

Fighting Teacher Turnover

Lessons in Practicality for Beginning Teachers

Ivy Cody, Lauren Moseley, Janet Schwarz

ECI 516: Design & Evaluation of Instructional Materials

North Carolina State University

Instructor: Dr. Heather R. Purichia

12/13/2019

Table of Contents

Needs Analysis.....	4
Overview.....	4
Problem Statement.....	6
Type of Needs Assessment.....	7
Stakeholders.....	9
Data Collection & Analysis.....	9
Implications of Findings for Instructional Design.....	13
Resources.....	14
Evaluation.....	15
Learner Analysis.....	15
Overview.....	15
Data Collection Plan.....	17
Data Analysis.....	18
Implications for Instructional Design.....	21
Context Analysis.....	23
Overview.....	23
Data Collection & Analysis Plan.....	24
Performance Context.....	25
Learning Context.....	27
Cultural Context.....	29
Theoretical Context.....	31
Implications for Instructional Design.....	34
Content Analysis & Assessment Plan.....	36
Overview.....	36
Learning Objectives.....	37
Target Performance Topical Analysis.....	39
Prerequisite Knowledge & Skills.....	40
Objectives, Knowledge, & Assessments.....	41
Design Blueprint.....	44
Overview.....	44
Overview of the Design Plan.....	47
Detailed Instructional Strategies.....	57
Instructional Message Design.....	68
Web Prototype.....	71
Web Prototype URL.....	71
Goals, Learning Environment, Target Users, & Context.....	71
Design Principles.....	74
Learning Theories.....	75
Module 1 Walkthrough.....	76
Module 2 Walkthrough.....	77
Module 3 Walkthrough.....	79
Constraints.....	80

Evaluation & Pilot Testing.....	82
Overview.....	82
Purpose of Formative Evaluation Plan.....	82
Audience.....	84
Major Objectives.....	84
Resources.....	84
Evidence.....	85
Data Collection & Analysis.....	85
Reporting.....	86
Summative Evaluation Plan.....	86
Instruments.....	88
References.....	90
Appendices.....	92
Appendix 1 – Questions Asked During the Needs Assessment Phase.....	92
1A: Questions for Mrs. Smith (NCDPI) Only.....	92
1B: Questions for Mentor Directors Only.....	93
1C: Questions for New Teachers Only.....	94
1D: Questions for Principals Only.....	96
Appendix 2 – Questions Asked During the Learner Analysis Phase.....	97
2A: Demographics Information Sheet for Teachers.....	97
2B: Questions for BT2 Teachers Only.....	99
2C: Questions for Principals Only.....	100
2D: Questions for Mrs. Smith Only.....	101
Appendix 3 – Explanation of the Lateral Entry Process.....	102
Appendix 4 – Questions Asked During the Context Analysis Phase.....	103
4A: Questions for Mrs. Smith and Principals.....	103
4B: Questions for Beginning Teachers (all BTs)	104
Appendix 5 – Assessment Tools for Beginning Teachers.....	105
5A: Daily Preparedness Checklist for BTs.....	105
5B: Classroom Management Checklist for BTs.....	106
5C: BT Observation Tool for Observing a Veteran Teacher.....	107
5D: Beginning Teacher Classroom Management Teaching Observation Rubric for Module 1, Objective 1.....	109
5E: Self-Evaluation for Module 1, Objective 1.....	112
5F: Evaluation Rubric for Daily Lesson Plan, Objective 2, Module 2.....	113
5G: Self-Evaluation for Objective 2, Module 2.....	115
5H: Professional Development Plan Evaluation Rubric for Objective 3, Module 3.....	116
5I: Application of Differentiation Techniques in Lesson Plans Evaluation Rubric.....	117
5J: Module 3 - Self-Evaluation for Module 3, Objective 3.....	119
Appendix 6: Participant Instructional Feedback.....	121
Appendix 7: Expert Walkthrough Report.....	121
Appendix 8: Pilot Testing Report.....	125

Needs Analysis

Overview

In an effort to reduce the attrition rate for public school teachers, the North Carolina Department of Public Instruction (NCDPI) wants to implement required targeted training for beginning teachers. Under North Carolina's definition, beginning teachers (BTs) are educators with three or fewer years of classroom experience. According to the NCDPI's 2018 annual report, the attrition rate for beginning teachers was 12.34%; this is over double the rate of more experienced teachers leaving the profession (NCDPI, 2019). Between March 2017 and March 2018, 94,909 teachers were employed in a North Carolina public school (NCDPI, 2019). Overall, public school systems across the state lost 7,676 teachers in the 2017-18 year. Beginning teachers accounted for approximately 25% of the total teacher loss this year (NCDPI, 2019).

Across the United States, the rising rate of teacher turnover is costing school districts nationwide over \$2.2 billion dollars per year (Philips, 2015). North Carolina cannot afford to perpetually lose qualified personnel and money due to teacher turnover. The problem continues to negatively impact teachers, school systems, and most importantly, students. Dr. Richard Ingersoll refers to the cycle of recruiting, hiring, training, and losing teachers as a "revolving door of turnover" (Johnson, 2015). This revolving door brings less experienced teachers to the classroom while precious funding is repeatedly used to train new teachers. North Carolina is in dire need of qualified teachers who have the knowledge and skills to succeed, but most importantly, remain in our state's classrooms.

Mrs. Smith is the Beginning Teacher Coordinator at the North Carolina Department of Public Instruction. She believes that teachers are already proficient in their subject matter knowledge. However, they overwhelmingly seem to struggle with managing the day-to-day stresses that ultimately come with the profession. Mrs. Smith is conscious of the fact that every school system in North Carolina has a beginning teacher program equipped with trained mentors who assist beginning teachers in their first three years. However, she knows that beginning teachers both require and deserve further training and assistance.

Dr. Ingersoll recommends that “schools address the problem of high teacher turnover by adopting initiatives to support new teachers” (Johnson, 2015). At his suggestion, the NCDPI Beginning Teacher Coordinator wants to create and implement a training tool to help BTs become more confident and capable as teachers. NCDPI additionally wants its teachers to be proficient in planning effective and engaging lessons, managing their classrooms, and organizing important records and paperwork. This training would be required for all North Carolina teachers with three or fewer years of teaching experience. The goal of this training is to lower the attrition rate for beginning teachers. Lowering the attrition rate would subsequently lower the overall rate of teachers leaving North Carolina’s classrooms. Additionally, this would save each school system from losing their newer teachers alongside tens of millions of dollars each year.

Problem Statement

After we had an in-depth conversation with Mrs. Smith, the DPI BT Coordinator, she met separately with some colleagues about how to better support beginning teachers. Mrs. Smith pointed out to her colleagues that the turnover rate for beginning teachers was 12.34% in the 2017-2018 year and she saw the percentage continue to rise from recent reports. She explained that by failing to retain beginning teachers, North Carolina was losing both money and teachers who were actively gaining experience. Mrs. Smith then pulled out a different report detailing how the state loses tens of millions of dollars each year when beginning teachers quit the profession.

Dr. Jeremy Stone, the Director for Professional Development at DPI, agreed that beginning teachers need more support. He anticipated that requiring beginning teachers to complete targeted training would help give them the information they lacked, but he wasn't sure this would noticeably reduce the attrition rate. The Deputy Superintendent of District Support, Dr. Macy Rutherford, described that several school systems had already contacted her directly about the fact that too many beginning teachers were leaving. Some systems asked about specific training for these teachers, but they weren't sure how to do it or what information to include. Dr. Rutherford summarized the information she had recently received from the districts:

The need for providing beginning teachers with additional training comes from the fact that teachers do so much more than teach. It's not as simple as the students enter the classroom, the teacher teaches, and the students exit. Teachers coming out of teacher training programs do not have the relevant experience required to manage all that goes along with running a classroom.

Teacher training programs and student teaching cannot provide a lot of the information that new teachers need to be successful; although their curriculum is full of pertinent information, teachers need more practical information to take to the classroom. We know that teachers with more than 3 years of experience leave the profession too, but we need to specifically pay more attention to beginning teachers for several reasons. First, these are the teachers who will be replacing our aging and retiring teachers. As teachers exit the system, new teachers need to be ready to enter. Second, teachers are still in high demand. Our beginning teachers are great because they bring enthusiasm, creativity, and new ideas to classrooms across the state. Third, all teachers start the profession as beginning teachers. By not focusing on maintaining this group, there will be fewer teachers overall as time goes on.

Type of Needs Assessment

Between 40 and 50 percent of new teachers are leaving the profession after five years (Johnson, 2015). Having so many teachers leave the profession is not just wasting millions of dollars. It is negatively affecting student achievement. Just between 2014 and 2015, the number of teachers who left the teaching profession exponentially increased by 113% (Johnson, 2015). As stated in previous sections, in 2017-2018 the attrition rate for BTs was 12.34%. Beginning teachers are often receiving little to no support from their district or school level. This is why Mrs. Smith has brought to our attention (appendix 1A) that an instructional intervention is needed. Teachers are not lacking in content knowledge or motivation but rather in the skills to manage a class.

These skills have been attained by some teachers but still persist as a problem for beginning teachers.

There are currently no readily available resources to target specific needs for beginning teachers. The NC Department of Public Instruction provides standards that mentors must follow to support BTs, but there are no resources provided that mentors can use as a support curriculum. Also, individual counties have BT support programs, but there are no commonalities amongst them other than the standards provided by the state. Therefore Mrs. Smith and her colleagues have tasked us to create an online professional development for BT programs throughout the state.

In order for this course to be successful, BTs must be given ample time to complete each course. Most schools hold meetings, which will provide a time and space to discuss each module and how the knowledge gained is being implemented in the classroom. In addition, BTs should not be required to perform extra duties so they are able to use their non-instructional time working through the modules. Mentors should be available, whether by email or in person, if a question arises while beginning teachers are completing the modules.

BTs will be completing the modules independently in an online setting. They will have the flexibility to complete each module at their own pace, as long as each one is completed by a certain date. Once the BTs have completed each module, they will have the opportunity to implement the training in their classroom Mrs. Smith noticed that ensuring the content is being appropriately and effectively implemented could be a challenge. In response we recommend that the school-based mentor is given

opportunities to observe each BT throughout the course as well as throughout the year to ensure the strategies learned are still being used.

Stakeholders

When conducting a needs analysis, it is important to consider all of the stakeholders because they will directly benefit from the instructional design project. For this ID project, there are four major stakeholders: school districts, principals, teachers, and students. The primary stakeholders who will be impacted by this ID project are beginning teachers because this training program is designed to directly assist them. The effects of this training will eventually filter down to the students. When teachers are better prepared and equipped to manage a classroom, students will be more successful in school. When they have teachers who are better-trained and more confident in their skills, students will reap the benefits of a productive learning environment. In addition to this, when teachers improve and become more effective, principals will not have to continually hire replacement teachers. As a result, school districts will not lose as much time, money, and resources from teacher turnover.

Data Collection & Analysis

In order to get a better understanding of the performance gap, we contacted several people who hold different positions within the school system. We wanted to better understand the areas of concern for beginning teachers from the perspective of the DPI coordinator, principals, mentors, and teachers themselves. Additionally, we wanted to investigate the potential solutions stakeholders were interested in implementing.

Following our in-person meeting with the BT Coordinator at NCDPI, Mrs. Smith, we sent her an email with additional questions (see Appendix 1A). We wanted to get a better understanding of the issues that were of most concern. According to Mrs. Smith, teachers were having the most difficulty with managing the day-to-day tasks of a classroom. She mentioned that teachers needed more training on how to effectively utilize tactics in motivating students. The teachers said that having motivated and engaged students leads to smoother daily lessons.

Additionally, Mrs. Smith is concerned about the ability of beginning teachers to manage a classroom in terms of student discipline and daily class structure. She expressed that she would like to implement an online training program that gives these teachers the tools, skills, knowledge, and resources to help them perform required day-to-day tasks. Mrs. Smith clarified that it is important for the training to be accessible to teachers across the state and throughout the year in order to revisit the topics as needed.

As we are working within a school setting, it is important that we contact the principals of each school to determine what areas of concern they have with regard to beginning teachers. We individually emailed a questionnaire to each principal and sorted through their responses (see Appendix 1D). The vast majority of principals expressed concern that beginning teacher turnover is a problem and that interventions are needed. The main areas of concern from the perspective of the principals were the teachers' ability to maintain class routines, general classroom management, and student discipline. They agreed that these are all skills that come from experience. In

addition, most thought that training would be beneficial and would help boost teacher confidence in these areas.

Knowing that mentors are in direct contact with BTs and have had opportunities to observe them in action while communicating with them about their needs, we felt it was important to get a report from them about which areas need the most improvement. Therefore, we emailed all of the mentor directors from each school in North Carolina and reviewed their responses (See Appendix 1B). In the responses, nearly all mentors agreed that they see a high number of beginning teachers resign. According to mentors, teachers are having the most difficulty mastering the art of classroom management. Parent communication and overall organization are also deficits. Several mentors mentioned that their BTs have abundant content knowledge, but do not transition smoothly between lessons. This results in students becoming off task and failing to absorb pertinent information presented in the lesson. Organizing lessons in an efficient manner will undoubtedly lessen this problem. Mentors also noticed that BTs often fear parent communication and are hesitant to communicate with parents. Not communicating with parents leads to further discipline problems. The majority of the mentors said that while they try to address communication tactics in their monthly meetings, they often do not have the time to delve into thorough trainings that would help develop these skills. Therefore, mentors suggested that someone should create a website that allows teachers to have access to valuable resources in order to further improve on these skills.

Lastly, but most importantly, we contacted beginning teachers to see which concepts they felt they needed to improve upon. We took the information that we

obtained from our communications with Mrs. Smith, Dr. Stone, Dr. Rutherford, mentors, and principals to create a comprehensive survey that would show us the specific areas teachers felt least confident (See Appendix 1C). We felt that a survey would be the most efficient way to get feedback from each BT, considering that there are a large number of BTs throughout North Carolina. According to our survey, beginning teachers express confidence in their content knowledge, core standards, and their ability to work with colleagues and administration. Over half of the beginning teachers surveyed felt that they needed more information on working with at risk students, daily lesson planning, and creating effective assessments. Our survey revealed that approximately 90% of beginning teachers self-evaluated that they have little to no confidence in their ability to completely manage a classroom, including daily routines and disciplining students. They also struggle with ways to integrate mainstream students and students with special needs. BTs feel that they have little access to resources for mainstreaming students with special needs. Additionally, they struggle to manage the paperwork and differentiation for special needs students.

