everyone can be a leader

(Summerfield, 2014). Ultimately, the definition of leadership may depend on the context of what is needed from leadership. As Silva (2016) notes, in World War II, Churchill was deemed the leader needed to guide the British through the war-time effort. After the war had ended and the process of peace and reconstruction began, Churchill was not re-elected to lead the British people. Based on his history in British government and politics, Churchill was deemed a leader during the war but not a leader during times of peace. Like other researchers (Gini, 1997; Winston & Patterson, 2006), Silva sees leadership as a process, a process of influencing, organizing, providing context, and shared goals. From this lens, he defined leadership as "the process of interactive influence that occurs when, in a given context, some people accept someone as their leader to achieve common goals" (p. 3).

How should LDP curriculum be created?

Understanding how leadership should be defined for an organization is important. It provides an anchor for the organization as it considers how it will approach leadership development. One of the primary goals of leader development curriculum should be that it is aligned with organizational context, strategy, and objectives (Silva, 2016; Amagoh, 2009). Ensuring the program is integrated into the organizational culture can help to produce leaders that are equipped to lead through organizational challenges (Amagoh, 2009). Another important consideration for LD program curriculum is the skills it will focus on and how the program will be effectively delivered. Research suggests that LD programs and training need to ensure there is a focus on skills and characteristics that are not job-specific (Delbert & Jacobs, 2021; Sogunro, 1997; Friendly et al., 2021). For example, leadership development should include decision-making, risk-taking, ethics, governance, problem-solving, emotional intelligence and self-efficacy, role-modeling, and trust-building (Mueller & Pelser, 2021).

There are multiple approaches that can be considered for program delivery, from an "integrated-solution" approach (Amagoh, 2009) to experienced-based approaches (Amagoh, 2009; Lyons et al., 2017) to formal mentoring (Amagoh, 2009; Lyons et al., 2017; Hernez-Broome et al., 2004), to classroom style programs (Lyons et al., 2017; Delbert & Jacobs, 2021; Hernez-Broome et al., 2004). Cacioppe (1998) offered an integrated model for approaching leader development programs. In this approach, the organization must first articulate the strategic imperatives that are deemed key to

organizational success. Second, the objectives for the LD program must be defined. This step should also include the specific knowledge and skills that are of particular focus. The third step of the approach is to identify methods through which the program will be administered. This includes content, delivery pathway (classroom, virtual, workshops, etc.), and timing. The next step is to design the specific program that will be implemented. Often this is done in consultation with a consultancy company or other content creation expert (i.e., universities and management institutes). This step will also include identifying key people (faculty, content experts, etc.) who will deliver the training. The fifth step of Cacioppe's model is the evaluation of program delivery and effectiveness. During this stage, the program content and activities are evaluated to ensure they align with the competencies and skills the program has been created to address. Additionally, LD program participants are surveyed to determine how effective the program is in its current state. The next step in the model is to integrate with management and human resource systems. This helps to ensure the program participants are being evaluated against the competencies they are learning. Doing this encourages skill implementation. The final part of the model is the overall assessment of the program against the key objectives and program philosophy. This involves looking at the entire process to determine if it is meeting objectives and delivering value to the organization.

Figure 1

An integrated approach to planning leadership development
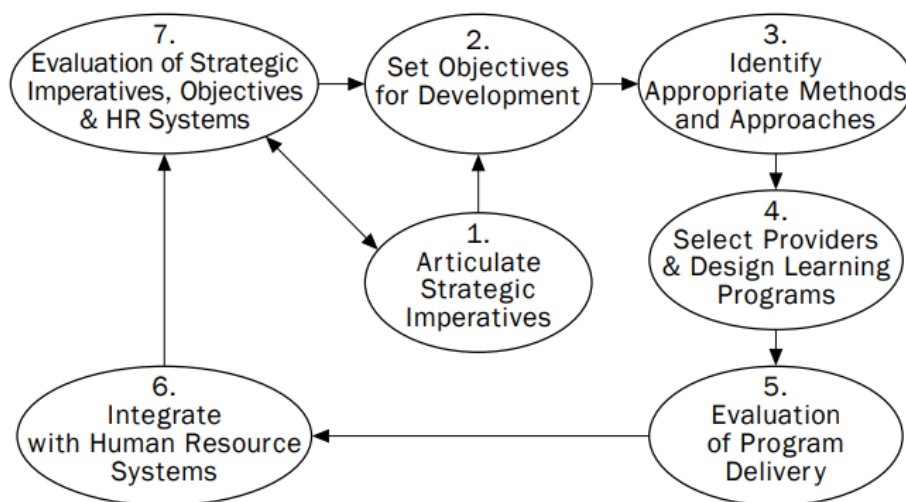
Cacioppe, 1998

Transfer of Training

An important aspect of leader development programs is the ability of the learners to apply the knowledge and skills learned. Baldwin, Ford, and Blume (2017) note the problems surrounding the transfer of training are relevant, as approximately seventy-five percent of leaders report dissatisfaction with training program outcomes. The effectiveness of training depends ultimately on if the learned outcomes are used in the workplace and that transfer of training occurs when the knowledge and skills learned are used for the job intended (Cheng & Hampson, 2008). When leadership training focuses on capacities which are more theoretical, such as leadership competencies, it is difficult to measure the successful transferability of the newly taught insights and track their evolution into active skills (Sorensen, 2017). There are certain factors that often influence the adoption of learned behaviors inculcated in training programs. Those influences tend to emanate from three contributing areas: the programs themselves (curriculum, program design, and delivery), the participant (individual learner), and the organization (structure and culture) to which they return (Reichard & Johnson, 2011; Sørensen, 2017).

In their widely cited paper, Baldwin and Bloom (1988) highlighted a framework outlining the transfer process. The process notes three distinct areas: training-input factors, training outcomes, and conditions of transfer. Training-input elements include training design, trainee characteristics, and work-environment characteristics.

Figure 2
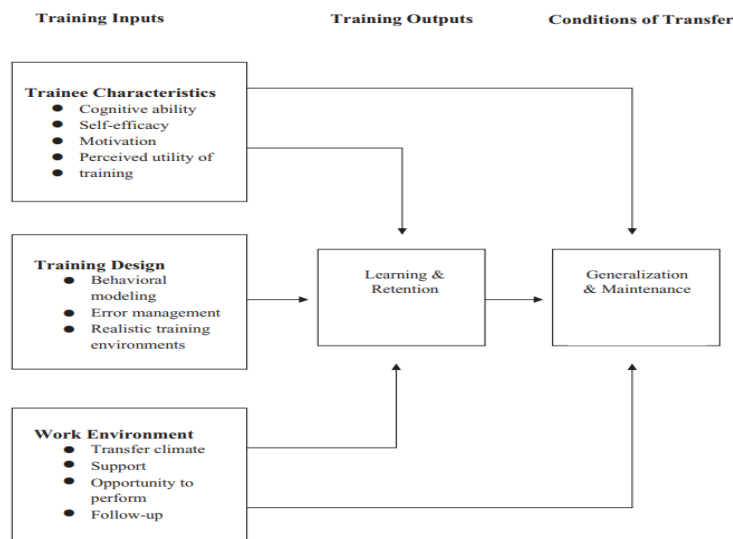
A model of the Transfer Process. Adapted from Baldwin and Ford, 1988

Within training design, Grossman and Salas (2011) pose that it is important to include behavior modeling, error management, and a realistic training environment. Behavior modeling should clearly define explanations of behaviors to be learned, model effective use, and provide the ability for learners to model the new skills and receive feedback. Error management provides learners with the opportunity to make errors and receive "error management instructions," which have emerged as effective tools to enable the appropriate use of learned skills in the workplace. The training environment is another critical piece of the training design process. Coultas et al. (2012) noted that practice scenarios should be carefully constructed and include a level of realism that relates to the training goals of the program. Examples include full-motion simulators and role-playing activities. Baldwin and Ford (1988) note how aptitude and ability, personality, and motivation are key elements of trainee characteristics that support training transfer. Research has also demonstrated a link between the confidence of trainees and motivation that facilitates transfer (Baldwin & Ford, 1988; Grossman & Salas, 2011). Other factors that impact trainee motivation are the level of autonomy a person has in attending a training program and trainees with "high job involvement" (Baldwin & Ford, 1988, p. 69).

Self-Determination Theory

Building on trainee characteristics of motivation and autonomy, we turn to self-determination theory (SDT). SDT is grounded in assumptions on human nature and motivation (Stone, Deci, & Ryan, 2009). The theory posits that there are "clear and specifiable social-contextual factors" that support the tendency toward integration of both autonomy and the motivation behind one's capabilities to make choices whereas people are able to create interconnections with individuals and groups in their social world (Ryan & Deci, 2002, p. 5). The authors go on to write that there are also factors that may thwart or hinder this fundamental process of human nature (Ryan & Deci, 2002). SDT is centered on three universal psychological needs: autonomy, competence, and relatedness (Ryan & Deci, 2002; Stone, Deci, & Ryan, 2009).

Figure 3
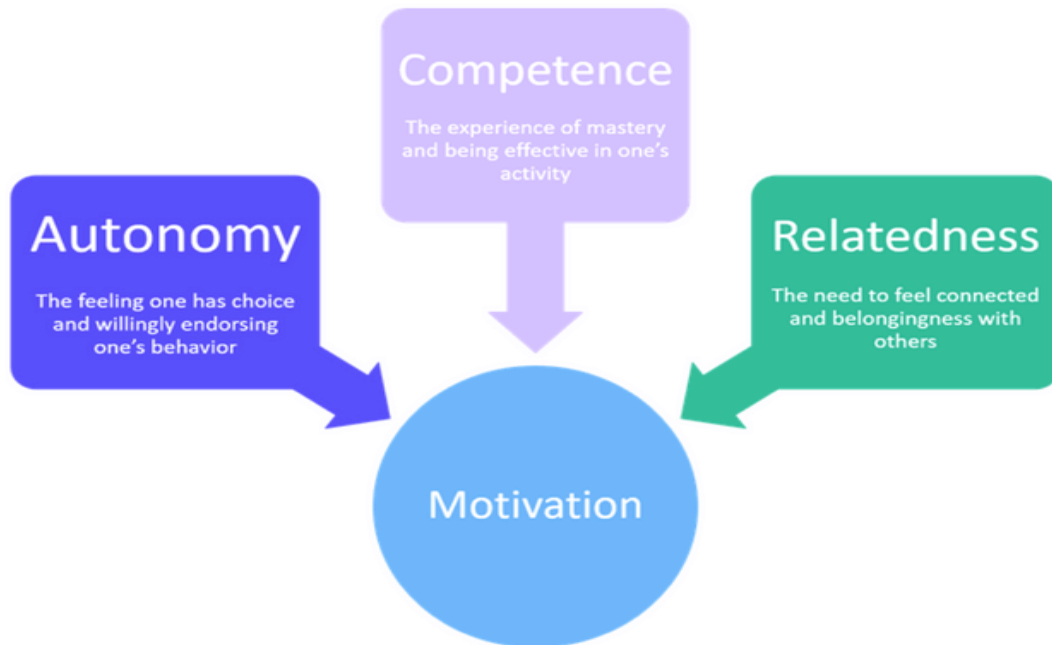
SDT: Self-determination theory by Richard Ryan, Edward Deci, 2002

Within the framework of SDT, autonomy relates to a person's experience of having choice and volition. It is sometimes confused with independence; however, within SDT, Ryan & Deci (2002) assert that a person may have autonomy in choice, but still rely on others to satisfy a task or need. Further, they present competence as "a person's need to feel effective at meeting everyday challenges and opportunities, demonstrating skill over time, and feeling a sense of growth and flourishing" (p. 7). Finally, our theorists pose relatedness as "a person's need to care about and be cared for by others, to feel connected to others without concerns about ulterior motives, and to feel that they are contributing to something greater than themselves" (p. 7). Stone et al. (2009) write that satisfying these universal needs can create a sustainable, autonomous motivation. This motivation "emerges from one's sense of self and is accompanied by feelings of willingness and engagement" (p. 77). The authors continue to note that there is evidence that supports the importance of autonomy, competence, and relatedness to productivity, creativity, and happiness (Stone, Deci, & Ryan, 2009).

How is the value of an LD program determined?

In the end, the pressing question for any leadership program is, so what? What is the value both as measured by the goals of the organization in question and as seen in the personal growth of the participants? Is there tangible and measurable ROI? Sogunro et al. (1997) explored the impact and outcomes of leadership training in their work, looking at whether participants perceived that their leadership skills developed in tangible ways. They found that participants (234 in all) perceived that their knowledge and skills increased, and their attitudes changed from pre-training to post-training.

As researchers attempt to determine in some definitive manner whether standards for measurable ROI can be established, efforts toward value determination seem to suggest a mix of qualitative and quantitative methodology. Direct observations, interviews, and document reviews on the qualitative side are likely to provide clues towards program impact and efficacy, and pre-program, end-of-session, post-study, and follow-up questionnaires coupled with specific LD program and sponsoring organizational goals may help turn a quantitative lens on the question and further frame criteria for determining the impact of the program.

Any attempt to explore the efficacy of efforts to nudge human beings into being better leaders turns quickly to sense-giving and meaning-making literature. In Weick's classic evocation of sense-making he argues that it is the social psychological process by which definition, order, and context are inferred based on socio-emotional ties rooted in mutual respect and trust shaped through interaction (1979). Weick (1993) further grounded his thinking in his exploration of leadership exemplified in the Mann Gulch disaster, where the death of 13 men was analyzed as the interactive disintegration of role structure and sense-making in a minimal organization. For our purposes, how equipped and prepared are our leadership participants to take program material and improvise, take on virtual role systems, and adopt and apply an attitude of wisdom amidst the typical norms of interaction? In other words, does the leadership program connect with participants in the very practical realm of clicking with their interests, backgrounds, and strengths, so meaning is made with participants, enabling them to engage in the important work of becoming effective meaning-makers and sense-givers to the team

members they are entrusted with leading? Does it make both meaning and sense, so they can effectively generate both for others?

Finally, issues of measuring value creation and ROI must include the question, for whom? There are at least four groups of stakeholders involved in the training — including the participants, the instructors, the administrators of the leadership program, and the sponsoring organization. The question of what constitutes *value* for each of these groups varies in different but overlapping ways. For example, the sponsoring organization may be more focused on developing leaders for their bottom line and the participants may be more interested in how the training will benefit their career in the long-term, but all are committed to developing a pipeline of leaders to address complex national security and infrastructure related challenges aligning with the SAME's overall mission. We found it useful to explore the work of researchers such as Kaiser and Overfield (2010), who asked similar questions and dubbed it "the leadership value chain". They sought to ask, "of all the things to consider, what are the things that must be considered to determine the value of leadership" (p. 164). Their work may provide a heuristic for thinking strategically about leadership training program investment decisions. In the end, any leadership training program seeks to produce (or perhaps discover) key considerations and variables that relate organizational effectiveness with individual leaders (Kaiser & Overfield, 2010).

CONCEPTUAL FRAMEWORK

Project Questions

Our program improvement investigation was guided by two theoretical frameworks, Baldwin & Ford's (1988) *transfer of training*; and Deci & Ryan's (2002) *self-determination theory*. In this section, we highlight the principles of these models and their connections to our key project questions:

1. To what extent is the SAME leader development program (LDP) achieving its stated objectives?

2. How do participants apply lessons learned from SAME's LDP in their organizational context?

3. How do participants apply lessons learned from SAME's LDP in their leadership roles within SAME?

Our research explores the depths of not only the role of the LDP participants but the functionality of SAME's LDP design and delivery to assess whether or not SAME is meeting its objective of "cultivating talent from within the Society's membership to develop leaders for the future of the A/E/C profession and to address the nation's grand challenges" (Society of American Military Engineers, *Leader Development Program* 2023).

The first question in our investigation is directed towards understanding how effectively participants feel they can transfer SAME LDP content into practice. This question seeks to investigate and analyze how SAME LDP graduates experienced the leadership training program and its applicability in the context of their organizational culture. In short, this question seeks to understand if the training given is viewed as useful in a practical sense, or simply, did it transfer into career application?

Questions two and three seek to explore the personal, curricular, and organizational factors that influence SAME graduates' perceptions of whether they were able to transfer their training experiences. Considering the literature, we seek to understand what specific factors were leading the SAME program graduates to perceive themselves as capable of using the knowledge they are gaining within their home organizational cultures and within leadership roles at SAME.

Transfer of Training

We turned to Baldwin and Ford's (1988) *transfer of training theory* to understand how effectively participants feel they can transfer content into practice. This query seeks to analyze how SAME graduates experienced the leadership training program and its applicability in the context of their organizational culture. Sørensen (2017) acknowledges that when leadership training focuses on capacities that are more theoretical, such as leadership competencies, it is difficult to measure the successful transferability of the newly taught insights and track their evolution into active skills. Further, certain factors often influence the adoption of learned behaviors inculcated in training programs. These influences tend to emanate from three contributing areas: the programs themselves (curriculum, program design, and delivery), the participant (individual learner), and the organization (structure and culture) to which they return (Reichard & Johnson, 2011; Sørensen, 2017).

Employing a conceptual framework that includes data-gathering and potential transfer catalysts, this examination turns a 3-fold lens on the following factors that influence SAME participants' transfer capability:

1. Role of the curriculum or program

2. Role of the organization or culture

3. Role of the individual (their motivation to act)

Self-Determination Theory

To better understand the role of the individual and the organization, we turned to Deci and Ryan's (2002) self-determination theory (SDT). SDT is grounded in assumptions about human nature and motivation (Stone, Deci, & Ryan, 2009) and is centered on three universal psychological needs: autonomy, competence, and relatedness (Ryan & Deci, 2002). We are focused on understanding if the SAME LDP is helping ensure the satisfaction of these basic needs, defined as follows:

- **Autonomy** is defined as a person's need to perceive that they have choices, that what they are doing is of their own volition, and that they are the source of their own actions.
- **Relatedness** is a person's need to care about and be cared about by others, to feel connected to others without concerns about ulterior motives, and to feel that they are contributing to something greater than themselves.
- **Competence** is a person's need to feel effective at meeting everyday challenges and opportunities, demonstrating skill over time, and feeling a sense of growth and flourishing (Deci & Ryan, 2002, p. 7-8).

Satisfying these basic psychological needs creates sustainable motivation that emerges from one's sense of self and is coupled with feelings of willingness and engagement (Stone, Deci, & Ryan, 2009). We sought to understand if SAME's LDP content and faculty supported the participants' needs as outlined by SDT.

PROJECT DESIGN

The collection of data was formulated into three phases to capture data related to program training design, the work environment, and individual motivation to transfer (Baldwin & Ford, 1988). These three aspects sought to answer the three research questions described above:

1. To what extent is SAME LDP achieving its stated objectives?

2. How do participants apply lessons learned from SAME's LDP in their organizational context?

3. How do participants apply lessons learned from SAME's LDP in their leadership roles within SAME?

Our objective was first to assemble formal documents pertaining to SAME leadership curriculum, philosophy, expectations for outcomes, and responses from surveys administered to program participants. This information was assembled to provide our research team with a comprehensive understanding of SAME's approach to their LDP and to consider it in light of any differences or inconsistencies with the key training inputs of the Baldwin and Ford (1988) transfer of training model. For our data sources, we utilized qualitative document review, quantitative survey data provided by SAME, a mixed methods survey conducted by our team, and a set of qualitative interviews conducted by our team.

Qualitative Document Review

Our data collection began with initial discussions with SAME leadership to discern what, if any, documents exist that detail SAME's expectations for both LDP applicants and LDP graduates. Provided documents were examined to gain a deeper understanding of SAME's leadership expectations and philosophical framework and how both are communicated to participants. Extant literature suggests that communicating clear goals and expectations for leadership growth increases a program participant's motivation to transfer the new skills to their organizational context (Tannenbaum & Yukl, 1992). Our team's qualitative document review served as our initial effort to understand whether groundwork for conveying SAME LDP expectations exists.

Furthermore, this review helped us determine if instructors were successful in efforts to systematically convey content in a manner consistent with SAME's goals and whether our supporting data collection methods, the quantitative survey results, and our qualitative interview questions confirm the presence of a consistent thread.

