



"A Constant Conversation"

The Implementation and Impact of the Learning Differences Program at Manning Elementary School in Roanoke Rapids, North Carolina

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October 2020

Acknowledgment

This report is one of two deep-dive case studies that detail two different school implementations of the Friday Institute's Learning Differences program. This report was made possible through generous support from Oak Foundation. Oak Foundation commits its resources to address issues of global, social and environmental concern, particularly those that have a major impact on the lives of the disadvantaged. More information about the Foundation may be found at <https://oakfnd.org>.

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Abstract

There is growing attention to the differences in how students learn; however, little is known about how schools and districts can successfully build capacity and make progress in addressing students' learning differences. To better understand and support the capacity-building process, the Friday Institute for Educational Innovation (FI) used a modified Research-Practice Partnership (RPP) with a continuous feedback approach as schools implemented the FI's Learning Differences program and applied concepts of learning differences to their professional practice. This case study details the implementation and impact of the Learning Differences program at Manning Elementary School (MES) in Roanoke Rapids, North Carolina.

The authors intend for this case study to be a practical resource that schools and districts can reference as they implement their own learning differences initiatives. This case study is organized into three sections. Section one provides an overview of the Learning Differences program. Section two describes how the Learning Differences program was implemented at MES and how data were collected. Section three draws on qualitative and quantitative data to illustrate the program's impact on MES teachers and students. Section four discusses the seven key lessons learned from the implementation process.

Suggested Citation: Edwards, C.W., and Dreier, A. (2020). *"A Constant Conversation" The Implementation and Impact of the Learning Differences Program at Manning Elementary School in Roanoke Rapids, North Carolina*. Raleigh, NC. Friday Institute for Educational Innovation at the NC State University College of Education. [friday.institute/7790]



Executive Summary

During the 2019-2020 academic year, Manning Elementary School (MES), a public school in Roanoke Rapids, North Carolina, implemented the Learning Differences program, which was developed by the Professional Learning and Leading Collaborative (PLLC) at the Friday Institute (FI).

Implementation began with the formation of a modified Research-Practice Partnership (RPP) established by the director of the PLLC and the principal of MES. The purpose of this RPP was to provide technical assistance to MES teachers as they took the ***Learning Differences Massive Open Online Course for Educators (MOOC-Ed)*** over the course of the school year.

Throughout the year, MES certified staff (i.e., teachers and social workers) completed the Learning Differences MOOC-Ed modules on their own time and had dedicated time within their professional learning community (PLC) meetings to collectively strategize how to infuse the Learning Differences content in their classroom instruction and interactions with students. To facilitate this partnership, program developers from the PLLC and an evaluator from the Friday Institute Research and Evaluation (FIRE) team visited MES on a bimonthly basis. During these visits, program developers provided teachers professional development and support in their PLC meetings. Likewise, the evaluator conducted non-obtrusive classroom and PLC observations and collected teacher feedback through surveys and focus groups.

In analyzing the data, the evaluator found seven key lessons from the MES Learning Differences program implementation that may help future schools and districts as they design their implementation strategies, namely:

KEY LESSON ONE



Determine the Most Feasible Implementation and Support Approach

KEY LESSON TWO



Engage the Instructional Leader

KEY LESSON THREE



Strategically Garner Teacher Buy-In

7 KEY LESSONS

KEY LESSON FOUR



Consider a Year-Long Implementation

KEY LESSON SEVEN



Be Mindful When Collecting Observational Data

KEY LESSON SIX



Explain the Research Process Early and Often

KEY LESSON FIVE



Utilize PLC Time for Group Engagement

Overview of the Learning Differences program

Defining Learning Differences

The field of differential psychology examines how individual differences, such as cognitive styles and personality, impact human behavior (Jonassen & Grabowski, 2012; Riding & Rayner, 2013). A plethora of studies have found that individual differences have a significant influence on how learners receive and filter information (Jonassen & Grabowski, 2012; Cassidy, 2004). Scholars believe enhanced awareness of individual differences will help teachers and instructional designers become sensitive to their role in learning (Jonassen & Grabowski, 2012). Deriving from this perspective, the Friday Institute (FI) uses the term **learning differences** to refer to the variability among learners. All learners have unique strengths, and awareness of those strengths can make learning more enjoyable and impactful.

The Learning Differences Program

The Professional Learning and Leading Collaborative (PLLC), a unit of the FI, created the **Learning Differences program** in 2014. This program seeks to deepen student and educator understanding of learning differences, specifically around the constructs of working memory, executive function and learner motivation, as these constructs have been associated with positive student outcomes (Gilmore & Cragg, 2018; National Academies of Sciences, Engineering, and Medicine, 2018). In this program, educators and students participate in free online courses developed by the PLLC. The goal of participation in these online courses is to enhance how educators approach instruction and how students approach their learning.

Learning Differences Massive Open Online Course for Educators

Overview

The purpose of the **Learning Differences Massive Open Online Course for Educators (MOOC-Ed)** is to expand educators' knowledge related to learning differences, provide actionable strategies to impact the learning experience of their students and cultivate a growth mindset related to learning differences. As of fall 2020, this course has run nine times with over 10,000 participants from more than 90 countries. The intended audience for this MOOC-Ed is elementary school teachers, middle school teachers, high school teachers, instructional coaches, instructional support teams and administrators.

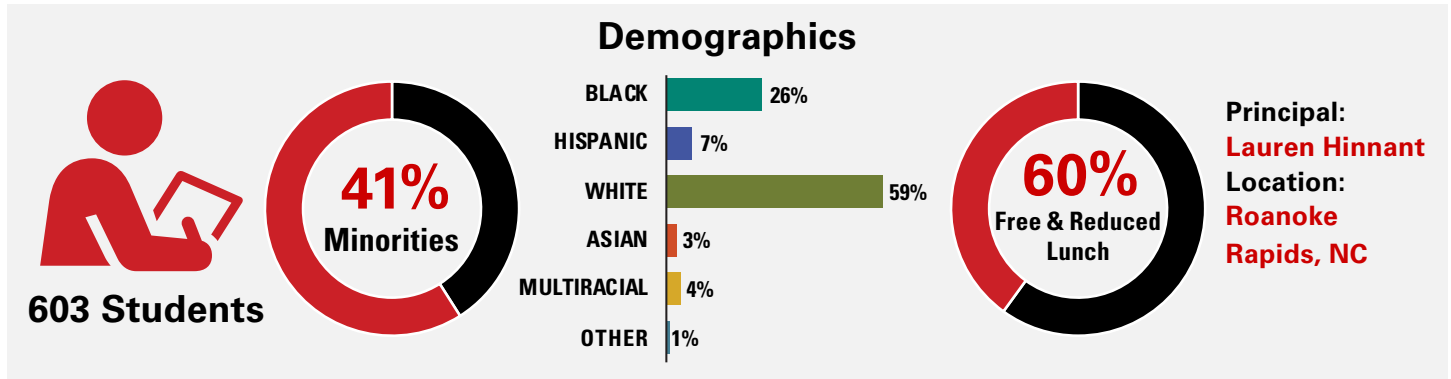
Design

The course begins with a registration survey in which educators provide background information about themselves and their schools or districts in addition to their goals for participating in the MOOC-Ed. The remainder of the course is organized into six units (see Table 1 for more information). Each unit provides foundational resources, activities, classroom examples, micro-credentials, video stories depicting student experiences, discussions and technology tools. Participants learn from students, teachers, administrators, researchers and additional perspectives on the topic. Instructional coaches, media coordinators and teacher leaders also have the opportunity to participate in three additional modules within the MOOC-Ed focused on strategies for coaching and supporting other teachers in their work with learning differences.

Table 1: Units, Unit Descriptions and Essential Questions of the Learning Differences Massive Open Online Course for Educators

Unit	Unit Description	Essential Questions for Educators
Thinking Differently about Student Learning	The first unit focuses on furthering educators' thinking about learning differences and the "myth of average" among their students. Educators begin to develop and apply learning differences teaching competencies that will support student learning.	<ul style="list-style-type: none"> • What are learning differences? • How does thinking about students' learning differences affect my teaching practice? • What are the benefits of focusing on students' strengths rather than weaknesses? What are the challenges of this approach?
Working Memory	The second unit focuses on the impact of working memory on student learning and behavior in classrooms. Educators learn and apply strategies to better support students' working memories.	<ul style="list-style-type: none"> • What is working memory and how does it affect student learning? • How can teachers support students who struggle with working memory or leverage students with strong working memory? • Which strategies or solutions related to working memory best meet your students' needs?
Executive Function	The third unit establishes a basic understanding of executive functioning skills by explaining what they are and how they impact student learning.	<ul style="list-style-type: none"> • What are executive functioning skills and how do they affect student learning? • How can teachers develop students' executive functioning skills in classrooms? • Which strategies or solutions related to executive functions best meet your students' needs?
Student Motivation	The fourth unit focuses on the impact of students' motivation on learning and behavior in classrooms. Educators learn and apply strategies to better foster student motivation.	<ul style="list-style-type: none"> • What are intrinsic and extrinsic motivation and how do they affect student learning? • How can teachers build intrinsic and extrinsic motivation in classrooms? • Which strategies or solutions related to motivation best meet your students' needs?
Strategies for Supporting the Whole Student	The fifth unit focuses on the complexities and relatedness of learning differences. Educators begin honing skills to approach a student and identify how to leverage that student's learning profile to best support them. Throughout the course, this strategy is referenced as being a "learning scientist."	<ul style="list-style-type: none"> • How do the constructs of learning work together to build a complex, individual learner profile in each of my students? • How can I collect student data to select and implement strategies to support individual student needs?
Internalizing a Growth Mindset	The sixth unit focuses on bringing the various constructs of learning differences together to apply in classrooms. This unit also outlines opportunities for future learning.	<ul style="list-style-type: none"> • What progress have you made in your classroom with regard to learning differences? • What strategies or next steps would you take to continue down this path?

MES Implementation and Data Collection



Manning Elementary School (MES) is one of two elementary schools within the Roanoke Rapids Graded School District. MES' mission states that they "lead all learners to be engaged, thoughtful, hardworking citizens of our community." The school is led by Principal Lauren Hinnant and serves over 600 students in Roanoke Rapids, North Carolina. MES has a student-first culture, and the school motto is **"where kids are our customers."**

The following timeline details how the Learning Differences program was implemented at MES.

Summer 2019

A Partnership is Formed

"Our district kind of vision for the year, or district focus, was engagement, equity and differentiation [...] between getting that [school improvement funding] and needing to have some way to do some kind of holistic [professional development] that we already knew was quality for everybody. And that everybody could use, whether or not they were [general education] or [exceptional children], that would be effective for them. So it aligned with our district's focus [and] it fulfilled what we were looking for."

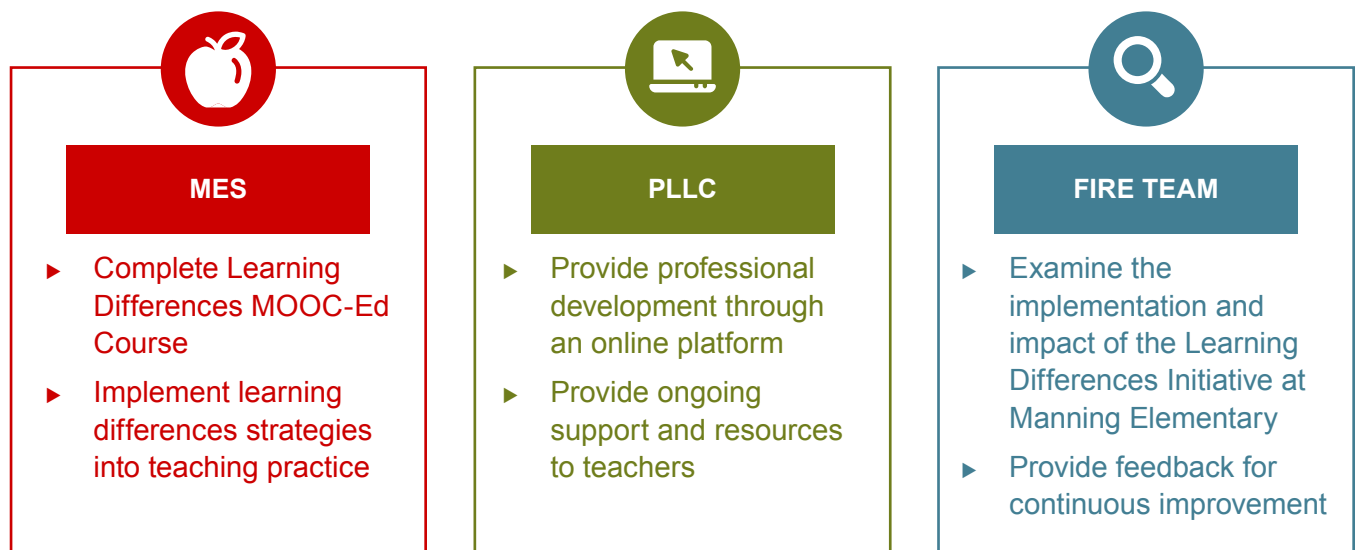
—Manning Elementary School Administrator

MES received school improvement funding to support students with disabilities. Principal Hinnant wanted to use the funding to sponsor a holistic school-wide professional development for all 45 certified educational MES staff (i.e., teachers and social workers). It was important to Principal Hinnant that the professional development was aligned with the school's goal to support students with disabilities and that staff could complete at their own pace. Having previously worked with the Friday Institute (FI), Principal Hinnant valued its high quality professional development (PD) and reached out to learn about upcoming offerings. She connected with Mary Ann Wolf, Ph.D., the then director of the Professional Learning and Leading Collaborative (PLLC), and together they identified the **Learning Differences Massive Open Online Course for Educators (MOOC-Ed)** as the best option to meet MES' needs. Although the course did not focus on students with disabilities, the concepts were applicable to all students with varying learning needs. They formed a modified Research-Practice Partnership (RPP) to provide technical assistance to MES staff as they completed the MOOC-Ed over the course of the school year.



As a part of the partnership, the PLLC created a customized version of the course entitled “Learning Differences - Roanoke Rapids Graded School District” on the FI’s Professional Learning and Collaboration Environment (PLACE). This customized version of the course allowed MES staff to complete it in an exclusive cohort model separate from outside individuals that were completing the open-access version.