After gathering information from teachers, principals, mentors, and the NCDPI BT coordinator, we concluded that instruction was the answer for bridging the performance gaps of beginning teachers. The performance gaps we identified through conversations and surveys are based upon knowledge gaps and skills gaps. Beginning teachers need more training on the knowledge and skills related to effectively managing a classroom and handling discipline. Additionally, BTs need assistance with mainstreaming special needs students and creating lesson plans that are inclusive and engaging. The majority of teachers who completed the survey prefer that the training to take place online.

Additionally, mentors and Mrs. Smith favored an online training that allowed teachers access to resources that teachers could refer back to throughout the year.

Implications of Findings for Instructional Design

After Mrs. Smith, Dr. Stone, and Dr. Rutherford further discussed the information from the districts, they agreed that creating an online training would be the quickest and most efficient way to get much needed assistance to the beginning teachers. The information and activities in the training would need to be based around information that beginning teachers failed to learn from their teacher training programs and student teaching. The information included would also have to be practical and realistic for teaching and managing a classroom.

We met with Mrs. Smith again about the potential instructional design project for training beginning teachers. She briefed us on the discussion with Dr. Stone and Dr. Rutherford and said that the training must be tailored for online instruction. We agreed that this method would be the best way to reach teachers across the state. We further clarified that although experience is the typical way teachers learn about the day-to-day demands of teaching, we could shortcut the experience portion and instruct beginning teachers on the immediate skills they need to be successful. Organization, recordkeeping, paperwork, lesson planning, classroom management, and student engagement are all topics that we can incorporate into an online training. We were confident that we could create a training for beginning teachers that would increase teachers' overall success, strengthen teachers' confidence, and keep them inside North Carolina's classrooms.

After meeting with Mrs. Smith and her colleagues, we have decided to design an online training program that will consist of 3 self-paced learning modules. At the completion of this course, BTs will be able to implement effective classroom management strategies, create strong and engaging lesson plans, and utilize organization skills to smoothly perform day-to-day tasks. By designing an online training program to support beginning teachers throughout the state, Mrs. Smith and her colleagues are ensuring that the NC DPI Beginning Teacher Support Program Standards are being followed. North Carolina's beginning teachers will be receiving professional development throughout the for their specific needs and to ensure that they are successful during their first years of teaching.

Resources

The resources necessary to complete this instructional design project are a computer or tablet, internet, qualified mentors, and time on the part of the BT. Teachers should be provided with free access to the internet and a device in order to complete this online training. Additionally, mentors will be in charge of overseeing teachers and reviewing their material. It is pertinent that qualified mentors are available to fulfill this important role and to ensure that learning goals are met. Lastly, teachers will be expected to spend 2-3 hours of their time working on the training modules. Therefore, non-instructional time during the workday will need to be duty-free in order to complete the training.

Evaluation

There are multiple ways to ensure beginning teachers become more confident teachers. Before the course, the participants will complete a self-assessment that reflects their confidence on the module topics. The same self-assessment will be completed at the end of the course for participants to see how their skills have grown. In addition to the self-assessment, participants will also complete a reflection piece at the end of each module, Mentors will review the reflection on how the topic was implemented in the BTs classroom. To ensure completion of each task, the mentor coordinator will oversee the actions of the participants. The mentor coordinator will also be expected to observe each beginning teacher throughout the training to ensure the learning goals are being met and implemented properly. At the end of the course, a survey will be completed so the course designers can improve the training for the following session.

Learner Analysis

Overview

According to the North Carolina Department of Public Instruction (NCDPI), the attrition rate of beginning teachers was 12.34% in 2018. Beginning teachers (BTs) accounted for approximately 25% of the total teacher loss that year (NCDPI, 2019). Recent research indicates that high rates of teacher turnover negatively impact student achievement (Carver-Thomas & Darling-Hammond, 2017). In addition to this, “each teacher who leaves, on average, can cost as much as \$20,000 in an urban district” (Carver-Thomas & Darling-Hammond, 2017). Statistics have shown that “turnover is higher for those who enter the profession without adequate preparation” (Espinoza,

Saunders, Kini, & Darling-Hammond, 2018). As a result of this information, one major goal of this project is to reduce the attrition rate for BTs in North Carolina.

All teachers who graduate from teacher training programs hold a bachelor's degree, have knowledge of their respective content, and have a foundation of pedagogical knowledge. However, other vital skills are lacking for these teachers to be fully successful. For example, teachers must be able to effectively manage classroom behaviors, plan engaging highly effective lessons, manage day-to-day tasks and paperwork, and complete non-instructional duties. Most beginning teachers do not have the experience or know-how to do this.

Mrs. Smith from the NCDPI approached us to design an online course that is expected to serve as an intervention for BTs. This intervention will include strategies to improve classroom management, plan effective and engaging lessons, and manage day-to-day and non-instructional tasks. Upon talking with Mrs. Smith, we narrowed our target audience to include only BTs, or teachers with 0 to 3 years of experience. All BTs in North Carolina's public schools will participate in this program. Everyone who takes this course is expected to gain the knowledge and understanding they need to be successful in the classroom. To further investigate the target learners, we will conduct a series of surveys and in-person interviews with BTs, site coordinators, and principals, along with Mrs. Smith. According to Larson & Lockee, "the bottom line is that learner characteristics impact the effectiveness of instruction" (2014). Accordingly, we want to be prepared with this information before proceeding.

Data Collection Plan

As stated by Larson & Lockee, these learner characteristics must be determined before implementing instruction: demographics, physiological abilities, cognitive abilities, prior knowledge, and motivation (2014). In order to ensure that the needs of all learners are met with this online course, we conducted a demographic survey to collect the required information from each BT (Appendix 2A). Surveys were sent to every BT and surprisingly, there was a 100% participation rate. After receiving and reviewing the completed surveys, we were able to analyze the data to help us to adapt our instructional design to best fit our learners.

To get a better understanding of our learners, we separately interviewed five BT2 teachers, two from rural areas and three from urban/suburban areas. We wanted to examine the cultural context of these teachers because they all have unique experiences due to the geographical and demographical diversity in their respective districts. We specifically wanted to meet with teachers who have one year of teaching experience and are now in their second year. We are convinced that we can gain valuable information about areas of concern from BT2s. Although these teachers are still considered beginning teachers, they do have one year of classroom experience which should allow them to better articulate what their performance gaps are and how these gaps need to be addressed. In our needs analysis, we did not consider doing interviews because we thought that we could get the information we needed from surveys alone. We reconsidered this notion after realizing that the interpersonal nature of interviewing someone could provide us with details we wouldn't have known to ask in the surveys.

While interviewing the BT2s, we discussed the information they included in their surveys. We asked them to clarify and expand upon why they responded the way they did. We also encouraged BT2s to elaborate on any information they thought would be helpful to include in a training of this nature. When we were at each school site, we also interviewed the principal of each BT because it is important for us to be aware of what performance gaps they have noticed amongst their current and past BTs. Interviewing the principals likewise gave us deeper insight into the demographics of their school (Appendix 2C). In addition to the BT survey and school-based interviews, we followed up with an in-person interview with Mrs. Smith to evaluate the prior knowledge and skill sets of beginning teachers (Appendix 2D). We also wanted to know about any constraints or limitations the training could potentially have, as well as get her opinion on the motivations and attitudes of beginning teachers.

Data Analysis

Demographic considerations and implications involve several factors that must be examined. Beginning teachers are defined as teachers with less than 3 full years of experience in the classroom. Although beginning teachers in North Carolina identify as black, white, Hispanic, Asian, biracial, and multiracial, 80% of these teachers are white. In addition to this, 80% of North Carolina's beginning teachers are female (Hinchcliffe & Tillett, 2019). Out of 94,909 total teachers in North Carolina between March 2017 and March 2018, 15,595 were beginning teachers during this same time period (Henkel, 2019). Although NC legislation requires that all teachers are at least 18 years of age, our survey indicates that the average age range of BTs is 21 to 35 years of age. We

know that there are BTs over 35 years of age, but the highest percentage of these learners are between 22 and 24 years old (Appendix 2A).

When considering the culture of our learners, we found that the primary language of BTs can vary, but all BTs are competent in English. Therefore, the training will be completed in English. From our interviews with BT2s at culturally diverse schools, we found that while teachers in general shared a common teaching culture and had similar struggles, there were a few areas of concern that were different depending on the geographical location of the teachers. For example, teachers in more rural areas indicated that they grapple with obtaining classroom resources. They believed that if they had more access to resources like classroom devices and more reliable internet connectivity, they would have had a smoother first year. The absence of a strong technology infrastructure was also a concern for rural principals. They viewed this as a major obstacle for BTs when completing daily tasks such as planning and finding resources to help manage their classrooms. This information is worth taking note of for designing our course. We need to remember that not every school has access to the same resources. As a result, our training will provide content and skills that can be applicable in any classroom setting, from schools with 1:1 computing to schools with only a single teacher computer per room.

Teachers are required to have internet connectivity to complete this training, either at work or outside of the school setting. Our survey revealed that every teacher has access to the internet either at school or at home. What's more, all teachers are competent in using a computer and at least have basic knowledge in computing. Therefore, the format of this training should not be an issue. Teachers are expected to

complete these training modules independently, although mentors are available for support. From the survey, we gathered that all teachers have a moderate to high level of confidence in their ability to utilize technology, absorb material from an online training format, and apply what they learned in their classrooms.

Next, we looked at the cognitive and prior knowledge considerations of beginning teachers. All learners have 4-year college degrees, and some have higher degrees. Although 87% of beginning teachers participated in student teaching programs, 13% of BTs are lateral entry and residency model pathway teachers who have little or no classroom experience. (See Appendix 3 for the definitions of lateral entry and residency model pathway teachers). Prerequisite skills for BTs include having classroom experience or relevant training on how a classroom functions.

BTs acquire a lot of their skills in their bachelor's student teaching program. However, BTs may not fully understand or know how to apply these skills if they have never had their own classroom. Teachers without student teaching experience likely have the same deficits, and then some. Therefore, the course must provide resources to address this issue for all BTs, regardless of student teaching experience. Mentors should also provide support to ensure that all BTs have adequate prior knowledge to successfully complete the course. BTs must also be competent in basic computing to complete the modules. As previously stated, course information will be presented in an online format. BTs surveys and interviews indicate that teachers do have access to technology and the internet for completing this course. The surveyed BTs also stated that they are confident in utilizing technology to complete this course.

One physiological consideration for BTs is their emotional response to learning. The training modules will offer scaffolded support while content is being presented. Another factor is the self-paced nature of these modules. Teachers will be expected to self-regulate their learning. Plus, receiving immediate feedback will help teachers understand the correct information more quickly than waiting to see their progress. Beginning teachers' surveys revealed that our learners feel competent in their ability to complete an online course and do not feel that this format will impede their learning.

Affective and social factors consist of teachers' attitudes, interests, and motivations. Surveys revealed that teachers have positive outlooks toward this training because they want to better support their students. In addition to this, we learned from our interview with Mrs. Smith, most teachers are intrinsically motivated to complete this training because a). activities are structured within a user-friendly online environment, and b). the training is flexible so that teachers can work on completing it when they have the time. Surveys also revealed that teachers are highly interested in this type of training for two reasons: 1). the type of information learned can be used immediately following training, and 2). The modules are learner-centered, so they cater to each teacher's potential and desire to improve.

Implications for Instructional Design

Analyzing the learner characteristics led to some significant implications for our instructional design project. To start with, we thought that some of the course material should have been mastered in college classes, student teaching, or relevant work experience. We thought about removing this information, but we also wanted to be sure that everyone had access to presumed prior information. We did not want to penalize

students who either never learned this information (potentially lateral entry or residency model pathway teachers), or those who forgot some of the information. For this reason, we decided to insert links throughout the modules in order for students to reference this prerequisite information.

Next, we decided to specify that the online training should occur within a 6-week time period. The first module should be completed 1-2 weeks into the new school year. The second module should be completed during weeks 3-4 and the third module should be completed during weeks 5-6 from the start of school. In order to maximize learning from these modules, the training should be within the shortest possible time period so that new knowledge is fresh in teachers' minds in order for them to complete their reflection pieces. We further rationalized that one module every week would be too much for BTs to keep up with. In addition to this, taking longer than 6 weeks would spread out the information so that it was less cohesive, making it more difficult for teachers to complete their reflection pieces. We also suggest that the completion of each module coincide with a BT meeting so the mentor can facilitate a group reflection.

Besides this, we were further surprised when the surveys indicated that teacher motivation would not be a problem. Initially, we thought that motivation would be somewhat of a concern because BTs already have so much to do and learn. Even though Mrs. Smith explained to us that teachers tend to be intrinsically motivated, we had our doubts. She said that the user-friendly interface and the flexibility of the program would likely lead to buy-in from the teachers. Once we analyzed the surveys, we discovered that Mrs. Smith's assessment of BTs was accurate. Also, teachers indicated some positives from the training would be that the information can be used

immediately, and the program is learner-centered, coinciding with the teachers' desire to improve. Ultimately, it appears that teachers have a need for this training and are willing to take the time to complete it.

Context Analysis

Overview

According to the North Carolina Department of Public Instruction (NCDPI), the attrition rate of beginning teachers was 12.34% in 2018. Beginning teachers (BTs) accounted for approximately 25% of the total teacher loss that year (NCDPI, 2019). Recent research has indicated that high rates of teacher turnover negatively impact student achievement (Carver-Thomas & Darling-Hammond, 2017). Statistics have also shown that “turnover is higher for those who enter the profession without adequate preparation” (Espinoza, Saunders, Kini, & Darling-Hammond, 2018). Beginning teachers must be provided with the appropriate tools to succeed in the classroom within their first 3 years of teaching. More importantly, they must be given support and guidance to apply these tools in their own classrooms.

Mrs. Smith from the NCDPI reached out to us with the hope of reducing the attrition rate of beginning teachers. A beginning teacher has 0-3 years of teaching experience in a classroom. We have determined that creating an online training program will help BTs improve and build upon skills that were learned in their teacher education program. After conducting surveys and interviews with key stakeholders in both urban and rural public schools, we have determined that BTs struggle in the areas of classroom management, planning highly effective lesson plans, and managing non-instructional duties that must be performed throughout the school day. Although the

training program will take place online, the knowledge and skills learned from the program will be assessed in the classroom.