Our team's decision to target a greater understanding of motivation is also influenced by the fact that program participants are selected for SAME LDP training based largely on their willingness to voluntarily apply for the training rather than SAME seeking applicants based on performance or abilities. This self-selection aspect of SAME cohorts guided our analysis of the participant characteristic of motivation and its influence on the transfer of training process (Baldwin & Ford, 1988).

In addition, our team conducted informal but informative research of SAME leadership and SAME LDP graduates on social media and online to learn more about the organization and its program. In accordance with our confidentiality agreement with SAME for this study, we will not share the outcomes of such efforts. Russ-Eft et al. (2008) emphasizes the need for program evaluators to gain a holistic understanding of an organization. Our review of documents provided by SAME, discussions with SAME board leadership, and broad-based LDP program comparative analysis helped our team build greater competence as we prepared to conduct qualitative interviews. This background awareness and competence were essential in building credibility with the SAME leadership and helped inform any additional requests for documents, as well as assisted us in crafting follow-up questions based on the interview data provided to our team by SAME. The initial documents provided by SAME provided an overview of program objectives and offered clues defining SAME's framework for leadership development. Our qualitative review of these documents focused on consistency and synthesis of terminology between SAME's organizational goals and expected leadership competencies.

We also sought documentation that afforded us insight into SAME's leadership objectives, including, but not limited to, performance management and performance goals. Collecting these documents helped our research team gain insights into whether LDP participants felt they were afforded discernible direction pertaining to program

performance expectations and whether the documents followed any philosophical consistency. Follow-up discussions with the SAME board and leadership provided a deeper understanding of the analysis. These documents provided an understanding of SAME's big-picture framework and a view of what constitutes leadership, how effectively that framework is communicated to program participants, and to what extent that consistency extends to training design and onwards into graduates' impact on their organizational work environment.

Evaluation of Existing Survey Data

The document review and analysis of the SAME questionnaires aided our team in creating both the questions we used in our capstone team delivered survey and the framing of our qualitative interviews. Maintaining consistency in phrasing and questions used in the SAME training cadre entry and exit questionnaires were key to the integrity of our data collection and research effort ensuring that future evaluators would be able to make direct comparisons between participants year after year (Aguinis et al., 2021). These initial documents provided a foundation for our investigation of the SAME curriculum, especially as it related to LDP graduate perceptions and how they impact motivation to transfer (Austin et al., 2006). The data collection process was heavily focused on determining whether clear expectations for leadership qualities and the corresponding behaviors were established. These characteristics were critical factors in determining the impact on participant motivation to apply transfer of training concepts.

As indicated previously, SAME consistently conducts a baseline survey of all incoming program participants, as well as an exit interview and a follow-up survey after graduates return to their home organizational environments. SAME's survey questions were crafted to understand the experience of leaders before and after SAME LDP training. Our key interest in this data was an analysis of indicators of motivation to transfer. Many questions from the existing surveys were open-ended and focused on such aspects as training design and ideas for improvement.

We were fortunate in that the existing SAME surveys also included questions about how aspects such as curriculum and organizational work environment may impact

participants' ability to transfer training received, as well as how it influenced their personal development. The existing SAME survey data included varying numbers of questions, which were not consistent from year to year, so our team opted to forgo those that proved to be redundant or were not applicable to our research questions. Our team's reduction in the number of pertinent questions did enhance our ability to ensure we carefully mirrored the context with integrity in our team's qualitative interviews.

Capstone Team Developed Survey

Email and conversations with the SAME leadership, in addition to the qualitative document review, and our literature review sharpened our lens on the questions identified for our capstone team delivered survey. Our focus for our survey consisted of three key areas of interest: program participant motivation to learning transfer, training curriculum, and home organizational environment.

The literature review provided insights into the factors for consideration when evaluating each training input and helped establish a basis for potentially offering SAME leadership recommendations for program improvement in light of existing research studies. Our initial review of SAME's existing survey questions highlighted above indicated they were designed in such a way that they could be easily adapted for our focus group interviews and post-completion survey, adjusted slightly for the purpose of our capstone team's objectives. After extensive email correspondence and conversations with the SAME leadership, in addition to the qualitative document analysis, and deliberation of the existing SAME survey data, we finalized our Capstone Team Survey (CTS), which can be found in Appendix A.

Focus Groups/Interviews

In addition to the SAME quantitative survey data, conversations with SAME board members and program instructors helped our team create qualitative interview questions. This aspect of our data collection approach was designed to incorporate the data from our qualitative document review and the SAME-provided survey data to augment understanding of the training inputs from Baldwin and Ford's (1988) transfer of training model. Focus group interviews were conducted as conversations and

intended to last no more than 45 minutes. Initial questions in the interviews were focused on building trust and comfort and offering some insight into the interviewee's role in their organizational work environment. Conversations began with thanks for participation and assurances of confidentiality of all responses. Interview and focus group sessions were conducted via Zoom. Permission to record the conversations was obtained, and participants were informed of their ability to pause or stop the interview at any moment or to skip any question that brought discomfort. Our focus group interviews made clear our overall aim of understanding how SAME can improve the effectiveness of its leader development program. The focus group interview introduction and questions are available in Appendix B.

Our goal was to formally interview a total of 20 leaders in our focus groups, enticing survey and focus group participation through a drawing for a $100 gift card. Each area of participation included an entry into the drawing. We further developed research notes after each focus group interview strengthening our efforts while also developing carefully coded respondent themes when reviewing the recorded Zoom interviews. You can view our coding table in Appendix C.

DATA ANALYSIS

We would like to begin by stating that the SAME LDP is doing a fantastic job of meeting their stated objectives. Participants are generally very happy with their participation in the program and got a lot out of it. Our intent was to find opportunities for improvement to help SAME do an even better job of achieving their goals for the LDP.

As our project developed, we divided our data collection and analysis into two areas. First, a review of existing quantitative data was collected by SAME. In those records, we sought to ask and understand more fully how well the program addressed the three stated program focus areas of *Know Yourself, Know Your Team,* and *Know Your Future.*

Our team began to look for themes in the data asking how well the participants perceived that the program prepared them for future leadership roles in their various companies. These thematic foundations included how well the program prepared participants for future leadership roles in SAME; to what extent program participants increased their leadership roles in their company; and how or whether program participants increased their leadership roles in SAME.

Both our mixed methods survey of program participants and our Focus Groups/Interviews focused on exploring and understanding to what extent the program incorporated elements of the Transfer of Training and Self-Determination theories in the curriculum. As our research team learned more about the program, we determined that we needed to adjust our data collection to answer questions of how well SAME seemed to be meeting the goals they set for the program and whether SAME would benefit from incorporating either of the theories we identified into their LDP program.

Data Analysis Methodology

For the existing SAME survey data, based on the degree of variability in the questions asked each year, we were forced to analyze each year individually. In order to do so with consistency, we identified key questions and results from the pre-course, post-course, and post-graduation surveys for each cohort for presentation to SAME.

For our capstone team developed survey, we analyzed each question individually to determine if there were any surprising response trends. Because the data we collected could not be correlated with previous surveys due to privacy and anonymity restraints, we were limited in associating any of our survey responses with previous SAME survey data.

The responses collected during the focus group and interview sessions (GI)were used to capture qualitative responses intended to add depth to the quantitative data collected in our mixed methods survey.

Existing SAME LDP Survey Data Analysis

Though the existing survey data was well intentioned and aided our research tremendously, we encountered some challenges during our data collection phase that influenced the validity of our findings. One challenge during our data collection stage was significant inconsistencies from year to year in the SAME survey data collected from each cohort. Each year it appeared that the pre-course, post-course, and post-graduate survey format and questions were changed. These adjustments limited our ability to compare longitudinal data from cohort to cohort.

The inconsistency in the SAME LDP survey data became one of the key findings for our project. The variability can be explained as follows:

1. There were no pre-course or post-course surveys for the initial cohort, 2019-2020.
2. The 2020-2021 cohort only had Survey Monkey results available for analysis for their pre-course survey.
3. Cohorts were not asked the same questions during their pre-course survey as they were asked during their post-course survey.
4. Across cohorts, from year to year, cohorts were not asked the same pre-course or post-course questions.

The following figure depicts the dissimilarity of survey questions found in the existing SAME LDP survey data across LDP cohorts:

Table 1

Based on these survey data issues, we were not able to correlate data across cohorts. This was not limited to pre-course survey questions; it also applied to post-course survey questions from year to year. We were also unable to compare changes in cohort responses from the beginning of the program to the end of the program because they were not asked the same questions on the pre-course and post-course surveys. What we were able to provide is a descriptive analysis of the SAME LDP data provided to us, with a specific focus on the objectives of the SAME LDP program:

- Support the development of the next generation of world-class military, government, civilian, and industry leaders for the Society and our Nation.
- Understand individual strengths and how to apply these strengths to achieve success.
- Understand team-building concepts, including roles, responsibilities, and accountability.
- Develop leadership skills through training, assignments, a service project, and other opportunities.
- Foster leadership for the Nation!

Using these SAME LDP program objectives and our research questions as our guide, we analyzed SAME's existing pre- and post-survey questions. Our team was focused on issues relevant to our project, excluding those focused on demographics and other tangential issues. Based on our team's review of the existing survey data, the mean

response for Likert scale questions with a 1-5 rating was 4.10, with a standard deviation of 0.30. Based on this, we identified any question with an average response more than one standard deviation below that average as noteworthy. It is important to note that the average Likert score of 4.10 is a compliment to the program and its effectiveness. Any score above 3.50 is considered positive, so even though we identify potential improvement areas, there are very few which even fall below the positive rating range. The questions regarding the importance of specific SAME LDP-related curriculum topics, which resulted in average responses more than one deviation below the average, are shown in Figure 2 below:

Table 2

Lowest Scoring Existing Survey Responses
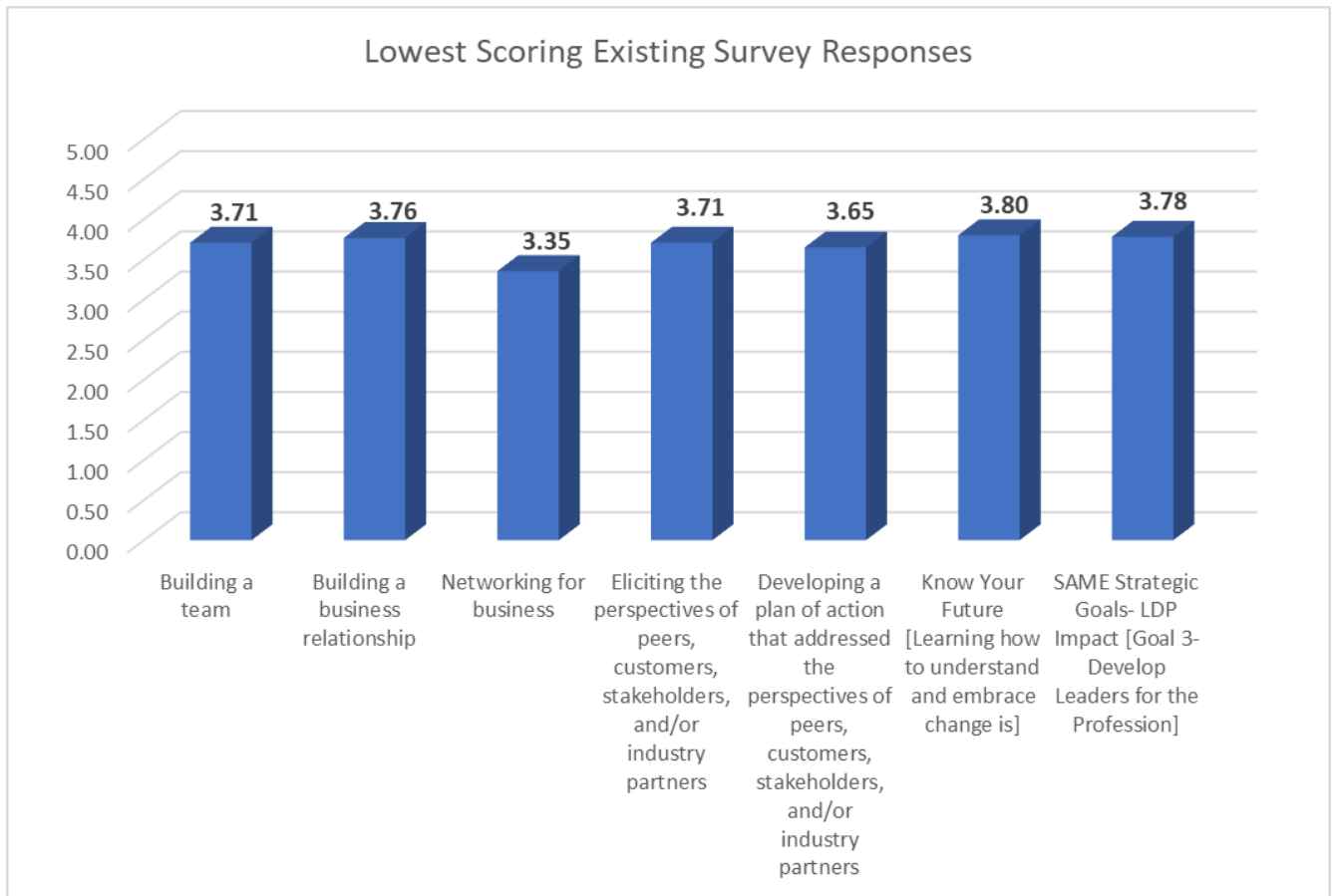
These questions, which received ratings one standard deviation or more below the average ratings, are related to the SAME LDP curriculum areas of *Know Your Team* and *Know Your Future*, as well as the final questions, which are related to SAME's LDP impact on developing leaders for the profession, which for the SAME LDP is the architecture, engineering, and construction profession. These lower ratings in the *Know Your Team* and *Know Your Future* curriculum areas will be covered further in the qualitative analysis section, where we address the findings from our focus groups and interviews.

Additionally, we looked at the responses to questions focused specifically on SAME leadership, both at the post and national levels. This analysis is based on SAME's first program objective; *Support the development of the next generation of world-class military, government, civilian, and industry leaders for the Society and our Nation,* corresponding with our research questions two and three. The results of this analysis for the three cohorts which had completed the SAME LDP prior to the end of our data collection period are illustrated in the following figures:

Table 3
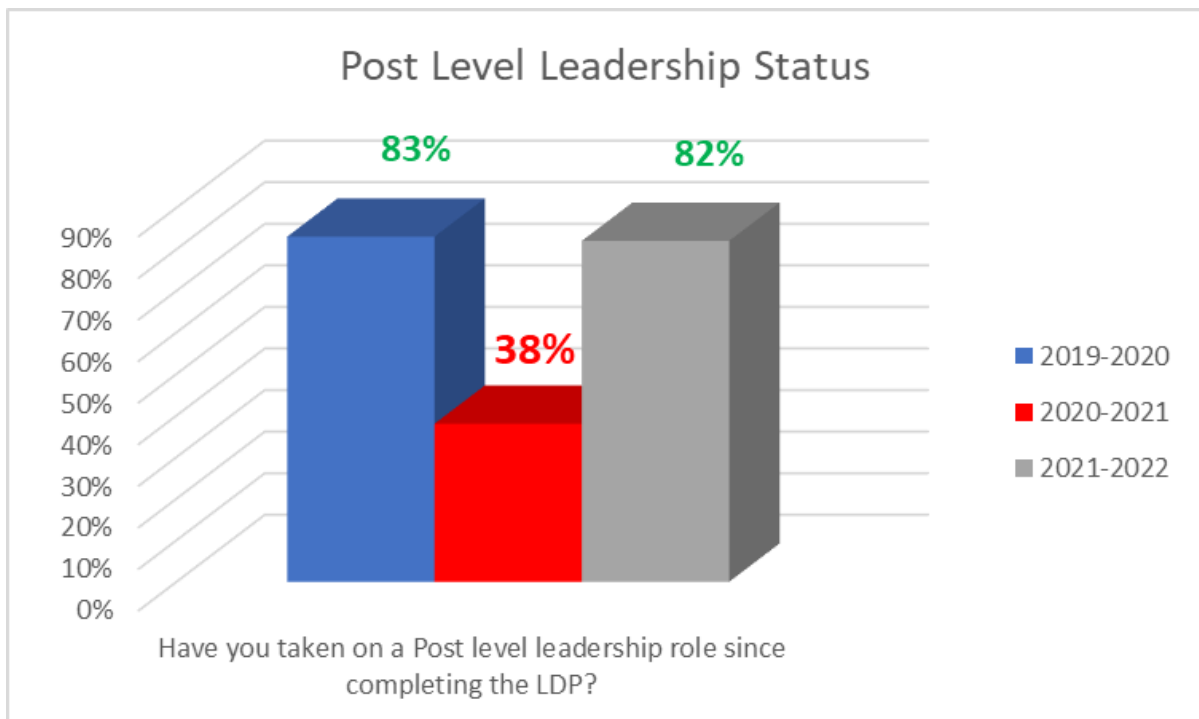
The results of the Post Level Leadership Status are concerning for the 2020-2021 LDP cohort. With the year before and the year after the 2020-2021 cohort both having over 80% of the participants taking on a post-level leadership role since graduating from the LDP, it raises concerns as to why the 2020-2021 cohort is not getting as involved with post-level leadership. One consideration could be that this was the COVID cohort, which means their cohort never met in person during their LDP experience. Their program was completely virtual and based on feedback gathered during focus groups and interviews, the time spent together with the cohort during in-person events was the most impactful of the program. Not having that in-person opportunity could be impacting the level of involvement of the 2020-2021 LDP cohort.

Table 4

National Level Leadership Status
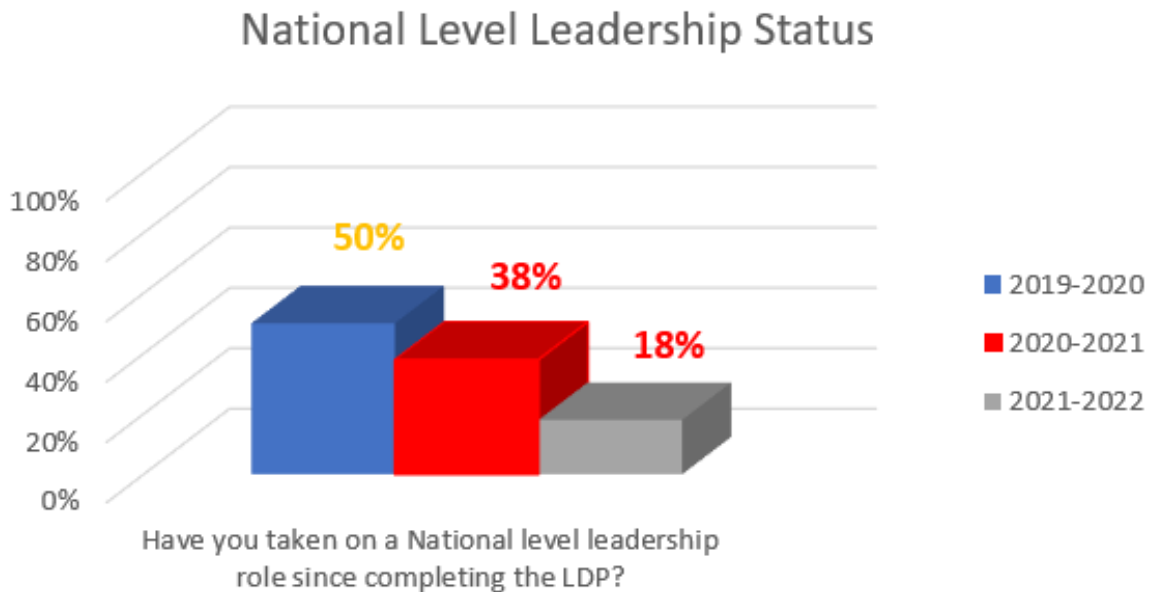
National-level leadership opportunities in SAME are limited and happen on set timelines. Many of the recent LDP graduates may not have had the opportunity to pursue a national-level leadership position yet, possibly giving credence to the drop in the 2020 and 2021 cohorts. Unfortunately, due to the dissimilarity between pre-course and post-course surveys, our analysis was limited to these data.