Practitioners (e.g., an instructional designer and an instructional coach) from the PLLC agreed to provide professional development and ongoing support to teachers throughout the school year. The team enlisted an evaluator from the Friday Institute Research and Evaluation (FIRE) team to document the process of implementation through four bimonthly memos. The following illustration outlines the MES, PLLC and FIRE team roles within this project:



○ Bimonthly Visits Begin

"[the first meeting] things were supposed to be reflective of ourselves as, like, our own learning differences [...] to help breed some empathy from where we came, from our perspective. And then also, a lot of the conversation was targeted towards specific kids in our class [...] I feel like the majority of the conversation during that second PLC was doing a student profile, where we had to sit down and really look at a student. We would present an issue and the things that we had tried and then [discuss ideas] from the other peers in the group or from the people from the Institute... [in order] to add other tools to that person's box to help with that kid's differences."

–MES Teacher

"For the most part, they would come to our PLC with our grade level teams. They had planned activities and we would just kind of discuss how things were going or how, you know, we think course work had been going so far, and then they would try to reinforce some of our learning and we played games."

–MES Teacher



To facilitate this partnership, members of the PLLC and the evaluator visited MES on a bimonthly basis. During these visits, the team conducted non-obstructive classroom observations and provided teachers professional development and support in their PLC meetings. Following each visit, the evaluator summarized activities and next steps in a bimonthly implementation memo that was shared with the project partners.

The first two visits occurred in the fall of October 2019 and December 2019. The October on-site visit consisted of classroom observations and a kick-off meeting. The December on-site visit consisted of professional learning community (PLC) group sessions, classroom observations and a leadership meeting. The next section describes each visit in detail.

It is important to note that the [Impact](#) section of this case study describes the findings from data collection activities that occurred during these visits, such as the observations and various surveys.

October Visit

Observations

During the school day, the team observed eight classrooms: one kindergarten mathematics lesson, one first-grade English/language arts lesson, two second grade science lessons, two third grade mathematics lessons and two fifth grade science lessons. The purpose of the classroom observations was to understand what a typical class was like prior to the implementation of the Learning Differences MOOC-Ed. These observations were designed to be non-obstructive. Teachers were not required to prepare for the observations, as the team aimed to view a random sample of typical lessons. To systemically gauge teacher instructional practices, the team recorded field notes using an observation protocol, which is available in [Appendix A](#). In addition, the [Impact](#) section of this case study describes reflections from the observations.

Kick-Off Meeting

After school, the team facilitated a kick-off meeting with the 45 certified staff members. This meeting had four objectives:

1. Manning staff will gain an understanding of the purpose and content of the Learning Differences course
2. Manning staff will understand the partnership and intended work for 2019-20 between the school and the Friday Institute
3. Manning staff will begin to examine themselves as learners and how that knowledge impacts their classrooms
4. Manning staff will begin to develop a working definition of the term “learning differences” as it relates to all students



The PLLC led the meeting’s activities, and the evaluator assisted with monitoring and troubleshooting as well as discussing the research permissions and distributing consent forms. To conclude the kick-off meeting, staff members were asked to complete a short, anonymous feedback form assessing the professional development they received. Meeting materials included an agenda, slide deck, feedback form, teacher consent form and administrator consent form, which are available in [Appendices B](#) through [F](#). For the results of the feedback form, please see the [Impact](#) section of this case study.

December Visit

PLC Group Sessions

Two PLLC members met with each grade level for approximately 45 minutes during their PLC time and facilitated the Game Of Life. The activity directions and discussion cards are available in [Appendix G](#) and [H](#), respectively.

After participating in their PLC session, MES staff were encouraged to provide their feedback via a stoplight exit ticket. In particular, they were asked to share

- One thing I will stop doing...
- One thing I will keep doing...
- One thing I will try...

The [Impact](#) section of this case study outlines the most common responses from the exit ticket.

Observations

The evaluator observed four classrooms: a kindergarten English/language arts lesson, a first grade English/language arts lesson, a second grade English/language arts lesson and a third grade science lesson. The purpose of the classroom observations was to identify instructional behaviors since beginning the implementation of the Learning Differences MOOC-Ed . As in October, these observations were designed to be non-obstructive and followed the aforementioned observation protocol. In addition, the evaluator observed one PLC session and took field notes. All observation reflections are available in the [Impact](#) section of this case study.

Leadership Meeting

At the end of the day, Principal Lauren Hinnant met with the PLLC and evaluator to discuss the partnership progress and next steps.



○ Responding to Unexpected Pivots

"I think this [program] gave me a chance, especially the part where they asked us to focus on a student, it's given me sort of the permission to [reframe]. If we only get through these two problems today, but we get through them [that's okay]. Others may get through 10, but if I need to take this group right here and we need to focus on this one [problem] today and we need to work three or four different times together to really make it concrete with that repetition, that's okay. A couple of them finally kind of made the connection, "that's why I understand it better this way." I did see a little bit of confidence boost because they began to understand a little more about their own understanding."

–MES Teacher

Three major activities were completed in the spring (1) a third in-person visit, (2) post survey development and administration and (3) virtual interviews and focus groups. The third in-person visit occurred in February 2020 and consisted of PLC group sessions and observations. Concurrently, the survey was developed in January 2020 and administered in February and March 2020. The next section of this case study describes details about the visit and the survey, and the survey findings are available in the [Impact](#) section.

Most notably, a global health pandemic — COVID-19 — required partners to respond to unexpected pivots mid-March 2020. For example, partners were required to cancel the fourth and final in-person visit that was scheduled for May 2020, due to governmental guidelines and social distancing restrictions. Additionally, while MES staff were initially expected to submit two micro-credentials by the end of March, this expectation changed, and the second micro-credential became optional. Amid these pivots and the transition to remote learning, Principal Lauren Hinnant, the PLLC and the evaluator met in April 2020 to discuss planning for the remainder of the spring semester as well as summer and fall 2020. Since MES teachers had limited bandwidth to participate in professional development activities, meeting attendees decided to conduct virtual interviews and focus groups in spring 2020 and host a final professional development session in fall 2020. The [Impact](#) section of this case study describes findings from the focus groups.



February Visit

PLC Group Sessions

The PLLC facilitated seven PLC group sessions throughout the day. The focus of these sessions was to help MES staff bring the learning together in preparation for the last two units. During each PLC session, each teacher engaged in a reflective activity in which they were asked to focus on a student or a group of students who struggle or whom they struggle to reach. Once they had chosen their focus, they completed a Hand, Head, Heart activity, available in [Appendix J](#), in which they responded to questions around a figure with how they are supporting a student/students academically, making learning tangible and involving their interests and culture in learning. After responding individually, the group then discussed ways to better support the select student or group of students. Each session then concluded by allowing the teachers to ask any questions about the course or micro-credential process.

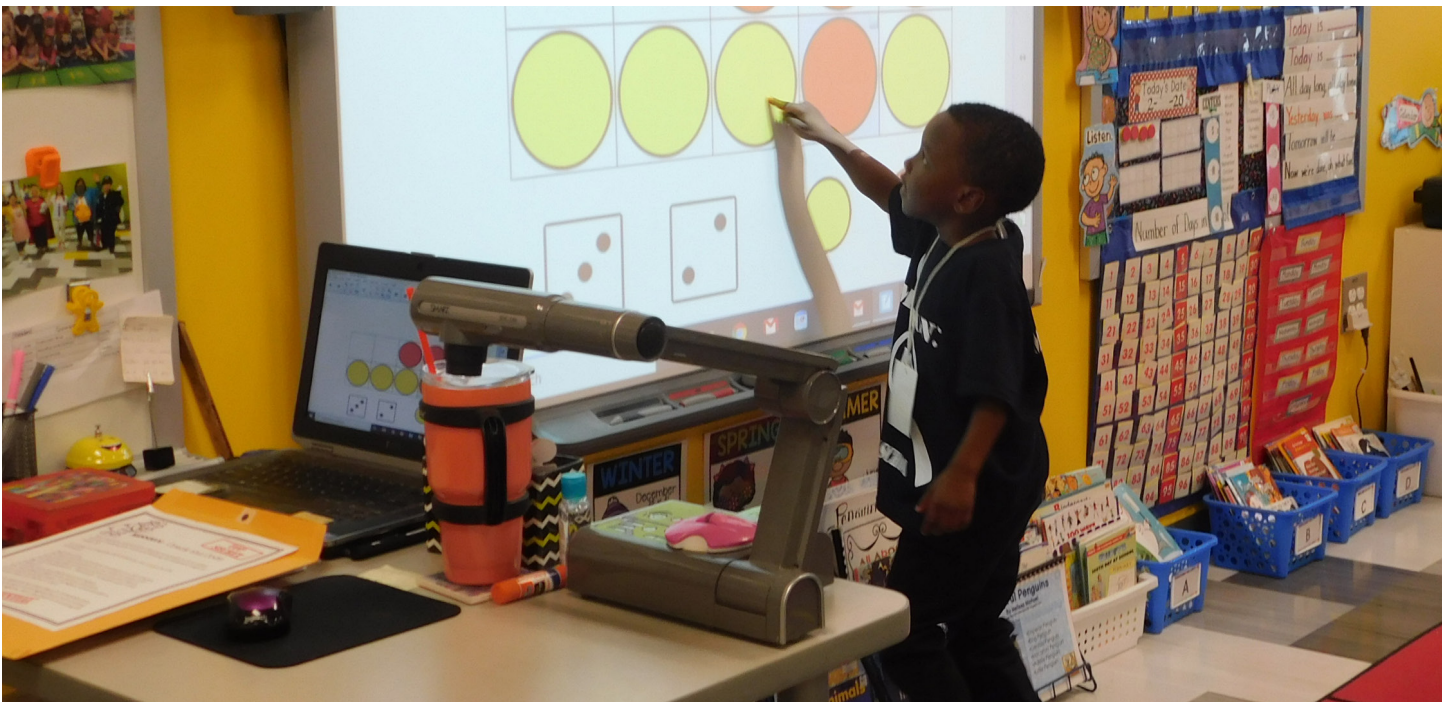
Observations

The evaluator observed three classrooms: a second grade English/language arts lesson, a fourth grade English/language arts lesson and a fifth grade science lesson. The purpose of the classroom observations was to continue to identify instructional behaviors during the implementation of the Learning Differences MOOC-Ed. Similar to the fall, these observations were non-obstructive and followed the previously shared observation protocol. In addition, the evaluator observed one PLC session. The [Impact](#) section of this report provides reflections from the observations.

Post Survey

The partners created and administered a teacher post survey to learn more about teachers' perceptions regarding the implementation and impact of this program. After several rounds of iteration, the survey instrument was finalized, and a copy of the instrument is available in [Appendix I](#). The [Impact](#) section of this report describes results from the survey.





Data Collection

To learn about MES staff perceptions regarding the implementation and impact of learning differences awareness, evaluators collected data from teachers and administrators. Table 2 outlines the different data sources that were collected. Evaluators obtained research permissions from the North Carolina State University Institutional Review Board.

Table 2: Data Sources

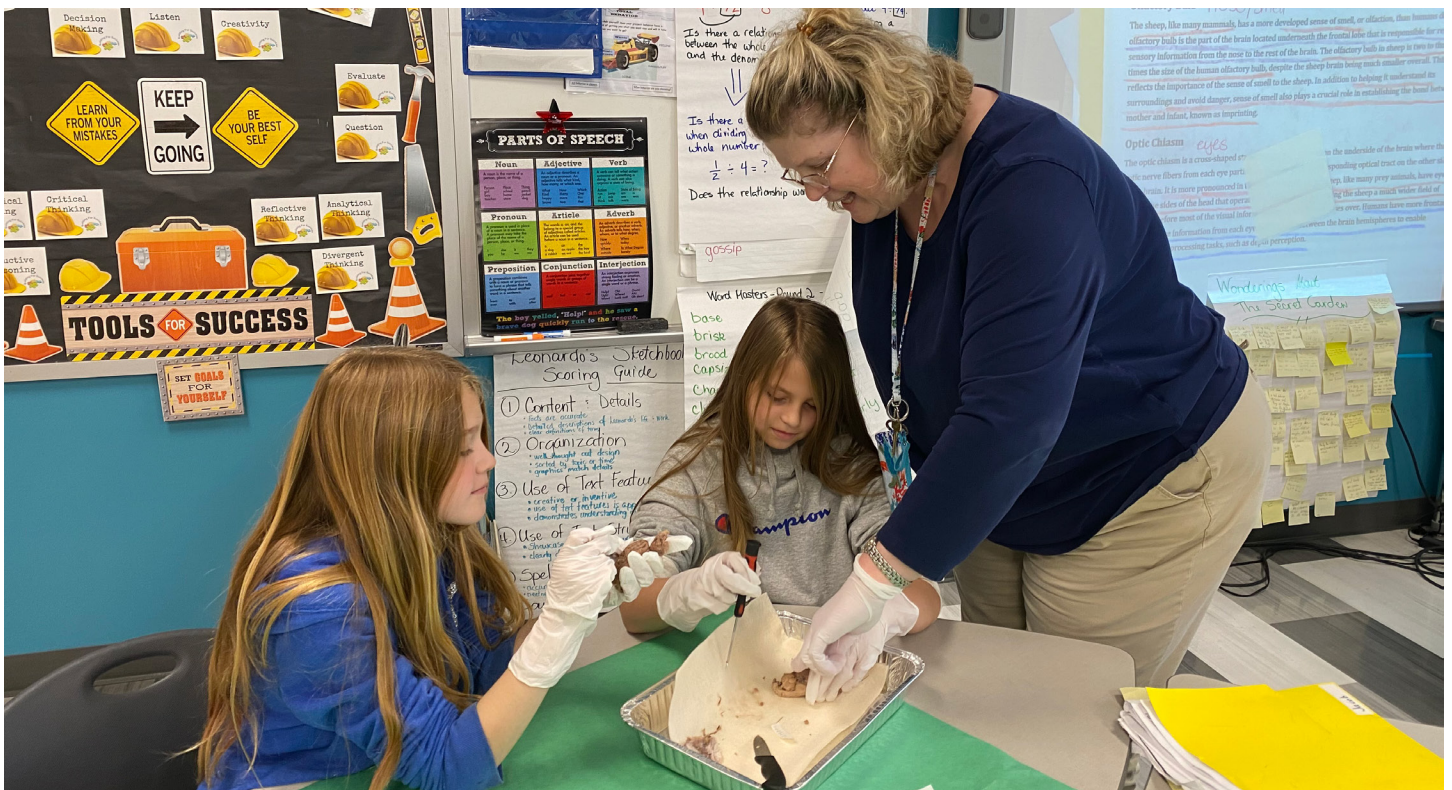
Data Source*	Description	Quantity
Observations	Evaluators observed periods of teacher professional development and content classrooms. All observations occurred with the permission of the teachers and administrators and were non-intrusive. Observation protocols were utilized and detailed field notes were gathered at each observation.	<ul style="list-style-type: none"> • Two professional development observations • 16 classroom observations.
Surveys	The FI administered three different surveys to teachers and administrators to learn about the impact of the initiative. All surveys were voluntary. Participants had the choice to take surveys electronically using a survey software (e.g., Qualtrics or Google Forms) or on paper.	<ul style="list-style-type: none"> • One kick-off feedback form • One PLC exit ticket • One post survey
Focus Groups	At the end of the initiative, administrators and teachers were invited to participate in semi-structured focus groups to gauge information about program implementation, impact and improvement. Focus groups for each participant group were conducted once and lasted approximately 60 minutes. All participants were informed that their participation was voluntary and that there were no consequences for non-participation. Audio was recorded, transcribed and used for analyses.	<ul style="list-style-type: none"> • One administrator focus group • Two teacher focus groups • One teacher interview

Impact on Teachers and Students

Observations

The FI conducted non-intrusive classroom observations at three times (once before implementation and twice during implementation) to chronicle instructional behaviors before and during the implementation of the Learning Differences MOOC-Ed. Over the course of the year, 16 classrooms were observed across all five grade levels. Observational findings from each time point are described in detail below.