After analyzing data to determine who the learners will be and what their needs are, we must create an environment to allow for successfully learning the material. In order to create a successful learning environment, it is important that we carefully analyze the performance context in which the knowledge will be applied. We will do this by reaching out to key stakeholders in both urban and rural schools for written descriptions of their school environment and culture. Through a series of surveys designed for principals and BTs, we will be able to create a successful and supportive learner context to meet the needs of all BTs throughout North Carolina.

Data Collection & Analysis Plan

In order to get a full perspective on the context of our project, we decided to collect more information from our stakeholders. We conducted interviews with Mrs. Smith and three principals from urban/suburban areas (Appendix 3). We needed to know if they anticipated any instructional constraints and how they wanted to connect the learning and performance contexts. Additionally, we visited schools within different districts in order to better see the performance context.

Mrs. Smith indicated that there should be no resource issues because every teacher has a device and internet access. She did express some concern that the learning context differed from the performance context. After careful consideration, we decided to incorporate some real-world scenarios into the training to give the instruction a more genuine feel. The principals also confirmed to us that every teacher would be provided the resources they needed to complete the training. Additionally, they

expressed it would be helpful for mentors to monitor the teachers and give feedback. Principals wanted the mentors to assist BTs in connecting the training modules to their actual classrooms.

From our questionnaires to BT2s, we were able to better understand their major concerns for the training as well as what they thought should be incorporated into the training. Overall, teachers were mainly concerned with the time constraints of the training. They also felt that the training would be more relevant and useful if it focused a lot on organization and classroom management.

Performance Context

The knowledge and skills teachers will learn in this training course will be used in the performance context of a face-to-face classroom. The end goal of the training is to help beginning teachers feel more confident in their teaching abilities and improve their overall teaching experiences. BTs will be expected to utilize the knowledge and skills from the training modules and apply them directly to their classrooms. The positive impacts of this training will be evident throughout the BTs' teaching careers. Most importantly, they will be able to apply the knowledge and skills learned in their current classrooms. BTs will exit the training with relevant classroom skills, knowledge, and confidence in their abilities to maintain their classrooms. In turn, this will translate into BTs having better scores on their performance reviews and higher job satisfaction rates. We expect that teachers' effectiveness and opportunities to advance will increase and lead to lower attrition rates across the state.

The physical characteristic of the performance context will be the classroom in which the BT is teaching. This will include kindergarten through twelfth grade

classrooms in North Carolina public schools. According to Larson & Lockee, “the best way to find out about performance context is to visit it” (p. 56). Therefore, we visited various K-12 schools and classrooms to get a better idea of the performance context of our learners. We discovered that teachers will be managing 10 to 35 students per class and they will have to develop engaging and effective lessons to aid in maximizing the learning of these students. We know that teachers are typically the only adults in the classrooms. They will need to be able to establish routines and make split second decisions on how to handle situations that will arise in given class periods. Having little classroom experience, BTs will be provided with as many resources and real-world scenarios as possible to help them develop the skills required to maintain a classroom. They will also be provided with training videos modeling skills that should be used in their classrooms. In addition to instruction from the modules, our training will also include mentors and principals informally observing BTs in their classrooms and providing feedback. Mentors and principals will provide a support system for these teachers. In addition to on-site support, teachers will also be able to join online support groups specifically for beginning teachers. We will include information regarding online support groups with the training.

The social aspects of the performance context for BTs are the school environment and culture. Teachers are influenced by their school’s climate and culture. Every school has a different culture that is influenced by the geography and the demographics of the school’s population, the school’s educational philosophy, and the attitudes of the faculty and staff. Teachers will be rated on their classroom performance, which will be based on their ability to provide high quality learning and meeting state

standards. We will need to take into consideration that every teacher will have a different perspective and experience due to their school placement.

The skills and knowledge that teachers will gain from this online instruction can be applied directly to their day-to-day teaching. The information and skill they will be learning in our training is relevant because they have expressed to us what they feel they need more assistance in certain areas (Appendix 4). Through our surveys and interviews, teachers have expressed to us where their concerns are. We hope to create relevant material that will directly align with the learning outcomes they expressed that they wanted to reach.

Learning Context

In our instructional design, learning will take place completely online and will be an asynchronous learning environment. With this type of instruction, it is imperative that all learners have a reliable device and Internet. According to Mrs. Smith, principals and BTs, all learners were provided with a school device and Internet connection (Appendix 4). According to our survey during the learner analysis, all teachers feel comfortable using the technology and completing online courses (Appendix 4). For our design, devices and Internet connectivity are the only physical resources that teachers will need to complete the course and we do not anticipate these resources to be an issue with the delivery of our instruction as major stakeholders have told us that these resources have been given to all learners.

One of the main concerns that BTs had in regard to this training is the time commitment of taking the course. We are aware that teachers are very busy and that they do not have the time recourse to devote to hours and hours of training. We took

this into consideration and are planning to give teachers 2 weeks to complete each module. That gives them 6 weeks to get through the three modules and the time commitment for each module is less than two hours. With there being an abundance of materials and instruction that BTs could use, we plan to narrow that down to what they expressed they needed most in order to keep the training from being so time consuming. We plan to incorporate additional resources so that teachers who would like to dig deeper into the topics will have the opportunity to, but this will not be a course requirement. Learners will have the flexibility to start and stop the module at any time within the two weeks. With their ability to complete the training asynchronously, we hope that this will limit distractions that challenge learners' abilities to concentrate and engage because they can choose a time that works best for their busy schedules.

While our learning will take place online, our BTs will be teaching in a face-to-face environment. Since the learning context will differ from the performance context, it will be vital that we incorporate real world scenarios into our training to stimulate a more authentic feeling to being in the classroom. In our modules, we plan to include instruction on strategies for classroom management and organization as well as resources. Instructional strategies such as textual explanations, scenarios, pictures, and videos will help learners in simulating the experience. In return, it will help us to make the connection between the learning and performance context. In order to have the learners apply the skills and knowledge they have learned, we will create scenarios that would really occur within a classroom and allow our learners the opportunity to respond to the scenario using the new knowledge and skills they have just received. The learning objective with this real-world scenario is that BTs will have more experience

and knowledge to handle situations that will arise in the classroom. For example, at some point in their first few years they will experience a child throwing a temper tantrum in the classroom. While we cannot create this genuine experience for our learners, we can expose them to the idea that it will happen and have them start to think out what they would do in response to the situation. Having this exposure and time to think about how they would handle certain situations will allow them the practical skills to be able to more effectively respond to the real-life situation when it occurs.

Within our modules, we plan to use a variety of instruction. Each module will include readings, videos, real world scenarios and resources. We will have a reflective piece that allows teachers to take what they have learned and put it into the context of their classroom. This will be reviewed by their mentors and will allow for their mentors to assess how much they have grown and learned from the instruction as well as give any feedback they feel is necessary. Additionally, the reflexive piece allows us to see if the BTs found the instruction effective and allows us the opportunity to revise it for the next set of learners. Mentors will conduct a variety of observations for their BTs, both announced and unannounced. This will provide mentors the opportunity to see if their learning and skills have translated from the online instruction to the classroom.

Cultural Context

According to Larson & Lockee, the cultural context consists of “the values, goals, attitudes, and practices of an organization that provide a frame of reference for learners, impacting how they interpret learning experiences.” Additionally, the authors describe these cultures as “distinguished by shared languages/jargon, history, traditions, and values” (p. 72). Consequently, there are several things we need to consider for this

training. First of all, we need to take into account various leaders' expectations. We want to have unwavering support from DPI, district superintendents, principals, and mentors. Secondly, we need teachers to be willing to mentor new hires because the web-based program alone is not the only part of the training. Quality mentors are integral to this project because they work directly with BTs on evaluating reflections and completing informal classroom observations. Last of all, we want all teachers to be amenable participants of this training from DPI. We are certain that the goals of this training program will appeal to beginning teachers based on the feedback we received. Also, due to the fact that experienced teachers are the creators of this online training, we are hopeful that BTs are more eager to complete the training. As the program's designers, we have gone through numerous professional development trainings. As a result, we can ascertain from prior experience, which qualities make trainings effective and which ones make trainings irrelevant and boring.

As detailed in the learner analysis, we did examine the cultural context of participant teachers because they all have unique experiences due to the geographical and demographical diversity in their respective schools and districts. We specifically met with BTs who have one year of teaching experience and are now in their second year because they can offer invaluable insight into the most helpful topics to include in the training. From our interviews with BT2 teachers at culturally diverse schools, we found that in general, teachers share a common teaching culture and all teachers have similar classroom struggles. Despite that, there are some areas of concern that were different depending on the geographical location of the teachers. Two of the areas of concern were internet speed and adequate funding for resources. When considering the culture

of our learners, we found that although the primary languages of BTs can vary, all BTs in North Carolina are competent in English. Hence, the training will be completed in English.

Theoretical Context

The major stakeholders for this instructional design project are educators including teachers, mentors, principals, and upper-level DPI staff. Assumptions with respect to how people learn form the basis of all instructional designs. Given that these key stakeholders understand the basic theories behind how people learn, we do not expect to have conflicting ideas about how people learn. But, if we do have conflicting opinions on learning, we will provide the stakeholders with the research we referenced to formulate our plan. Additionally, we will suggest one or more in-person meetings to further discuss learning theories and come to a consensus.

According to Larson & Lockee, “a learning theory is based on empirical research and assumptions about how people learn,” otherwise known as an epistemology (p. 76). Learning theories provide explanations on “the underlying processes involved in learning, and [how they are] used to predict learning behavior” (p. 76). Larson & Lockee indicate that a “repertoire of strategies from multiple theories enhances the design tools at your disposal” (p. 78). Although several learning theories are relevant to this project, the constructivist and situated learning theories most closely correlate with our intended instructional goals.

The constructivist learning theory addresses how learners construct meaning. Constructivism maintains that knowledge is subjective and “is individually and socially constructed through discovery, interactions, and negotiations with others, society,

events, and objects” (Larson & Lockee, p. 77). Because people have varying social experiences, this particular learning process arises from learners having unique understandings of reality. A key characteristic of constructivism is the importance of learning through authentic real-world experiences and reflecting on those experiences. Alongside sociocultural theorists, constructivists embrace Vygotsky’s emphasis on experts assisting novices (Larson & Lockee, p. 77). In this design project, mentor teachers are the experts. Mentors assist the beginning teachers (novices) through a process called scaffolding. In effect, the experienced mentors are offering scaffolded support to BTs, who lack this experience.

The theory of situated learning is also appropriate for the design of this project. With this theory, situational and contextual elements influence learning. A key facet of situated learning is the community of practice which involves learners with similar interests, professions, or goals sharing knowledge or advice within a group. For instance, a mentor would discuss module reflections, classroom observations, explanations, and suggestions while working with the beginning teacher. As a result, BTs would “gradually learn and develop personally and professionally [by] participating alongside experienced members...of the group” (Larson & Lockee, p. 77-78).

In addition to learning theories, instructional designers must all consider pedagogical approaches to learning. “Many designers combine assumptions about learning from several theories to support a particular pedagogical approach,” as claimed by Larson & Lockee (p. 78). With that said, we are pulling from a variety of pedagogical theories in order to effectively design this training. Although the connectivist

pedagogical theory most appropriately aligns with this project, social learning and situated learning are also valuable to consider.

Larson & Lockee state that “connectivist learning experiences are designed to support learners in building a network of relevant information sources to consult as needed for daily tasks and learning.” They also “focus on facilitating the learner’s ability to create and maintain connections to current, distributed knowledge sources (both human and mediated), fostering contextual interactions, and helping learners manage an abundance of information and diversity” (p. 79). Alongside purposeful and meaningful instruction, this design project will produce a collection of information that teachers will be able to reference in the future. Although the internet already has a huge amount of information for new teachers, we want to choose the most legitimate and practical information from reliable sources in order to create a solid training experience. When learners are overwhelmed with too much information, they can become confused, stressed, and even unmotivated. Therefore, a secondary effect of this design project will be collating the most pertinent information for BTs that they will be able to access in the future. We will subsequently update the information in the training based on user feedback.

Social learning theory was theorized by Albert Bandura. This theory describes “human behavior in terms of continuous reciprocal interaction between cognitive, behavioral, and environmental influences.” In other words, people best learn by “observing others’ behavior, attitudes, and outcomes of those behaviors” (Bandura, 2019). In this training, social learning is relevant because BTs will be observing the behaviors and attitudes of others and analyzing behavioral outcomes through textual

and visual classroom scenarios. By having BTs evaluate real-world situations and potential consequences, they are practicing for something that can happen in their own classrooms. In addition to this, interacting with their mentors requires social learning.

According to Marcy Driscoll, “in situated learning, declarative and procedural knowledge are integrated within a single framework” (p. 155). In addition to this, cognition is presumed to be both a social activity and a situated activity. In other words, a person learns a subject matter by doing (Driscoll, p. 156). For this training, BTs are expected to interact with the program and reflect on what they learned. Then, BTs continue their learning by practicing what they learned in their own classrooms. With informal observations and feedback from mentors, BTs are essentially learning by doing as well as reflecting and making corrections when necessary. Situated learning “shifts the focus from the individual to the sociocultural setting and the activities of the people within that setting” (Driscoll, p. 158). While interacting with the program alone is an individual activity, the shift to interacting with mentors and students changes the approach to situated learning in a sociocultural setting.

Implications for Instructional Design

While analyzing the context in which the training will take place, we discovered some implications that may affect the effectiveness of the training. Also, while analyzing the results of the questionnaire that Mrs. Smith and the principals participated in (Appendix 4A), we noticed that connecting the performance environment to the learning environment may be a challenge. The learning context is an online asynchronous course, while the performance context is a face-to-face classroom. To ensure that the knowledge gained from online instruction is transferred to the classroom, we will be

including a variety of instructional materials that include scenarios that would take place in an everyday classroom to ensure some exposure of situations that might arise throughout the school year.