Capstone Team Developed Survey Data Analysis

What we found in our analysis of existing program survey data and delivered content was that even though the developers of the SAME LDP did not specifically identify ToT and SDT as the conceptual framework used to develop the SAME LDP, both theories were clearly represented in the structure of the program. Not only did the developers of the SAME LDP incorporate these theories, but they also did an excellent job!

Following our analysis of the existing SAME LDP survey data, we determined that we needed to develop and conduct our own survey focusing on the theoretical frameworks we identified as being most applicable to the SAME LDP: Transfer of Training (ToT) and Self-Determination Theory (SDT). Our capstone team developed survey was distributed to all SAME LDP cohorts equating to 85 possible participants over a period of about one month. We captured survey data from 24 people (28% response rate) with 4 respondents in the 2020 cohort, 7 respondents in the 2021 cohort, 3 respondents in the 2022 cohort, and 10 respondents from the 2023 cohort. The resulting survey data focusing on these frameworks provided our team with insights for a few areas of significant interest. The complete analysis of data can be found in Appendix D.

The average response value from all Likert scale questions with a 1-6 rating was 5.10, with a standard deviation of 0.60. By identifying those questions which received an average response of more than one standard deviation below the average score, we found only three questions with responses that warrant further investigation. Table 5 identifies the questions that received the lowest average scores:

Table 5

Lowest Scores From Capstone Survey Responses
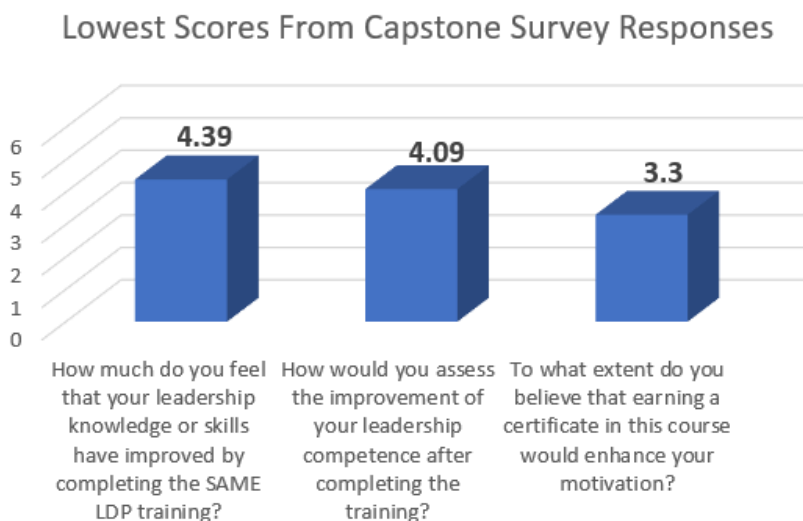
The low scores on the first two questions related to improvement in leadership knowledge, skills, and competence point to a potential problem with the selection process for SAME LDP participants. Currently, each of the 18 SAME Regions is asked to submit a primary nominee to the program each year. Although there is a form for candidates to fill out, the criteria by which Regional Vice Presidents are supposed to choose their candidate is left up to each Regional Vice President. Based on the responses to these first two questions, coupled with focus group feedback that we will cover in the upcoming section, it appears that many of the SAME LDP participants may already have significant leadership experience and may not be benefitting from the program as much as a participant with limited leadership experience.

The low score in the question related to certification reinforces our team's decision not to pursue formal certification as an avenue of research in our capstone project. We chose not to pursue this line of research because we could not find a universally accepted leadership certification program or accreditation which would apply to the SAME LDP and that would benefit program graduates. The responses to this survey question reinforce this decision by highlighting the fact that program participants would not be more motivated if they earned a certificate or certification as part of the process.

Interview and Focus Group Interview Analysis

The final phase of our data collection and analysis was to conduct empathy interviews and focus groups with current and former SAME LDP participants. The first participant was interviewed alone. This person will be identified as INT1. The three other participants were included in the focus group discussion. They will be identified by FG1, FG2, and FG3. The participants were asked questions that pertained to their background and reason for joining the LD program, the program curriculum, learning application, learning experience, LD program outcomes, instructors' strengths and weaknesses, post-program leadership opportunities, the learning environment, and certification.

Our research team carefully considered the context of using individual interviews and the unique dynamics of focus groups when analyzing our results. We recognized that

certain questions benefitted from the in-depth exploration of personal experiences, motivations, or beliefs that individual interviewees provided. This approach allowed us to capture nuanced details and emotions that might have been overlooked in a group setting. We also acknowledged the value of collective perspectives and group interactions in generating insights. To gather such insights, we organized focus groups where participants engaged with one another, shared opinions, and built upon each other's ideas. This dynamic environment fostered interactive discussions, challenged viewpoints, and generated new collective insights. By utilizing both individual interviews and focus groups, our research team ensured a comprehensive and multifaceted understanding of our research topics while maintaining consistency in our questioning approach.

Q1: Why did you participate in the LD program?

The participants all mentioned personal growth and development as a reason to enter the program. INT1, FG1, and FG2 spoke about how participation in the LD program would help them transition to the next phase of their career. FG2 and FG3 both stated that they were looking to learn more about themselves as leaders. FG3 responded, "I had a bad experience with previous leaders. I wanted to be part of the program to make sure the skills I learned would help me not be that type of leader."

Q2 Curriculum: What did you enjoy (or not enjoy) about the content that was delivered during the program?

There are three elements of the SAME LDP: *Know Yourself*, *Know Your Team*, and *Know Your Future*. FG2 and FG3 stated that they enjoyed all the content; however, they got more out of some of the content than other parts. All the respondents agreed that *Know Yourself* was the content they related to the most. INT1 and FG3 noted how they got the most out of the *Know Yourself* section. INT1 stated that "they gained the most from this (*Know Yourself*). It is a very well-thought-out, structured, and intentional section. It feels like it has a beginning, middle, and end to it." INT1 also noted that one of the reasons that this section was so well-liked is because it happened on day one during the SAME Joint Engineer Training Conference when all the LDP participants were together. INT1 said, "You spend all day at JETC really diving into it and it hooks

you. I left JETC with a fire under me. That section was absolutely as great as it could get and then the thing fell off." It is important to note that FG2 and FG3 never had a live LDP session due to COVID and still got the most benefit from *Know Yourself*.

Know Your Team resulted in mixed reviews. This section resonated with FG1 and FG2. FG1 stated that the leadership experience they brought to the program helped them quickly understand the impact of the section's content, and FG2 said, "I especially enjoyed...*Know My Team*." INT1 and FG3 did not have a team they were leading and thus felt the content was not as strong as it could have been. All the respondents agreed that the least valuable content of the entire program was the section on business acumen (within *Know Your Team*). They shared comments such as "Why was this here" and "I found it to be disengaging."

Three of the four respondents reported that *Know Your Future* was the least valuable of the sections. INT1 felt like this was a "throwaway topic." They reported there was not a lot of content to it, and what was created felt very "in-organic." FG3 noted that they did not get as much out of this section because their future was already mapped out due to their military service. FG2 felt that *Know Your Future* was good. This person noted how the program seemed to build on itself, and the *Know Your Future* section was the "tip of the spear." It was "the point where you say, "ok, now what do we do? What is the execution?"

FG2 especially enjoyed the reading program. This person thought the content covered a wide range of content, and it added to each of the sections. FG1, FG2, and FG3 all stated how they got a lot out of the curriculum, even with some of the content seeming less relevant or significant than other parts of the program. INT1 did not share the same sentiments as the others. INT1 questioned what the intent of the curriculum was and was unsure what SAME hoped the participants would gain from it.

Q3 Learning Environment: Were the webinars, live training, and general environment conducive to learning?

The current structure of the SAME LDP is to kick off the training at JETC. The leadership cohort gets the opportunity to meet one another and spend a day in immersive training as the organization starts the program with the *Know Yourself* content. The program then moves to a virtual setting for the remainder of the course until the last section, which concludes with a live session at the end. INT1 and FG1 were able to complete the program within this structure. They both appreciated starting with the live session as this provided them with an opportunity to get to know their cohort peers. FG2 and FG3 both had to complete the program virtually due to COVID limitations. They each stated how it would have been nice to have some live connections with their cohort. FG2 stated, "This worked really well, and with so many SAME representatives from all over the world, it would be tough to conduct the program in a different way." FG2 further indicated that it would have been nice to have the live interactions with the group, "but I'm not sure how it would have been different (from a learning and development perspective)."

Q4 Instructors: What do you think were the instructors' strengths, and what could the instructors improve?

All the respondents felt the quality of the instructors was mixed. The participants agreed that the instructors were all content experts, but there were some instances where their ability to facilitate virtual workshops needed improvement. They stated that the virtual setting made it difficult for some of the faculty and experts presenting the content to be effective. They noted how virtual facilitation skills training is needed for the facilitators. The focus group participants all agreed that the instructors were able to bring real-world examples to the material and demonstrate what good leadership could look like, which helped to reinforce the content they were learning.

Q5 Application: During the program, what opportunities did you have to practice the skills and learnings in your daily work environment? How are you applying the skills/knowledge learned in your day-to-day work?

There was not any consistency in this section. The participants each reported that they were able to apply some of the new skills they learned in the program. INT1 and FG1 reported that not much was transferable, in their opinion. FG1 felt there was a missed opportunity for implementation and application based on the ability of the instructors. FG1 noted that this "was a huge opportunity that was missed." INT1 did not think much of the content was transferable. INT1 noted that most learnings took place in the *Know Yourself* section and that much of this information was transferable and easy to apply. FG2 reported that a lot of the content was transferable and that they were able to immediately implement much of what was learned. FG2 responded that "I found myself turning my learnings toward my staff." Additionally, FG2 has taken on a leadership role within SAME after the LDP. While FG3 reported that the knowledge and skills acquired during the program were not able to be readily applied in their day-to-day work, they did find the content to be extremely valuable and applicable to their personal life. FG2 said the program had "its biggest and most important impact in my personal life. I got a lot out of that understanding myself better. Not just as a leader of people I work with in my professional life, but I started to see myself differently as a father and a husband."

Q6 Program Autonomy: What choices were offered to you to enhance your experience in completing the SAME program (i.e., different course offerings or elective choices, choosing groups you work with, or different projects to practice your new skills?

All the participants noted how they were able to pick the project they wanted for the "You Pick" portion of the program (where the program participants pick a leadership challenge facing SAME and develop potential solutions), and they were able to select their mentors. Beyond the "You Pick" and selection of mentors, the program participants agreed that the rest of the program was prescribed. FG1 indicated that the balance is hard when it comes to having electives versus prescribed content. FG1 said, "When you are crafting a new program like this you can give people little opportunities to choose their own path, or you can give them one big one. I feel like SAME gave the latter." FG3 added that the program leaders allowed the teams to take their dream of what they wanted to do and pursue it.

Q7 Outcomes: How well do you feel you achieved the overall learning goals and objectives of the SAME LD program?

The interview and focus group participants had mixed reviews about how well the outcomes achieved the objectives of the SAME LDP. The responses ranged from a lack of understanding of what the program goals were to the content being very applicable and the objectives being well-defined. INT1 stated that the program outcomes "fell flat and beneath expectations and that the objectives were never stated." FG3 commented on how most of the content achieved the program objectives and helped their learning.

FG2 discussed the fact that they might not have been the target audience for the program. They all discussed how competitive the program was to get into. There are many applicants vying for very few spots. Due to this competitive element the program carries a significant amount of prestige. However, once in the program, the program tends to focus on "up-and-coming leaders." FG1 stated how "I had been in ten different leadership positions over the course of a decade, and ninety percent of what they covered in the program during the entire year I had not only learned about but implemented myself. So, I probably was not the target audience." FG2 and FG3 echoed FG1's sentiments. FG2 added, "Much of what I learned, I would feel there were definitely things I learned that were new and others I was able to hone." FG3 said, "The program was more beneficial to people like me than for those like [FG1]". These findings are further supported by our survey responses centered on leadership skills and competence development after program completion.

Additional Interview Analysis

Three of the four participants felt that a certificate would negatively impact the program or, at a minimum, added no value. FG1 and FG2 thought a certificate would be negative. They made comments such as, "I think it takes away from the prestige of the program and that SAME is an institution, all who apply do so because the mission resonates with them and the significance to what we do and why we do it." FG3 simply stated, "they didn't think it (a certificate) will add anything." INT1 had an opposing view of the focus group participants. INT1 thought a certificate would be valuable and that finding a way

to recognize people who have completed the program with an abbreviation behind their name is important.

INT1, FG1, and FG2 felt the mentorship aspect of the program needed improvement. INT1 noted that "finding a female mentor was important, and she was looking for a way to connect with female leaders in the industry." The three participants agreed that there was no uniform alignment as to the role of the mentors, how often program participants were supposed to connect with them, or what the mentorship objective was. FG2 stated that "even the mentors didn't know what to do." FG3 had a positive mentorship experience. FG3's mentor was very proactive about making the connection and regularly contacted them to discuss program content. FG3 did agree that the mentor role was not clearly defined.

All the participants valued the "You Pick" part of the program. FG3 noted how they were able to pick the project they wanted to work on and see it through. INT1, FG2, and FG3 are still working on their projects even after the completion of the leadership program. FG1 stated, they are still working on their "You Pick" capstone and are further along than they thought they would be and are very excited about the work." FG3 added, "I felt like they trusted us to come up with our own project versus giving us something that had to fit within specific parameters, which was huge."

One area of improvement identified was with program participation. All the participants noted how many people did not turn on their computer cameras when in the virtual meetings or, to quote FG1, "they didn't say a word." INT1 and FG2 agreed that it seemed like the same two or three people speaking at every virtual presentation. FG3 added, "It would have been nice to get more participation out of people." FG1 thought SAME should set some expectations around attendance and participation at the virtual sessions. All participants agreed that mandating an expectation of participation from program participants would enhance the learning of the entire group and benefit the program as a whole.

Empathy Interview Analysis

In addition to the formal interview and focus group, one of our team members conducted seven empathy interviews during the Society of American Military Engineers Joint Engineer Training Conference in San Antonio, TX, the week of 1-5 May 2023. These empathy interviews were conducted with both current and former LDP participants and were designed to give the participants a chance to identify the good, bad, and ugly aspects of their individual LDP experiences. While responses were wide-ranging, three themes emerged from these interviews:

1. Virtual classrooms were not as interactive and engaging as they could be.

2. Meeting twice during the program (beginning and end) would be enhanced with a third meeting in the middle of the program.

3. The target audience for the program was not clearly understood by program applicants and participants.

The results of these empathy interviews support both the survey data and the feedback gathered during the focus group and interview detailed previously.

LIMITATIONS

While our research aimed to shed light on the effectiveness of the SAME LDP in terms of information transfer and individual motivation, there are a few limitations within this research paper. The first limitation pertains to the sample size of our research. We sent out 85 surveys via email and sought to conduct eight 1:1 interviews and four focus groups. We were only able to capture survey data from 24 out of 85 possible respondents (28% response rate) with 4 respondents in the 2020 cohort, 7 from the 2021 cohort, 3 from the 2022 cohort, and 10 from the 2023 cohort. Our interview and focus groups sessions were also limited to one interview and one focus group that totaled four people.

The data collected for this study heavily relied on self-reported measures such as surveys and SAME leadership interviews. This introduces the potential for response bias as participants may have provided answers they believed were expected or favorable. The subjective nature of the data may also lead to variations in responses, making it difficult to draw definitive conclusions.

As noted in our data analysis and findings, data inconsistencies were encountered due to varied survey questions and methodologies within and across cohorts. This inconsistency made it difficult to analyze and compare the data, potentially affecting the accuracy and reliability of our findings.

FINDINGS

Finding 1: SAME's use of varied survey questions and methodology has limited useability.

An important aspect of leadership programs is the evaluation process (Riggio, 2008, Black & Earnest, 2009, Packard & Jones, 2013). One of the key components of leadership program evaluation is the pre and post-test survey. Packard and Jones (2013) note the importance of pre and post program performance data. They report that the "greatest advance in evaluation of such programs would be the development of more powerful follow up outcome data" (p. 166). Our team's first finding perhaps should be considered a lens through which our wider research efforts (and other findings) are framed since it presents a potential barrier to all three of our key research questions. Those questions involved seeking to understand SAME's efficacy regarding its stated objective and how participants applied lessons learned both on the job and within SAME membership. As we evaluated past surveys, it became apparent that year-to-year shifts and inconsistencies in questions, methodologies, and slight changes in modes would make it impossible to obtain a consistent longitudinal analysis of the SAME program's efficacy in its efforts to transfer training to program participants.

Our concerns stem from various aspects of data inconsistencies and their implications for research. Bowling's (2005) assertion that the "mode of questionnaire administration can have serious effects on data quality" emphasizes the impact of the way questionnaire administration can impact data quality (p. 281). Bowling examined the differences in data obtained through different modes, such as face-to-face interviews, telephone interviews, and online surveys. Bowling's work suggests that the mode of administration can have substantial effects on response rates, response patterns, and overall data quality. While our issues with the SAME data were not only tied to mode, but we also found our data issues and discrepancies mirrored the mode warnings of the extant literature. Similarly, but with a different lens than mode, researchers looked at what generated better response rates from surveys (Fosnacht, et al., 2017) and how important those response rates were to ascribing levels of certainty to findings. Consistency and clarity emerged as key factors hindering our overall ability to comprehensively analyze

the data sets provided. While the literature stresses the importance of considering the mode of administration in research design and interpretation, it also notes the importance of consistent efforts across modes (Bowling, 2005) and the need to carefully evaluate year-over-year data integrity and its potential impact on data quality. By accounting for these effects, we can mitigate inconsistencies in data and ensure the reliability and validity of research findings.

Additionally, Alwin (2014) sheds light on the issue of response errors in survey data. The study identifies several factors that contribute to response errors, including respondent characteristics, question characteristics, and survey administration methods. This supports and informs our concerns that response errors in the SAME data might significantly affect the accuracy and reliability of the survey data. In our case, inconsistencies in respondents' understanding of questions, memory limitations, and social desirability biases may introduce errors in the data, leading to misleading or erroneous research conclusions.

As noted in the data analysis above, we saw these discrepancies clearly in the SAME data. Furthermore, the literature highlights the importance of carefully designing survey questions and employing consistent survey administration techniques (Alwin, 2014). The presence of response errors and the choice of questionnaire administration mode can significantly affect data quality, potentially leading to flawed conclusions (Alwin, 2014). Our finding here pushed our team to adapt our methodologies, including clear survey design, proper administration techniques, and thoughtful data analysis, to minimize inconsistencies and enhance the validity of our research outcomes in our own delivered survey.

Finding 2: The big three of the SAME LDP, *Know Yourself*, *Know Your Team*, and *Know Your Future* had a clear ranking in the significance of both impact and importance.

As we completed our data analysis on the results of the SAME questionnaires, our empathy interviews, and our own survey, we kept returning to the themes present in the SAME multi-year questionnaire data provided to our research team. Essentially, the SAME multi-year questionnaire was an effort by SAME leadership to evaluate and

quantify the SAME LDP's effectiveness in its three primary curriculum areas: 1) *Know Yourself*, 2) *Know Your Team*, and 3) *Know Your Future*. This finding discusses the rankings of these goals in terms of both impact and importance and attempts to briefly explore the relevance of these findings in relation to Baldwin and Ford's transfer of training theory and Deci and Ryan's self-determination theory.

Goal Rankings:

A. *Know Yourself*: This goal ranked high in both impact and importance. Participants recognized the significance of self-awareness, personal growth, and understanding one's strengths and weaknesses as essential elements of effective leadership.

B. *Know Your Team*: Similarly, the goal of knowing one's team received high rankings in both impact and importance. Participants emphasized the value of fostering effective communication, collaboration, and interpersonal relationships within a team context for successful leadership.

C. *Know Your Future*: Interestingly, the goal of knowing one's future ranked comparatively lower in both impact and importance. Participants perceived this goal as less significant in the context of the SAME LDP, suggesting a potential opportunity for improvement or decreased emphasis on this aspect.

We found it helpful to consider this finding vis-à-vis Transfer of Training Theory and Self-Determination Theory.