It is important to explicitly highlight the context of these findings. Observational data are only one element of the implementation mosaic. In other words, observations only represent a snapshot of what is occurring in the classroom and with a sample of teachers. Thus, data captured from observations should be considered in tandem with other data sources, such as surveys and focus groups.



October

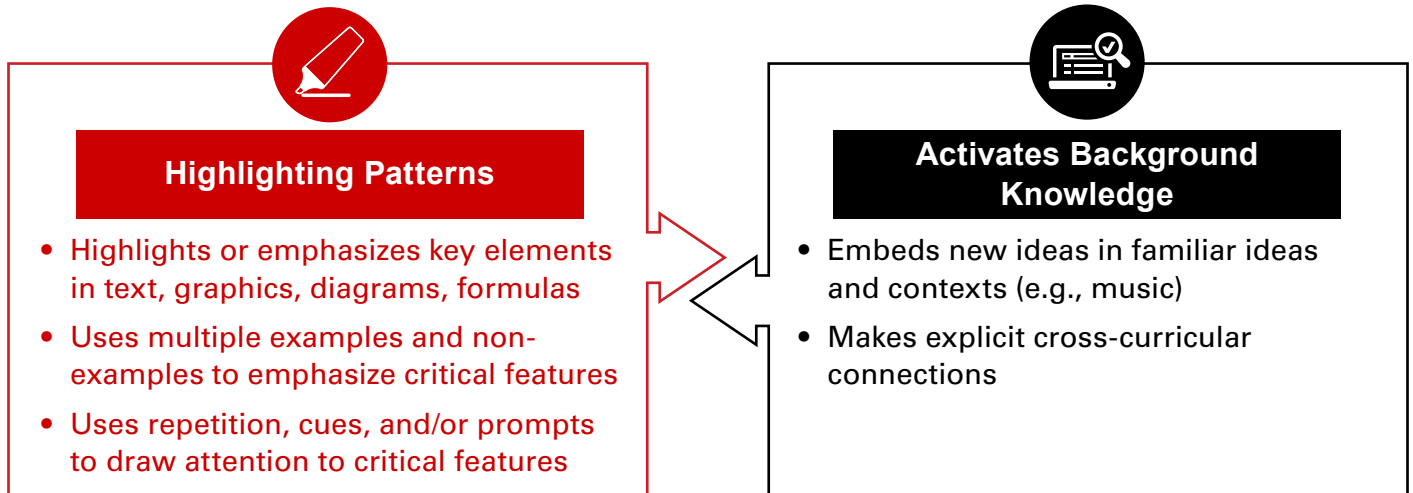
During the initial observations (n=8), the team found that the MES teachers were warm and genuinely responsive to student needs; however, there were not many structures or strategies currently in place to support learning differences across grade levels. Interestingly, many practices were observed in kindergarten.

Of those who did use strategies to support learning differences, working memory and executive function were the predominant focus. Notably, one practice to support executive function was present in all the classrooms, which was using strategies that help students plan out their work during a lesson. In the classroom, this practice was most commonly displayed by teachers embedding prompts to “stop and think” before acting or “show and explain your work” (e.g., portfolio review, art critiques).

December

Two months into the implementation, the evaluator observed four classrooms: a kindergarten English/language arts lesson, a first grade English/language arts lesson, a second grade English/language arts lesson and a third grade science lesson. In three out of the four classrooms, the evaluator observed strategies or practices to support working memory. Of those, highlighting patterns was the most common learning difference strategy observed. Additionally, activating background knowledge was the second most common learning difference strategy observed. [Figure 1](#) below illustrates what these strategies looked like in the classroom.

Figure 1: Common Strategies Observed During December Visit



February

The evaluator decided to focus on a smaller quantity of extended classroom observations to enhance the accuracy of the observations, which will be expounded on in the [Implementation Lessons Learned](#) section. They observed three classrooms: a second grade English/language arts lesson, a fourth grade English/language arts lesson and a fifth grade science lesson. Strategies or practices to support working memory, executive functioning and motivation were observed in all three of the classrooms. Of those, strategies to support working memory and executive functioning were most common. [Table 3](#) below shows what these strategies looked like in the classroom.

Table 3: Common Strategies Observed During February Visit

Learning Difference Domain	Common Instructional Practice	Common Examples
Working Memory	<ul style="list-style-type: none"> • Providing information in multiple formats • Activating or supplying background knowledge to aid comprehension • Highlighting patterns • Guiding and scaffolding information 	<ul style="list-style-type: none"> • Using transcriptions, images or videos to support spoken information • Making explicit cross-curricular connections • No common example — all three classrooms displayed diverse examples. • Progressively releasing information
Executive Functioning	<ul style="list-style-type: none"> • Helping students set goals for themselves during the learning process • Using strategies that help students manage information and resources 	<ul style="list-style-type: none"> • Posts goals, objectives and schedules in an obvious place • Creates a classroom calendar or organizational system that everyone uses
Supporting Motivation	<ul style="list-style-type: none"> • Using strategies that minimize threats and distractions to students 	<ul style="list-style-type: none"> • Uses charts, calendars, schedules, visible timers and classroom routines that can increase the predictability of daily activities and transitions

In summary, while the observational data only represent a snapshot of classroom time and a sample of MES teachers, these findings demonstrate that over time MES teachers began to implement more learning differences strategies in their classrooms.

Surveys

The FI administered three different surveys to teachers and administrators throughout the implementation to learn about the impact of the initiative. These surveys were administered in October, December and February.

Kick-Off Feedback Form

Following the October 2019 Kick-Off Session, MES staff were invited to complete a short, anonymous feedback form assessing the professional development they received. A copy of the feedback form is available in [Appendix D](#).

Nine out of the 45 staff members completed the feedback form. Of the small sample of respondents, most found the training beneficial, as demonstrated by their likert scale responses (Table 4, below). However, the limited response rate may also indicate an initial lack of MES staff buy-in regarding the research process, which will be discussed further in the [Implementation Lessons Learned](#) section.

Table 4: Teacher Professional Development Survey Responses (n=9)*

The learning differences training...	Strongly Agree or Agree	Neither Agree nor Disagree	Strongly Disagree or Disagree
was of high quality	89%	11%	0%
was timely	89%	11%	0%
was relevant to my needs	89%	11%	0%
format and structure facilitated my learning	89%	11%	0%
helped me gain new information and skills	89%	11%	0%
provided important resources for me	78%	22%	0%
met my expectations	67%	33%	0%
enhanced my understanding of how to speak using language that respects learning differences	56%	44%	0%
will assist me in using learning differences awareness	67%	33%	0%
will assist my school in using learning differences awareness	67%	33%	0%

*Percentages are rounded to the nearest whole number.

Only one respondent answered the open-ended question, “How will you use what you have learned?” They replied, “Being mindful of what I am asking my students to do and how much I am asking them to do at a time or in a project.” It is important to note that no respondents answered the open-ended questions “What was the least useful part of this professional development? Why?” or “What additional training/support do you need?”

PLC Exit Ticket

Following the December 2019 PLC sessions, MES staff were encouraged to provide their feedback via a spotlight exit ticket. In particular, they were asked to share:

- One thing I will stop doing...
- One thing I will keep doing...
- One thing I will try...

Thirty-seven MES staff members provided responses to each category, and the most common responses in each category are displayed in [Figure 2](#) below.

Figure 2: *Common Exit Ticket Responses from December Visit*



As demonstrated by the figure, MES teachers gained actionable insights of behaviors to stop, continue and try in the classroom through the Learning Differences professional development.

Teacher Post Survey

The project team created a post survey to learn more about teachers' perceptions about the implementation and impact of this program five months after the kick-off. A copy of the instrument is available in [Appendix I](#).

In February 2020, Principal Lauren Hinnant sent the survey to MES teachers. Teachers were asked to complete the survey by March 2020. Nine MES teachers completed the survey. All grade levels were represented, and almost all respondents identified as white females with 10 or more years of classroom teaching experience.

Four teachers had experience with learning differences prior to the Learning Differences program. Their prior experiences included undergraduate, graduate and professional development courses, micro-credentials and a differentiating instruction focus for national boards.

The most salient survey findings are described below. However, the full public Qualtrics report is available at <https://ql.tc/TfjgAM>.



Teacher Understanding and Instructional Practice

Of the small sample of respondents (n=9), almost all strongly agreed or agreed with statements affirming their understanding of learning differences and their infusion of learning differences in their instructional practice (Table 5, below). However, the limited response rate may also indicate a continual lack of MES staff buy-in regarding the research process, which will be discussed further in the [Implementation Lessons Learned](#) section.

Table 5: Teacher Post Survey Responses Related to Teacher Understanding and Instructional Practice (n=9)*

Please rate your level of agreement with the following statements about your understanding and instructional practice.	Strongly Agree or Agree	Neither Agree nor Disagree	Strongly Disagree or Disagree
I understand the ways in which students may learn differently.	100%	0%	0%
I value the different ways that my students learn.	100%	0%	0%
I am aware of strategies that I can use to support students who have demonstrated challenges with working memory.	89%	11%	0%
I am aware of strategies that I can use to support students who have demonstrated challenges with executive function.	100%	0%	0%
I am aware of strategies that I can use to support students who have demonstrated challenges with motivation.	100%	0%	0%
I understand how technology tools can support students' learning differences.	100%	0%	0%
When planning my instruction, I consider student learning differences.	100%	0%	0%
When planning my instruction, I consider technology tools to support students' learning.	100%	0%	0%
In my instruction, I use strategies that support different student learning needs.	100%	0%	0%
In my instruction, I use technology tools to support student learning differences	100%	0%	0%

*Percentages are rounded to the nearest whole number.

Teachers were also asked to gauge their familiarity with learning differences strategies. All (100%) were either very familiar or moderately familiar with the following strategies five months within the intervention:

- **Use of multiple formats to present information** and/or procedures
- **Use of “chunking” information** to break learning materials or tasks into manageable components
- **Use of guides** for breaking long-term goals into reachable short-term objectives
- **Use of representations of progress** (e.g., charts showing progress over time, process portfolios)
- **Involving learners** in setting their own personal academic and behavioral goals
- **Use of charts, calendars, schedules, visible timers, cues, classroom routines, etc.** to increase the predictability of daily activities and transitions
- **Removing unnecessary distractions** nonessential to the instructional goals
- **Giving students choice** in how they complete tasks/assignments

In addition, 89% were either very familiar or moderately familiar with the following strategies five months within the intervention:

- **Use of a shared classroom calendar or organizational system** to help students manage information
- **Use of activities or information relevant/appropriate** for different racial, cultural and/or gender groups
- **Use of graphic organizers** to activate or supply background knowledge
- **Use of visual lists to cue students** to next steps they can refer back to if they get lost
- **Use of graphic organizers, templates, guided notes or checklists** for organizing information and note taking
- **Use of learning outcomes** that are authentic, communicate to real audiences and/or reflect a clear purpose

When asked about the frequency of how often they integrate learning differences strategies into their classroom practices, over half of respondents shared that they always (almost every week) implemented the following strategies:

- **Giving students choice** in how they complete tasks/assignments
- **Use of learning outcomes** that are authentic, communicate to real audiences and/or reflect a clear purpose
- **Use of student checklists and/or project planning templates** for setting up prioritization, sequences and schedules of steps to solve a problem
- **Use of graphic organizers** to activate or supply background knowledge
- **Use of graphic organizers, templates, guided notes or checklists** for organizing information and note taking
- **Use of visual lists** to cue students to next steps they can refer back to if they get lost
- **Use of multiple formats** to present information and/or procedures
- **Use of charts, calendars, schedules, visible timers, cues, classroom routines, etc.** to increase the predictability of daily activities and transitions
- **Use of “chunking” information** to break learning materials or tasks into manageable components
- **Removing unnecessary distractions** nonessential to the instructional goals

Student Understanding and Behavior

In describing their students' understanding and behavior, all respondents strongly agreed or agreed that their students were aware of strategies that helped them express their ideas (Table 6, below).

Likewise, most — 89% — also strongly agreed or agreed that their students understood that all people learn differently, were aware of strategies that can support their organizational skills, use strategies that support their organizational skills, and use strategies that help them express their ideas.

Moreover, a small portion of teachers — 11% — disagreed with the statements that “my students are aware of strategies that can support their organizational skills” and “my students advocate for their learning needs.”

Table 6: Teacher Post Survey Responses Related to Student Understanding and Behavior (n=9)*

Please rate your level of agreement with the following statements about your understanding and instructional practice.	Strongly Agree or Agree	Neither Agree nor Disagree	Strongly Disagree or Disagree
My students understand that all people learn differently.	89%	11%	0%
My students understand that all ways of learning are valid.	78%	22%	0%
My students know how they learn best.	67%	33%	0%
My students know what their learning strengths are.	67%	33%	0%
My students know what their learning challenges are.	78%	22%	0%
My students are aware of strategies that can support their organizational skills.	89%	11%	0%
My students use strategies to support their organizational skills.	89%	11%	0%
My students are aware of strategies that can support their memory.	78%	11%	11%
My students use strategies that can support their memory.	56%	44%	0%
My students are aware of strategies that help them express their ideas.	100%	0%	0%
My students use strategies that help them express their ideas.	89%	11%	0%
My students are aware of strategies that help them pay attention.	78%	22%	0%
My students use strategies that help them pay attention.	67%	33%	0%
My students talk to me about their learning needs.	56%	44%	0%
My students talk to each other about their learning needs.	44%	56%	0%
My students advocate for their learning needs.	44%	44%	11%

*Percentages are rounded to the nearest whole number.

Focus Groups

The final data source used to assess the initiative's impact on teachers were semi-structured virtual focus groups. Initially, four focus groups were planned: one administrator focus group and three teacher focus groups. However, due to teacher scheduling conflict, one planned teacher focus group became an individual teacher interview. Copies of the focus group/interview protocols are available in [Appendix K](#) and [Appendix L](#). Protocol questions were grouped around three major topics: program implementation, impact and improvement.