Throughout the process of analyzing the connectedness of the performance and learner context, we realized that the mentor will be playing a strong role in ensuring that their BTs are completing the modules on time and applying the knowledge learned correctly in the performance context. This could lead to struggles in providing timely feedback, as well as finding the time to observe the BTs in the performance environment. After addressing this issue with Mrs. Smith, we decided that it would be best to enlist the support of not only the principals, but the instructional coaches as well. Instructional coaches, also known as curriculum coaches, or instructional resource teachers, play an important role in making sure all teachers, not just BTs, have the necessary tools to be highly effective teachers. As key stakeholders in a school, the principals and the instructional coaches can observe and assess the effectiveness of the BTs as well as offer support and guidance to the BT mentor.

Lastly, we noticed that there could be social impacts that could implicate the effectiveness of the instructional design project. For example, there could be BTs who fall behind in completing the course modules on time, or who do not want to participate in the modules. As stated earlier, teachers have standards to uphold set by the state in order to prevent this from happening. In addition to upholding state standards clear expectations will need to be set and enforced by the BT mentors. Timelines for when modules need to be completed will be provided as well as how to contact the mentor if assistance is needed. Also, a positive outlook on completing the training should be

promoted. If an issue does arise, the BT, mentor, and principal should come together and create a plan of action to ensure the appropriate support is given. This program is designed to provide beginning teachers support and to further their knowledge and should be approached with positive support.

Content Analysis & Assessment Plan

Overview

Mrs. Smith from the NCDPI reached out to us with the hope of reducing the attrition rate of beginning teachers. According to the North Carolina Department of Public Instruction (NCDPI), the attrition rate of beginning teachers was 12.34% in 2018. Beginning teachers (BTs) accounted for approximately 25% of the total teacher loss that year (NCDPI, 2019).

After conducting surveys and interviews with key stakeholders in both urban and rural public schools, we have determined that BTs struggle in the areas of classroom management, planning highly effective lesson plans, and managing non-instructional duties that must be performed throughout the school day. To intervene with these areas of concern, we have determined that creating an online training program will help BTs improve and build upon the skills learned in their teacher education program. As BTs complete the online training program they will be expected to return to their classrooms and apply these newly developed skills. Taking into consideration the needs of beginning teachers and the scope of the project, the overall learning goal for our design is as follows:

Teachers will be able to confidently manage instructional and non-instructional roles in the school system as well as create an effective learning environment

that incorporates highly engaging and standards-aligned lesson plans. To ensure that all BTs achieve the learning goals, a series of peer observations, self-evaluation rubrics, and assignments within the modules will be used to gauge learning and application of specific objectives. This instructional training program will focus on the following objectives:

1. BTs will proficiently implement clear and consistent rules, procedures, and behavioral management techniques within teaching a 45-minute self-designed lesson.
2. BTs will create original, effective, and engaging lesson plans using the NCSCOS in order to support and demonstrate student growth.
3. BTs will complete required non-instructional tasks by the expected due date.

Learning Objectives

After consulting with our stakeholders and beginning teachers in the learner analysis phase, we have broken down each objective into sub-objectives and tasks based on the needs of learners. Figures 1, 2 and 3 provide a visual breakdown of the procedural analysis of each learning objective.

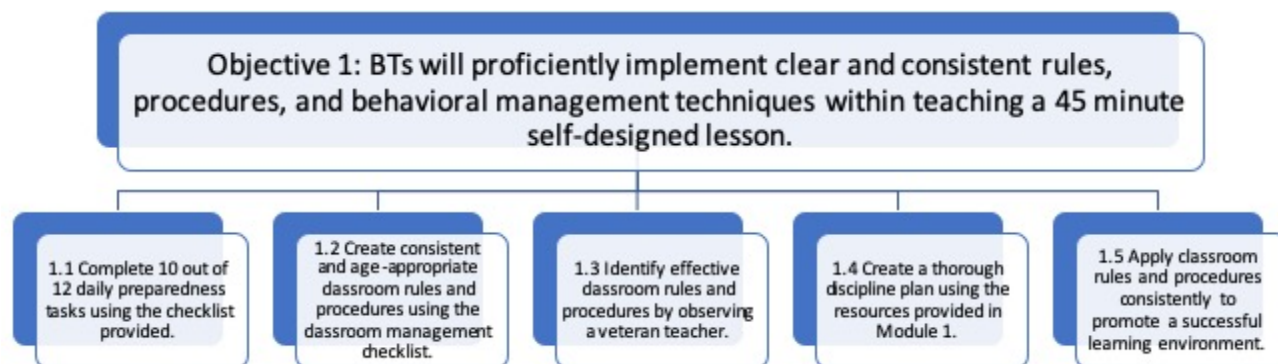


Figure 1: Objective 1 and its sub-objectives

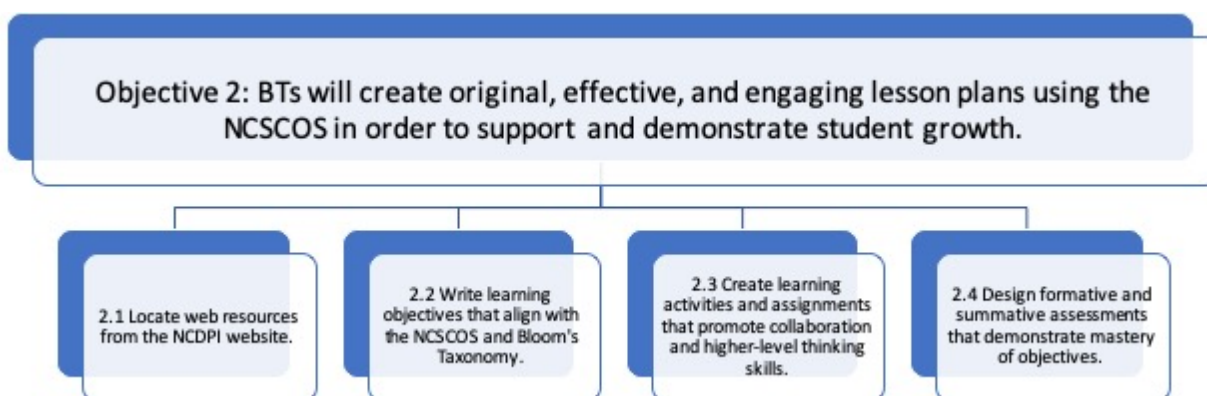


Figure 2: Objective 2 and its sub-objectives

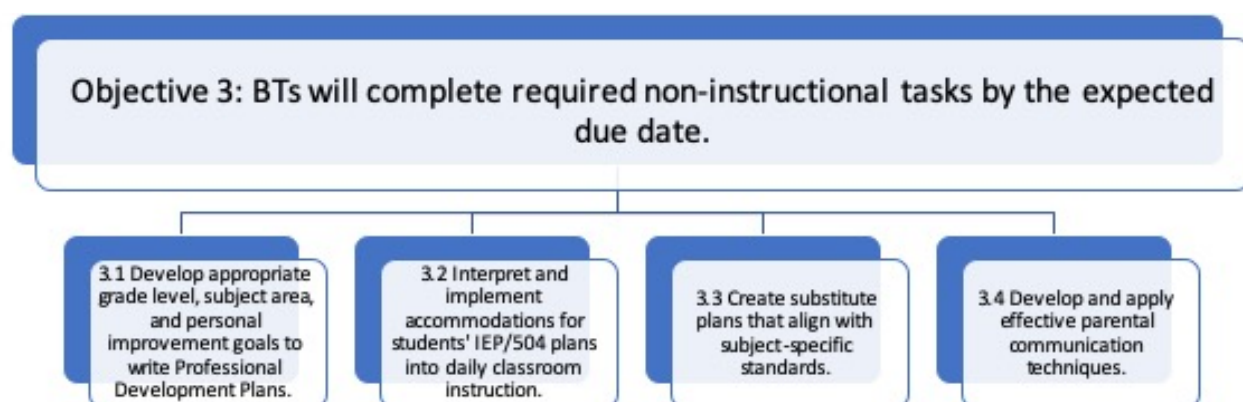


Figure 3: Objective 3 and its sub-objectives

Target Performance Topical Analysis

1. BTs will proficiently implement clear and consistent rules, procedures, and behavioral management techniques within teaching a 45-minute self-designed lesson.
 - 1.1 Complete 10 out of 12 daily preparedness tasks using the checklist provided (Appendix 5A).
 - 1.2 Create consistent and age-appropriate classroom rules and procedures using the Classroom Management Checklist (Appendix 5B).
 - 1.3 Identify effective classroom rules and procedures by observing a veteran teacher (Appendix 5C).
 - 1.4 Create a thorough discipline plan using the resources provided in training Module 1.
 - 1.5 Apply classroom rules and procedures consistently to promote a successful learning environment (Appendix 5D).
2. BTs will create original, effective, and engaging lesson plans using the NCSCOS in order to support and demonstrate student growth (Appendix 5G).
 - 2.1 Locate web resources from the NCDPI website:
<http://www.ncpublicschools.org>
 - 2.2 Write learning objectives that align with the NCSCOS and Bloom's Taxonomy.
 - 2.3 Create learning activities and assignments to promote collaboration and higher-level thinking skills.

2.4 Design formative and summative assessments that demonstrate mastery of objectives.

3. BTs will complete required non-instructional tasks by the expected due date.

3.1 Develop appropriate grade-level, subject area, and personal improvement goals to create their Professional Development Plans (PDPs) (Appendix 5I).

3.2 Interpret and implement accommodations for students' IEP/504 plans into daily classroom instruction (Appendix 5J).

3.3 Create substitute plans that align with subject-specific standards (Module 3).

3.4 Develop and apply effective parental communication techniques (Module 3).

Prerequisite Knowledge & Skills

In order to ensure that all beginning teachers have an opportunity to be successful in the training, all participants must recall prerequisite knowledge and skills. In order to master all objectives learners must have the skills to read, comprehend and analyze text and video. Learners must obtain the knowledge and skill set to use a computer or tablet and be able to navigate various web pages and web tools. Learners must have a basic understanding of teaching terminology or possess the skills to find the definition of words and acronyms.

Taking into consideration that the training program will not be implemented until school has already begun, learners should have a basic understanding of how a classroom should be organized and run. They should know that that rules and procedures are to be established day one, as well as, have instructional materials organized each day before class begins. Learners need to have a basic understanding of how to design a lesson plan that meets the NCSCOS. They should also be aware

that non-instructional tasks need to be completed in a timely manner. The purpose of this training is to close learning gaps as well as enhance the knowledge learners gained within their teacher education program.

Objectives, Knowledge, & Assessments

Objectives	Type of Knowledge	Assessment
Objective 1: BTs will proficiently implement clear and consistent rules, procedures, and behavioral management techniques within teaching a 45-minute self-designed lesson.	Factual	• BTs will be participating in observations of veteran teachers to identify procedures, rules and behavioral management techniques. BTs will complete a form during their observation and make a classroom management plan that will be evaluated by mentors. Feedback will be provided (Appendix 5C). • BTs will watch behavioral management technique videos and answer comprehension questions embedded in the videos. • BTs will be observed in the classroom by a veteran teacher and will be evaluated on a rubric (Appendix 5D). BTs must score proficient or higher to meet this objective. • Learners will be asked to self-evaluate their ability to manage all aspects of a classroom (Appendix 5E).

Objective 2: BTs will create original, effective, and engaging lesson plans using the NCSCOS in order to support and demonstrate student growth (Appendix 5G).	Principle	• BTs will locate the NCDPI website in Module 1 access the standards and materials in the website. • BTs will create three daily lesson plans that incorporate technology and adapt to the student test score data provided to them. This will be evaluated by their mentor using a rubric (Appendix 5F). • BTs will be asked to self-evaluate their ability to create engaging and data-driven lesson plans (Appendix 5G).
Objective 3: BTs will complete required non-instructional tasks by the expected due date.	Principle	• BTs will read and analyze professional development plans. • BTs will use provided materials to assist with creating their own professional development plans. After evaluation, feedback will be provided from their mentor (Appendix 5H). • BTs will create standards-aligned substitute plans that will be checked by a mentor. • BTs will be given 504 and IEP plans to read and analyze. They will answer relevant comprehension questions in Module 3. • BTs will analyze materials for differentiation techniques. They will

		answer relevant comprehension questions in Module 3. • BTs will create three differentiated lessons and assessments. Each lesson and assessment will be evaluated on a rubric to ensure they meet the requirements for IEPs and/or 504 plans (Appendix 5I). • BTs will formulate a draft parent contact email in Module 3 using an appropriate format and the necessary components. • BTs will self-evaluate their skillsets to create professional development plans, substitute plans, and differentiated lesson plans (Appendix 5J).
--	--	--

Design Blueprint

Overview

The goal of this instructional design project is to increase beginning teachers' skills and confidence in their classrooms. In designing this training program, we aim to lower the overall attrition rate of beginning teachers. In order to create instruction that is relevant and efficient, we must work closely with key stakeholders. Likewise, we will rely on instructional learning theories and models to guide our design. After speaking with Mrs. Smith, principals, mentors, and teachers, we have identified that the main areas of concern for BTs are applying effectual and consistent classroom management procedures, creating effective and engaging lesson plans, and managing non-instructional duties. Therefore, we are designing an asynchronous online training program that will focus on these areas of concern. The learning goal for this training is:

Teachers will be able to confidently manage instructional and non-instructional roles in the school system as well as create effective learning environments that incorporate highly engaging and standards-aligned lesson plans.

The design blueprint will explain in detail how the instructional training program will be presented. It will also provide the instructional content for Module 2 (Planning Engaging and Effective Lessons) to demonstrate how the instruction will be implemented. We will describe the overall layout of the instructional module and support learning with appropriate learning theories. Additionally, we will demonstrate how the training modules align with our main objectives.

There is a clear relationship between the training program's instructional goals and its learning objectives. To begin with, the learning objective for Module 1 is "BTs will

proficiently implement clear and consistent rules, procedures, and behavioral management techniques within teaching a 45-minute self-designed lesson.” From this learning objective, BTs will meet several instructional goals, including managing daily preparedness tasks, identifying effective rules and procedures, creating age-appropriate rules and procedures, creating a thorough discipline plan, and consistently applying rules and procedures in the classroom. Essentially, recognizing and formulating effective rules and procedures in a consistent manner are foundational for maintaining student discipline. Preparedness is another quality that is essential for curbing student discipline issues because when a teacher is well-prepared for the day, students do not have as many opportunities to be disruptive.