Transfer of Training Theory:

Baldwin and Ford's (1988) Transfer of Training Theory, as stated earlier, suggests that individuals are more likely to apply and transfer the knowledge and skills acquired in a training program to their work environment when there is a strong alignment between the content and context of the training and their job requirements. The findings of this analysis align with the theory by highlighting the significance of the *Know Yourself* and *Know Your Team* goals. These goals directly address the interpersonal and intrapersonal skills essential for effective leadership, indicating a strong connection between the LDP content and participants' job requirements.

Self-Determination Theory:

Similarly, Deci and Ryan's (2002) Self-Determination Theory posits that individuals have innate psychological needs for competence, autonomy, and relatedness. This finding of ranked significance self-reported by program graduates supports the theory by indicating that the goals of *Know Yourself* and *Know Your Team* align with the need for relatedness and competence. Participants recognized the importance of understanding themselves and their team members, fostering meaningful connections, and enhancing their leadership capabilities.

Theoretically, the comparatively lower ranking of the *Know Your Future* goal suggests that it may not align as strongly with the need for autonomy and relatedness, and therefore, participants may perceive it as less impactful or important (Baldwin, 1988). Additionally, training goals and content that are more closely aligned to the task and relevant to the learners have a higher chance of being transferred into practice (Burke & Hutchins, 2007). Participant responses may call into question the framing of the SAME LDP goals in these distinct terms, given the cognitive dissonance present in the promise of helping participants "know" with any certainty or clarity, tangible aspects of their futures.

In short, the data analysis of the questionnaire and qualitative data revealed clear rankings in the significance of the program's three goals: *Know Yourself*, *Know Your Team*, and *Know Your Future*. While the goals of *Know Yourself* and *Know Your Team* seemed to resonate with participants, the goal of *Know Your Future* did not. This finding clearly suggests a potential opportunity to either further enhance the emphasis on the *Know Your Future* goal within the SAME LDP to better align with participants' needs for autonomy or to lessen or eliminate its presence as a key goal.

Finding 3: The selection of participants and their level of leadership experience coming into the program greatly impacted self-reported program efficacy and impact.

SAME members who want to participate in the LDP submit their applications to their Regional Vice President. There are eighteen regions, and one LDP spot is awarded from each region. The eligibility criteria are determined across several categories, including

an essay about the candidates' background, what they expect to gain from the program, why the program will benefit them in their career, and how they will apply the skills learned toward future involvement in SAME. As we evaluated the criteria, participant interviews, focus group discussions, and empathy interviews, our team noted the differential impact of leadership training on participants with limited leadership training or experience compared to those with extensive leadership experience. We found that participants enrolled in the SAME LDP who lacked significant leadership experience reported significantly greater benefits from the program in terms of personal growth, skill acquisition, and confidence-building compared to their counterparts who possessed many years of leadership experience. As noted in our analysis, FG3 thought the program was most beneficial to him because of his limited leadership experience. This was notably different for FG1 who had more than ten different leadership roles prior to taking part in SAME's LDP and felt he had already learned much of what had been covered in the program's curriculum. This data is supported by research conducted by Kragt and Guenter (2018), who evaluated leader identity and leadership training. The study found that more experienced leaders function closer to their maximum potential performance levels, and the gains from leadership training are greater for less experienced leaders. The novice leadership participants emphasized the transformative nature of the program, which enabled them to develop foundational leadership competencies and adopt new perspectives on leadership. In contrast, experienced leadership participants, although acknowledging the value of the program, reported more modest gains, and noted that the training reinforced their existing knowledge and skills.

Our theoretical framework of Deci & Ryan's (2002) self-determination theory provides a theoretical lens through which to interpret the results above. Namely, novice participants lack of prior leadership experience, might have led them to possess higher level of self-doubt and perceived greater benefits from the program due to the confidence boost they experienced. On the other hand, experienced participants, having developed a certain level of self-efficacy, might have had more limited opportunities for growth and development within the program.

Additionally, we considered that younger and less experienced leaders may simply find more "aha" moments in the more remedial or basic aspects of the SAME LDP training, while more experienced leaders could easily process the same information with a "been there, done that" mentality. Yet these more experienced leaders did not indicate in the surveys or the empathy interviews that they found SAME curriculum and material as redundant, tired, or rehashed. On the contrary, there was no difference in the scoring of the materials between the more and less experienced leaders.

Our research highlights that those participants without prior leadership training can benefit more from SAME LDP than those with more extensive leadership experience. Further research is warranted to explore the underlying factors contributing to these differential outcomes and to refine the SAME LDP to cater better to the needs of both novice and experienced individuals seeking to enhance their leadership abilities.

Finding 4: Improving the virtual classroom environment and instruction is important.

The data analysis of the questionnaire, interviews, and survey conducted to assess the efficacy of the SAME LDP revealed valuable insights. Participants expressed the importance of the virtual classroom environment and instruction while highlighting areas that needed improvement. The presence of strengths (less so) and the tendency of participants to point out weaknesses and gaps (more so) offered a clear finding of importance in our research.

Firstly, participants acknowledged the significance of the virtual classroom environment within the SAME LDP. They recognized the convenience and accessibility provided by the virtual format, allowing them to participate regardless of their physical location. The flexibility offered by the virtual environment was highly appreciated by participants, enabling them to engage with the program while managing their professional commitments.

However, the data also indicated that improvements were necessary for both the presenters and the technology format employed by SAME. Participants expressed a desire for more effective and engaging presentations from the instructors. They felt that

the quality of instruction could be enhanced by incorporating innovative teaching techniques, real-world examples, and interactive activities to stimulate their learning experience. Suggestions were made to ensure that the presenters were knowledgeable, well-prepared, and capable of delivering the content effectively.

Regarding the technology format used by SAME, participants highlighted the need for improvements. They reported various issues such as connectivity problems, audio and video quality concerns, and difficulties in navigating the virtual platform. These technical challenges negatively impacted their overall experience and hindered their ability to fully engage with the program. Participants emphasized the importance of a seamless and user-friendly technological infrastructure to facilitate effective learning and interaction.

Based on this data, it is evident that while participants recognized the value of the virtual classroom environment and instruction provided by SAME, improvements are necessary to maximize the program's effectiveness. Enhancing the quality and delivery of presentations, ensuring presenters possess the necessary expertise, and addressing technological limitations are key areas that require attention. By addressing these concerns, SAME can enhance the overall experience of participants and potentially achieve better results in leadership development.

Finding 5: Opportunities to practice and apply leadership skills are essential.

As indicated in the analysis above, the SAME LDP participants provided mixed feedback regarding the ability to practice and apply the skills learned. While FG1 noted that this was a missed opportunity, FG2 noted how the skills learned were able to be applied within the team they led in their day-to-day work. INT1 noted that much of what was taught was not readily transferable and therefore there were not opportunities to practice or apply the training. Learning transfer has long been identified as a problem within organizations (Baldwin & Ford, 1998; Burke, 2001) and continues to be a problem as data shows on the job application of training knowledge and skills is extremely low (Fitzpatrick, 2001; Martin, 2010; Grossman & Salas, 2011). One important aspect to learning retention and transfer is the ability to practice and model

skills. Research has shown that practice and modeling, along with application review and establishing learning goals, can increase learning transfer by up to 37 percent (Leimbach, 2010). All the respondents in the interviews felt that it was important to have the skills modeled and identify opportunities to practice. FG3 noted that while they did not have direct opportunities to practice the skills learned in virtual workshops, they did try to incorporate elements of the learnings at home with their family. FG3 noted this practice resulted in "...a big change from how I interacted with my spouse and children between before the program and after the program." This illustrates the impact practice can have on learning transfer.

RECOMMENDATIONS

Recommendation 1: Maintain consistent survey questions.

The first recommendation pertains to ensuring consistent survey data noted in finding one. By addressing potential sources of response errors, such as ambiguous or complex questions, and implementing strategies to minimize bias, SAME can enhance the quality of survey data. These measures not only reduce inconsistencies in the data but will enable more accurate analysis and interpretation of research findings. Overall, this recommendation, supported by the literature, highlights the critical role of addressing inconsistencies in data both for robust research efforts and for evaluation of program efficacy. As previously noted in our findings, Bowling (2005), Fosnacht (2017), and Alwin (2014) echo the importance of consistency and clarity of survey questions and consistency of modes when trying to ensure year-over-year data integrity.

By maintaining consistent survey questions, the SAME LDP can achieve the following benefits:

Reliable Data Analysis: Consistency in survey questions allows for reliable and meaningful data analysis. It enables the program to track trends, identify areas for improvement, and measure the impact of interventions accurately.

Comparability Across Cohorts: Consistent survey questions enable the program to make valid comparisons across different cohorts. It ensures that changes in survey responses reflect actual program outcomes rather than variations in survey instruments.

Longitudinal Studies: Consistent survey questions facilitate longitudinal studies, which are valuable for assessing long-term impact and evaluating the effectiveness of program modifications. Such studies require stable measurement instruments to identify changes and trends accurately.

The research team recommends that SAME establish a standardized survey template with a core set of questions that remain consistent across all cohorts. This template should capture essential metrics and variables that are relevant to SAME's LDP goals and objectives. SAME should also consider testing any changes to the survey through a smaller pilot program where they can introduce the new question(s) along with the

original questions of existing cohort members. This way, they will maintain consistency with the primary survey while testing the relevance and importance of new questions.

Recommendation 2:
Change curriculum weighting to better reflect the importance of the three goals of SAME LDP by shifting emphasis to *Know Yourself* and *Know Your Team.*

An important part of an LD program is the curriculum design. Delbert and Jacobs (2021) noted how leadership participants will benefit from a curriculum that is "contextually relevant." Additionally, Fowler (2018) reported that creating LDP content that strengthens self-determination attributes (autonomy, relatedness, and competency) can help learners satisfy their psychological needs (2018). She also notes how relatedness is eroded when leaders fail to provide rationale for the work or ignore feelings.

The survey data and FGI analysis indicates that *Know Yourself* and *Know Your Team* are of greater significance to participants in fostering effective leadership skills within the SAME LDP. By re-evaluating the curriculum's weighting system, we can ensure that participants receive the necessary training and guidance to excel in these critical areas. Modifying the curriculum weighting will also provide SAME the opportunity to incorporate application-based activities (discussed below in recommendation 4) to enhance learning transfer.

Know Yourself: This aspect focuses on self-awareness, personal growth, and the development of key leadership qualities. It helps participants understand their strengths, weaknesses, values, and personal motivations. Knowing oneself serves as a foundation for effective leadership and allows individuals to lead with authenticity and integrity.

Know Your Team: Building strong and cohesive teams is essential for successful leadership. Understanding team dynamics, effective communication, and fostering an inclusive and collaborative environment are crucial aspects of this goal. Developing these skills enables leaders to inspire, motivate, and empower their teams.

Know Your Future: Across all aspects of our research, this was the least effective aspect of the curriculum. The most beneficial component of *Know Your Future* is the "You Pick"

project that the participants work on. The rest of the elements, especially business acumen, did not resonate with participants and appeared to be least transferrable.

Our recommendations are to increase the curriculum weighting for *Know Yourself* and *Know Your Team* to provide participants with comprehensive opportunities for self-reflection, self-assessment, and personal development. This could potentially be achieved by incorporating additional workshops, individual coaching sessions, and application-based activities that facilitate self-awareness, promote the understanding of one's leadership style and values, and increase learning transfer. Decrease the weighting of *Know Your Future* as this content appears to have little impact and perceived benefit to the LDP participants.

Recommendation 3:
Enhance the leadership participant selection process.

The third recommendation focuses on enhancing the leadership participant selection process. As noted in the data analysis and findings, individuals with more leadership experience reported the program as being less beneficial for them. The LDP application form and criteria for selection do not appear to be well-defined. Participants fill out a questionnaire and submit an essay to their Regional Vice President (see Appendix F for full application), who then selects a candidate to represent their region in the LDP cohort. Studies note the importance of the LDP participant selection process. Green (2002) notes how it is important to identify the right people who have the greatest potential for future leadership opportunities and are dedicated to their own development. Pernick (2001) and Maheshwari and Yadav (2018) note the importance of participant selection when creating leadership development programs to identify the right candidates.

The first step in enhancing the selection process is to establish clear and specific criteria that align with the program's objectives. This should include a combination of technical skills, leadership potential, interpersonal abilities, and a commitment to professional growth (Green, 2002; Pernick, 2001; Maheshwari & Yadav, 2018). By defining these criteria, SAME can ensure that only the most qualified individuals are selected for the program.

Engage a diverse selection committee: To ensure a fair and unbiased selection process, it is important to have a diverse selection committee comprising individuals

from different backgrounds and experiences. This committee should include representatives from SAME, industry professionals, and former program participants. By involving a diverse range of perspectives, the selection process can benefit from a broader understanding of leadership qualities and potential.

The next step is to incorporate a multi-stage selection process. Regional Vice Presidents (RVPs) should narrow their list of candidates to three to five individuals with varied leadership and work experience. The RVPs could then participate in a meeting to discuss the candidates and better understand the totality of the candidate pool. From this discussion, each of the RVPs could then select a final candidate to represent their regions.

Incorporate feedback from program alumni: Soliciting feedback from past program participants can provide valuable insights into the selection process. Alumni can offer unique perspectives on the skills and qualities that have proven most beneficial in their own leadership development. By incorporating their feedback, SAME can refine the selection criteria and processes to better align with the program's desired outcomes.

Regularly evaluate and adapt the selection process: A robust selection process should not remain static. It should be regularly evaluated and refined based on data, feedback, and the evolving needs of the program. SAME should establish a system for ongoing assessment and improvement, ensuring that the selection process remains effective in identifying and nurturing the most promising leadership talent.

By implementing these recommendations, SAME can strengthen its LDP by selecting and cultivating a more robust cohort of participants that brings a diverse cross-section of leadership experience, as well as a diverse group of individuals who possess the necessary skills, potential, and commitment to contribute significantly to the field of engineering and military affairs.

Recommendation 4:
Enhance the virtual classroom environment and improve instructor facilitation skills.

As noted in the data analysis and findings, the virtual class setting can be challenging. Our research identified the need for improvements in the virtual class environment and

the facilitation skills of instructors to ensure that the LDP participants receive a comprehensive and engaging education. Due to SAME members participating from all over the world, virtual learning is critical to the delivery of the LDP. SAME should collaborate with technology experts and instructional designers to assess and upgrade the virtual learning platform.

While the interview and focus group participants valued the knowledge and expertise of the faculty, they noted that a majority of faculty members had challenges with delivering the content through webinars. Several studies have noted the challenges of virtual learning. Online facilitators need to overcome "transactional distance" through the incorporation of guiding learners through the learning process, creating a comfortable learning environment, resolving technical issues, and ensuring course logistics are clear (Sargeant, et al., 2006). Betts (2009) underscored the importance of training and professional development for faculty to optimize course management systems and tools that foster communication in an online environment. Further, assessment loops need to be in place to provide ongoing support and feedback to instructors so they may continuously enhance their facilitation skills and adapt to evolving virtual learning needs.

Develop comprehensive virtual teaching guidelines: Instructors play a pivotal role in the success of the virtual learning environment. SAME should develop and disseminate comprehensive guidelines specifically tailored to virtual teaching, addressing best practices for engagement, interactive activities, and effective communication. These guidelines should also address strategies for adapting in-person activities to the virtual setting, ensuring that instructors have access to comprehensive resources and that the learning experience remains rich and engaging.

Facilitate instructor training and professional development: To equip instructors with the necessary skills to effectively facilitate virtual classes, SAME should organize and prioritize instructor training and professional development. This can include workshops, webinars, or conferences focusing on virtual teaching techniques, active learning strategies, and utilizing technology effectively. By investing in the growth

and development of instructors, SAME can ensure a high standard of facilitation within the LDP.

Foster a collaborative virtual learning environment: Creating a sense of community and collaboration is crucial in a virtual setting. SAME should encourage instructors to utilize collaborative tools, such as virtual breakout rooms, discussion boards, and group projects, to facilitate meaningful interactions among participants. Additionally, promoting networking opportunities, both within the LDP and with industry professionals, can enhance the overall learning experience and foster valuable connections.

By improving the virtual class environment and instructors' facilitation skills, SAME can significantly enhance the overall learning experience within the LDP. These enhancements will ensure that participants receive a comprehensive education, fostering the growth and development of future engineering leaders. With careful implementation and ongoing evaluation, SAME can continue to excel in delivering a high-quality leadership program, even in the virtual learning landscape.

Recommendation 5: Incorporate role modeling and application-based scenarios to enhance learning transfer in the SAME LDP

To further improve the program's effectiveness in transferring learning to real-world situations, we recommend incorporating role modeling and application-based scenarios into the curriculum. Sibthrop et al. (2011) note how "active learning techniques" such as modeling, analogies, and metaphors can facilitate learning transfer. This learning transfer happens because participants must apply what they learn in one situation to another and then assess the differences and similarities. By doing this, the learner is making cognitive connections to approximate the two situations and thus facilitating learning transfer (Sibthrop et al., 2011). Studies also point to the importance of application and having the opportunity to practice new skills to support learning transfer (Gaudine & Saks, 2004; Lim & Morris, 2006; Kirwan & Birchall, 2006; Sibthrop et al., 2011; Delbert & Jacobs, 2011).

Currently, the only application-based learning happens through the "You Pick" portion of the program curriculum. This section is highly rated by the interview and focus group participants and confirms the research literature above. Adding application-based elements to the training will provide participants with practical experiences and examples that facilitate the application of knowledge and skills acquired during the program. SAME could incorporate the following into its LD program.

Role Modeling: Introduce role modeling techniques by incorporating experienced professionals from various AEC and military backgrounds as mentors or guest speakers. These individuals can share their personal experiences, challenges, and success stories, thereby inspiring and guiding program participants. By observing these role models, participants can gain valuable insights into the practical application of leadership skills within the engineering and military sectors.

Application-Based Scenarios: Develop and integrate application-based scenarios throughout the program to simulate real-world situations that participants are likely to encounter in their future leadership roles. These scenarios should be designed to challenge participants' problem-solving abilities, decision-making skills, and teamwork capabilities. By actively engaging in these scenarios, participants can apply theoretical concepts learned during the program to realistic situations, fostering a deeper understanding of their practical implications.

Collaborative Learning: Encourage collaborative learning environments where participants can engage in group discussions, problem-solving exercises, and case studies. This approach promotes peer-to-peer knowledge exchange and fosters a supportive learning community. Through active participation in group activities, participants can further develop their communication, teamwork, and leadership skills, enhancing their ability to transfer learning to their professional roles effectively.

By incorporating role modeling and application-based scenarios into the SAME Leadership Development Program, participants will have the opportunity to witness leadership principles in action and actively apply their knowledge in realistic settings. This approach will help bridge the gap between theory and practice, enabling participants to transfer their learning more effectively and enhancing the overall impact of the program on their leadership development.

CONCLUSION

In this study, our research team examined the Leader Development Program (LDP) of the Society of American Military Engineers (SAME) through the lens of individual motivation to transfer learning and Self-Determination Theory (SDT). We sought to evaluate the extent to which the SAME LDP achieved its objectives, understand how participants applied the lessons learned in their organizational context, and explore their application of these lessons in their leadership roles within SAME. By utilizing the theoretical framework of self-determination theory, we aimed to assess whether the program helped satisfy participants' basic psychological needs of autonomy, relatedness, and competence. Using the Transfer of Training (ToT) theory, we sought to assess the "stickiness" of the content and its real-world impact in participants' lives.

Our project questions, problem of practice and selected theoretical framework discussed at length in the paper led us to conclude that overall, the SAME LDP offers an excellent, well-rounded leadership training experience as indicated by data gathered and evaluated from multiple streams. As with all efforts, there is, of course, room for improvement, and those specific findings and recommendations indicated above and discussed at length in the heart of this paper, offer a roadmap for incremental gains in participant efficacy and satisfaction.