Data from focus groups are reflected in the quotes distributed throughout this case study and in the [Implementation Lessons Learned](#) section that follows.



Implementation Lessons Learned

Implementation Lessons Learned

The following seven implementation lessons learned are based on the data collected by the evaluator as well as conversations with MES administrators and teachers and the PLLC. These lessons learned are intended for other schools and districts seeking to engage in this work.

Lesson 1: Determine the Most Feasible Implementation and Support Approach

1



The foremost lesson learned from this case study was to consider the feasibility and scalability program implementation and support efforts. In other words, before beginning this work, sites should ask themselves the following questions:

- What will implementation and program support look like for the site?
- How will the site develop and maintain communication channels?
- How will the site document progress and next steps?
- Who will be the point person responsible for coordinating this work?

During the 2019-2020 academic year, the Friday Institute formed two modified research-practice partnerships to study the implementation of the Learning Differences program: one with Centennial Campus Magnet Middle School (CCMMS) and one with Manning Elementary School (MES).

CCMMS implemented the program with a sample of their teachers (n=12). Friday Institute support was highly embedded in the CCMMS approach and consisted of weekly check-in meetings and weekly implementation memos documenting the program's successes, challenges and next steps. This hands-on approach, which is described in detail in the ["Becoming Embedded In What We Do" The Implementation and Impact of the Learning Differences Program at Centennial Campus Magnet Middle School in Raleigh, North Carolina](#), provided instant feedback and programmatic iterations to respond to CCMMS needs. Unfortunately, because of the time, personnel and fiscal resources invested in this approach, it is unlikely that other sites are well positioned to make similar investments in order to implement this targeted "high touch" model.

Conversely, MES implemented the program with all their certified staff (n=45). Friday Institute support was less embedded in the MES approach, with bimonthly visits and implementation memos. This approach, which was the focal point of this case study, developed a slightly longer runway in terms of feedback turnaround and change, but the time, personnel and funding associated with this approach was much more likely to be scalable to other sites. Thus, this whole site, "lighter touch" model may be more feasible to other schools and districts to implement.

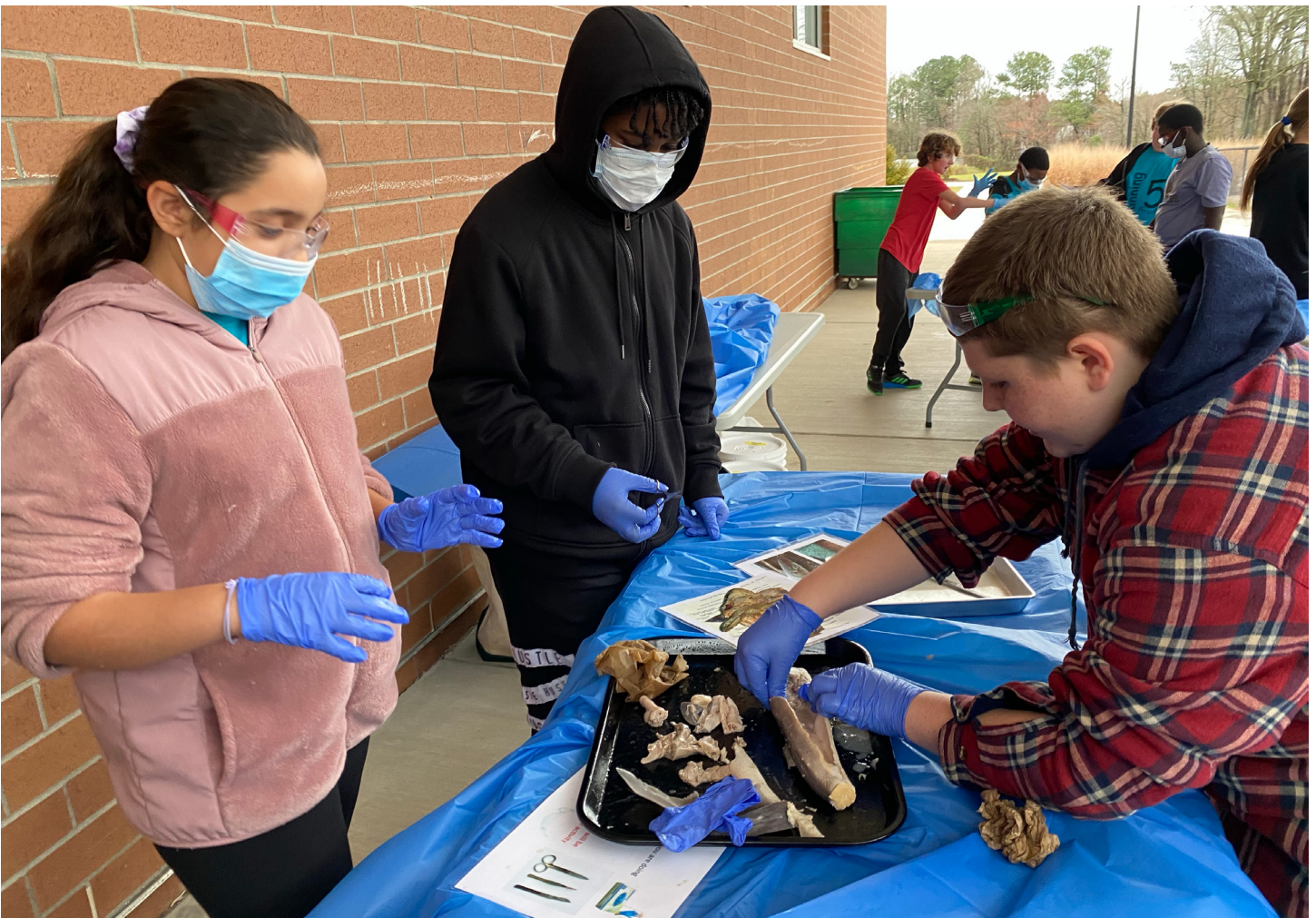
“[With CCMMS], we ended up creating a highly personalized version of the student course in collaboration with our partners at the school through an iterative process that was focused on meeting the school’s individual needs, specifically around some challenges associated with technology. When considering the scaling of this type of program, it’s important to consider the resources to make these types of adaptations when necessary in order to meet the needs of a particular school’s context.

–Learning Differences Program Developer

Lesson 2: Engage the Instructional Leader



In various conversations, Principal Lauren Hinnant described how principal engagement was key to the implementation of this program. She often reflected on her first conversation with Dr. Mary Ann Wolf, the former director of the PLLC, and how they were initially “speaking different languages.” At first, Hinnant wanted to purchase an assessment of two micro-credentials. However, after more conversation with Wolf, she saw the benefit of implementing the whole program, which led to this case study. The importance of principal engagement is a vital factor for other schools to consider as they are implementing this program. A key strategy to engage the instructional leader is to align the Learning Differences program with their priorities. At MES, learning differences was loosely related to the school’s focus on supporting students with learning disabilities.



Lesson 3: Strategically Garner Teacher Buy-In

3



Once the instructional leader is invested in the Learning Differences program, a second stakeholder group that must buy in is the teachers. To successfully garner teacher buy-in, it is critical to consider teacher backgrounds and appeal to their needs. For example, approximately 22% of MES' certified staff are veteran educators with 10 or more years of experience. Principal Lauren Hinnant shared with her staff that some aspects of learning differences strategies may be inherent to the staff, as they are best practices in teaching and learning. This framing appeared to be attractive to the veteran teachers at MES as opposed to only framing the program as an introduction to new concepts. Future sites should consider how they frame the program to best elicit interest from teachers.



Lesson 4: Consider a Year-Long Implementation



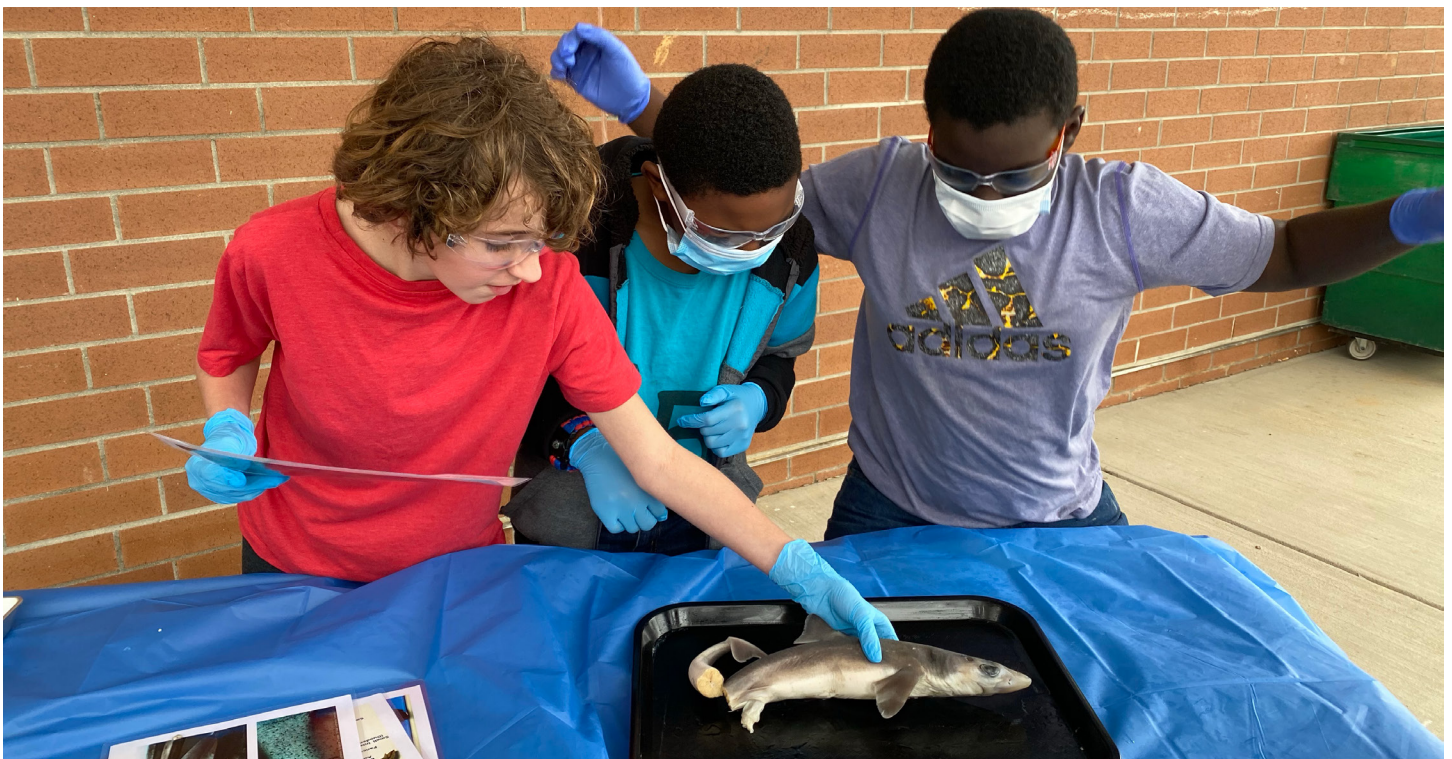
Traditionally, participants complete the Learning Differences program over the course of six weeks. However, Principal Lauren Hinnant explicitly decided that her school would complete the program over the course of the year as opposed to a shorter time frame. The extra time allowed the staff to work on the modules in their own time and at their own pace. In their focus groups, teachers praised this decision, commenting on how they enjoyed having an entire school year to focus on the program. As referenced in the title of this case study, they felt as if it was a continual conversation throughout the year.

“ [Our implementation style was] more of an ongoing conversation that would not have happened if [our administration] said, ‘Okay, we’re going to come in and do this intense thing every Wednesday for six weeks.’ We would have done it, passed on and it may not have had as lasting of a benefit throughout the remainder of the year had we done it that way. So I think drawing it out was more of a benefit.

–MES Teacher

It was kind of drawn out through the entire year. It was a constant conversation of reflection of what you’re doing.

–MES Teacher



Lesson 5: Utilize PLC Time for Group Engagement

5



Building on the previous lesson, although teachers appreciated the ability to work on the initiative on their own time and at their own pace, they also greatly valued the opportunity to engage with their colleagues during their PLC time. Both the teachers and administrators found the small group engagement helpful and were pleased they were not required to stay after school. Other sites can use this time to compliment individual work with group dialogue and application.

“When we did break up into small groups to kind of branch out and talk to people that we don't normally have a regular conversation with, [it was powerful]. I think... you could encourage other schools to come and find ways to bring people together that don't normally get to have conversations.

–MES Teacher

I think not staying after school really helped people engage better because I think given the whole [...] dynamic in January and February around the course, once we kind of got to that point where they were kind of frustrated with a second micro-credential, [...] I think knowing that then they weren't having to stay after that one day a month to engage in that, and in a whole group way, was positive. So I think we made a good decision to do that.

–MES Administrator

If sites are also interested in studying their implementation process or engaging in a research-practice partnership, consider the following two additional lessons:

Lesson 6: Explain the Research Process Early and Often

6



If conducting research alongside implementation, it is important to spend time explaining the research process early and often. Engaging in regular research-related conversations with the staff can help answer their questions, alleviate their concerns and increase their buy-in regarding the research process.

For example, during the initial kick-off meeting, MES staff seemed apprehensive about the research permissions and only a handful signed consent forms. The remaining consent forms were left at MES for the principal to distribute. One area of improvement is the timing of when and how research permissions are discussed. Because of the limited time frame, research permissions were discussed in the last few minutes of the session. One strategy to alleviate potential concerns is to introduce the idea of research permissions at the beginning of a PLC meeting and allow staff to ask questions.

Unfortunately, because of the limited face time spent with MES staff in this “light touch” approach, it was difficult to have frequent research-related conversations, and as a result, the response rates in the previous section suffered. Future sites interested in conducting research on their implementation should brainstorm ways to infuse the research discussion into the implementation discussion more seamlessly.



As mentioned previously, observations only represent a snapshot of what is occurring in the classroom and should be considered in tandem with other data sources. Reflecting on the usefulness of the observation protocol itself, the team found it to be a helpful guide of what to look for; however, it was evident that this tool was built for secondary classrooms. As such, they noted that strategies for learning differences may look different for elementary, especially in K-2 classrooms. Finally, when conducting observations, individuals should consider timing and type of lessons.

- **Timing of Observations:** During data collection, the evaluator noticed that most of the learning differences strategies they observed were given at the beginning of a class period (such as during the activity instructions). Thus, when they observed a class that had already been in progress, it was difficult to accurately assess whether the teacher was utilizing learning differences strategies or not (i.e., perhaps the teacher had already employed the strategy prior to the observation). Thus the evaluator suggests focusing on fewer but longer observations or including a second observer to enhance the accuracy of the observations.