The learning objective for Module 2 is “BTs will create original, effective, and engaging lesson plans using the NCSCOS in order to support and demonstrate student growth.” To support the learning objective in Module 2, BTs will navigate to the website for the North Carolina Department of Public Instruction (NCDPI). Once there, BTs will become familiar with the subject-specific learning objectives from the North Carolina Standard Course of Study (NCSCOS). While utilizing the ideas and terminology from Bloom’s Taxonomy, BTs will create original learning activities and assignments to expand collaboration and higher-level thinking skills. Once learning objectives, activities, and assignments have been prepared, BTs will design formative and summative assessments that will be used to demonstrate the students’ mastery of objectives. In order for students to demonstrate mastery, teachers must be able to design the essential components for learning. Teachers need to understand where to find resources for teachers, why learning objectives are needed, and how to write them.

Teachers must further be able to transfer these learning objectives to standards-based activities and assignments. Ultimately, BTs will follow these steps repeatedly in order for their students to master subject-specific content and demonstrate growth. Knowing how to make use of the NCSCOS is an important step in this process.

“BTs will complete required non-instructional tasks by the expected due dates” is the learning objective for Module 3. Although the term “non-instructional tasks” is vague, the idea behind it is significant for BTs. In order to meet this learning objective, BTs will perform a variety of tasks. First, BTs will develop appropriate grade-level, subject, and personal improvement goals for their Professional Development Plans (PDPs) which are required for all teachers, not just BTs. Teachers will improve on their PDP goals throughout the year in order to make advancements and reflect upon their goals. Next, BTs will learn how to interpret and implement student accommodations for IEP and 504 plans. In addition to this being required by law, students’ disabilities and medical needs necessitate instructional changes and modifications by the teacher. BTs will practice interpreting, analyzing, and implementing sample IEP and 504 plans before interpreting and implementing their students’ plans. After this, BTs will refer to the NCSCOS again in order to write substitute plans aligning to state standards. Finally, BTs will practice using different communication methods with parents by reading through scenarios and writing example responses. Non-instructional tasks are part of every teacher’s daily job, so this training will focus on the most common tasks BTs need to master. Once BTs have worked through and mastered these non-instructional tasks, confusion should no longer prolong due dates.

Overview of the Design Plan

The overall design of our instructional plan will include three online training modules. It will take two years to complete the instructional design process. Due to present time constraints, we will only be developing Module 2. However, we plan to develop Module 1 and Module 3 in the future. Each instructional module is approximately 1 hour in length. As a result, the three modules combined will consist of approximately 3 hours of training. Each module will additionally require meetings with mentor teachers to provide feedback and this time will vary for each BT.

As discussed in the learner analysis phase, this training will occur within a six-week period of time. The first module will be completed 1-2 weeks into the new school year. The second module will be completed 3-4 weeks into the school year, and the third module will be completed 5-6 weeks from the start of school. The rationale for completing the training in a 6-week time period is based on several considerations. It's important to recognize that BTs are already coming into the training with a wealth of information. We are trying to help them organize this information into a useful format while filling in knowledge gaps. In the learner analysis, we indicated that this training should be as short as possible so as to maximize knowledge retention because new information should be fresh in teachers' minds in order for them to complete the assignments, evaluations, and reflection pieces. As teachers ourselves, we know that the first several weeks of school are hectic. Therefore, completing one module per week would simply add too much to the start of year chaos, potentially limiting the effectiveness of the training. We also discussed in the learner analysis that taking longer than 6 weeks to complete the training would spread out learning to make it less

cohesive and more difficult for teachers to complete their assignments, evaluations, and reflection pieces. If for some unforeseen reason this time frame does not work out, we would be happy to make adjustments.

We will be incorporating various design principles in order to maximize training efficiency. First, we want to reduce extraneous cognitive load so that BTs can focus solely on information related to personal improvement. The personalization principle will allow us to use informal conversational styles so that BTs are more comfortable and receptive to the training. Following the coherence principle, we will minimize non-essential information in favor of high-priority information. Using the segmenting principle, we will chunk information into meaningful segments to match each BT's mental processing capabilities. We will highlight the training's essential information using the signaling principle. The temporal contiguity principle will allow for maximized learning from the videos and animations by including corresponding audio narration to match the displayed information. Finally, the multimedia design principle will enable us to use both verbal and pictorial models of content to better facilitate the learner's connections with the material (Larson & Lockee, p. 207-208).

Second, we will utilize visual message design principles in order to simplify and quickly communicate information. By displaying only essential information, BTs will zero in on targeted concepts. Due to the fact that we are teachers, we are aware of our audience's prior knowledge. Therefore, we expect that we will be able to clearly communicate using visuals and formatting. Our design is expected to be informally balanced so that objects are placed asymmetrically in order to better maintain the attention of BTs. Additionally, we plan on achieving visual harmony by selecting

appropriate colors, text sizes, and text styles. Our design will be organized and legible so that BTs can easily follow the images, directions, activities and assignments. Furthermore, BTs will be subjective participants in each module because they will be actively engaged with the content (Larson & Lockee, p. 214).

Each of the three modules of instruction is designed around Robert Gagné's *Conditions of Learning* theory. His theory is similar to that of Bloom's; it assumes that different instructional conditions lead to different types of learning (Larson & Lockee, p. 102). Gagné's specific conditions of learning include internal and external events as well as declarative and procedural knowledge (Driscoll, p. 355). Accordingly, "Gagne's theory incorporates three major components: a taxonomy of learning outcomes, specific learning conditions required for the attainment of each outcome, and the nine events of instruction" (Driscoll, p. 355). From Gagné's domains, these learning outcomes are evident within each training module: verbal information, intellectual skills, cognitive strategies, attitudes, and interpersonal skills (Larson & Lockee, p. 104-105).

This instructional training program predominantly aligns with the constructivist learning theory in which broad goals are established through learning outcomes. According to Larson & Lockee, "a constructivist approach is focused on authentic experiences involving learners in activities carried out in the real world" (p. 78). Additionally, constructivism "emphasizes learning in context" and this can only be done through meaningful and relevant activities (Driscoll, p. 390). To further corroborate our reliance on constructivist approaches, BTs will participate in social learning opportunities to collaborate, engage in social negotiation, and gain awareness of

different perspectives. Consequently, the theory of situated cognition is a predominant aspect of constructivism (Driscoll, p. 157).

With respect to Piaget's process of schema accommodation as well as the knowledge restructuring concepts defined by Bruner and Vygotsky, BTs will acquire new information by revising their mental models during prior knowledge activation (Driscoll, p. 388). They are building on prior knowledge because newly learned information must be constructed from previous education and experiences. BTs will also have the opportunity to customize their personal outcomes to align with their own interests and goals (Larson & Lockee, p. 158). In addition to this, remedial information will be provided during the training to facilitate learning. To further align with the constructivist approach, Larson & Lockee indicate that "constructivist assessments should allow for learning during the test itself" (p. 141). BTs will be assessed using a variety of documents including self-created classroom rules and lesson plans, observation rubrics, and self-assessments. Each assessment will take place in the BT's own classroom so that they are able to receive prompt feedback from the observing veteran or mentor teacher. BTs will use this feedback in learning how to master the objectives of each module. To assess learner growth throughout the modules, BTs will additionally upload each assessment tool to a database portfolio, accessible by the mentor, that will include their teaching videos, lesson plans, and PDP.

Social negotiation and situated learning (situated cognition) are two more aspects of constructivism that are helpful components of this training. According to Bruner, learning tends to be a communal activity. Vygotsky reiterates this idea by suggesting that "higher mental processes in humans develop through social interaction"

(Driscoll, p. 396). Constructivists “emphasize collaboration as a critical feature in the learning environment” and argue that “dialogue in a social setting is required for students to come to understand another’s view” (Driscoll, p. 396-397). We agree with these assertions which is why BTs will be collaborating with other teachers throughout the duration of the training. One feature of this training is the community of practice, which involves learners with similar interests and goals sharing knowledge within a group. BTs discussing reflections and observations with more experienced teachers exemplifies the community of practice because learning occurs alongside veteran teachers (Larson & Lockee, p. 77-78).

In addition to social negotiation, Driscoll proposes that cognition is presumed to be both a social activity and a situated activity. In other words, a person learns a subject matter by doing (Driscoll, p. 156). In this training, BTs are expected to interact with both the program and experienced teachers while making corrections and reflecting upon what they have learned. In essence, BTs are learning how to cope with limited experience by actively learning from more experienced teachers. Teaching occurs within a sociocultural setting and for this reason, cognition is presumed to be both a social activity and a situated activity (Driscoll, p. 156). As we considered in the context analysis, mentors and principals will be providing on-site support for BTs as an ongoing process. BTs will additionally be invited to join an online support group from within the training.

The learner analysis included information we obtained from interviews with Mrs. Smith, mentors, and principals from both rural and urban districts. From these interviews, we discerned that most BTs are deficient in creating viable disciplinary

plans, writing standards-based lessons, and managing daily non-instructional duties. Therefore, each module aligns directly with one of these prescribed learning outcomes. Moreover, modules will require culminating assessments and reflections to demonstrate mastery of each objective. As described in the content analysis, the objectives are derived directly from the overall learning goal. The context analysis explains how we will introduce a variety of authentic or realistic instructional materials so that BTs can relate their learning to their classrooms. In the end, mastery of these specific objectives will demonstrate that BTs have achieved their learning goals.

Module 1 will focus on classroom management and will take approximately one hour to complete. According to our needs analysis surveys and interviews, Mrs. Smith and a variety of principals agreed that teachers need supplementary training on strategies for creating classroom routines, managing classrooms, and handling student discipline. Therefore, the design for this module will focus on instruction for these main topics. We are developing factual content for this module which will allow learners to move through the learning materials that model what successful behavioral management techniques and procedures look like in the classroom. Learning will be near-transfer because these are procedural tasks, always performed in the same order, and occurring in very similar situations. Additionally, the lesson taught during this module will be recorded and uploaded to each BT's portfolio to help assess each BT's growth throughout the year. Upon the completion of Module 1, BTs will complete their self-evaluation pieces to reflect upon their personal learning and growth (Appendix 5E).

In conforming to Gagné's 9 events of instruction, Module 1 will start with a chaotic classroom video presented in EdPuzzle to gain the learners' attention. The

video will include questions for accessing prior knowledge and connecting to prior knowledge. Then, BTs will be presented with the module's objectives before advancing to the instructional content. Next, BTs will read an article on using positive verbiage for creating classroom rules. They will also examine some examples of exceptional classroom rules. BTs will then watch a video that models smooth transitions and behavioral management techniques prior to answering questions in Padlet. After viewing this video, BTs will practice creating their own age-appropriate rules, procedures, and discipline plan using the resources from Module 1. BTs will also observe a veteran teacher using the provided rubric (Appendix 5C). BTs will be meeting with the teacher they observed to discuss the findings of the observation. Lastly, BTs will be required to demonstrate newly learned knowledge by performing a 45-minute self-designed lesson. This lesson will be observed by a mentor teacher, using the specified rubric (Appendix 5D). The rubric will be used to assess the BT's use and implementation of new factual knowledge. Mentor teachers will provide corrective feedback via the rubrics and through interpersonal discussions. Upon completion of this module, BTs will upload their videos, rubrics, and self-reflections to the portfolio. Likewise, BTs are expected to make use of the Daily Preparedness Checklist (Appendix 5A) and the Classroom Management Checklist (Appendix 5B) for further reinforcement and reflection.

Module 2 will last approximately one hour. It will focus on writing objectives and designing lesson plans using the NCSCOS. We are using principle content for developing this module. This will allow BTs to apply their own subject-specific knowledge to the content within the module. While there are many different subject-

specific essential standards within the NCSCOS, our design focus for this project will use examples from the North Carolina World Language Essential Standards (NCWLES) to demonstrate how to write standards-based lesson plans for a Spanish 1 class. The NCWLES are a set of subject-specific standards that are part of the overall NCSCOS. Due to present time constraints, lesson plans for additional subject areas will be developed in the future. BTs will have access to subject-specific lesson plans from this website after future project development. For the world language lesson plan instructions, we will demonstrate and explain how the NCWLES are being used in the lesson plan and how each standard is matched to a Bloom's taxonomy level learning objective.

Module 2 will continue to follow Gagné's nine events of instruction. The module will begin with an unconventional video to gain the BTs' attention. They will complete an EdPuzzle based on this video of a lesson plan "gone wrong." Next, BTs will recall prior knowledge by viewing a video on the importance of a standard course of study and reflecting on the video by responding to questions in a Padlet. After being informed of the objectives for Module 2, BTs will be presented with the four principles of lesson planning. The principles of lesson planning include locating web resources from the NCDPI website, writing objectives that align with the NCSCOS and Bloom's Taxonomy, creating learning activities that promote collaboration and higher-level thinking skills, and lastly designing formative and summative assessments that demonstrate mastery of objectives. Each principle will be explained through articles and videos housed within a Google Slideshow. In addition to explaining the principles of lesson planning, we will be including three different lesson plans with guided videos to support BTs through the

process of learning each principle. Each lesson will be based around NCWLES standards. These standards and objectives guide each lesson and learners will be able to see how each activity within the lesson directly relates to the mastery of the NCWLES objective. After viewing and learning instructional content, BTs will practice applying the content to their own teaching. The guided practice portion of the lesson will assist BTs with creating three lesson plans using the resources from the content section and the provided template. Once the lessons have been completed, each BT's mentor will provide corrective feedback. Mentors will then assess the effectiveness of each lesson during an observation using a rubric (Appendix 5F). Once the three lesson plans have been corrected and the observation rubric has been completed, BTs will upload each document to their portfolio in order to track and assess personal growth throughout completion of the training. At the conclusion of Module 2, BTs will complete the self-evaluation to assess mastery of the Module 2 objectives (Appendix 5G). To ensure BTs retain these new skills from the module, they are encouraged to continue using the lesson planning resources provided until they are confident in creating original and highly-effective lesson plans.

The focus of Module 3 will be on non-instructional tasks. BTs will be able to view and learn the content in approximately one hour. Teachers are often faced with many tasks they are asked to complete outside of classroom instruction. This module will be designed for principle content that instructs learners on how to create professional development plans (PDP), understand and implement IEP and 504 accommodations, creating meaningful and standards-based substitute plans, and how to effectively

communicate with parents. BTs will be able to take the knowledge learned from this instructional module and apply it to their own teaching.