As mentioned earlier, James G. March indicated in his work at Stanford Business School that leadership is a mix of plumbing and poetry (Badham, 2022). We kept coming back to this analogy, perhaps because it fits so well in the engineering context. Plumbing, in March's analogy, emphasizes the practical and systematic aspects required for effective implementation. "Plumbing" addresses the operational and logistical elements of leadership... designing systems, processes, structures, etc., to enable the realization of a common vision. Accordingly, good leaders need the analytical and strategic skills and tools to translate what are often abstract ideas into concrete plans and actions. Conversely and synergistically, poetry gets at the creative and visionary aspects required of leaders. Just as poets use language to evoke emotions, inspire and motivate others through what is hopefully some bit of vision, charisma, and ability to articulate a

compelling narrative, a good leader seeks to understand the human condition armed with empathy, which affords the power to ignite passion and enthusiasm in others. Engineers, given their training, skills, and interests, tend to both focus on, and be tasked with, the "plumbing" of life in both a literal and proverbial sense. The SAME LDP does an admirable job of encouraging leaders in the realm of engineering to be adept at both. As noted, and explored in detail in the findings and recommendations, our evaluation of the SAME LDP revealed strengths and gaps in both the plumbing (structure and curriculum) of the program and the poetry, or the final intent of transfer of the training into the making of better leaders.

Finally, our analysis of the various data sets gathered by our team indicates that SAME, as a relatively young LD program, is trending in the right direction. SAME leadership clearly wants to continuously improve the program to offer meaningful information, experiences, and relationships in their programmatic setting to build better leaders. Our team's assessment of this problem of practice is that there is low hanging fruit that, if systematically addressed by SAME leadership and program planning, could quickly propel the SAME LDP from its present status as an exceptionally good program, to a great one.

Overall, our study contributes to a deeper understanding of the SAME LDP by investigating its effectiveness in transferring information to participants and exploring the application of learned lessons in both organizational and leadership contexts. The findings provide valuable insights for program administrators and leaders in the Society of American Military Engineers to enhance the design, delivery, and impact of its LDP.

Moving forward, future research should continue to examine the effectiveness of the SAME LDP by employing rigorous methodologies and incorporating longitudinal assessments to track participants' development over time. Additionally, exploring the long-term organizational impact of the LDP and its influence on individual career trajectories would provide further valuable insights. By continuously evaluating and refining the program, SAME can better fulfill its mission of developing competent and effective leaders within the Society and beyond, ultimately contributing to SAME's mission of developing multidisciplined solutions to national security infrastructure challenges.

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Appendix A

Capstone Team Developed Survey

S.A.M.E. Leader Development Program Survey

Q1.1 Welcome to the SAME Leader Development Program (LDP) Survey! We represent a team of four doctoral candidates from Vanderbilt University working on our Capstone project in the Leadership and Learning in Organizations program. We are interested in understanding how your experiences with the program have impacted your leadership development in your career and in your participation with SAME. For this study, you will be presented with questions based on your experiences within the Same LDP and its relevance to your employment and contributions within SAME. Your responses will be kept completely confidential within the research team evaluating the responses. The study should take you around 20 minutes to complete.

You will be entered into a raffle for a $100 Amazon gift card for your participation and completion of this survey. Your participation in this research is voluntary. You have the right to withdraw at any point during the survey. Ryan Elliott and Brandon Whatley, the Principal Investigators of this survey, can be contacted at ryan.m.elliott@vanderbilt.edu or brandon.whatley@vanderbilt.edu.

Q1.2 Please indicate your agreement by selecting "Yes" below to confirm that:
Your participation in this survey is entirely voluntary. You understand that you have the option to end your participation at any time and for any reason.

◯ Yes (1)

◯ No (2)

Q2.1 What year did/will you complete the SAME LDP?

- ○ 2020 (1)
- ○ 2021 (2)
- ○ 2022 (3)
- ○ 2023 (4)

Q2.2 Please respond with your level of satisfaction to the following prompts.

	Extremely Dissatisfied (1)	Moderately Dissatisfied (2)	Slightly Dissatisfied (3)	Slightly Satisfied (4)	Moderately Satisfied (5)	Extremely Satisfied (6)
How would you rate the overall instructional expertise? (1)	○	○	○	○	○	○
How would you rate your instructors' communication skills? (2)	○	○	○	○	○	○
How would you rate the program instructors' empathy and self-awareness? (3)	○	○	○	○	○	○
How would you rate the program instructors'	○	○	○	○	○	○

ability to effectively communicate information in a manner that was easily comprehensible to all participants? (4)

Q3.1 Please respond with your level of satisfaction to the following prompts.

	Extremely Dissatisfied (1)	Moderately Dissatisfied (2)	Slightly Dissatisfied (3)	Slightly Satisfied (4)	Moderately Satisfied (5)	Extremely Satisfied (6)
How would you rate the opportunities provided for you to model/practice the skills learned while in the program? (1)	○	○	○	○	○	○
How relatable was the	○	○	○	○	○	○

curriculum and training to your current job? (2)

How would you rate the SAME training course's overall design? (3)

○   ○   ○   ○   ○   ○

Was the written content presented in a visually appealing and accessible manner, such as utilizing appropriate font sizes and readability standards? (4)

○   ○   ○   ○   ○   ○

Q3.2 Please rearrange the SAME LDP curriculum focus areas in order of importance with 1 being the most important and 3 being the least important.

_____ Know Your Team (1)
_____ Know Your Future (2)
_____ Know Yourself (3)

End of Block: Curriculum

Start of Block: Duration

Q4.1 Please respond with your level of agreement for the program duration to the following prompts.

	Too Short (5)	Somewhat Short (4)	Just Right (3)	Somewhat Long (2)	Too Long (1)
How would you rate the length of the SAME LD program? (1)	○	○	○	○	○

Display This Question:
If answered anything other than" just right," please respond with your level of agreement for the program duration to the following prompts.

Q4.2 If you answered anything other than "Just Right" to the previous question, please respond with your recommendation for the overall length of the program.

○ 3 months (1)

○ 6 months (2)

○ 9 months (3)

○ 15 months (4)

○ 18 months (5)

○ 2 years (6)

○ Other (7) _____

Q5.1 Please respond with your level of agreement to the following prompts.

	Strongly Disagree (1)	Disagree (2)	Somewhat Disagree (3)	Somewhat Agree (4)	Agree (5)	Strongly Agree (6)
The webinars, face-to-face training surroundings, and general environment were sufficient and conducive to learning. (1)	○	○	○	○	○	○
During the program, I was able to apply learnings in my daily work environment. (2)	○	○	○	○	○	○

Q6.1 Please respond with your level of improvement to the following prompt.

	No Improvement (1)	Slight Improvement (2)	Some Improvement (3)	Moderate Improvement (4)	Significant Improvement (5)	Very Significant Improvement (6)
How much do you feel that your leadership knowledge or skills have improved by completing the SAME LDP training? (1)	○	○	○	○	○	○

Q6.2 Please respond with your level of satisfaction to the following prompt.

	Extremely Dissatisfied (1)	Moderately Dissatisfied (2)	Slightly Dissatisfied (3)	Slightly Satisfied (4)	Moderately Satisfied (5)	Extremely Satisfied (6)
How would you rate your satisfaction with the overall LDP learning experience? (1)	○	○	○	○	○	○

End of Block: Learning Experience

Start of Block: Self-Determination

Q7.1 Please respond with your level of motivation for the following prompts.

	Not At All Motivated (1)	Slightly Motivated (2)	Moderately Motivated (3)	Motivated (4)	Very Motivated (5)	Extremely Motivated (6)
How motivated were you to start the SAME LDP training? (1)	○	○	○	○	○	○
How motivated were you to	○	○	○	○	○	○

continue to learn during the course of the SAME LDP training? (2)

How motivated are you to apply your leadership skills now that you have completed the SAME LDP training? (3)

Q7.2 Please respond with your view of improvement in your leadership competence for the following prompt.

	No Improvement (1)	Slight Improvement (2)	Some Improvement (3)	Moderate Improvement (4)	Significant Improvement (5)	Very Significant Improvement (6)
How would you assess the	○	○	○	○	○	○

improveme
nt of your
leadership
competence
after
completing
the
training? (1)

Q8.1 Please respond with your level of confidence for the following prompts.

	No Confidence (1)	Very Low Confidence (2)	Low Confidence (3)	Moderate Confidence (4)	High Confidence (5)	Very High Confidence (6)
After completing the LDP training do you feel more confident and prepared for a leadership role at your company? (1)	○	○	○	○	○	○
After completing the LDP	○	○	○	○	○	○

training do you feel more confident and prepared for a leadership role in SAME?

(2)

Q8.2 Please rate the applicability of the SAME LDP training for the following prompt.

	Not Applicable (1)	Slightly Applicable (2)	Somewhat Applicable (3)	Moderately Applicable (4)	Highly Applicable (5)	Extremely Applicable (6)
How applicable have the learning/skills from the SAME LDP training been at your place of work? (1)	○	○	○	○	○	○

Q8.3 Please respond with your level of motivation enhancement to the following prompt.

	Not At All Enhanced (1)	Slightly Enhanced (2)	Somewhat Enhanced (3)	Moderately Enhanced (4)	Highly Enhanced (5)	Extremely Enhanced (6)
To what extent do you believe that earning a certificate in this course would enhance your motivation? Examples may include a micro-credential or digital badge that could be used on LinkedIn or other social media. (1)	○	○	○	○	○	○

Q8.4 Please respond with the level of likelihood for the following prompt

	Extremely Unlikely (1)	Somewhat Unlikely (2)	Slightly Unlikely (3)	Slightly Likely (4)	Somewhat Likely (5)	Extremely Likely (6)
How likely are you to recommend this program to a colleague? (1)	○	○	○	○	○	○

Q8.5 Please respond with your level of satisfaction to the following prompt.

	Extremely Dissatisfied (1)	Moderately Dissatisfied (2)	Slightly Dissatisfied (3)	Slightly Satisfied (4)	Moderately Satisfied (5)	Extremely Satisfied (6)
What is your overall rating of the SAME LDP training program? (1)	○	○	○	○	○	○

End of Block: Training Outcomes

Appendix B

Focus Group Interview Intro

Hello, my name is *(insert name, and insert name).* We want to first thank you for taking the time to talk to us today. As you may know, my peers and I are completing our doctoral studies in Leadership and Organizational Learning at Vanderbilt University. We have partnered with S.A.M.E. to analyze the Leader Development Program they offer.

Let me provide you with an outline of what is going to happen.

First, this conversation is strictly confidential. We will not share details with anyone outside the immediate people working on this project.

We are going to ask you a series of questions. We want to understand the SAME Leader Development Program from your perspective. It is important to highlight that this is not a test. There are no right or wrong answers to any of the questions. I would like to ask you to be as honest as possible and feel comfortable speaking freely about any of the questions. Do you have any questions or comments so far?

This interview should take about 45 minutes. Because we can talk a lot quicker than we can type, would it be OK with you for us to record this session for our notetaking?

Once we have finished our interview, we will double-check your details so we can place you in a drawing for a $100 gift card.

If at any point you want to take a break or stop the interview, please just let us know, and we can work around it. Any questions before we begin? Would you like to start the interview now (verbal consent)?

Interview Script

Background   **7 mins**

1. **Tell us a bit about yourself?**
2. **How long have you been involved with SAME?**
3. **Why did you decide to participate in the Leader Development Program? Potentially SDT**

Curriculum
1. What did you enjoy (or not enjoy) about the program content that was delivered during the program? TT
2. What courses or program content did you find most relevant? – TT/SDT

Instructors   7 mins
1. On a scale of 1-5 (1 being extremely poor and 5 being extremely good), how would you rate the program instructors overall?
2. What do you think were the instructors' strengths?
3. What do you think the instructors could have improved?

Application   7 mins
1. How did the instructors' model (or demonstrate) the skills and learnings that were delivered through the course content? TT
2. During the program, what opportunities did you have to practice the skills and learnings in your daily work environment? TT
3. How are you applying the skills/knowledge learned in your day-to-day work? – TT/SDT

Environment   5 mins
1. Were the webinars, live training surroundings, and the general environment sufficient and conducive to learning? TT
   a. If yes, what about them were conducive
   b. If no, what about the surroundings was not conducive to learning
2. Would you take the same course in an asynchronous training on your computer (all recordings no live instructor)?
3. Would you be comfortable taking this course in a commuter setting where you traveled and completed it over a period of time?

Same Training Outcomes   7 mins
1. How well do you feel you achieved the overall learning goals and objectives of the SAME LDP training?
2. Describe how successful the course outcome was compared to your expectations
3. How would you summarize the goals of this course in three bullet points or statements?

SAME Learning Experience   7 mins
1. What choices were offered to you to enhance your experience in completing the SAME program (i.e., different course offerings or elective learning choices, choosing groups you work with or different projects to practice your new skills)? SDT
2. What suggestions do you have that could improve the program and its outcomes?

3. Overall, on a scale of 1-5, 1 being completely dissatisfied and 5 being completely satisfied,
4. How satisfied were you with the program curriculum?

Post Course   **7 MINS**

1. Overall, did the SAME LD program inspire you to pursue further leadership training on your own? <mark>SDT</mark>
    a. If yes, describe what you have done or will do?
    b. If not, why not?
2. Has the LDP training led to your having increased leadership opportunities within your current employment or within SAME? <mark>SDT</mark>
3. How did the SAME Leader Development Program improve your leadership competence and confidence? <mark>SDT/TT</mark>
4. Do you feel like you have grown in your leadership capability after completing the program? <mark>SDT</mark>

Certification   **IF YOU HAVE TIME!**

1. Did you share your completion of the SAME Leader Development Program on your social media? Would a certificate impact your sharing of the program completion?
    a. If yes, why?
2. If not, is there anything that would have made you more likely to share your completion on social media?
3. How would offering a certificate validate this course?

Appendix C

Interview Coding Table

Interview & Focus Group Quotes

Self-Determination Theory		Interview 1	FG1	FG2	FG3
Autonomy		Not much autonomy beyond you pick.		Other than You Pick, I felt like everything was prescribed.	With you pick...we could take our dream and pursue it.
Purpose				Felt a great sense of honor being part of the program.	My purpose in the program was to learn skills that would help me be a better leader than my past leaders I have experienced.
Relatedness			Know Yourself made sense to me and I could relate it to how I am.	Know yourself and know your team really resonated with me.	Thought the program was very beneficial and all of it spoke to me.
Transfer of Training		Sadly, not much has been transferrable.			Learned a lot about myself and it helped me see leadership qualities that I could use.
Curriculum		I'm not sure of the intent or really what they hoped we would gain from it. Know Yourself lit a fire under me. I gained the most from this. It was absolutely great. Know Your Future was a throw away topic	Know Yourself and Know Your Team really resonated with me. Know Your Future was the tip of the spear… Really enjoyed the readings and felt it covered a wide range of content. It accomplished what it set out to accomplish.	I especially enjoyed Know Yourself and Know Your Team. I really leaned into it. The only part I didn't like was the business acumen. The program content aligned to the program objectives.	Overall, I enjoyed the content. I got more out of some parts than others. I didn't get as much out of the part that focused on your future.

	Interview 1	FG1	FG2	FG3
Outcomes	How well do you feel you achieved the overall learning goals? *What were the goals and objectives?* The goals and outcomes were never stated. I feel like I got the most out of Know Yourself. The program fell flat and below my expectations.	*I don't feel like I was the primary audience* (based on his extensive leadership experience). The program was good to reinforce a lot of things I had seen and experienced as a leader. Probably need to balance the super-competitiveness of the program with those who need it most.	I feel like much of what I learned were things I already know. There were definitely things I learned that were new and other things that I was able to hone. I feel like the program objectives were met in the course material. The program was laid out to what their objectives were.	A lot of the content was very applicable to me and I learned a lot. The program was more beneficial to me than someone with extensive leadership experience.
Other Items				
Why join LDP	*For me it was about being with a team and family.* *It was about increasing my personal brand and taking on a new challenge.* The program could help me transition to the next phase of my career.	*I decided to go into the LD program because there was an opportunity and a need for leadership at the Post level.*	I have been with SAME for 10 years. I thought the Leadership Program would be something perfect for me. I'm always striving to get to the next level of my career and to learn more about myself as a leader. *It's a very prestigious program.*	I had a very bad experience with leadership when I was in the private sector before transitioning to the public. Since then I have been on my own leadership journey....I wanted to make sure that I would never treat anybody and put anybody through what I went through.
Program Misses	To me the real miss was that one of the things I wanted to understand were the different styles of leadership and how they could be successful or how you could maybe use different styles in different situations. We never heard that.	The mentor piece a disconnect for me. I'm not sure what their objective was. I think the program could find a way to get more people involved. At times it felt like the same people speaking over and over.	I think the program was great. The only thing I would improve is the program instructors facilitation skills.	

	Interview 1	FG1	FG2	FG3
Learning Environment	The learning environment could have better. I feel like it became flat when we had to shift to all virtual. There were no breakouts. *We would sit and watch a slide deck for an hour.*	*I think the mix of online and live training worked well. We would start at JETC and have a full day of closing workshops a the end. With the rest of the program being virtual.* *Being able to meet people up front was important and made a difference on being able to partner and collaborate.*	Having the connections from live trainings would have impacted the program being able to see people face-to-face, but I'm not sure how the program would have been different.	Due to COVID there was no chance to meet each other until 2022 (after the program concluded)
Instructors	Jen Campbell was amazing (live). The others fell flat due to the virtual setting. Virtual Environment is hard. You really need more dynamic people giving the content.	The speakers are a mixed bag. Some stood out and others did not. *SAME needs to have a webinar on facilitation skills for the program instructors.*	The instructors did try to demonstrate what good looks like while they were giving the lectures. *I agree with the others that the instructors need to improve the facilitation skills.*	Instructors tried to provide real-life examples of what they experienced.
Application	The only place I learned was Know Yourself. In my daily life, I have not been applying the skills. I don't think much of it was transferrable.	There was a missed opportunity for implementation and application. Being an SME or a great presenter doesn't translate into being a great webinar facilitator. *Facilitators need training so that they can come across great.*	Not a lot of opportunity to apply learnings. *I found myself turning my learnings toward my staff.* So many of the things I learned I was able to implement immediately and decided to change my thinking of leadership regardless of the leadership I wasn't receiving.	At the time of the program I was the supervisor of one person so I didn't have a lot of opportunities to apply the learnings. However, I did apply what I learned from Know Yourself to my personal life. I started *to see myself as a better husband and father from the program.*

	Interview 1	FG1	FG2	FG3
Mentorship	It was difficult to find a female mentor. I was looking for that and was looking for a way to connect to female leaders in the industry.	I'm not sure I know what the mentor was supposed to do. I wasn't sure of the purpose or the role they played. It was poorly defined. *It would have been helpful if the mentorship was a bit more institutionalized in terms of this mentor, and this is how SAME has instructed the mentors to engage with you.*	I agree with FG1, I don't think the role of the mentor was very clear. *Even the mentors didn't know what to do.*	I had a really good mentor. My mentor took it upon himself to contact me. He and I would discuss the content that was covered, and he was very engaged. I guess he took it upon himself to be involved and do that.
Certification	I think finding a way to recognize those of us that have been through this with a designation would distinguish us in a way that says, I have completed this well-respected program	I don't think certification would be a negative. SAME is an institution and all who apply do so because the mission resonates with them and the significance to what we do and why we do it.	I don't think it adds to the program. *I think it could take away from the prestige of the program.* It's competitive to get in!	I don't think a certificate would add anything. The people who are here are not doing it for a shiny sticker or letters behind their name.
Program Improvement		Get people engaged with the program. I know for a fact that more than fifty percent of the people in my class didn't participate. They didn't turn on their cameras or say a word unless they were explicitly called on. SAME needs to set an expectation of participation and that everyone must contribute.	I think the program should try to find ways to get people together in person a bit more.	It would have been nice to get more participation out of people. It also would be nice to find a way to get people together more.