For example, later, when observing the full class periods, the evaluator saw subtle and intricate learning differences strategies as they unfolded throughout the lesson. They were able to notice all the different routines present in a classroom, including morning procedures and book check out. They were also able to see how a teacher may introduce a pattern or prompt and then repeat it several times throughout a lesson. The evaluator was able to more closely discern how students were reacting to the material. This strategy allowed for more robust observation data and in-time/rapid reflection; thus, they suggest future projects adopt this strategy instead of a breadth approach when only staffing a single observer.

- **Type of Lessons:** Learning differences strategies may be easier to see in some types of lessons as opposed to others. For example, in one classroom, the teacher was facilitating a lesson on planets and students were coloring and cutting out the shapes of the planets. Other classrooms that the evaluator walked by were watching movies at the time she wanted to observe. This short snapshot of the day did not portray any learning difference strategies, but that does not mean that teachers were not employing the strategies at other parts of the day. For this reason, all lessons may not be suitable for this observation protocol. Still, some lessons are well-suited for this observation protocol. For example, during one English/language arts session, a teacher facilitated a lesson on how to determine the author's purpose. The teacher asked a variety of probing questions that encouraged students to think about whether the author was attempting to persuade, inform or entertain them. Throughout the lesson, the teacher asked students to share in a variety of ways (e.g., think quietly, share with their neighbor, share with the class, explain how they came to that conclusion, etc.). This type of lesson provided more opportunities for learning differences strategies.

Conclusion and Next Steps

This case study provided an in-depth examination of Manning Elementary School's (MES) implementation of the Friday Institute's Learning Differences program during the 2019-2020 academic year. This model of implementation can be described as "light-touch", as the Friday Institute provided bimonthly in-person instructional support to teachers during their PLC time. Through the various data collected, the Friday Institute identified the following seven key lessons learned that may assist future schools and districts seeking to implement the Learning Differences program, which were:



In addition, sites who desire a more hands-on approach are invited to review the first case study in this series entitled, [“Becoming Embedded In What We Do” The Implementation and Impact of the Learning Differences Program at Centennial Campus Magnet Middle School in Raleigh, North Carolina](#)”, which details a “high touch” implementation model.

As a result of this case study series, the PLLC plans to:

- Update the Learning Differences teacher course to include a “school-wide” approach section with suggestions, tips and guidance for schools looking to implement the course at the school level.
- Update the Learning Differences student course to add additional flexibility to account for the variety of contexts and implementation goals for classrooms and schools.
- Update the Learning Differences student course to account for the varying technology circumstances in schools who are implementing it (i.e., specifically adding a potential lower tech option).
- Leverage insights from this work to support other areas of the Learning Differences program such as SEL and Learner Agency.

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Appendix A: MES Classroom Observation Form

Instructions for Use

There are three main areas of instructional behaviors that we are interested in observing: strategies or practices related to 1) working memory, 2) executive functioning, and 3) student motivation.

Each area will have 4-5 general **instructional practices** that we are interested in observing. Each practice is accompanied with a list of specific examples of the that help practice that may count as **evidence** of the observed practice. Each set of examples also includes a text box to record additional examples that are observed and align with the instructional practice.

Each observer will check the appropriate examples observed with each behavior category and, when appropriate, include additional examples.

Note sections are provided at the end of each main area for observers to record relevant information related to their independent scoring choices and/or general notes to consider during the analysis phase.

We recommend printing a hard copy of this form to use during your observation for note taking and recording the targeted instructional practices observed. Following observations and at your earliest convenience, we ask that you record your final responses in the following online form: https://ncsu.qualtrics.com/jfe/form/SV_b14sHmXvQB7E9M1

1. Strategies or Practices to Support Working Memory		
✓	Instructional Practice	Evidence Observed (please check all that apply):
	1a. Provides information in multiple formats (e.g., text, oral, multimedia)	<input type="checkbox"/> Uses transcriptions, diagrams, images, animations, video, ASL, etc. to support <i>spoken information</i> <input type="checkbox"/> Uses tactile objects, auditory cues, speech-text devices, etc. to support <i>visual information</i> <input type="checkbox"/> Use of device accessibility features or plug-ins (e.g. ChromeVis) to customize content (e.g. resize text or visual content; change contrast, color, volume, or rate of speech, video speed, etc.) <input type="checkbox"/> Other: _____
	1b. Activates or supplies background knowledge to aid comprehension	<input type="checkbox"/> Uses advanced organizers (e.g., KWL methods, concept maps) <input type="checkbox"/> Pre-teaches critical prerequisite concepts through demonstration or models <input type="checkbox"/> Embeds new ideas in familiar ideas and contexts (e.g., use of analogy, metaphor, drama, music, etc.) <input type="checkbox"/> Makes explicit cross-curricular connections <input type="checkbox"/> Other: _____

1. Strategies or Practices to Support Working Memory

✓	Instructional Practice	Evidence Observed (please check all that apply):
	1c. Highlights patterns , critical features, big ideas, and/or relationships to aid memory and comprehension	<input type="checkbox"/> Uses pre-lecture notes, outlines, organizers, etc. to emphasize key ideas and relationships <input type="checkbox"/> Highlights or emphasize key elements in text, graphics, diagrams, formulas <input type="checkbox"/> Uses multiple examples and non-examples to emphasize critical features <input type="checkbox"/> Uses repetition, cues, and/or prompts to draw attention to critical features <input type="checkbox"/> Other: _____
	1d. Guides and scaffolds information processing, visualization, and manipulation	<input type="checkbox"/> Gives explicit prompts for each step in a sequential process <input type="checkbox"/> "Chunks" information into smaller elements <input type="checkbox"/> Uses visual lists to cue students to next steps they can refer back if they get lost <input type="checkbox"/> Progressively releases information (e.g., sequential highlighting) <input type="checkbox"/> Other: _____
	1e. Uses instructional strategies to support memory, generalization, and transfer information.	<input type="checkbox"/> Provides checklists, organizers, sticky notes, electronic reminders, flashcards <input type="checkbox"/> Use of mnemonic strategies and devices (e.g., visual imagery, paraphrasing strategies, etc.) <input type="checkbox"/> Provides templates, graphic organizers, concept maps to support note-taking <input type="checkbox"/> Provides explicit, supported opportunities to generalize learning to new situations/contexts <input type="checkbox"/> Other: _____
Notes:		

2. Strategies or Practices to Support Executive Functioning

✓	Instructional Practice	Evidence Observed (please check all that apply):
	2a. Helps students set goals for themselves during the learning process.	<input type="checkbox"/> Posts goals, objectives, and schedules in an obvious place <input type="checkbox"/> Provides prompts and scaffolds to estimate effort, resources, and difficulty <input type="checkbox"/> Provides models or examples of the process and product of goal-setting <input type="checkbox"/> Provides guides and checklists for scaffolding goal-setting <input type="checkbox"/> Other:_____
	2b. Uses strategies that help students plan out their work during a lesson.	<input type="checkbox"/> Embeds prompts to “stop and think” before acting as well as adequate space <input type="checkbox"/> Embeds prompts to “show and explain your work” (e.g., portfolio review, art critiques) <input type="checkbox"/> Provide checklists and project planning templates for understanding the problem, setting up prioritization, sequences, and schedules of steps <input type="checkbox"/> Provides guides for breaking long-term goals into reachable short-term objectives <input type="checkbox"/> Other:_____
	2c. Uses strategies that help students manage information and resources.	<input type="checkbox"/> Provides graphic organizers and templates for data collection and organizing information <input type="checkbox"/> Embeds prompts for categorizing and systematizing information (e.g. color coding, note cards, etc.) <input type="checkbox"/> Provides checklists and guides for student note-taking <input type="checkbox"/> Create a classroom calendar or organizational system everyone uses <input type="checkbox"/> Other:_____
	2d. Uses strategies that help students self-assess and reflect on their progress.	<input type="checkbox"/> Asks questions to guide self-monitoring and reflection <input type="checkbox"/> Prompts learners to identify the type of feedback or advice that they are seeking <input type="checkbox"/> Show representations of progress (e.g., charts showing progress over time, process portfolios) <input type="checkbox"/> Uses templates that guide self-reflection on quality and completeness (e.g. rubrics) <input type="checkbox"/> Use of assessment checklists, rubrics, examples of annotated student work/performance examples <input type="checkbox"/> Other:_____

2. Strategies or Practices to Support Executive Functioning

✓ Instructional Practice	Evidence Observed (please check all that apply):
Notes:	

3. Strategies or Practices to Support Motivation

✓ Instructional Practice	Evidence Observed (please check all that apply):
3a. Provides options that let students make choices during the lesson.	<input type="checkbox"/> Provides choices for things such as: <ul style="list-style-type: none"> <input type="checkbox"/> The level of perceived challenge <input type="checkbox"/> The type of rewards or recognition available <input type="checkbox"/> The sequence or timing for completion of subcomponents of tasks <input type="checkbox"/> Provides varied ways to respond and navigate information within a lesson. <input type="checkbox"/> Involves learners in setting their own personal academic and behavioral goals <input type="checkbox"/> Other: _____
3b. Uses instructional strategies to make lessons relevant and authentic to students.	<input type="checkbox"/> Learning outcomes are authentic, communicate to real audiences, and/or reflect a clear purpose <input type="checkbox"/> Provides activities or information relevant/appropriate for different racial, cultural, /or gender groups <input type="checkbox"/> Include activities that foster the use of creativity to solve novel and relevant problems <input type="checkbox"/> Other: _____
3c. Uses strategies that minimize threats and distractions to students.	<input type="checkbox"/> Uses charts, calendars, schedules, visible timers, cues, classroom routines etc. that can increase the predictability of daily activities and transitions <input type="checkbox"/> Provides alerts and previews that can help learners anticipate and prepare for changes/transitions <input type="checkbox"/> Removes unnecessary distractions non-essential to the instructional goal. <input type="checkbox"/> Other: _____

3. Strategies or Practices to Support Motivation

✓	Instructional Practice	Evidence Observed (please check all that apply):
	3d. Uses instructional strategies that foster student self-belief and confidence.	<input type="checkbox"/> Provides resources, models, routines, scaffolds and/or feedback for: <input type="checkbox"/> Managing frustration <input type="checkbox"/> Seeking academic or emotional support (e.g. speaking up when confused or overwhelmed) <input type="checkbox"/> Developing internal controls and coping skills (e.g. behavior self-monitoring charts) <input type="checkbox"/> Appropriately handling subject specific phobias and judgments of "natural" aptitude (e.g., "how can I improve on the areas I am struggling in?" rather than "I am not good at math") <input type="checkbox"/> Emphasize process, effort, improvement in meeting standards as alternatives to external evaluation, competition, and "intelligence" <input type="checkbox"/> Other: _____
Notes:		

Appendix B: Kick-Off Agenda

Learning Differences Intro w/ FI

Agenda - 10/9/19

3:35 - 5:00

Session Objectives:

- I. Manning staff will gain an understanding of the purpose and content of the Learning Differences course
- II. Manning staff will understand the partnership and intended work for 2019-20 between our school and the Friday Institute
- III. Manning staff will begin to examine themselves as learners, and how that knowledge impacts their classrooms
- IV. Manning staff will begin to develop a working definition of the term “learning differences” as it relates to all students

- I. Welcome/Introduction of FI Staff (5 minutes)
- II. Overview of Learning Differences Course (everyone will login at this point; all certified staff will already be registered) (15-20 minutes)
- III. Overview of FI In-Person Work & Goals (10-15 minutes)
- IV. Let’s Jump In! (30-35 minutes)
 - A. Simulations from Understood.com & Discussion - 10-12 minutes
 - B. Learner Sketch Activity from Unit 1 in the LD course – *will staff discuss this verbally in groups, or will they post to a forum in the course?* - 12-15 minutes
 - C. Discuss take-aways from these activities - 8-10 minutes
- V. Wrap-Up/Questions (5-10 minutes)

Dates for In-Person Work:

October 9th

December 11th

February 12th

April 8th OR May 13th

Appendix C: Kick-Off Slide Deck

REACHING ALL LEARNERS

Friday Institute Learning Differences Project

NC STATE Friday Institute for Educational Innovation

GO TO | bit.ly/MESkickoff



YOUR FACILITATORS TODAY



BRITTANY MILLER



DR CALLIE EDWARDS

NC STATE

Friday Institute
for Educational Innovation

GO TO | bit.ly/MESkickoff



MANNING ELEM

- ▶ Complete Learning Differences MOOC-Ed Course
- ▶ Implement learning differences strategies into teaching practice



PLLC

- ▶ Provide professional development through an online platform
- ▶ Provide ongoing support and resources to teachers



FIRE TEAM

- ▶ Examine the implementation and impact of the Learning Differences Initiative at Manning Elementary
- ▶ Provide feedback for continuous improvement

NC STATE Friday Institute for Educational Innovation



Research shows that all **students vary in how they learn**, yet many learning environments are not structured to support this variability. **How can we help address this gap?**

NC STATE Friday Institute for Educational Innovation

MATT'S STORY



NC STATE Friday Institute for Educational Innovation



Let's see through their eyes.

NC STATE Friday Institute for Educational Innovation

1

GO to [Through Your Child's Eyes](#) on Understood.org

2

CHOOSE one simulation in an area you are strong in to experience.

3

DISCUSS: How the simulation make you feel?