Once again, Module 3 will begin by gaining each BT's attention and stimulating their prior knowledge. The introduction section will include videos and reflection questions about the importance of professional development plans (PDPs) and differentiating in the classroom. BTs are expected to participate in a Padlet discussion on parent communication techniques and important content to be included in all lesson plans. After completing the introduction, the objectives of Module 3 will be stated. Then, BTs will view a Google Slideshow to present the new content. Within the slideshow, BTs will explore how to create a PDP, learn how to comprehend IEP and 504 plans as well as implement them in classrooms, create standards-based substitute plans, and acquire effective parent communication strategies. After working through the new instructional content, BTs will use the resources provided to create their own PDP, differentiated lesson plan, and emergency substitute plan. They will also be tasked with keeping track of parental communication and uploading a communication log into the training portfolio. Mentors will evaluate each task for completion and provide feedback for the PDPs and lesson plans. The differentiated lesson plan will be evaluated through a classroom observation. Each document will be uploaded to the online training portfolio. To ensure retention of the content, BTs are encouraged to review their PDPs throughout the school year to ensure they are meeting their personal goals. They are also encouraged to familiarize themselves with their own students' IEP and 504 accommodations. Two other reminders include ensuring substitute plans are always aligned with state standards and verifying that parent communication is both consistent and logged for

reference. At the conclusion of Module 3, BTs will complete a self-evaluation to assess their progress toward mastery of objectives.

Detailed Instructional Strategies

INTRODUCTION

To gain attention and activate schemata, Section 1 on the Module 2 page will be a video that is designed to help BTs analyze what is going on in the classroom. This video is meant to be a little ridiculous and funny, but it will allow BTs to start thinking about why standards-based lesson plans are important. The video will be created in EdPuzzle and will have the following recall and activation questions embedded in the video:

1. What is the teacher trying to teach? What is she missing? (.23)
2. What does she start to teach in the middle of the alphabet song? (1:09)
3. What does she try to teach at the end of the class? (2:23)

The following reflection questions will be asked after watching the video:

1. How might her class compare to the class next door? Do you think that her students will have learned the same concepts?
2. She taught what she is comfortable with instead of teaching what should be taught in her class. What effects do you think will be evident due to the fact that she deviated from the curriculum?

To relate the content to a larger unit and to stimulate recall of prerequisite knowledge, the Section 2 of Module 2 will include a video that will allow BTs to answer questions based on why standards are important and why we teach using standards-

based lesson planning. BTs will answer questions and post them to a collaborative Padlet. These questions will be asked after the video:

1. According to the video, why are standards used?
2. According to the video, what are the negative effects of each school system creating their own standards?
3. According to the video, how do standards help all students have equal success in school and after graduation?
4. In your own words, what is a standard? Have you ever been taught how to use standards? Have you ever used standards to plan instruction?
5. Given the information you learned, why do you think standards are important?
6. In your classroom, how can you ensure that your students are receiving the highest level of education? How can you ensure your students are able to compete with other students around the world?

INFORM LEARNER OF OBJECTIVES

After answering these questions, BTs will proceed to Section 3, where they will be presented with the objectives and sub-objectives for Module 2:

BTs will create original, effective, and engaging lesson plans using the NCSCOS in order to support and demonstrate student growth.

2.1 Locate web resources from the NCDPI website.

2.2 Write learning objectives aligning with both the NCSCOS and Bloom's Taxonomy.

2.3 Create learning activities and assignments to promote collaboration and higher-level thinking skills.

2.4 Design formative and summative assessments to demonstrate mastery of objectives.

Section 4 of the Module 2 page will inform BTs of what they will be required to demonstrate. This will be an evaluation of their learning in this module:

Upon completion of this module, you will demonstrate your ability to create 3 consecutive daily lesson plans using the state standards found on the NCDPI website.

PRESENTATION OF NEW CONTENT

In Section 5, we will present new content using a slideshow. BTs will click on the link to the slideshow, then work their way through the content using the directions provided. They will access the links provided in the slides to get the full instructional content. Our web-based instructional design contains a backend tracking feature to collect data on which resources the BTs access, in what order the resources are accessed, how often the resources are accessed, and duration of time BTs spend on each resource. This feature is part of a larger database wherein each BT has a personal folder accessible by both the BT and the mentor, as well as administrative personnel who are part of the BT's [performance] team. The database, its contents, and its uses will be described in detail in the evaluation section of this design.

Slide 1 will contain the following information:

The North Carolina Standard Course of Study (NCSCOS) is a set of standards that have been created to ensure that students are meeting learning goals in school. These goals will allow students to be competitive in college and the workforce upon graduation.

Slide 2 will outline the required steps in applying these principles to lesson planning:

BTs will create original, effective, and engaging lesson plans using the NCSCOS in order to support and demonstrate student growth.

1. Locate web resources from the NCDPI website.
2. Write learning objectives that align with the NCSCOS and Bloom's Taxonomy.
3. Create learning activities and assignments to promote collaboration and higher-level thinking skills.
4. Design formative and summative assessments that demonstrate mastery of objectives.

Slide 3 will break down the first principle of locating the NCDPI website and accessing its resources. It will include step-by-step instructions as well as a screencast video of how to access this information.

1. Watch the video showing how to access the standards.
2. Go to this website: <http://www.dpi.state.nc.us/curriculum/>
3. Click on your subject-specific standards.
4. Read through the document to gain a general understanding of the standards.

Slide 4 will break down the components required to master the second principle: Write learning objectives that align with the NCSCOS and Bloom's Taxonomy. Slide 4 will also link to a video showing how to write objectives. Examples will be provided, along with a link to the Bloom's Taxonomy chart and activation words.

1. Watch this video on how to write learning objectives:
<https://www.youtube.com/watch?v=eXxTpDg1thI>
2. Use *Bloom's Taxonomy* (Link to the resource) when creating learning objectives.

Slide 5 will break down the components for mastering the third principle: Create learning activities and assignments to promote collaboration and higher-level thinking skills. This slide will provide links to resources that will aid in the creation of activities and assignments.

1. Ensure that activities and assignments are both age-appropriate and level-appropriate.
2. Always refer to your learning goal(s) to ensure that assignments and activities are designed for content and subject mastery. Allow students to sufficiently practice these concepts before assessing them.
3. Use a variety of activities that include individual and collaborative work.
 - a. Teaching activity resources
4. Use a variety of leveled questions to promote higher-level thinking skills.
 - a. Reading on leveled questioning

Slide 6 will break down the components for mastering the fourth principle: Design formative and summative assessments that demonstrate mastery of objectives and principles. BTs will watch a video to see the differences between formative and summative assessments. They will also be shown a how-to video on creating standards-aligned summative assessments.

1. Know the difference between formative and summative assessments.
(<https://www.youtube.com/watch?v=bTGnJnuVNt8>)
2. Reference objectives while creating assessments in order to show alignment.
3. Level your questions, use a variety of question styles and assessment formatting.
 - a. [Reading on types of questions and formatting](#)
4. Example video on writing a summative standards-aligned assessment:
<https://www.youtube.com/watch?v=Dpmf3tEeSf8>

After completing the breakdown of the principles slideshow, BTs will return to the Module 2 page and continue on to Section 6, where they will see a detailed worked example.

In Section 6, BTs will view a video of a completed world language lesson plan. First, they will click on the video link. They will hear a narration alongside the video. The video will demonstrate where each of the standards is located on the website and where these standards are also located in the lesson plan. Additionally, the video will demonstrate how learning outcomes relate to Bloom's taxonomy. The overall structure for the video will be as follows:

Begin the slide by showing how to access the NC World Language Essential Standards on the NCDPI website. Show how to locate the standards (Principle 1). Next, the completed lesson plan will be visible. We will start with a brief overview of the components that are in the lesson planning template. The voiceover narration will explain how the lesson fits into the overall unit. It will also provide context for showing how the selected standards fit into the lessons and unit. Next, the video will highlight the standards selected for this lesson plan by referring back to the DPI website where the standards were pulled from.

Principle 2 will be highlighted when the voiceover narration shows how each standard aligns with each learning objective and how each objective is written using Bloom's Taxonomy. One example of an explanation would be as follows:

Narrator: *One of the standards for this lesson is "NH.COD.1.1 Use simple phrases and short sentences to exchange information about topics in other disciplines." Once we have our standard, the next step is to create a learning objective. To do this we have to identify the condition, actor, behavior and degree in which our BTs are going to master the standard. If you need further review on this topic, please refer to the video in Slide 4. In this example learning goal: (Highlight on screen) Given text in the target language, students will be able to orally categorize food as healthy or unhealthy using the target language with 80% accuracy.*

Narrator: *The condition is the text in the target language. The behavior is they will be able to orally categorize food from the text as healthy or unhealthy using the target language. Bloom's taxonomy is present in the*

behavior section of the objective because it uses the word “categorize”.

The actors would be the students themselves and the measurable degree is “with 80% accuracy.”

Principle 3 will be highlighted when the voiceover takes the learning goal and shows the activities within the lesson that help to support and guide the students towards mastery of the learning goal. One example of this explanation would be:

Narrator: *The learning goal guides the lesson’s activities. Looking at the second part of this lesson, there is a video in the target language that describes healthy and unhealthy foods. This relates directly to the learning goal of using the target language text. There is an activity where students orally share with their peers the food that they categorized as healthy and unhealthy from the video, this activity allows students to practice with the learning goal while showing collaboration.*

Principle 4 will be highlighted when the voiceover talks about the different formative assessments within the lesson. The narration will demonstrate to the viewer how the flow of activities sets up the learner to be able to complete the formative assessments. Additionally, it will clarify how the formative assessments allow for a smooth transition to the summative assessment. Summative assessments will be mentioned but there is no summative assessment in this lesson plan itself. One example of this explanation would be:

Narrator: *The formative assessments present in this lesson plan for the first learning objective are seen when the teacher asks the students to complete the think-pair-share activity. When the students share their*

answers, the teacher is formatively assessing their mastery of the learning objective. This formative assessment fits into the overall assessment plan because the summative assessment of the unit will be an interpersonal speaking task in which students will be expected to talk about healthy and unhealthy foods. You can see how all of the assessments align with the opportunity to practice these skills in the activities. All of the activities align with the learning goals and the learning goals are derived from the standards found on the NCDPI website.

Sections 7 and 8 will have two more videos that follow the same progression as the video described above. The videos will show two different lesson plans, but will highlight the same information and principles as above.

GUIDED PRACTICE

Section 9 of the Module 2 page will be the guided practice. In order to practice with the materials and instruction provided, BTs will be asked to create three original daily lesson plans that would occur consecutively within a unit plan. BTs will use the blank lesson plan template provided to them in order to create all three lessons. BTs will be expected to design each lesson on their own, using the information and materials provided in this module to support and guide them. All lessons must have NCSCOS listed and must have learning objectives that align with each standard. Each section of the lesson plan should be filled out and include activities that are effective and engaging. A formative assessment should be present for each learning goal. These lessons will be submitted to a database, using Google Docs, where their mentors will have the ability to evaluate and provide feedback and correctives.

FEEDBACK AND CORRECTIONS

Feedback and corrections will be provided by mentors using the Google Document comments tool and will be kept within the database. Mentors will be able to highlight where BTs were successful in their lesson planning. They will also make comments when concepts are unclear or not directly aligned to the standards. Mentors will bring attention to BTs' errors by asking guiding questions. BTs will meet with their mentors in person to discuss their plans, if needed. There is a possibility that BTs will struggle with writing objectives connecting to specific standards that also use Boom's verbiage, so it will be important that mentors provide support by referring them to the program's resources and talking them through the steps to create the objective. Additionally, BTs may need assistance with making connections between learning objectives and appropriate assignments. Mentors will direct them to the list of resource materials provided in the instructional slides and be willing to support them by offering some examples.

INDEPENDENT PRACTICE

Due to the nature of our design, we will not provide independent practice because this is an online asynchronous instructional design.

CLOSURE/SUMMARY

To close out of Module 2, Section 10 will restate the objective and provide tips and links to material that will support BTs' abilities to create standards-based lesson plans. It will include the following:

BTs will create original, effective, and engaging lesson plans using the NCSCOS in order to support and demonstrate student growth.

1. Link to NCDPI website <http://www.dpi.state.nc.us/curriculum/>
2. Remember the tips to writing a standard based learning objective.
(Condition, Actor, Behavior, Degree) Review video:
<https://www.youtube.com/watch?v=eXxTpDg1thI>
3. Remember to vary materials and activities. Use these resources to give you some ideas to use.
 - a. [Teaching activity resources](#)
4. Remember to align activities with formative and summative assessments and to vary the formatting of assessments. (Video practice:
<https://www.youtube.com/watch?v=Dpmf3tEeSf8>)

EVALUATION

BTs will place the completed and corrected lesson plans from this module in the portfolio tab on the instructional website. This will be used to show overall growth throughout the year. BTs, mentors, and principals will have access to these portfolios and can use them for evaluating growth of standards-based lesson planning.

INSTRUCTIONAL MESSAGE DESIGN

Module 2: Sections 1 and 2		Objective: BTs will create original, effective, and engaging lesson plans using the NCSCOS in order to support and demonstrate student growth.	Navigation: Learners will click on the links for each type of media. Upon completion of each activity, the learner will scroll down to the next section.
Introduction	Purpose: Gain Attention Stimulate Recall of Prior Learning	Content: 1. Watch <u>EdPuzzle</u> video to focus attention on what is happening in the classroom 2. Watch video on <u>Common Core Standards</u> 3. Post in <u>Padlet</u> in response to video in Step 2.	

Module 2: Sections 3 and 4		Objective: BTs will create original, effective, and engaging lesson plans using the NCSCOS in order to support and demonstrate student growth.	Navigation: Learners will read through objectives. Upon completion, the learner will scroll to the next section.
Objectives	Purpose: Inform learner of objectives Inform learner of proof of mastery	Content: BTs will create original, effective, and engaging lesson plans using the NCSCOS in order to support and demonstrate student growth. 2.1 Locate web resources from the NCDPI website. 2.2 Write learning objectives aligning with both the NCSCOS and Bloom's Taxonomy. 2.3 Create learning activities and assignments to promote collaboration and higher-level thinking skills. 2.4 Design formative and summative assessments to demonstrate mastery of objectives. Evaluation of objective mastery: Upon completion of this module, you will demonstrate your ability to create 3 consecutive daily lesson plans using the state standards found on the NCDPI website.	