Appendix D

Capstone Team Developed Survey Analysis

S.A.M.E. Leadership Development Program Survey

July 16th 2023

Q1.2 - Please indicate your agreement by selecting "Yes" below to confirm that: Your participation in this survey is entirely voluntary. You understand that you have the option to end your participation at any time and for any reason.
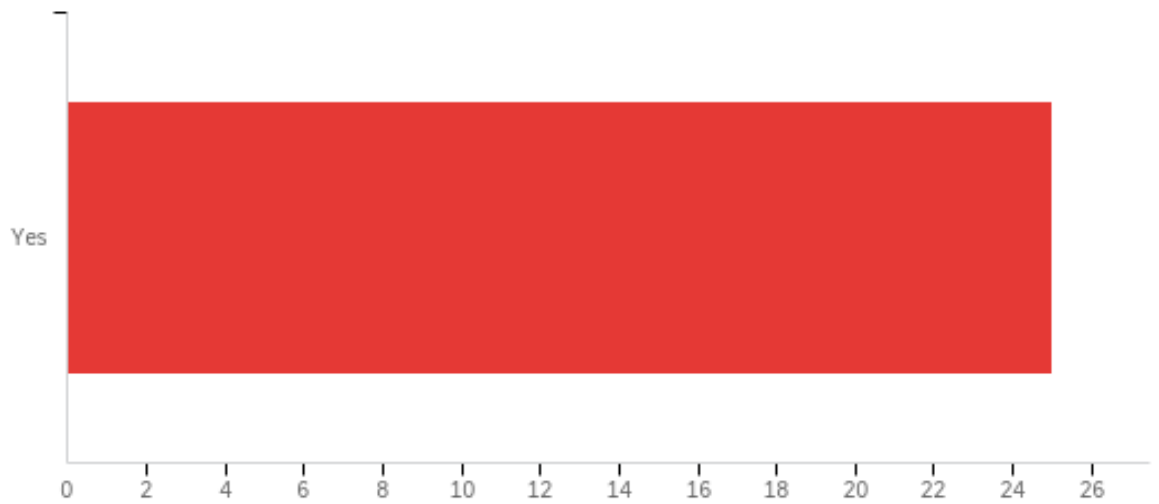
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Please indicate your agreement by selecting below to confirm that: Your participation in this survey is entirely voluntary. You understand that you have the option to end your participation at any time and for any reason.	1.00	1.00	1.00	0.00	0.00	25

#	Answer	%	Count
1	Yes	100.00%	25
	Total	100%	25

Q2.1 - What year did/will you complete the SAME LDP?
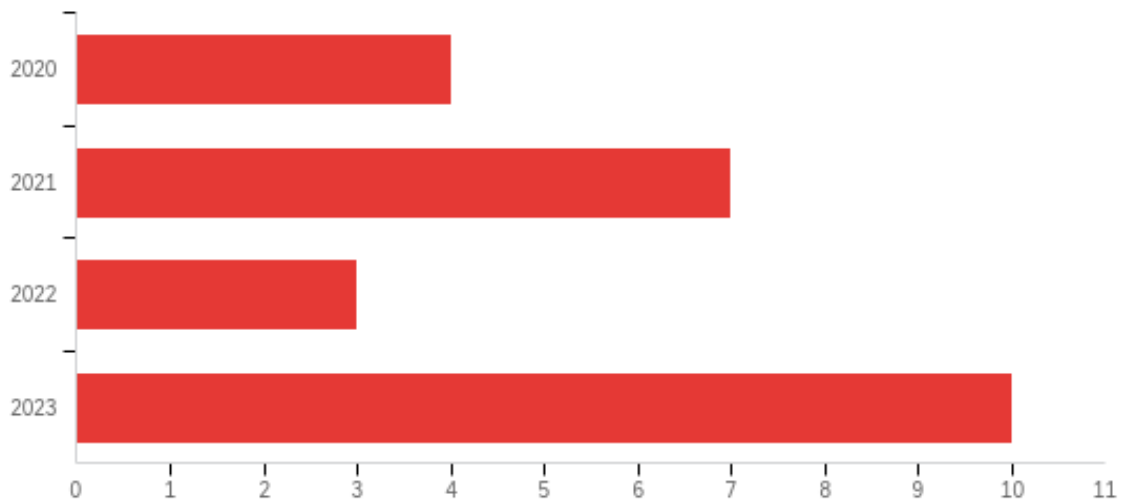
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	What year did/will you complete the SAME LDP?	1.00	4.00	2.79	1.15	1.33	24

#	Answer	%	Count
1	2020	16.67%	4
2	2021	29.17%	7

3	2022	12.50%	3
4	2023	41.67%	10
	Total	100%	24

Q2.2 - Please respond with your level of satisfaction to the following prompts.
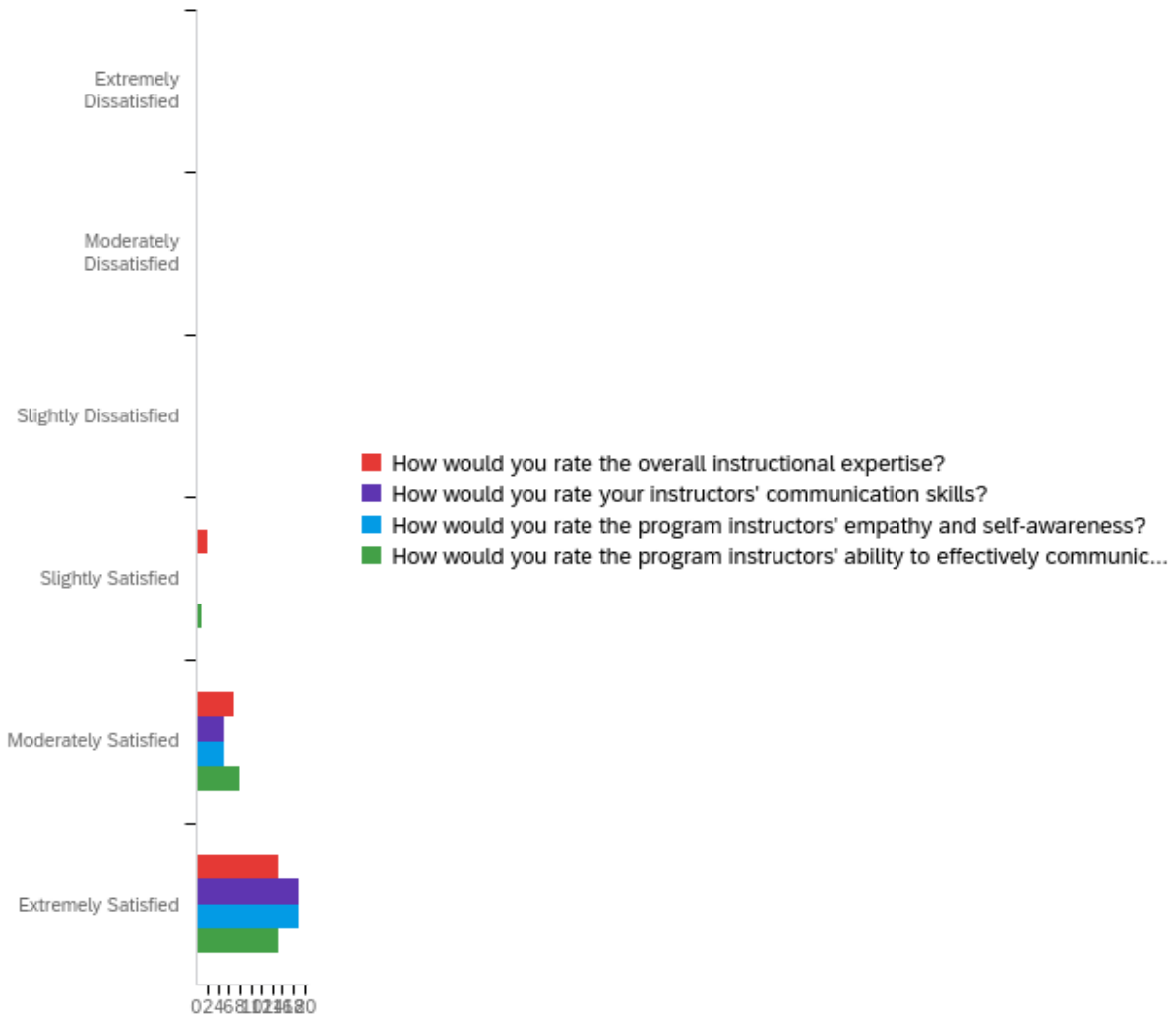
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	How would you rate the overall instructional expertise?	4.00	6.00	5.54	0.64	0.41	24
2	How would you rate your instructors' communication skills?	5.00	6.00	5.79	0.41	0.16	24
3	How would you rate the program instructors' empathy and self-awareness?	5.00	6.00	5.79	0.41	0.16	24
4	How would you rate the program instructors' ability to effectively communicate information in a manner that was easily comprehensible to all participants?	4.00	6.00	5.58	0.57	0.33	24

#	Question	Extremely Dissatisfied		Moderately Dissatisfied		Slightly Dissatisfied		Slightly Satisfied		Moderately Satisfied		Extremely Satisfied		Total
1	How would you rate the overall	0.00%	0	0.00%	0	0.00%	0	8.33%	2	29.17%	7	62.50%	15	24

instructional expertise?

#	Question													
2	How would you rate your instructors' communication skills?	0.00%	0	0.00%	0	0.00%	0	0.00%	0	20.83%	5	79.17%	19	24
3	How would you rate the program instructors' empathy and self-awareness?	0.00%	0	0.00%	0	0.00%	0	0.00%	0	20.83%	5	79.17%	19	24
4	How would you rate the program instructors' ability to effectively communicate information in a manner that was easily comprehensible to all participants?	0.00%	0	0.00%	0	0.00%	0	4.17%	1	33.33%	8	62.50%	15	24

Q3.1 - Please respond with your level of satisfaction to the following prompts.
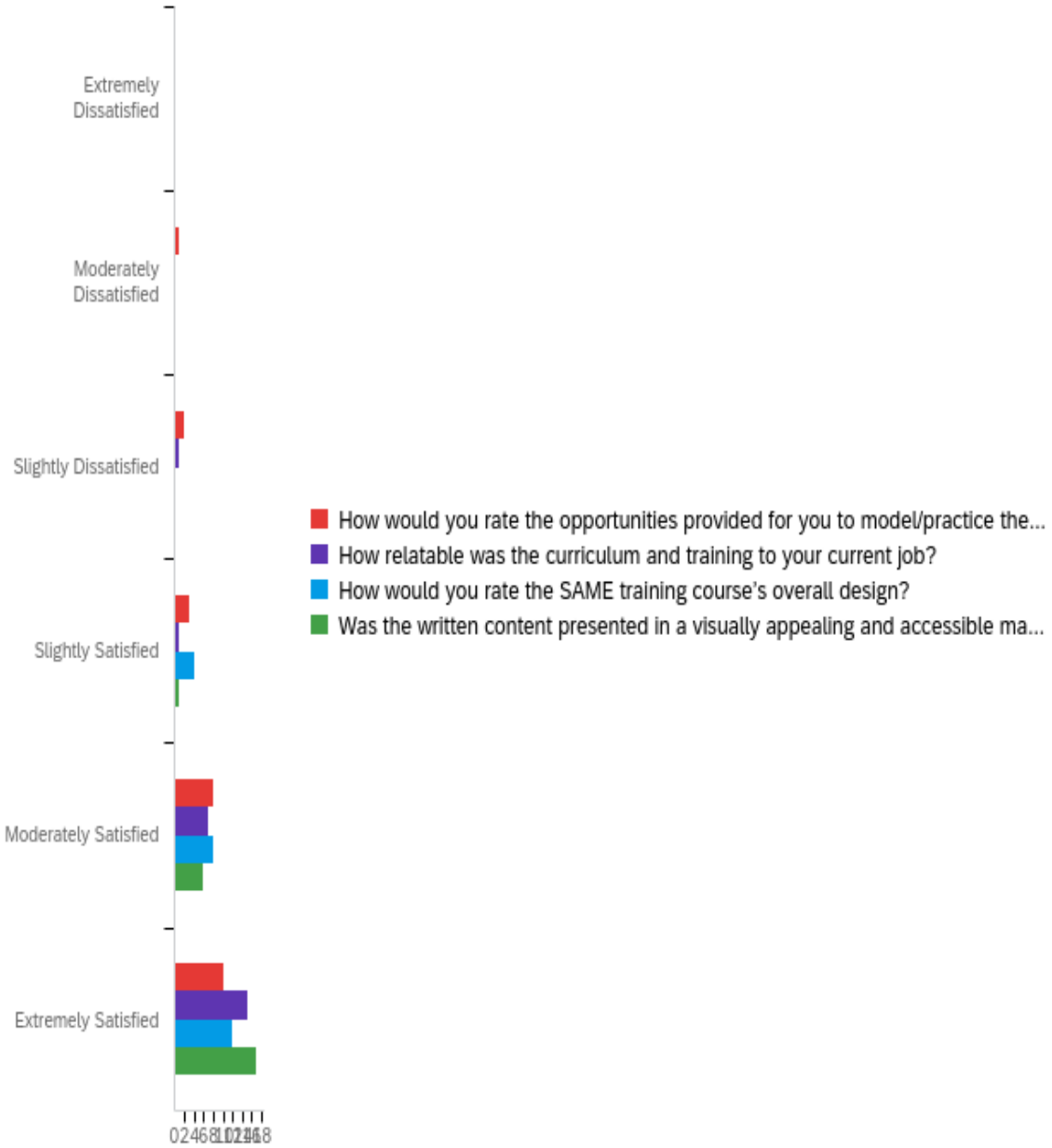
Legend:
- How would you rate the opportunities provided for you to model/practice the...
- How relatable was the curriculum and training to your current job?
- How would you rate the SAME training course's overall design?
- Was the written content presented in a visually appealing and accessible ma...

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	How would you rate the opportunities provided for you to model/practice the skills learned while in the program?	2.00	6.00	5.00	1.12	1.25	24
2	How relatable was the curriculum and training to your current job?	3.00	6.00	5.50	0.76	0.58	24
3	How would you rate the SAME training course's overall design?	4.00	6.00	5.33	0.75	0.56	24
4	Was the written content presented in a visually appealing and accessible manner, such as utilizing appropriate font sizes and readability standards?	4.00	6.00	5.67	0.55	0.31	24

#	Question	Extremely Dissatisfied		Moderately Dissatisfied		Slightly Dissatisfied		Slightly Satisfied		Moderately Satisfied		Extremely Satisfied		Total
1	How would you rate the opportunities provided for	0.00%	0	4.17%	1	8.33%	2	12.50%	3	33.33%	8	41.67%	10	24

	you to model/practice the skills learned while in the program?											
2	How relatable was the curriculum and training to your current job?	0.00%	0	0.00%	0	4.17%	1	4.17%	1	29.17%	7	62.50%	15	24
3	How would you rate the SAME training course's overall design?	0.00%	0	0.00%	0	0.00%	0	16.67%	4	33.33%	8	50.00%	12	24
4	Was the written content presented in a visually appealing and accessible manner, such as utilizing appropriate font sizes and readability standards?	0.00%	0	0.00%	0	0.00%	0	4.17%	1	25.00%	6	70.83%	17	24

Q3.2 - Please rearrange the SAME LDP curriculum focus areas in order of importance with 1 being the most important and 3 being the least important.
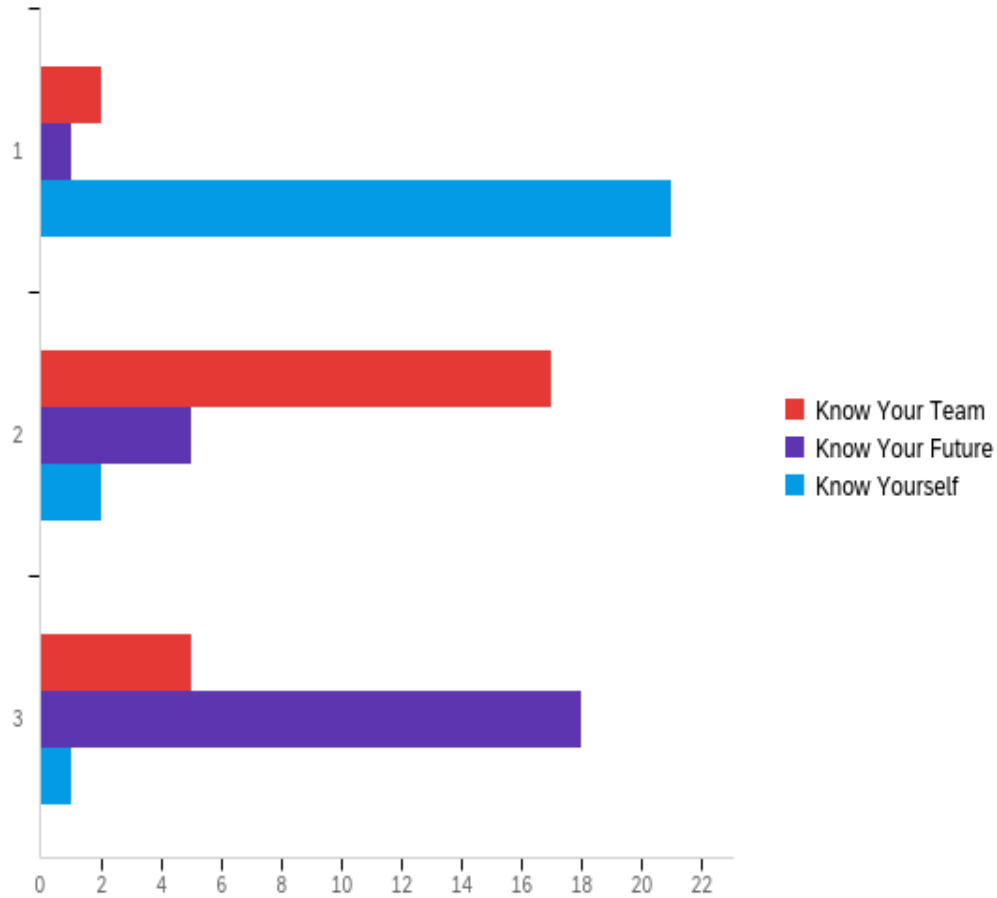
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Know Your Team	1.00	3.00	2.13	0.53	0.28	24
2	Know Your Future	1.00	3.00	2.71	0.54	0.29	24
3	Know Yourself	1.00	3.00	1.17	0.47	0.22	24

#	Question	1		2		3		Total
1	Know Your Team	8.33%	2	70.83%	17	20.83%	5	24
2	Know Your Future	4.17%	1	20.83%	5	75.00%	18	24
3	Know Yourself	87.50%	21	8.33%	2	4.17%	1	24

Q4.1 - Please respond with your level of agreement for the program duration to the following prompts.
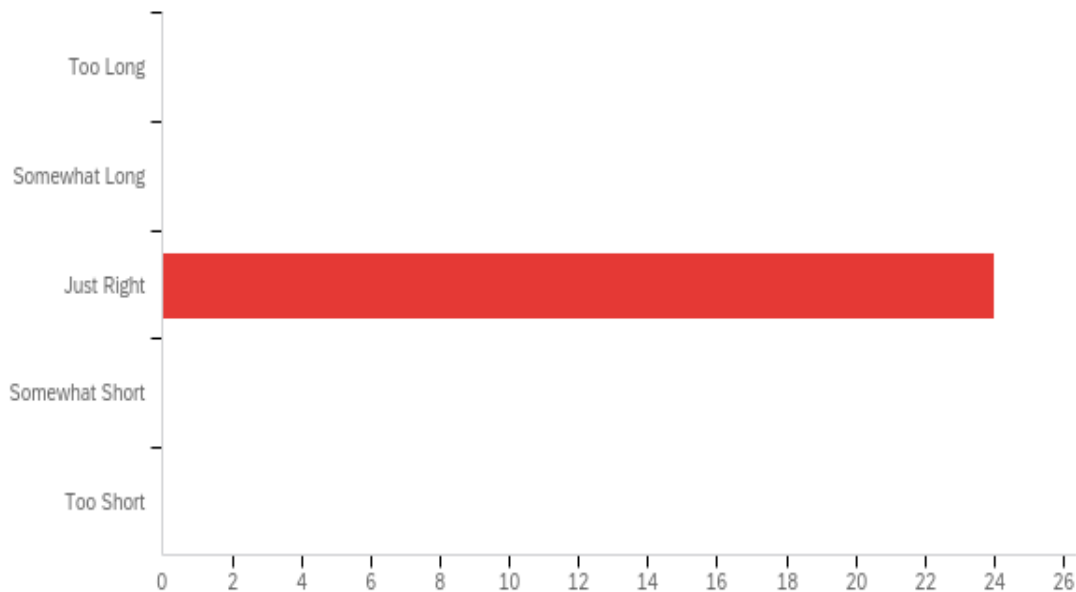
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	How would you rate the length of the SAME LD program?	3.00	3.00	3.00	0.00	0.00	24

#	Answer	%	Count
1	Too Long	0.00%	0
2	Somewhat Long	0.00%	0
3	Just Right	100.00%	24
4	Somewhat Short	0.00%	0
5	Too Short	0.00%	0
	Total	100%	24

Q4.2 - If you answered anything other than "Just Right" to the previous question, please respond with your recommendation for the overall length of the program.