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LEARNING DIFFERENCES PROGRAM

Learning Differences MOOC-Ed

Learning Differences Microcredentials

Students LEAD

Social and Emotional Learning MOOC-Ed

Learner Agency MOOC-Ed

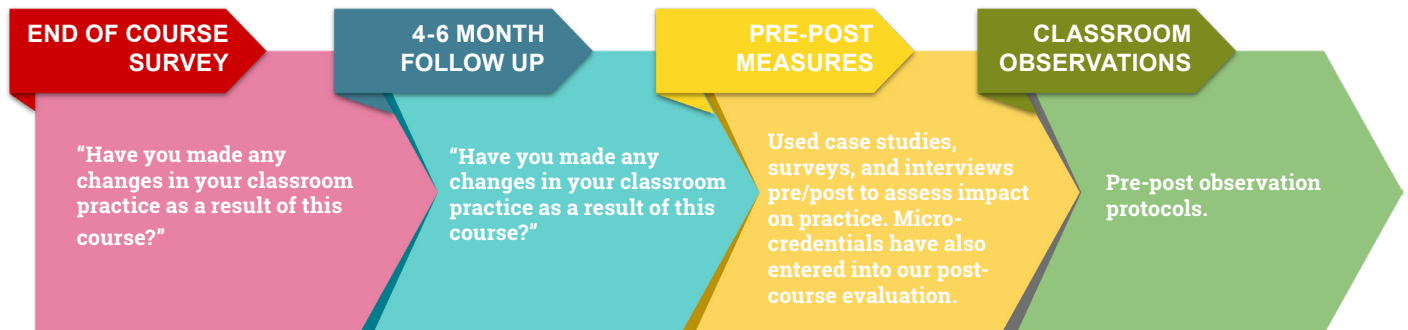
NC STATE Friday Institute for Educational Innovation

OUR PARTNERS

Oak Foundation	ISTE	NCLD
New Teacher Center	Youth Build	National Board of Professional Teaching Standards
Teaching for All	Digital Promise	AVID
Teach for America	Understood.org	

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COURSE EVALUATION



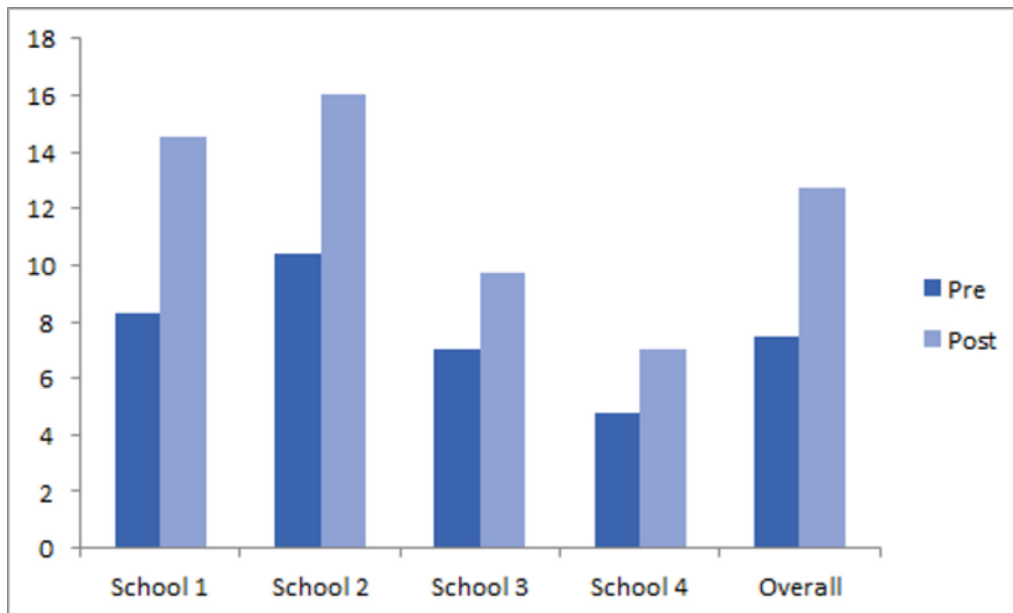
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COURSE FOLLOW-UP

Table 2: Reported Impact of Participation on Course Follow-up Survey

As a result of participation in the MOOC-ed, have you...	% Responded "Yes"		
	Earned Certificate	Did Not Earn Certificate	All Participants
acquired any knowledge, skills, and/or resources applicable to your professional practice?	96%	87%	91%
applied any knowledge, skills, and/or resources acquired to your professional practice?	76%	69%	73%
made change(s) in your professional practice that have directly affected students?	63%	58%	61%

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Let's get started.

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1

GO to our course in place.fi.ncsu.edu by logging in and viewing your dashboard in the top right dropdown menu.

2

COMPLETE a Learner Profile activity within Unit 1. You can temporarily skip the earlier activities for now.

3

DISCUSS how do we or can we help students understand themselves as learners?

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MICROCREDENTIALS

- Demonstrate learning of LD constructs
- Bloom's structure.
- CEUs available.
- Originated in the MOOC-Ed, available as stand alone (on national platforms such as Bloomboard and Digital Promise)
- Since 2015, we have reviewed over 3,000 LD submissions and have awarded roughly 2,000 micro-credentials

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NEXT STEPS

MANNING ELEM

Engage in the MOOC-Ed Course as a participant exploring materials, sharing in forums, and integrating new strategies into your classroom.

PLCS

In your monthly PLC meetings, deepen your learning by sharing the new strategies you have tried, and how integrating new learning is going in your classroom.

MICROCREDENTIALS

At the completion of each unit, you have the option to complete microcredentials in each area. Select at least 2 concepts to submit a microcredential.

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- Purpose:
 - Improve program for this site and future sites
 - Report findings to funder
- Completely optional
- Non-evaluative and identity is protected
- What to expect:
 - Surveys, classroom observations, focus groups



RESEARCH PERMISSIONS

NC STATE Friday Institute for Educational Innovation



We need your feedback!

go.ncsu.edu/manningPD

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QUESTIONS?

Brittany Miller
Instructional Innovation Coach



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for Educational Innovation

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NC STATE Friday Institute for Educational Innovation

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Appendix D: Kick-Off Feedback Form

Learning Differences - Manning Elementary - Teacher PD Survey

The purpose of this survey is to gather feedback about the professional development you received on learning differences. We appreciate your honest feedback regarding the PD. Your responses will be kept confidential.

Today's Date

To what degree do you agree with the following statements regarding the professional development?

The learning differences training...

	Strongly agree (1)	Somewhat agree (2)	Neither agree nor disagree (3)	Somewhat disagree (4)	Strongly disagree (5)
was of high quality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
was timely	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
was relevant to my needs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
format and structure facilitated my learning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
helped me gain new information and skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
provided important resources for me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
met my expectations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Strongly agree (1)	Somewhat agree (2)	Neither agree nor disagree (3)	Somewhat disagree (4)	Strongly disagree (5)
enhanced my understanding of how to speak using language that respects learning differences	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
will assist me in using learning differences awareness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
will assist my school in using learning differences awareness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How have or will you use what you have learned?

What was the most useful part of this professional development? Why?

What was the least useful part of this professional development? Why?

What additional training/support do you need?

Appendix E: Teacher Consent Form

Teacher Informed Consent Form

Title of Study: Evaluation Component of the Building Capacity of Educators, Schools and Districts to meet the Needs of All Learners Grant (**eIRB # 19219**)

Principal Investigator(s): Dr. LaTricia Townsend

Funding Source: Oak Foundation

What are some general things you should know about research studies?

You are invited to take part in a research study. Your participation in this study is voluntary. You have the right to be a part of this study, to choose not to participate, and to stop participating at any time without penalty. The purpose of this research study is to gain a better understanding of how learning differences awareness can be integrated into school communities. We will do this through asking you questions about your experience using learning differences awareness in your school community.

You are not guaranteed any personal benefits from being in this study. Research studies also may pose risks to those who participate. You may want to participate in this research because the best practices identified in this study may enhance the experiences of future schools. You may not want to participate in this research because there is a minimal time requirement to engage in the research activities.

Specific details about the research in which you are invited to participate are contained below. If you do not understand something in this form, please ask the researcher for clarification or more information. A copy of this consent form will be provided to you. If, at any time, you have questions about your participation in this research, do not hesitate to contact the researcher(s) named above or the NC State IRB office. The IRB office's contact information is listed in the *What if you have questions about your rights as a research participant?* section of this form.

What is the purpose of this study?

The purpose of the study is to examine a process for integrating learning differences awareness into school communities.

Am I eligible to be a participant in this study?

There will be approximately 8,000 participants in this study.

In order to be a participant in this study, you must agree to be in the study and you must be either: an administrator at a participating school, a teacher at a participating school, a student enrolled at a participating school, or a parent of a student enrolled at a participating school.

You cannot participate in this study if you do not want to be in the study or if you do not fall into one of these groups: an administrator at a participating school, a teacher at a participating school, a student enrolled at a participating school, or a parent of a student enrolled at a participating school. No other exclusion criteria apply.

What will happen if you take part in the study?

If you agree to participate in this study, you will be asked to do all of the following:

1. Participate in surveys twice during the school year. You will be asked questions about how learning differences awareness has impacted you and your school community. Surveys may be taken online or on paper. The questions should take about 15 minutes to answer.
2. Participate in focus groups twice during the school year. You would be asked questions about how learning differences awareness has impacted you and your school community. Sessions will be audio-recorded and the recording will be collected and retained for analysis. Interviews are expected to have a duration of approximately 1 hour.
3. Researchers will request to observe your grade-level planning periods and your classroom instruction several times during the school year. The purpose of observations is to understand how your instruction integrates learning differences awareness. Observations will be non-intrusive and detailed notes will be taken. No audio, video, or photo recordings will be made of the observations.
4. The research team will ask you to submit any relevant teaching artifacts (e.g., lesson plans), assessments, student work on a monthly basis. Researchers will request that any artifacts submitted are de-identified of teacher and student names and any other identifiers before submission.

The total amount of time that you will be participating in this study is 30 minutes - 150 minutes.

Recording and images

If you want to participate in this research, you must agree to be audio recorded. If you do not agree to be audio recorded you cannot participate in this research.

Risks and benefits

There are minimal risks associated with participation in this research. The risks to you as a result of this research include possibility of stress. While we do not anticipate any that any questions will cause stress, you always have the option to skip questions they are not comfortable answering during focus groups. If researchers notice that you are showing signs of distress or fatigue, we will conclude the conversation.

There are no direct benefits to your participation in the research. The indirect benefits are that the study will be used to identify how learning differences awareness can be successfully integrated into school communities. The best practices identified through this study may be used to develop future initiatives, tools, and professional development activities to further support learning differences awareness in schools.

Right to withdraw your participation

You can stop participating in this study at any time for any reason. In order to stop your participation, please tell one of the researchers. If you choose to withdraw your consent and to stop participating in this research, you can expect to no longer be asked to participate in a focus group.

Confidentiality, personal privacy, and data management

Trust is the foundation of the participant/researcher relationship. Much of that principle of trust is tied to keeping your information private and in the manner that we have described to you in this form. The information that you share with us will be held in confidence to the fullest extent allowed by law. Protecting your privacy as related to this research is of utmost importance to us. However, there are very rare circumstances related to confidentiality where we may have to share information about you. These are limited to instances in which imminent harm could come to you or others.

How we manage, protect, and share your data are the principal ways that we protect your personal privacy. Data generated about you in this study will be de-identified, shared with a third party for transcription, and be available to the administrative teams at participating schools.

De-identified. De-identified data is information that at one time could directly identify you, but that we have recorded this data so that your identity is separated from the data. We will have a master list with your code and real name that we can use to link to your data. While we might be able to link your identity to your data at earlier stages in the research, when the research concludes, there will be no way your real identity will be linked to the data we publish.

Data that will be shared with others about you will be deidentified because we will not link your real identity to the data.

To help maximize the benefits of your participation in this project, by further contributing to science and our community, your deidentified information will be stored for future research and may be shared with other people (e.g., sponsors, journals) without additional consent from you.

Compensation

There will be no compensation for participation in this study.

What if you are an employee at a participating school?

If your place of employment is also the research site, your participation in this study is not a requirement of your employment at your school, and your participation or lack thereof, will not affect your job.

Sponsorship and Funding

This research is funded by the Oak Foundation. This means that the sponsor is paying the research team for completing the research. The researchers do not, however, have a direct financial interest with the sponsor or in the final results of the study. The Professional Learning and Leading Collaborative at the Friday Institute for Educational Innovation is an inventor of learning differences program that is being evaluated. If you would like more information, please ask the researcher listed in the first page of this form about the funding and sponsorship. If you would like more information, please ask the researcher(s) listed in the first page of this form about the funding and sponsorship.

What if you have questions about this study?

If you have questions at any time about the study itself or the procedures implemented in this study, you may contact the researcher, Dr. LaTricia Townsend at the Friday Institute for Educational Innovation, North Carolina State University, 1890 Main Campus Road, Campus Box 7249, Raleigh, NC 27606.

What if you have questions about your rights as a research participant?

If you feel you have not been treated according to the descriptions in this form, or your rights as a participant in research have been violated during the course of this project, you may contact the NC State IRB (Institutional Review Board) Office. An IRB office helps participants if they have any issues regarding research activities. You can contact the NC State IRB Office via email at irb-director@ncsu.edu or via phone at (919) 515-8754.

Consent To Participate

By signing this consent form, I am affirming that I have read and understand the above information. All of the questions that I had about this research have been answered. I have chosen to participate in this study with the understanding that I may stop participating at any time without penalty or loss of benefits to which I am otherwise entitled. I am aware that I may revoke my consent at any time.

Participant's printed name _____

Participant's signature _____ **Date** _____

Investigator's signature _____ **Date** _____

Appendix F: Administrator Consent Form

Administrator Informed Consent Form

Title of Study: Evaluation Component of the Building Capacity of Educators, Schools and Districts to meet the Needs of All Learners Grant (eIRB # 19219)

Principal Investigator(s): Dr. LaTricia Townsend

Funding Source: Oak Foundation

What are some general things you should know about research studies?

You are invited to take part in a research study. Your participation in this study is voluntary. You have the right to be a part of this study, to choose not to participate, and to stop participating at any time without penalty. The purpose of this research study is to gain a better understanding of how learning differences awareness can be integrated into school communities. We will do this through asking you questions about your experience using learning differences awareness in your school community.

You are not guaranteed any personal benefits from being in this study. Research studies also may pose risks to those who participate. You may want to participate in this research because the best practices identified in this study may enhance the experiences of future schools. You may not want to participate in this research because there is a minimal time requirement to engage in the research activities.

Specific details about the research in which you are invited to participate are contained below. If you do not understand something in this form, please ask the researcher for clarification or more information. A copy of this consent form will be provided to you. If, at any time, you have questions about your participation in this research, do not hesitate to contact the researcher(s) named above or the NC State IRB office. The IRB office's contact information is listed in the *What if you have questions about your rights as a research participant?* section of this form.

What is the purpose of this study?

The purpose of the study is to examine a process for integrating learning differences awareness into school communities.

Am I eligible to be a participant in this study?

There will be approximately 8,000 participants in this study.

In order to be a participant in this study, you must agree to be in the study and you must be either: an administrator at a participating school, a teacher at a participating school, a student enrolled at a participating school, or a parent of a student enrolled at a participating school.

You cannot participate in this study if you do not want to be in the study or if you do not fall into one of these groups: an administrator at a participating school, a teacher at a participating school, a student enrolled at a participating school, or a parent of a student enrolled at a participating school. No other exclusion criteria apply.

What will happen if you take part in the study?

If you agree to participate in this study, you will be asked to participate in focus groups twice during the school year. You would be asked questions about how learning differences awareness has impacted you and your school community. Sessions will be audio-recorded and the recording will be collected and retained for analysis. Interviews are expected to have a duration of approximately 1 hour.

The total amount of time that you will be participating in this study is 120 minutes.