Module 2: Section 5		Objective: BTs will create original, effective, and engaging lesson plans using the NCSCOS in order to support and demonstrate student growth.	Navigation: Learners will progress through the presentation. Each slide will include a video or text explaining the principle Upon completion learners will scroll down to the next section.
Lesson Content	Purpose: Present new content	Content: Slideshow presentation of the 4 principles of planning a lesson: 1. Locate web resources from the NCDPI website 2. Write learning objectives that align with the NCSCOS and Bloom's Taxonomy. 3. Create learning activities and assignments to promote collaboration and higher-level thinking skills. 4. Design formative and summative assessments that demonstrate mastery of objectives.	

Module 2: Sections 6-8		Objective: BTs will create original, effective, and engaging lesson plans using the NCSCOS in order to support and demonstrate student growth.	Navigation: Learners will view each worked example video. Upon completion learners will scroll down to the next section.
Example Videos	Purpose: Worked examples for reference	Content: Three videos that reference the four principles of lesson planning. Each video focuses on a lesson plan for a World Language essential standard.	

Module 2: Section 9		Objective: BTs will create original, effective, and engaging lesson plans using the NCSCOS in order to support and demonstrate student growth.	Navigation: Learners will download lesson plan template. Learners will click on Submit to Portfolio button to upload documents
Practice Lesson Planning	Purpose: Guided Practice Feedback and Correctives Evaluation	Content: 1. Review linked lesson plan rubric 2. Create 3 lesson plans using provided template and resources from the presentation 3. Submit 3 lesson plans and completed observation rubric to the Portfolio section of the training. *Mentor will be providing feedback on each lesson plan within the Google Document. *Mentor will be observing lesson plan in action using linked rubric	

Module 2: Section 10		Objective: BTs will create original, effective, and engaging lesson plans using the NCSCOS in order to support and demonstrate student growth.	Navigation: Learners will read through a summary of the module. Learners have the option to review provided links before moving to module 3.
Summary	Purpose: Summarize module 2	Content: Restatement of the four principles of lesson planning design. Provide same links from the presentation	

Web Prototype URL

You can find the link to our web prototype [here](#). Users must be associated with North Carolina State University in order to access this website.

Goals, Learning Environment, Target Users, & Context

The goal of this instructional design project is to increase the confidence and skills of beginning teachers (BTs) in North Carolina, subsequently keeping more teachers in North Carolina's classrooms. Beginning teachers often struggle with classroom management, lesson planning, and managing non-instructional tasks. In designing this training program, our primary focus was to lower the overall attrition rate of beginning teachers by equipping them with pertinent job resources and training.

In order to create instruction that was relevant and efficient, we worked closely with key stakeholders including NCDPI staff, principals, mentors, and beginning teachers throughout North Carolina. We identified BTs' primary areas of concern as applying effectual and consistent classroom management procedures, creating effective and engaging lesson plans, and managing non-instructional duties. We relied heavily on

instructional learning theories and models to guide our design. The web prototype exemplifies an asynchronous online training program that focuses on the aforementioned areas of concern. The learning goal for this training is:

Teachers will be able to confidently manage instructional and non-instructional roles in the school system as well as create effective learning environments that incorporate highly engaging and standards-aligned lesson plans.

Next, we will demonstrate how these training modules align with our main objectives.

This online training program is divided into three distinct modules, each aligning with a specific instructional objective:

1. Module 1 - BTs will proficiently implement clear and consistent rules, procedures, and behavioral management techniques within teaching a 45-minute self-designed lesson.
2. Module 2 - BTs will create original, effective, and engaging lesson plans using the NCSCOS in order to support and demonstrate student growth.
3. Module 3 - BTs will complete required non-instructional tasks by the expected due date.

As outlined in the learner analysis, the training modules will be completed within a six-week time period. Module 1 will be completed within the first two weeks of school. BTs will conclude Module 2 during weeks three and four, and Module 3 during weeks five and six. We concluded that BTs would not have sufficient time at the start of the school year to complete these modules back-to-back. We further conjectured that spreading the modules out too far would inhibit knowledge retention, making the assignments, evaluations, and reflection pieces more difficult to accomplish.

Users can easily access the homepage, the three modules, and the portfolio using the navigation bar at the top of the screen. This navigation bar will be visible on each page of the training. Once online BTs will begin at the homepage. The homepage contains an overview of the training, learning goals, and learning objectives in order to ensure that learners have a clear understanding of the purpose of the training. Due to recent time constraints, only the links within Module 2 are fully functional. Module 1 and Module 3 currently have active links to assessments, rubrics and checklists; all other instructional links will be developed in the future. In Module 2, example lesson plans are from the North Carolina World Language Essential Standards (NCWLES). For future development phases, we will include lesson plans for additional subject areas.

For each module, the lesson components are listed in chronological order: Introduction, Objectives, Lesson Content, Example Videos, Guided Practice, and Summary. Therefore, users should work through each module in this order, moving from the top of the page to the bottom. Each module will take approximately 1 hour to complete. Outside of each module, BTs will be required to attend meetings with their mentor teachers, who will be providing constructive feedback. Due to the personalized nature of these requirements, meeting times will vary for each BT. Certain assignments, checklists, observational rubrics, and self-reflections are excluded from this 1-hour block of training time.

Design Principles

We adhered to numerous principles of design in order to maximize the effectiveness of this training. We reduced the BTs' extraneous cognitive load so that they could focus solely on new learning content. We employed informal conversational

styles to make BTs more comfortable and receptive to the training. Another consideration dealt with minimizing non-essential information while prioritizing the most important information. Chunking information into meaningful segments was beneficial in order to facilitate the BTs' mental processing capabilities. We highlighted essential information within the training and used both verbal and pictorial content models to encourage the BTs' connections with the material. Finally, we maximized video learning by including corresponding audio narration to match the displayed information (Larson & Lockee, p. 207-208).

We relied on visual message design principles in order to simplify and swiftly convey new information. By displaying only essential information, BTs can concentrate on targeted concepts. As teachers ourselves, we fully comprehend BTs' prior knowledge and what they need to know. Therefore, we are confident in our abilities to clearly communicate essential information using visuals and proper formatting. The screens are informally balanced so that objects are placed asymmetrically; this helps maintain the BTs' attention. We have achieved visual harmony by selecting appropriate colors, text sizes, and text styles. Our design is thoughtfully organized and legible so that BTs can easily follow all images, directions, activities and assignments. Lastly, BTs are subjective participants within the training program because they are continuously engaged with the content (Larson & Lockee, p. 214).

Learning Theories

This instructional training program predominantly aligns with the constructivist approach, whereby broad goals are established through learning outcomes. Larson & Lockee state that “a constructivist approach is focused on authentic experiences involving learners in activities carried out in the real world” (p. 78). In addition to this, Driscoll asserts that constructivism “emphasizes learning in context,” which can only be done through meaningful and relevant activities (Driscoll, p. 390). To demonstrate further reliance on constructivist approaches, BTs will participate in social learning opportunities to collaborate, engage in social negotiation, and gain awareness of different perspectives. This theory of situated cognition is one predominant aspect of constructivism (Driscoll, p. 157).

In this training experience, BTs are steadily building on previous knowledge because this newly learned information is constructed from previous education and experiences. Throughout each module, they will be assessed using a variety of documents including assignments and activities, observation rubrics, and self-assessments. Assessments take place in each BT’s classroom. This way, they can receive prompt feedback from the observing veteran or mentor teacher. Consequently, BTs will use this valuable feedback to master the objectives of each module. In order to assess learner growth throughout the modules, BTs will upload each assessment tool to a database portfolio, accessible by the mentor, that will include their teaching videos, lesson plans, PDPs, and self-reflections.

Social negotiation and situated learning (situated cognition) are two more aspects of constructivism that are included in this training. Bruner expressed that

learning tends to be a communal activity. Vygotsky advanced this idea by suggesting that “higher mental processes in humans develop through social interaction” (Driscoll, p. 396). The tenets of constructivism “emphasize collaboration as a critical feature in the learning environment.” Constructivists further contend that “dialogue in a social setting is required for students to come to understand another’s view” (Driscoll, p. 396-397). By discussing their reflections and observations with more experienced teachers, BTs are exemplifying this community of practice because they are learning even more when working with veteran teachers (Larson & Lockee, p. 77-78). Driscoll offers that cognition is presumed to be both a social activity and a situated activity (Driscoll, p. 156). For this reason, BTs are expected to interact both with the training program and with experienced teachers while mastering the performance objectives.

Each of the three training modules is designed around Robert Gagné’s *Conditions of Learning* theory. His theory is similar to that of Bloom’s; it assumes that different instructional conditions lead to different types of learning (Larson & Lockee, p. 102). More specifically, we based this training around Gagné’s Nine Events of Instruction. In addition to providing the requisite conditions for learning, Gagné’s systematic design enabled consistency throughout the training modules.

Module 1 Walkthrough

In conforming to Gagné’s Nine Events of Instruction, Module 1 begins with a chaotic classroom video to gain the learners’ attention. The video includes embedded questions for accessing and connecting to prior knowledge. Next, BTs are presented with specific objectives before advancing to new content. BTs will read an article about using positive verbiage when creating classroom rules. They will also examine some

examples of outstanding classroom rules. Subsequently, BTs will watch a video modeling smooth transitions and excellent behavioral management skills. BTs will participate in a Padlet to answer questions about the video. After viewing this video, BTs will practice by creating their own age-appropriate rules, procedures, and discipline plan. To do this, BTs are encouraged to use the resources provided in Module 1, including the Daily Preparedness Checklist and the Classroom Management Checklist.

In addition to these tasks, BTs will observe veteran teachers using the provided rubric. Soon after, BTs will meet with the observed veteran teacher to discuss the observational rubric. In short order, BTs will demonstrate newly learned knowledge by video recording a 45-minute self-designed lesson. Using the classroom management observation rubric, this recorded lesson will also be observed by a mentor teacher. The rubric will serve as an assessment tool to determine how well BTs are implementing new factual knowledge. Mentor teachers will provide corrective feedback via the observational rubric and through interpersonal communication with the BT. Upon completion of this module, BTs will click on the “Portfolio” link to upload their classroom rules, videos, rubrics, and self-reflections. BTs should continue to use the resources in this module for further reinforcement and reflection.

Module 2 Walkthrough

Module 2 will also be organized to follow Gagné’s Nine Events of Instruction. This module will begin with an unconventional video that highlights the importance of standards-based learning. After viewing the video of a lesson plan “gone wrong,” BTs will recall prior knowledge by completing the EdPuzzle. BTs will view another video spotlighting the significance of adhering to the NCSCOS. After watching this video, BTs

will stimulate previous knowledge by reflecting on the video and responding to questions in Padlet. Upon reviewing the objectives for Module 2, BTs will take in new information on the four principles of lesson planning. These principles include locating web resources on the website for the NCDPI, writing objectives aligning with the NCSCOS and Bloom's Taxonomy, creating learning activities to promote collaboration and higher-level thinking skills, and designing formative and summative assessments to demonstrate mastery of objectives. BTs will learn about the four principles through a series of articles and videos housed within the linked Google Slideshow. In addition to this, we have included narrated videos of three different lesson plans to support BTs in the process of learning each principle. Each lesson is formulated using the North Carolina World Language Essential Standards (NCWLES). These standards and objectives guide each lesson. Plus, BTs will be able to see how each activity within the lesson directly correlates to mastery of the NCWLES objectives.

After viewing and studying this new instructional content, BTs will apply these concepts to their own lesson planning. The guided practice portion of this lesson will help BTs create three consecutive lesson plans utilizing the provided resources and lesson planning template. Once the lessons have been completed, mentors will provide corrective feedback and assess the effectiveness of each lesson using the observational rubric. Once the three lesson plans have been corrected and the rubric has been completed, BTs will upload the three lesson plans and the assessment rubric to the digital portfolio in order to track and gauge personal growth. To conclude Module 2, BTs will complete the self-reflection to determine mastery of the objectives. They will upload these self-reflection documents to their portfolios. To enhance retention of these

new skills, BTs are encouraged to bookmark and make use of the lesson planning resources for future use.

Module 3 Walkthrough

Once again, we followed Gagné's Nine Events of Instruction to produce Module 3. This module will take approximately one hour to complete and will concentrate on required non-instructional job tasks. Teachers often face many duties that are to be completed outside of classroom instruction and planning. Module 3 is designed for principle content and instructs BTs on how to create professional development plans (PDPs), understand and implement IEP and 504 accommodations, create meaningful and standards-based substitute plans, and communicate effectively with parents. New knowledge acquired in Module 3 can be immediately employed after the training.

Module 3 will commence with videos on differentiated instructional techniques and Professional Development Plans (PDPs). These videos will work to capture BTs' attention and stimulate prior knowledge. After watching these videos, BTs will post in Padlet their thoughts, hypotheses, and reflections regarding the importance of differentiation and PDPs. For brainstorming purposes, BTs will additionally discuss in Padlet their thoughts on parent communication techniques and the type of content that should be included in substitute lesson plans. Upon completion of the introduction, BTs will review the objectives for Module 3 and proceed to the Google Slideshow that explores information on writing PDPs, comprehending and implementing IEP/504 plans, creating standards-based substitute plans, and acquiring strategies on effective parent communication.

After working through the Google Slideshow, BTs will watch several videos explaining these four topics. Then, BTs will use the resources provided to create their own PDPs, differentiated lesson plans, and emergency substitute plans. They will also be tasked with logging instances of parental communication and uploading these communication logs into the training portfolio. Once uploaded to the portfolio, mentors will evaluate each task for completion and provide feedback for the PDPs and lesson plans. Mentors will evaluate the BTs' use of differentiated instruction in their classrooms by utilizing the provided rubric. This rubric will be uploaded to the online training portfolio. BTs should continue to use the resources in this module for recalling new content. BTs are also encouraged to review their PDPs throughout the school year to ensure their personal goals are being met. Upon completion of this module, BTs need to familiarize themselves with their own students' IEP and 504 accommodations. Two other reminders include ensuring substitute plans are written to align with state standards and verifying that parent communication is both consistent and logged. At the conclusion of Module 3, BTs will upload to the portfolio a self-reflection that assesses their overall progress toward mastery of objectives.