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	If you answered anything other than & Just Right to the previous question, please respond with your recommendation for the overall length of the program.	0.00	0.00	0.00	0.00	0.00	0

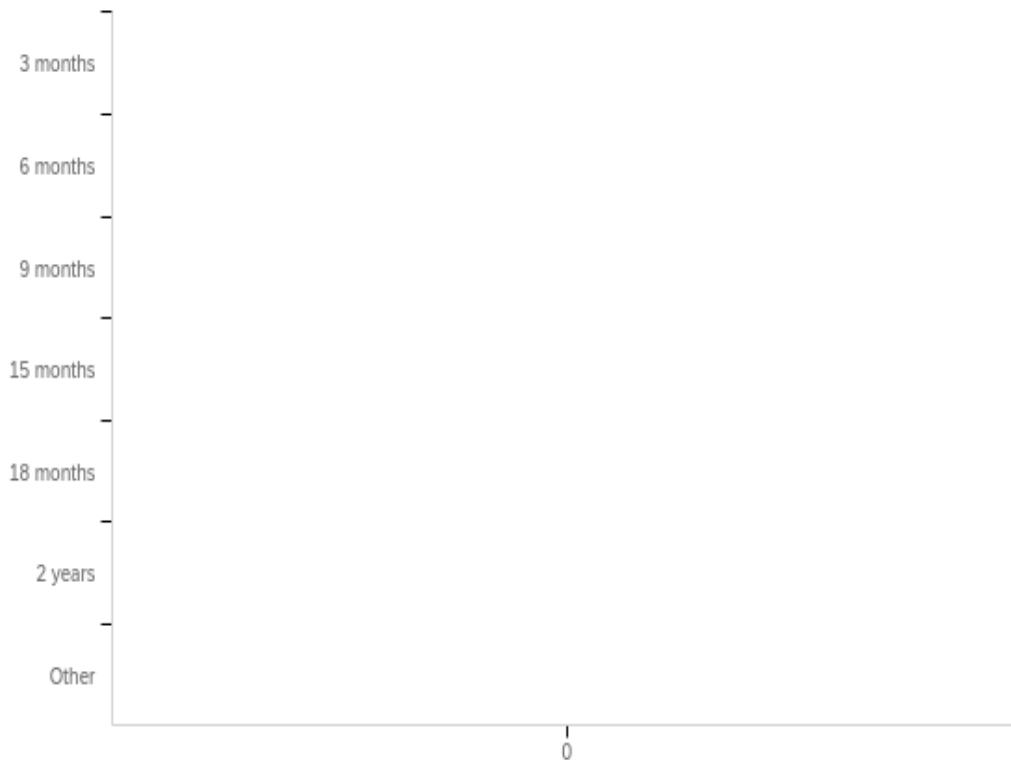| #	Answer	%	Count
1	3 months	0.00%	0
2	6 months	0.00%	0
3	9 months	0.00%	0
4	15 months	0.00%	0
5	18 months	0.00%	0
6	2 years	0.00%	0
7	Other	0.00%	0
	Total		0

Q5.1 - Please respond with your level of agreement to the following prompts.
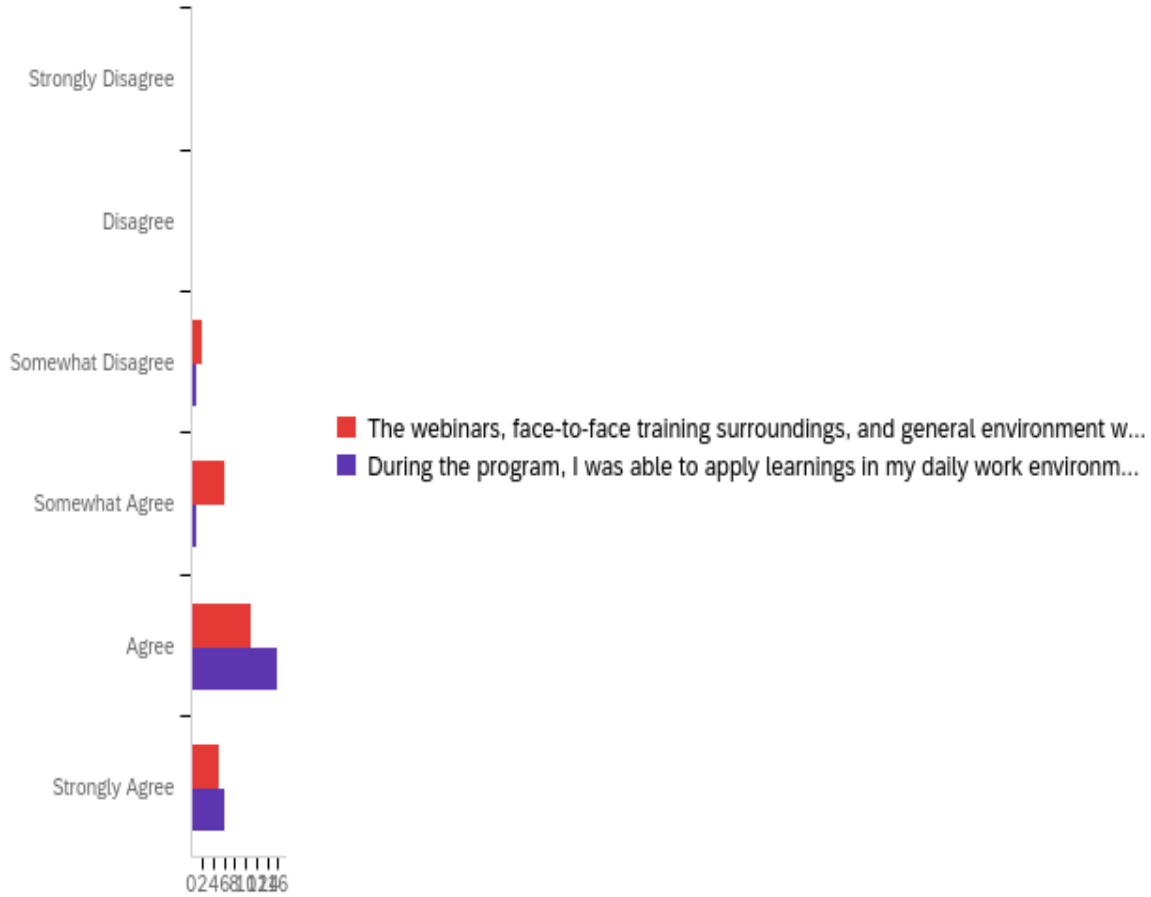
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	The webinars, face-to-face training surroundings, and general environment were sufficient and conducive to learning.	3.00	6.00	4.79	0.87	0.75	24

#	Question					
2	During the program, I was able to apply learnings in my daily work environment.	3.00	6.00	5.13	0.67	0.44	24

#	Question	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree	Total
1	The webinars, face-to-face training surroundings, and general environment were sufficient and conducive to learning.	0.00% 0	0.00% 0	8.33% 2	25.00% 6	45.83% 11	20.83% 5	24
2	During the program, I was able to apply learnings in my daily work environment	0.00% 0	0.00% 0	4.17% 1	4.17% 1	66.67% 16	25.00% 6	24

Q6.1 - Please respond with your level of improvement to the following prompt.
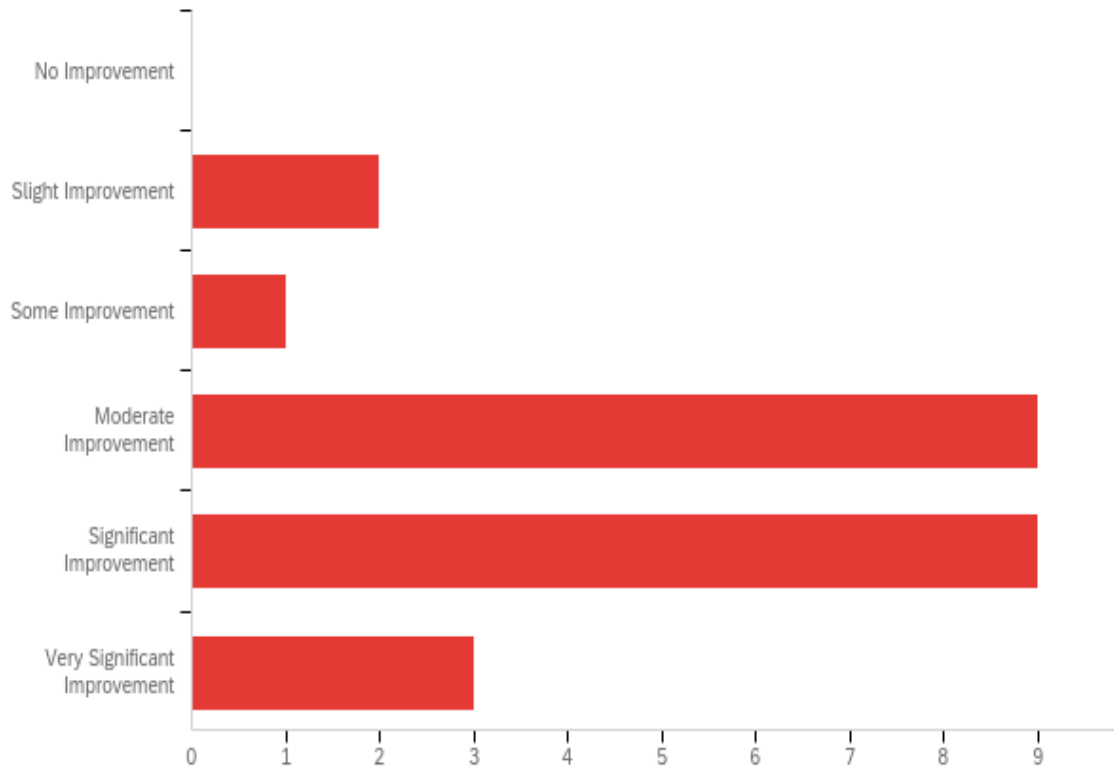
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	How much do you feel that your leadership knowledge or skills have improved by completing the SAME LDP training?	2.00	6.00	4.42	1.04	1.08	24

#	Answer	%	Count
1	No Improvement	0.00%	0
2	Slight Improvement	8.33%	2
3	Some Improvement	4.17%	1
4	Moderate Improvement	37.50%	9
5	Significant Improvement	37.50%	9
6	Very Significant Improvement	12.50%	3
	Total	100%	24

Q6.2 - Please respond with your level of satisfaction to the following prompt.
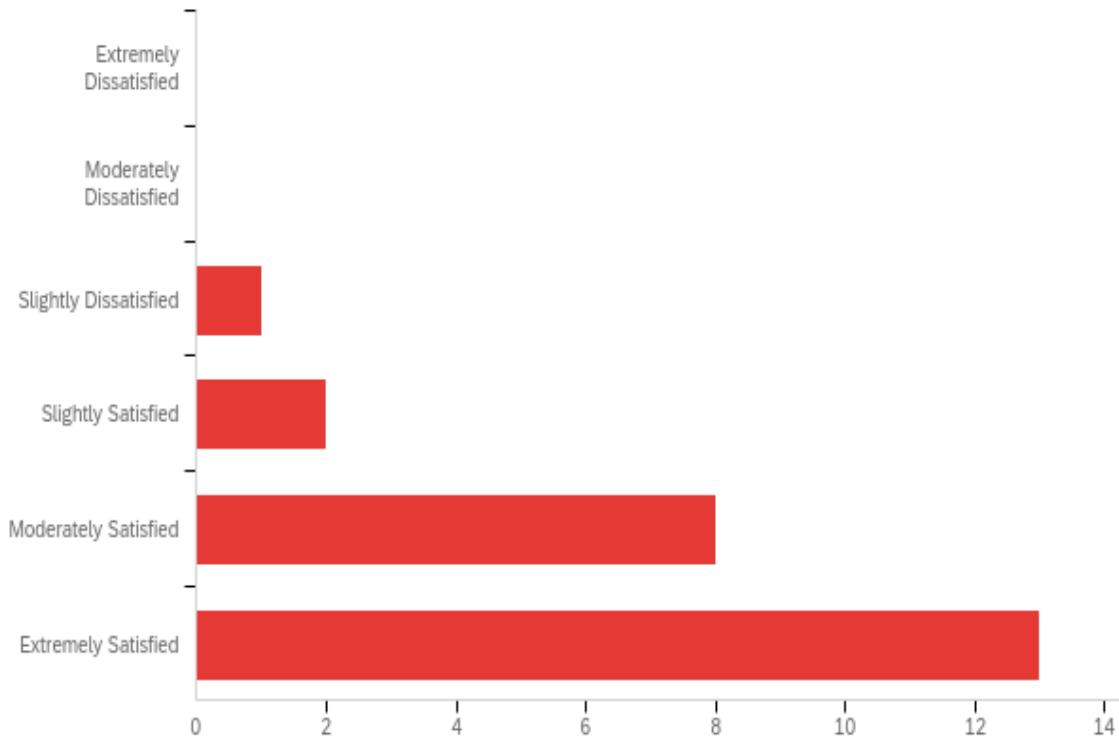
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	How would you rate your satisfaction with the overall LDP learning experience?	3.00	6.00	5.38	0.81	0.65	24

#	Answer	%	Count
1	Extremely Dissatisfied	0.00%	0
2	Moderately Dissatisfied	0.00%	0
3	Slightly Dissatisfied	4.17%	1
4	Slightly Satisfied	8.33%	2
5	Moderately Satisfied	33.33%	8
6	Extremely Satisfied	54.17%	13
	Total	100%	24

Q7.1 - Please respond with your level of motivation for the following prompts.
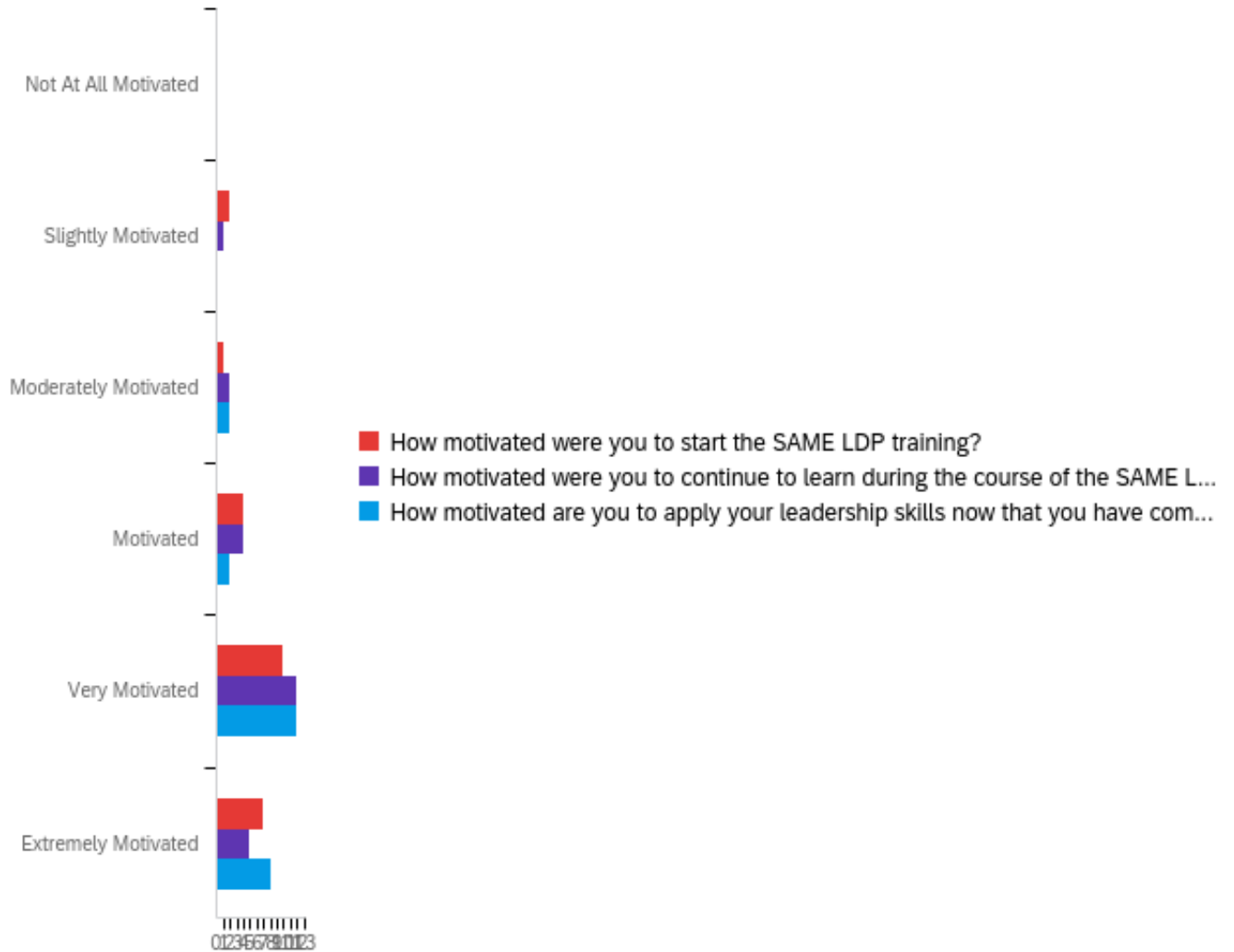
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	How motivated were you to start the SAME LDP training?	2.00	6.00	4.79	1.15	1.33	24
2	How motivated were you to continue to learn during the course of the SAME LDP training?	2.00	6.00	4.75	1.01	1.02	24
3	How motivated are you to apply your leadership skills now that you have completed the SAME LDP training?	3.00	6.00	5.08	0.86	0.74	24

#	Question	Not At All Motivated		Slightly Motivated		Moderately Motivated		Motivated		Very Motivated		Extremely Motivated		Total
1	How motivated were you to start the SAME LDP training?	0.00%	0	8.33%	2	4.17%	1	16.67%	4	41.67%	10	29.17%	7	24
2	How motivated were you to continue to learn during the course of	0.00%	0	4.17%	1	8.33%	2	16.67%	4	50.00%	12	20.83%	5	24

#													
	the SAME LDP training?												
3	How motivated are you to apply your leadership skills now that you have completed the SAME LDP training?	0.00%	0	0.00%	0	8.33%	2	8.33%	2	50.00%	12	33.33%	8	24

Q7.2 - Please respond with your view of improvement in your leadership competence for the following prompt.
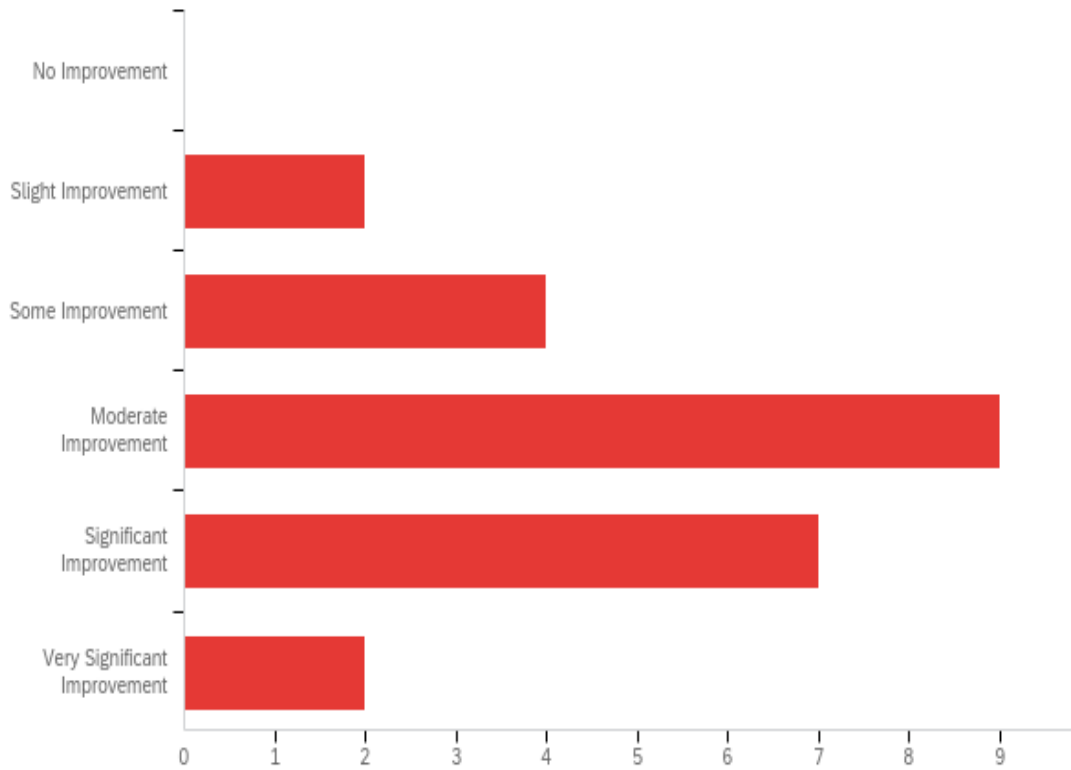
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	How would you assess the improvement of your leadership competence after completing the training?	2.00	6.00	4.13	1.05	1.11	24