Recording and images

If you want to participate in this research, you must agree to be audio recorded. If you do not agree to be audio recorded you cannot participate in this research.

Risks and benefits

There are minimal risks associated with participation in this research. The risks to you as a result of this research include possibility of stress. While we do not anticipate any that any questions will cause stress, you always have the option to skip questions they are not comfortable answering during focus groups. If researchers notice that you are showing signs of distress or fatigue, we will conclude the conversation.

There are no direct benefits to your participation in the research. The indirect benefits are that the study will be used to identify how learning differences awareness can be successfully integrated into school communities. The best practices identified through this study may be used to develop future initiatives, tools, and professional development activities to further support learning differences awareness in schools.

Right to withdraw your participation

You can stop participating in this study at any time for any reason. In order to stop your participation, please tell one of the researchers. If you choose to withdraw your consent and to stop participating in this research, you can expect to no longer be asked to participate in a focus group.

Confidentiality, personal privacy, and data management

Trust is the foundation of the participant/researcher relationship. Much of that principle of trust is tied to keeping your information private and in the manner that we have described to you in this form. The information that you share with us will be held in confidence to the fullest extent allowed by law. Protecting your privacy as related to this research is of utmost importance to us. However, there are very rare circumstances related to confidentiality where we may have to share information about you. These are limited to instances in which imminent harm could come to you or others.

How we manage, protect, and share your data are the principal ways that we protect your personal privacy. Data generated about you in this study will be de-identified, shared with a third party for transcription, and be available to the administrative teams at participating schools.

De-identified. De-identified data is information that at one time could directly identify you, but that we have recorded this data so that your identity is separated from the data. We will have a master list with your code and real name that we can use to link to your data. While we might be able to link your identity to your data at earlier stages in the research, when the research concludes, there will be no way your real identity will be linked to the data we publish.

Data that will be shared with others about you will be deidentified because we will not link your real identity to the data.

To help maximize the benefits of your participation in this project, by further contributing to science and our community, your deidentified information will be stored for future research and may be shared with other people (e.g., sponsors, journals) without additional consent from you.

Compensation

There will be no compensation for participation in this study.

What if you are an employee at a participating school?

If your place of employment is also the research site, your participation in this study is not a requirement of your employment at your school, and your participation or lack thereof, will not affect your job.

Sponsorship and Funding

This research is funded by the Oak Foundation. This means that the sponsor is paying the research team for completing the research. The researchers do not, however, have a direct financial interest with the sponsor or in the final results of the study. The Professional Learning and Leading Collaborative at the Friday Institute for Educational Innovation is an inventor of learning differences program that is being evaluated. If you would like more information, please ask the researcher listed in the first page of this form about the funding and sponsorship. If you would like more information, please ask the researcher(s) listed in the first page of this form about the funding and sponsorship.

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If you have questions at any time about the study itself or the procedures implemented in this study, you may contact the researcher, Dr. LaTricia Townsend at the Friday Institute for Educational Innovation, North Carolina State University, 1890 Main Campus Road, Campus Box 7249, Raleigh, NC 27606.

What if you have questions about your rights as a research participant?

If you feel you have not been treated according to the descriptions in this form, or your rights as a participant in research have been violated during the course of this project, you may contact the NC State IRB (Institutional Review Board) Office. An IRB office helps participants if they have any issues regarding research activities. You can contact the NC State IRB Office via email at irb-director@ncsu.edu or via phone at (919) 515-8754.

Consent To Participate

By signing this consent form, I am affirming that I have read and understand the above information. All of the questions that I had about this research have been answered. I have chosen to participate in this study with the understanding that I may stop participating at any time without penalty or loss of benefits to which I am otherwise entitled. I am aware that I may revoke my consent at any time.

Participant's printed name _____

Participant's signature _____ **Date** _____

Investigator's signature _____ **Date** _____

Appendix G: A Day In The Life Play Directions

A Day in the



Instructions

2-6 Players. Object: Have meaningful conversations. Improve your practice. Have fun. Change the world.

SET UP

Your game should contain all of the following pieces:

- At least one, six sided die.
- Up to six individual game pieces.
- One set of Emoji Cards
- At least one **Color Legend**.
- At least one instruction sheet.
- One Game Board

Do the following before beginning play:

- Assign each player a game piece then place the game pieces on the game board in the space marked "START."
- Place the Emoji Cards, FACE DOWN, on the game board in the space marked "CARDS HERE."
- Be sure to keep the die and Color Legend handy. You're gonna need them!
- Designate one person to be the official reader of the Color



GAME PLAY

All players roll the die. Highest roller takes the first turn. Play then continues clockwise. It will ALWAYS continue clockwise.

What to do on your turn

- On your turn, roll the die.
- Then move your game piece the number of spaces on the die.
- Unless directed otherwise, always move your game piece forward. (Just as in real life, you can't go back in time!)

Each player must complete TWO TASKS during every turn. They are:

- **TASK 1:** Once you've moved your game piece to the appropriate spot, select an Emoji Card and answer the associated question. Questions are designed to help players identify action steps and improve practice, so... take your time and feel free to ask other players additional questions about their answers. (Questions will be displayed by the game facilitator).
- **TASK 2:** THEN use the Color Legend to complete gameplay tasks. These tasks relate to both physical and game board movement. Bonus points may be awarded by the facilitators for exceptional execution of these tasks.

The player that reaches the space marked "FINISH" first, wins!

Appendix H: The Game of Life – Learning Differences Discussion Cards



It's time to dream big! If you had unlimited funds what is one thing you would change about your classroom to better support learning difference?



We all have struggles and strengths. What was a struggle you experienced when you were a student?



How do you feel addressing learning differences impacts your students?



How do you foster a classroom that celebrates all learners and abilities?



What changes have you made in your classroom to better support working memory?



Create a hashtag to describe one of your greatest strengths as a teacher.



Think of a student that struggles with a learning difference in your classroom. What do you feel will help this student? If any, what strategies have you tried?



What resource from the course has had the greatest impact so far?



Share a strategy or idea on how you support your student's learning differences?

Appendix I: Learning Differences MOOC-Ed Case Study: Teacher Post Survey

Learning Differences MOOC-Ed Case Study: Teacher Post Survey

Thank you for your participation in the Learning Differences MOOC-Ed! Your school is a part of a case study to learn more about the implementation and impact of this program. As we conclude the Learning Differences MOOC-Ed we ask you to take a minute to reflect on your teaching practices. Please take 10-15 minutes to reflect on them and assess your own practice. We encourage your open and candid responses. All responses are kept strictly confidential. In reports, all responses will be combined, so no one will be able to connect you to your responses. Your participation is entirely voluntary and you may exit the survey at any time. We appreciate your willingness to participate and thank you in advance for your insight. If you have questions or technical difficulty while completing the survey, please contact Dr. Callie Edwards by telephone (919.513.8542) or by email (callie_edwards@ncsu.edu). Please click the link below to download and view the informed consent form for teachers. You may also print a copy for your records.

[Teacher Informed Consent](#)

Q9 I have read and understand the above information.

- "I have read and understand the above information. I have received a copy of this form. I agree to participate in this study with the understanding that I may choose not to participate or to stop participating at any time without penalty or loss of benefits to which I am otherwise entitled." (1)
- "No, I decline to participate." (2)

Skip To: End of Survey If I have read and understand the above information. = "No, I decline to participate."

Background Information

Please indicate your school.

- Centennial Campus Magnet Middle School
- Manning Elementary School

What grade do you currently teach? (Please check all that apply)

- K
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- Other (Please explain) _____

How do you describe your ethnicity?

- American Indian or Alaska Native
- Asian
- Black or African American
- Hispanic
- Native Hawaiian or Other Pacific Islander
- White
- Unknown
- Other/Prefer to self-describe _____
- Don't wish to answer

What is your gender?

- Female
- Male
- Non-binary/third gender
- Prefer to self-describe _____
- Prefer not to say

How long have you been a classroom teacher?

- 1-3 years
- 4-6 years
- 7-9 years
- 10 or more years

Please describe any experience you have had with Learning Differences prior to the Learning Differences MOOC-Ed.

Please indicate your opinion about each of the questions below by marking any one of the five responses in the columns on the right side, ranging from (1) "None at all" to (5) "A Great Deal" as each represents a degree on the continuum. Please respond to each of the questions by considering the combination of your current ability, resources, and opportunity to do each of the following in your present position.

	None at All (1)	Very Little (2)	Some Degree (3)	Quite a Bit (4)	A Great Deal (5)
1. How much can you do to control disruptive behavior in the classroom?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. How much can you do to motivate students who show low interest in school work?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. How much can you do to calm a student who is disruptive or noisy?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. How much can you do to help your students value learning?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. To what extent can you craft good questions for your students?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. How much can you do to get children to follow classroom rules?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. How much can you do to get students to believe they can do well in school work?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	None at All (1)	Very Little (2)	Some Degree (3)	Quite a Bit (4)	A Great Deal (5)
8. How well can you establish a classroom management system with each group of students?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. To what extent can you use a variety of assessment strategies?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. To what extent can you provide an alternative explanation or example when students are confused?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. How much can you assist families in helping their children do well in school?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. How well can you implement alternative teaching strategies in your classroom?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

To help gauge your current level of knowledge and skills related to the course objectives, please indicate the extent to which you agree with the following statements.

I have a good understanding of...

	Strongly disagree (1)	Disagree (2)	Neither agree or disagree (3)	Agree (4)	Strongly agree (5)
1. what learning differences are and how they affect all students.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. working memory and its impact on learning and behavior in classrooms.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. executive functioning skills and their impact on learning and behavior in classrooms.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. student motivation and its impact on learning and behavior in classrooms.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. strategies or solutions to address learning differences and better support students.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Strongly disagree (1)	Disagree (2)	Neither agree or disagree (3)	Agree (4)	Strongly agree (5)
6. how to foster a growth mindset or problem solving approach among my students.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please review the strategies below and indicate how familiar you are with this strategy now.

	not familiar (1)	slightly familiar (2)	moderately familiar (3)	very familiar (4)
1. Use of device accessibility features or plug-ins to customize content (ex. resize text, change contrast, etc)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Use of multiple formats to present information and/or procedures.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Use of graphic organizers to activate or supply background knowledge.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Use of visual lists to cue students to next steps they can refer back to if they get lost.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Use of "chunking" information to break learning materials or tasks into manageable components.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	not familiar (1)	slightly familiar (2)	moderately familiar (3)	very familiar (4)
6. Use of student checklists and/or project planning templates for setting up prioritization, sequences, and schedules of steps to solve a problem.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Use of guides for breaking long-term goals into reachable short-term objectives.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Use of graphic organizers, templates, guided notes, or checklists for organizing information and note taking.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Use of a shared classroom calendar or organizational system to help students manage information.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Use of templates that guide self-reflection on quality and completeness (e.g., rubrics, checklists, annotated examples).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. Use of representations of progress (e.g., charts showing progress over time, process portfolios).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	not familiar (1)	slightly familiar (2)	moderately familiar (3)	very familiar (4)
12. Involving learners in setting their own personal academic and behavioral goals.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. Use of learning outcomes that are authentic, communicate to real audiences, and/or reflect a clear purpose.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. use of activities or information relevant/appropriate for different racial, culture, and/or gender groups.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. Use of charts, calendars, schedules, visible timers, cues, classroom routines, etc. to increase the predictability of daily activities and transitions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. Removing unnecessary distractions non-essential to the instructional goals.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. Giving students choice in how they complete tasks/ assignments.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please review the same list of strategies below and indicate how often you integrate this strategy into your classroom practice.

	never (1)	rarely (1-2 times per year) (2)	Sometimes (1-2 times per semester) (3)	Often (1-2 times per month) (4)	always (almost every week) (5)
1. Use of device accessibility features or plug-ins to customize content (ex. resize text, change contrast, etc)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Use of multiple formats to present information and/or procedures.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Use of graphic organizers to activate or supply background knowledge.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Use of visual lists to cue students to next steps they can refer back to if they get lost.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Use of "chunking" information to break learning materials or tasks into manageable components.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Use of student checklists and/ or project planning templates for setting up prioritization, sequences, and schedules of steps to solve a problem.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	never (1)	rarely (1-2 times per year) (2)	Sometimes (1-2 times per semester) (3)	Often (1-2 times per month) (4)	always (almost every week) (5)
7. Use of guides for breaking long-term goals into reachable short-term objectives.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Use of graphic organizers, templates, guided notes, or checklists for organizing information and note taking.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Use of a shared classroom calendar or organizational system to help students manage information.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Use of templates that guide self-reflection on quality and completeness (e.g., rubrics, checklists, annotated examples).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. Use of representations of progress (e.g., charts showing progress over time, process portfolios).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. Involving learners in setting their own personal academic and behavioral goals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	never (1)	rarely (1-2 times per year) (2)	Sometimes (1-2 times per semester) (3)	Often (1-2 times per month) (4)	always (almost every week) (5)
13. Use of learning outcomes that are authentic, communicate to real audiences, and/or reflect a clear purpose.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. use of activities or information relevant/appropriate for different racial, culture, and/or gender groups.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. Use of charts, calendars, schedules, visible timers, cues, classroom routines, etc. to increase the predictability of daily activities and transitions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. Removing unnecessary distractions non-essential to the instructional goals.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. Giving students choice in how they complete tasks/ assignments.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please rate your level of agreement with the following statements about your understanding and instructional practice.

	Strongly disagree (1)	Disagree (2)	Neither agree or disagree (4)	Agree (5)	Strongly agree (6)
1. I understand the ways in which students may learn differently.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. I value the different ways that my students learn.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. I am aware of strategies that I can use to support students who have demonstrated challenges with working memory.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. I am aware of strategies that I can use to support students who have demonstrated challenges with executive function.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. I am aware of strategies that I can use to support students who have demonstrated challenges with motivation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Strongly disagree (1)	Disagree (2)	Neither agree or disagree (4)	Agree (5)	Strongly agree (6)
6. I understand how technology tools can support students' learning differences.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. When planning my instruction, I consider student learning differences.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. When planning my instruction, I consider technology tools to support students' learning.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. In my instruction, I use strategies that support different student learning needs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. In my instruction, I use technology tools to support student learning differences.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please rate your level of agreement with the following statements about your students' understanding and behavior.

	Strongly disagree (1)	Disagree (2)	Neither agree or disagree (3)	Agree (4)	Strongly agree (5)
1. My students understand that all people learn differently.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. My students understand that all ways of learning are valid.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. My students know how they learn best.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. My students know what their learning strengths are.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. My students know what their learning challenges are.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. My students are aware of strategies that can support their organizational skills.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. My students use strategies to support their organizational skills.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. My students are aware of strategies that can support their memory.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Strongly disagree (1)	Disagree (2)	Neither agree or disagree (3)	Agree (4)	Strongly agree (5)
9. My students use strategies that can support their memory.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. My students are aware of strategies that help them express their ideas.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. My students use strategies that help them express their ideas.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. My students are aware of strategies that help them pay attention.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. My students use strategies that help them pay attention.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. My students talk to me about their learning needs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. My students talk to each other about their learning needs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. My students advocate for their learning needs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Appendix J: Hand, Head, Heart Activity

HAND | HEAD | HEART

Step 1 | Select a learner or a group of learners who are struggling or who you struggle to reach.