#	Answer	%	Count
1	No Improvement	0.00%	0
2	Slight Improvement	8.33%	2
3	Some Improvement	16.67%	4
4	Moderate Improvement	37.50%	9
5	Significant Improvement	29.17%	7
6	Very Significant Improvement	8.33%	2
	Total	100%	24

Q8.1 - Please respond with your level of confidence for the following prompts.
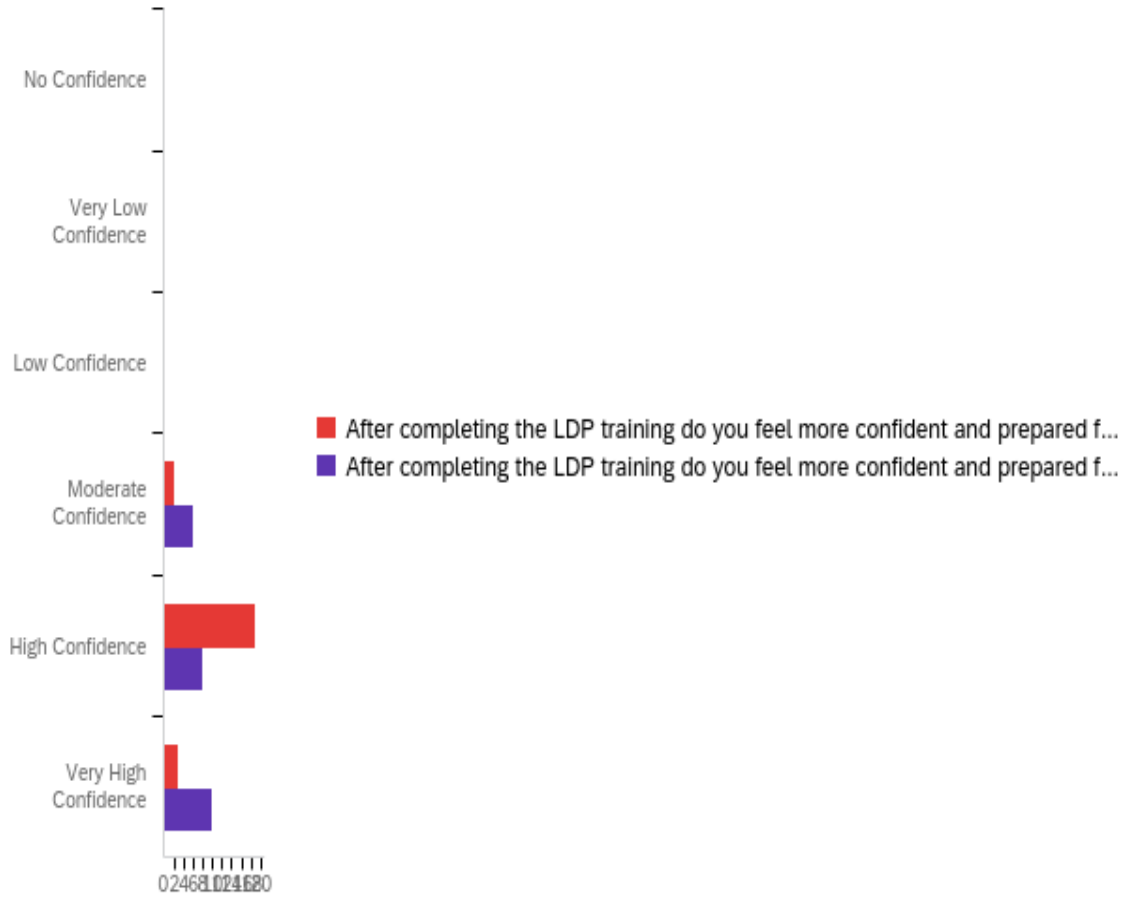
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	After completing the LDP training do you feel more confident and prepared for a leadership role at your company?	4.00	6.00	5.04	0.45	0.21	24

#													
2	After completing the LDP training do you feel more confident and prepared for a leadership role in SAME?			4.00		6.00	5.17		0.80		0.64		24

#	Question	No Confidence		Very Low Confidence		Low Confidence		Moderate Confidence		High Confidence		Very High Confidence		Total
1	After completing the LDP training do you feel more confident and prepared for a leadership role at your company?	0.00%	0	0.00%	0	0.00%	0	8.33%	2	79.17%	19	12.50%	3	24
2	After completing the LDP training do you feel more confident and prepared for a leadership role in SAME?	0.00%	0	0.00%	0	0.00%	0	25.00%	6	33.33%	8	41.67%	10	24

Q8.2 - Please rate the applicability of the SAME LDP training for the following prompt.
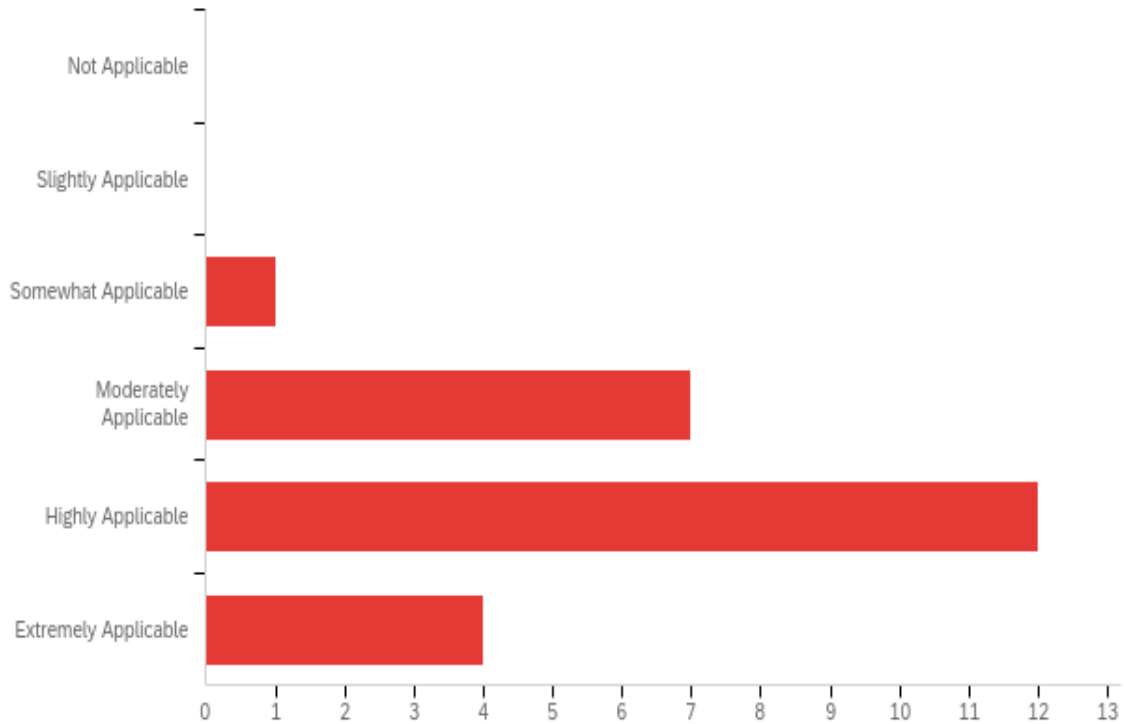
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	How applicable have the learning/skills from the SAME LDP training been at your place of work?	3.00	6.00	4.79	0.76	0.58	24

#	Answer	%	Count
1	Not Applicable	0.00%	0

|			
2	Slightly Applicable	0.00%	0
3	Somewhat Applicable	4.17%	1
4	Moderately Applicable	29.17%	7
5	Highly Applicable	50.00%	12
6	Extremely Applicable	16.67%	4
	Total	100%	24

Q8.3 - Please respond with your level of motivation enhancement to the following prompt.
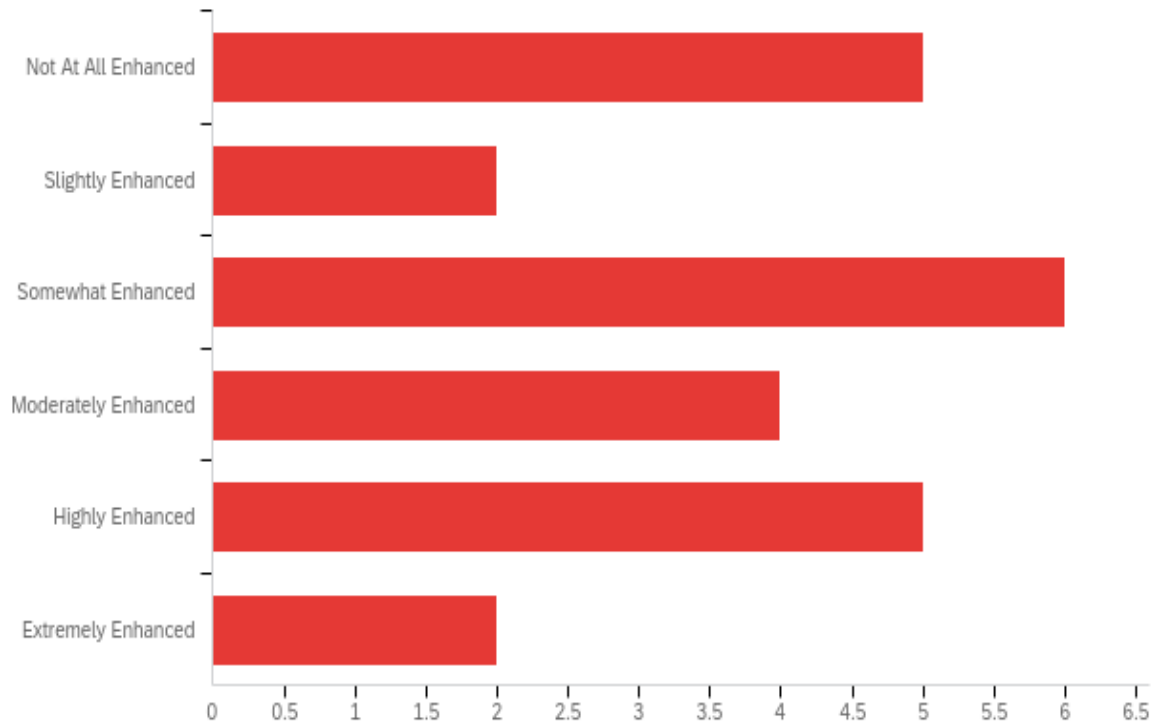
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	To what extent do you believe that earning a certificate in this course would enhance your motivation? Examples may include a micro-credential or digital badge that could be used on LinkedIn or other social media.	1.00	6.00	3.33	1.60	2.56	24

#	Answer	%	Count
1	Not At All Enhanced	20.83%	5
2	Slightly Enhanced	8.33%	2
3	Somewhat Enhanced	25.00%	6
4	Moderately Enhanced	16.67%	4
5	Highly Enhanced	20.83%	5
6	Extremely Enhanced	8.33%	2
	Total	100%	24

Q8.4 - Please respond with the level of likelihood for the following prompt
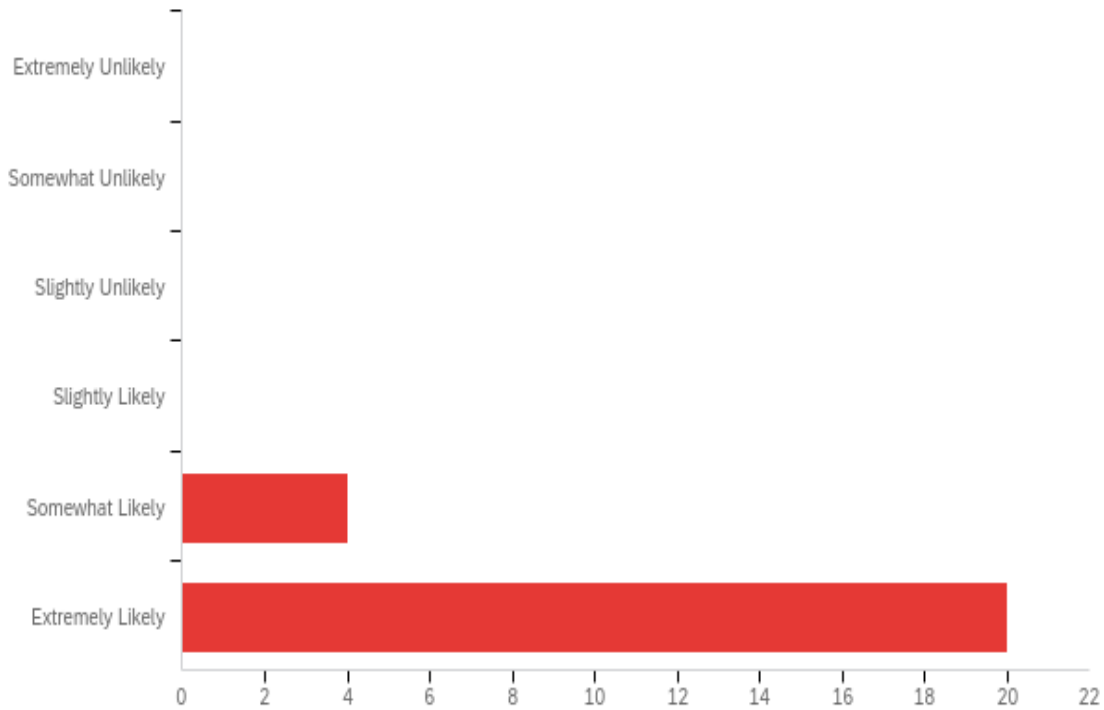
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	How likely are you to recommend this program to a colleague?	5.00	6.00	5.83	0.37	0.14	24

#	Answer	%	Count
1	Extremely Unlikely	0.00%	0

2	Somewhat Unlikely	0.00%	0
3	Slightly Unlikely	0.00%	0
4	Slightly Likely	0.00%	0
5	Somewhat Likely	16.67%	4
6	Extremely Likely	83.33%	20
	Total	100%	24

Q8.5 - Please respond with your level of satisfaction to the following prompt.
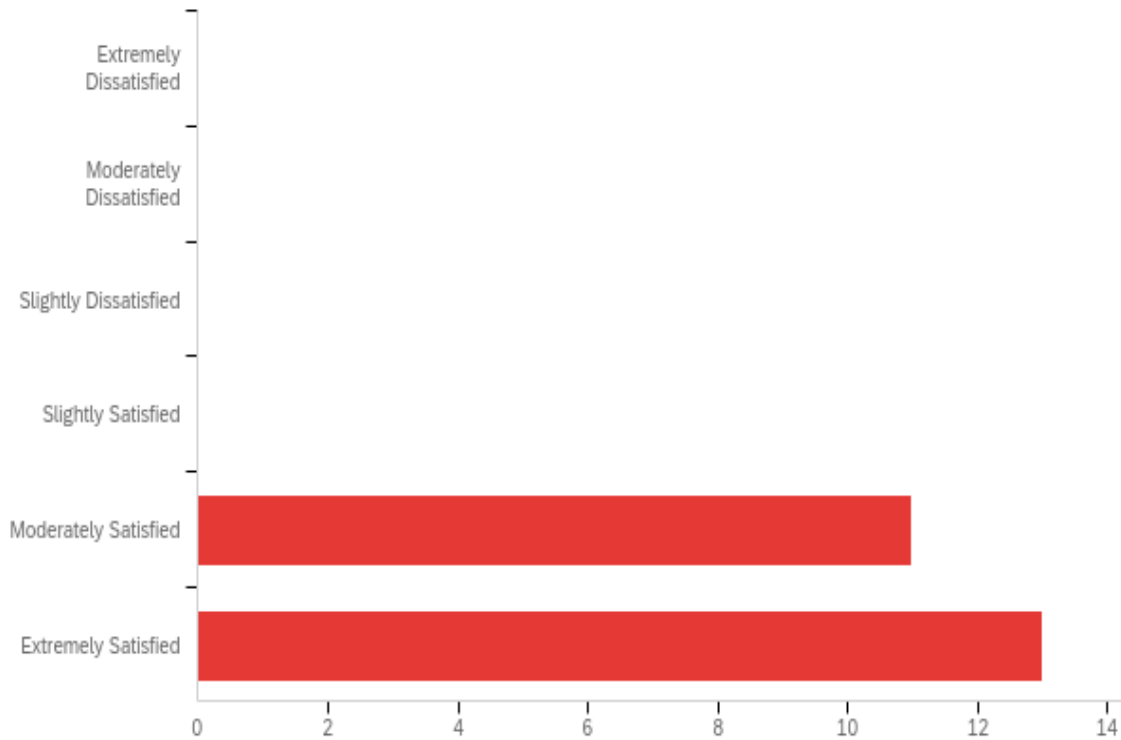
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	What is your overall rating of the SAME LDP training program?	5.00	6.00	5.54	0.50	0.25	24

#	Answer	%	Count
1	Extremely Dissatisfied	0.00%	0
2	Moderately Dissatisfied	0.00%	0
3	Slightly Dissatisfied	0.00%	0
4	Slightly Satisfied	0.00%	0
5	Moderately Satisfied	45.83%	11
6	Extremely Satisfied	54.17%	13
	Total	100%	24

Appendix E

SAME Leadership Development Program Application

Page: Leader Development Program Requirements

SAME Membership *

Have you been a member of SAME for at least 12 months as of December 2, 2022?

Select one option

○ Yes
○ No

Experience *

Do you have at least 5 years of progressive professional experience?

Select one option

○ Yes
○ No

JETC Attendance *

Attendance at JETC 2023 is mandatory from May 2 - 4, 2023 in San Antonio, TX. Are you able to attend?

Select one option

○ Yes
○ No

Work Phone *

_____

Mobile Phone *

_____

SAME Region *

_____

Nominating Post *

_____

Page: Essay--Why Do You Feel You Meet the Selection Criteria?

Meeting Selection Criteria *

Why do you feel you meet the selection criteria?

Referring to your biographical information, education, and work experience explain how you meet the selection criteria? (400 words or less)

_____

_____

_____

Page: Essay--Provide a Leadership Synopsis

Leadership Synopsis *

Provide a Leadership Synopsis

Provide a brief synopsis of your background, including activities, which show possession of the ability to lead. Outside activities include leadership in performing various community, religious, and civic programs and activities. (400 words or less)

Page: Essay--What Do You Expect to Gain from Participating in the Leadership Development Program?

LDP Expectations *

LDP Expectations

What do you expect to gain from the LDP experience and how do you see that affecting your leadership capabilities in the future? (400 words or less)

Page: Essay--How Do You Intend to Use This Experience to Further the SAME Mission and Vision?

SAME Mission *

SAME Mission

How Do You Intend to Use This Experience to Further the SAME Mission and Vision? (400 words or less)

Page: Supporting Documents

Resume *

[File Upload]

Letter of Recommendation from SAME Post President *

[File Upload]

Letter of Support from Employer *

[File Upload]