Step 2 | Capture who this or these learners are only through adjectives that describe them. Include their strengths, weaknesses, and unique qualities.

Step 3 | Identify:

HEAD | How do you meet this learner where they are and encourage them to grow academically?

HAND | How do you make learning tangible for this learner?

HEART | How do you involve their interests and culture in learning?



HAND | HEAD | HEART

Step 1 | Select a learner or a group of learners who are struggling or who you struggle to reach.

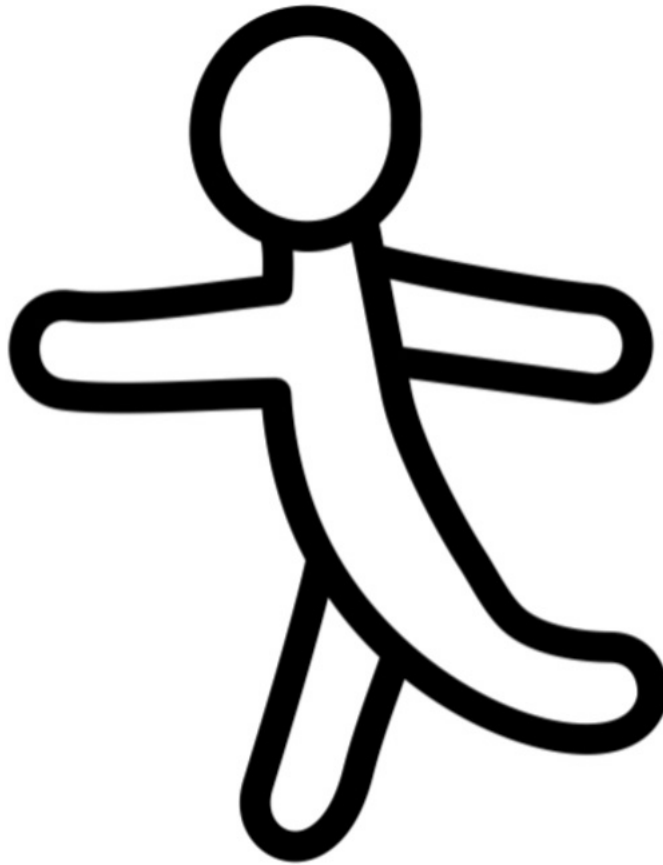
Step 2 | Capture who this or these learners are only through adjectives that describe them. Include their strengths, weaknesses, and unique qualities.

Step 3 | Identify:

HEAD | How do you meet this learner where they are and encourage them to grow academically?

HAND | How do you make learning tangible for this learner?

HEART | How do you involve their interests and culture in learning?



HAND | HEAD | HEART

Step 1 | Select a learner or a group of learners who are struggling or who you struggle to reach.

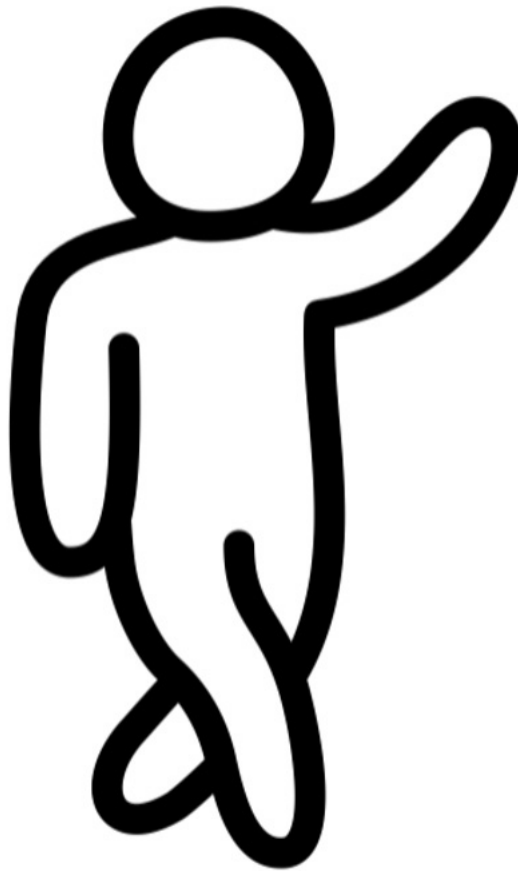
Step 2 | Capture who this or these learners are only through adjectives that describe them. Include their strengths, weaknesses, and unique qualities.

Step 3 | Identify:

HEAD | How do you meet this learner where they are and encourage them to grow academically?

HAND | How do you make learning tangible for this learner?

HEART | How do you involve their interests and culture in learning?



HAND | HEAD | HEART

Step 1 | Select a learner or a group of learners who are struggling or who you struggle to reach.

Step 2 | Capture who this or these learners are only through adjectives that describe them. Include their strengths, weaknesses, and unique qualities.

Step 3 | Identify:

HEAD | How do you meet this learner where they are and encourage them to grow academically?

HAND | How do you make learning tangible for this learner?

HEART | How do you involve their interests and culture in learning?



Appendix K: Teacher Focus Group / Interview Protocol

Thank you for your willingness to participate in this interview/focus group. The purpose of the interview/focus group is to better understand your experiences with the Learning Differences initiative at your school.

I would like to record today's conversation, so that I will have an accurate record of our conversation. Is that okay with you?

I would also like to begin with a few disclosures:

- Your participation in this interview/focus group is voluntary. You have the right to be a part of this interview/focus group, to choose not to participate, or to stop participating at any time.
- The discussion will be kept completely confidential; any information obtained from you that can identify you will be disclosed only with your permission. We will use code numbers in the management and analysis of interview/focus group data and your name will not be associated with any interview/focus group results.
- The interview/focus group will last about approximately 30 - 45 minutes.

Do you have any questions before we begin?

Evaluation Question	Strategy / Outcome	Teachers
1. Implementation. What are the major program elements of the MOOC (Learning Differences for Educators, Students LEAD, SEL, etc.) implementation in a school setting?	Select a school to partner with and identify a liaison	
	Facilitate teacher learning	<ul style="list-style-type: none"> • How has the MOOC (Learning Differences for Educators, Students LEAD, SEL, etc.) been implemented in your school? • How did you become involved with the MOOC (Learning Differences for Educators, Students LEAD, SEL, etc.)? • Walk me through the process of your participation in the MOOC (Learning Differences for Educators, Students LEAD, SEL, etc.). • Tell me about the PD and coaching you received as a part of the MOOC (Learning Differences for Educators, Students LEAD, SEL, etc.).
	Facilitate student learning	<ul style="list-style-type: none"> • How did you introduce your students to the MOOC (Students Lead, SEL, etc.)? • How did students participate in the MOOC (Students Lead, SEL, etc.)?
	Inform parents	

Evaluation Question	Strategy / Outcome	Teachers
2. Impact. In what ways, and to what extent, has the Learning differences program impacted its participants?	(Teachers) Increased knowledge and appreciation of learning differences	<ul style="list-style-type: none"> Has your participation in the MOOC (Learning Differences for Educators, Students LEAD, SEL, etc.) changed your perception of teaching? If yes, how so? If no, why not?
	(Teachers) Changes in planning	<ul style="list-style-type: none"> Has your participation in the MOOC (Learning Differences for Educators, Students LEAD, SEL, etc.) impacted the way in which you plan instruction? Use of technology?
	(Teachers) Changes in instruction	<ul style="list-style-type: none"> Has your participation in the MOOC (Learning Differences for Educators, Students LEAD, SEL, etc.) allowed you to improve your classroom instruction? If yes, how so? If no, why not?
	(Students) Increased knowledge and appreciation of learning differences	<ul style="list-style-type: none"> In what ways has the MOOC (Learning Differences for Educators, Students LEAD, SEL, etc.) implementation impacted your students learning? Have you noticed a change in knowledge and appreciation of learning differences? Explain.
	(Students) Increased self-awareness of learning strengths and challenges	<ul style="list-style-type: none"> Have you noticed a change in your students self-awareness of learning strengths and challenges? Explain.
	(Students) Increased awareness and use of strategies to support learning needs	<ul style="list-style-type: none"> Have you noticed a change in your students awareness and use of strategies to support learning needs? Explain.
	(Students) Increased communication about learning differences to parents, teachers, and peers.	<ul style="list-style-type: none"> Have you noticed a change in your students' communication to teachers and peers about learning differences? Explain.
	(Students) Increased self-advocacy of learning needs	<ul style="list-style-type: none"> Have you noticed a change in your students' ability to advocate for their learning needs? Explain.
3. Improvement. What are the supports and barriers to implementation? How can the program be improved?	Select a school to partner with and identify a liaison	

Evaluation Question	Strategy / Outcome	Teachers
	Facilitate teacher learning	<ul style="list-style-type: none"> • What made it easy for you to participate in the MOOC (Learning Differences for Educators, Students LEAD, SEL, etc.)? • What made it challenging you to participate in the MOOC (Learning Differences for Educators, Students LEAD, SEL, etc.)? • Based on your experience, what suggestions do you have to improve the MOOC (Learning Differences for Educators, Students LEAD, SEL, etc.) for educators?
	Facilitate student learning	<ul style="list-style-type: none"> • Based on your experience, what suggestions do you have to improve the MOOC (Learning Differences for Educators, Students LEAD, SEL, etc.) for students?
	Inform parents	<ul style="list-style-type: none"> • Based on your experience, what suggestions do you have to improve how the MOOC (Students LEAD, SEL, etc.) interacts with parents?

Appendix L: Administrator Focus Group Protocol

Thank you for your willingness to participate in this interview/focus group. The purpose of the interview/focus group is to better understand your experiences with the Learning Differences initiative at your school.

I would like to record today’s conversation, so that I will have an accurate record of our conversation. Is that okay with you?

I would also like to begin with a few disclosures:

- Your participation in this interview/focus group is voluntary. You have the right to be a part of this interview/focus group, to choose not to participate, or to stop participating at any time.
- The discussion will be kept completely confidential; any information obtained from you that can identify you will be disclosed only with your permission. We will use code numbers in the management and analysis of interview/focus group data and your name will not be associated with any interview/focus group results.
- The interview/focus group will last about approximately 30 - 45 minutes.

Do you have any questions before we begin?

Evaluation Question	Strategy / Outcome	Admin
<p>1. Implementation.What are the major program elements of the MOOC (Learning Differences for Educators, Students LEAD, SEL, etc.) implementation in a school setting?</p>	<p>Select a school to partner with and identify a liaison</p>	<ul style="list-style-type: none"> • What prompted your school’s implementation of this MOOC? • (Liaison) How did you become the liaison between your school and the program staff? • How did you interact with the program staff? • What was the frequency of your communication with the program staff? • How often did you meet with the program staff? • How has the MOOC (Learning Differences for Educators, Students LEAD, SEL, etc.) been implemented in your school?
	<p>Facilitate teacher learning</p>	<ul style="list-style-type: none"> • How specifically have teachers been involved with implementation of the MOOC (Learning Differences for Educators, Students LEAD, SEL, etc.)? • What PD and coaching has been provided to your teachers as a part of the MOOC (Learning Differences for Educators, Students LEAD, SEL, etc.)?.

Evaluation Question	Strategy / Outcome	Admin
	Facilitate student learning	<ul style="list-style-type: none"> How specifically have students been involved with implementation of the MOOC (Learning Differences for Educators, Students LEAD, SEL, etc.)?
	Inform parents	<ul style="list-style-type: none"> How specifically have parents been involved with implementation the MOOC (Learning Differences for Educators, Students LEAD, SEL, etc.)?
2. Impact. In what ways, and to what extent, has the Learning differences program impacted its participants?	(Teachers) Increased knowledge and appreciation of learning differences	<ul style="list-style-type: none"> In what ways has the MOOC (Learning Differences for Educators, Students LEAD, SEL, etc.) implementation impacted your teachers' knowledge and appreciation of learning differences?
	(Teachers) Changes in planning	<ul style="list-style-type: none"> In what ways has the MOOC (Learning Differences for Educators, Students LEAD, SEL, etc.) implementation impacted the way in which your teachers plan instruction? Use of technology?
	(Teachers) Changes in instruction	<ul style="list-style-type: none"> In what ways has the MOOC (Learning Differences for Educators, Students LEAD, SEL, etc.) implementation impacted your teachers' classroom instruction and other professional practices?
	(Students) Increased knowledge and appreciation of learning differences	<ul style="list-style-type: none"> In what ways has the MOOC (Learning Differences for Educators, Students LEAD, SEL, etc.) implementation impacted your students learning? Have you noticed a change in knowledge and appreciation of learning differences? Explain.
	(Students) Increased self-awareness of learning strengths and challenges	<ul style="list-style-type: none"> Have you noticed a change in your students self-awareness of learning strengths and challenges? Explain.
	(Students) Increased awareness and use of strategies to support learning needs	<ul style="list-style-type: none"> Have you noticed a change in your students awareness and use of strategies to support learning needs? Explain.
	(Students) Increased communication about learning differences to parents, teachers, and peers.	<ul style="list-style-type: none"> Have you noticed a change in your students' communication to teachers and peers about learning differences? Explain.

Evaluation Question	Strategy / Outcome	Admin
	(Students) Increased self-advocacy of learning needs	<ul style="list-style-type: none"> • Have you noticed a change in your students' ability to advocate for their learning needs? Explain.
<p>3. Improvement.What are the supports and barriers to implementation? How can the program be improved?</p>	<p>Select a school to partner with and identify a liaison</p>	<p>~What made it easy for your school to implement the MOOC (Learning Differences for Educators, Students LEAD, SEL, etc.)?</p> <p>~What made it challenging your school to implement the MOOC (Learning Differences for Educators, Students LEAD, SEL, etc.)?</p> <p>~What was beneficial about your relationship with the program staff?</p> <p>~What was challenging about your relationship with the program staff?</p>
	Facilitate teacher learning	Based on your experience, what suggestions do you have to improve the MOOC (Learning Differences for Educators, Students LEAD, SEL, etc.) for educators?
	Facilitate student learning	~Based on your experience, what suggestions do you have to improve the MOOC (Learning Differences for Educators, Students LEAD, SEL, etc.) for students?
	Inform parents	~Based on your experience, what suggestions do you have to improve how the MOOC (Students LEAD, SEL, etc.) interacts with parents?