Constraints

Since this training is meant to be completed during the first six weeks of school, the availability of the mentor could negatively affect the training itself. As stated previously, it is important that the modules are completed closely together to ensure retention of knowledge. Mentors not only have their own classrooms to establish at the beginning of the school year, but they also work to support multiple BTs. If there is a large number of BTs at a site, the mentor may have trouble providing constructive

feedback that BTs need in order to move through the modules in a timely manner.

Therefore, it is very important for mentors to make their BTs a top priority and actively seek support from administrators and other leadership figures at the site.

Another constraint that could jeopardize the effectiveness of this training would be the hiring of a BT after the start of school or late into the school year. If a BT is hired any time after the school year starts, they could miss out on the significance of this training. What's more, they may not have the same support in place as other BTs who have completed the training. Therefore, the school needs to accommodate for late-hire BTs and figure out some way for the new hires to complete this training as soon as possible. In order for late hires to receive these necessary BT supports, principals and mentors need to ensure that BTs receive this training soon after they are hired.

Evaluation & Pilot Testing

Overview

The goal of this instructional design project is to increase the confidence and skills of beginning teachers (BTs) in North Carolina, subsequently keeping more teachers in North Carolina's classrooms. Beginning teachers often struggle with classroom management, lesson planning, and managing non-instructional tasks. In designing this training program, our primary focus was to lower the overall attrition rate of beginning teachers by equipping them with pertinent job resources and training.

In order to create instruction that was relevant and efficient, we worked closely with key stakeholders including NCDPI staff, principals, mentors, and beginning teachers throughout North Carolina. We identified BTs' primary areas of concern as applying effectual and consistent classroom management procedures, creating effective and engaging lesson plans, and managing non-instructional duties. We relied heavily on instructional learning theories and models to guide our design.

Purpose of Formative Evaluation Plan

Formatively assessing during the learning modules serves as a checkpoint for understanding. It gives both BTs and mentors a chance gauge and monitor the progression of learning. Every module will informally assess prior knowledge and general understanding of major concepts though an informal assessment. As Larson & Lockee explained, "informal assessments are carried out to gauge and improve learning though more unofficial practices such as questions, discussions observations of individuals or group processes, or via peer or self-assessment" (p. 135). Within each module, BTs are expected to view EdPuzzle videos and answer comprehension

questions throughout the process of learning. In training Module 1, BTs will participate in observing veteran teachers. Using an assessment rubric, BTs will look for the major concepts they should be learning and implementing in their own classrooms (Appendix 5C). Although these informal assessments will not be graded, BTs will discuss them with their mentors. In addition to this, BTs will receive appropriate feedback from the observed veteran teachers. Following the constructivist design principles, emphasis is placed on reflection and personal growth (Larson & Lockee, p. 141). Therefore, BTs will self-evaluate and reflect upon newly learned concepts at the end of each module (Appendix 5E, 5G, 5J).

Graded guided practice activities will be included in our training so that BTs can receive feedback and measure growth. These graded practices will be completed after they have finished the instruction and example videos. We anticipate BTs will complete the instructional portion during the first week while BTs focus on the guided practice portion during the second week. As mentioned in the context analysis and assessment sections, BTs will be asked to create a standards-based lesson, teach this self-created lesson, create a PDP plan, and formulate a lesson plan that includes IEP/504 plan differentiation techniques. Grades will be recorded using specific rubrics for each assessment (Appendix 5D, 5F, 5H, 5I). Grades and comments from these assessments will further be used to correct and improve these assessments. Then, BTs will submit final revisions to their portfolios for their summative evaluation.

Audience

The audience of the formative evaluation includes the BT mentors, instructional designers, and beginning teachers (BTs). Stakeholders, such as Mrs. Smith, will also review the course material for clarity and effectiveness.

Major Objectives

The major objectives of the evaluation process include demonstrating and communicating to stakeholders that BTs have mastered the learning objectives for each module. The evaluation will provide feedback to stakeholders, mentors, and BTs on areas of concern that still exist and need to be addressed. This formative data will allow for instruction to be redirected or adapted if needed.

Resources

There are three types of resources needed for this training: human resources, assessment resources, and material resources. We will need a designer to develop the training modules and assessments. We will require an SME to assist with developing the materials. Mentors will be involved to serve as instructors for grading and giving feedback to BTs. Beginning teachers are the active participants in the training. Additionally, stakeholders will need to be involved in the evaluation process to help determine if the training modules have achieved the overall instructional goal of lowering teacher attrition rate. We will need assessment resources to ensure that learning is productive. Resources will include electronically accessible rubrics, checklists, and self-evaluation tools to gauge the mastery of learning objectives. Lastly, we will need for the schools participating in this training to have a reliable technology infrastructure. The training includes interactive videos and downloadable resources;

therefore, a strong Internet connection and access to technological resources will be required.

Evidence

All learners will be assessed during the evaluation. Every BT will be expected to complete each assignment and assessment before uploading each document to the summative portfolio. The context of our assessments is authentic, as BTs will be involved in teaching and writing lesson plans for a class that they are currently teaching. Results from the assessment pieces will be reviewed by stakeholders in order to evaluate performance and growth. BTs will be evaluated by means of a task-specific rubric and self-evaluations. All stakeholders will be able to access these evaluations.

Data Collection & Analysis

Before releasing the training to users, we assessed the web-based instruction. We conducted two tests to ensure that our design meets the needs of beginning teachers. Our first test was with a group of instructional design experts who provided feedback on navigation, design principles, and flow of content (Appendix 7). This feedback allowed us to revise the web prototype before our second round of testing, which was conducted with a small group of beginning teachers and BT mentors (Appendix 8). This test allowed us to see which areas of content and navigation still needed to be adapted. The results from both tests were used to improve the web-based instructional modules before fully implementing the web site.

Within the training itself, data from the formative assessments will be used to evaluate the effectiveness of the content. This data will be analyzed, and instruction will be modified according to the needs of the learners. All formative assessments will

provide BTs with the opportunity to receive feedback. These assessments will also allow the designers and mentors to see if and where performance gaps still exist and adjust accordingly. The formative data will allow us to determine if instruction was adequate or if adaptations still need to be made. Designers and mentors will be analyzing the rubrics and their own work to assess learning. All assignments and assessments will be stored in the BTs' digital portfolios. Portfolios will include completed observation rubrics, self-created lesson plans, and self-reflections.

Reporting

Designers will create a summary report with clear and concise findings from the evaluations. Findings from the data will be presented and revisions for instruction will be included. All major stakeholders will receive a copy. We will hold a meeting with Mrs. Smith to discuss our findings and additionally include her feedback for revisions.

Summative Evaluation Plan

According to Larson & Lockee, "constructivist assessments should allow for learning during the test itself. Therefore, alternative assessments are particularly appropriate for a constructive approach because, when students construct a portfolio,...there is great potential for learning during the process." (p. 141). Following the constructivist design principles, it is important that the assessment pieces directly align with the instructional content. Assessments need to allow for growth and learning within the assessment components themselves. Therefore, the summative assessment is a portfolio containing all work from the training modules. The portfolio will allow all stakeholders to see growth and improvement from the learning. Portions of the summative portfolio began as formative assessments. BTs were allowed to consider

feedback and edit their documents for the purpose of improvement. These original formative assessments, rubrics, and comments are stored in the portfolio, along with the edited and revised assessments. This portfolio will demonstrate growth of beginning teachers. It will further allow stakeholders to determine if the training was effective, and where revisions needs to be made.

We will know if the training was effective if BTs showed growth from their formative to their summative assessments. Additionally, we will review the post instruction survey to get BTs and mentors feelings towards the training to know if they met the overall goal of increased confidence in the classroom and if they felt the training was efficient and effective (Appendix 6A). The post instruction survey will also allow us feedback on attitudes and reactions to the instruction from the BTs and mentors. This feedback will help us to reflect and adapt the training for the following year.

The cost of the instruction is an important factor to consider when designing, implementing, and evaluating the training. North Carolina Public Schools will be providing the budget for the program, and we will need to work within the budget. We anticipate that the developmental costs will be for the designers, SMEs, and mentors. The cost of evaluation will be free because we are using Google Forms. Once the program is developed, the cost of maintaining the instruction will be minimal.

The long-term benefits of the training will be twofold. First, teachers will expand upon their own personal and professional growth. We expect for the second effect to be improved retention rates for North Carolina's teachers. By designing instruction to specifically target building the confidence of beginning teachers, we expect that BTs will develop the requisite skills needed to survive this difficult profession. One long-term

benefit of this training is for BTs to feel better equipped to handle this career, resulting in them remaining in the teaching profession. Another long-term benefit is lowering the overall attrition rate of BTs in NC. Becoming a confident teacher takes time and practice; therefore, the goal for this instruction is to help BTs feel more confident in their careers much sooner by providing them with relevant instruction, tools, and support.

Instruments

In addition to the table of assessments included below, training modules will include post-instruction surveys. Hopefully, BTs and mentors will provide positive and critical feedback on the instruction (Appendix 6A). This survey will be sent out in one week, upon completion of the instructional modules. It will be a Google Forms survey emailed to every BT and mentor involved in the training. This will help all stakeholders evaluate the usability and quality of the content in the training modules.

Objective	Instructional Strategies	Assessment Approaches	Assessment Items
Objective 1: BTs will proficiently implement clear and consistent rules, procedures, and behavioral management techniques within teaching a 45-minute self-designed lesson.	Demonstration, observation, and guided practice	Performance Task: A performance task will allow BTs to demonstrate the classroom management skills they have observed and learned about through employing them in their own lesson.	BTs will be asked to teach a lesson that will be observed in the classroom by a veteran teacher. It will be evaluated on a rubric (Appendix 5D). BTs must score proficient or higher to meet this objective.
Objective 2: BTs will create original, effective, and engaging lesson plans using the NCSCOS in order to support and demonstrate student growth (Appendix 5G).	Demonstration and guided practice	Performance Task: A performance task will allow instructors to see if the concepts and principles of lesson planning were learned and BTs were able to apply these principles to their own classroom lesson plans.	BTs will create three daily lesson plans that incorporate technology and adapt to student test score data provided to them. This segment will be evaluated by mentors using a rubric (Appendix 5F). BTs must score proficient or higher to meet this objective.
Objective 3: BTs will complete required non-instructional tasks by the expected due date.	Demonstration and guided practice	Performance Task: Performance assessments will allow instructors to see if BTs are able to understand and apply knowledge in a real-world setting. BTs will use their own professional development goals and their own students' IEPs to apply differentiated learning techniques.	BTs will use provided materials to assist with creating their own professional development plans. After evaluation, feedback will be provided from mentors (Appendix 5H). BTs will create three differentiated lessons and assessments. Each lesson and assessment will be evaluated using a rubric to ensure they meet the requirements for IEPs and/or 504 plans (Appendix 5I). BTs must score proficient or higher on each rubric to meet this objective.

References

- Bandura, A. (2019, February 7). *Social Learning Theory (Bandura)*. Retrieved from <https://www.learning-theories.com/social-learning-theory-bandura.html>.
- Carver-Thomas, D., & Darling-Hammond, L. (2017, August 16). Teacher Turnover: Why It Matters and What We Can Do About It. Retrieved from <https://learningpolicyinstitute.org/product/teacher-turnover-report>.
- Driscoll, M. P. (2005). *Psychology of learning for instruction*. Harlow: Pearson Education.
- Espinoza, D., Saunders, R., Kini, T., & Darling-Hammond, L. (2018, August 29). Taking the Long View: State Efforts to Solve Teacher Shortages by Strengthening the Profession. Retrieved from <https://learningpolicyinstitute.org/product/long-view-report>.
- Henkel, C. (2019, February 4). Monday numbers – A closer look at teacher turnover in North Carolina. Retrieved from <http://www.ncpolicywatch.com/2019/02/04/monday-numbers-a-closer-look-at-teacher-turnover-in-north-carolina/>.
- Hinchcliffe, K., & Tillett, L. (2019, January 24). North Carolina's teacher diversity gap – WRAL exclusive. Retrieved from <https://www.wral.com/nc-s-teacher-diversity-gap-where-are-the-black-and-brown-teachers/18129132/>.
- Johnson, S. K. (2015). Revolving door of teachers costs NC millions. Retrieved from <https://www.thinkncfirst.org/research/revolving-door-of-teachers-costs-nc-millions>.

Larson, M. B., & Lockee, B. B. (2014). *Streamlined ID: A Practical Guide to Instructional Design*. New York, New York: Routledge.

New Teacher Guide by Professional Educators of North Carolina (PENC). (2015). Retrieved from <https://pencweb.org/wp-content/uploads/2019/04/15-16-new-teacher-guide-1.pdf>.

North Carolina Department of Public Instruction. (2019, February 15). Report to the North Carolina General Assembly: 2017-2018 State of the Teaching Profession in North Carolina. Retrieved from <http://www.ncpublicschools.org/docs/district-humanresources/surveys/leaving/2017-18-state-teaching-profession.pdf>.

Phillips, O. (2015, March 30). Revolving Door of Teachers Costs Schools Billions Every Year. Retrieved from <https://www.npr.org/sections/ed/2015/03/30/395322012/the-hidden-costs-of-teacher-turnover>.

Public Schools First NC. (2018, November 10). The Facts on NC's Teacher Pipeline. Retrieved from <https://www.publicschoolsfirstnc.org/resources/fact-sheets/the-facts-on-ncs-teacher-pipeline/>.

Wong, H. K., & Wong, R. T. (2005). *The First Days of School: How to Be an Effective Teacher with CDrom*. Mountain View, CA: Harry K. Wong Publications.

Appendices

Appendix 1 – Questions Asked During the Needs Assessment Phase

1A: Questions for Mrs. Smith (NCDPI) Only

Questions for Mrs. Smith from NCDPI

Please answer the following questions:

1. What is your position? What do you do in this role?
2. In your opinion, where are beginning teachers having the most difficulty?
3. What interventions and support structures are already in place to assist beginning teachers?
4. Do you feel that further support and intervention is needed? If so, what should these supports and interventions look like?
5. What are your ultimate goals at the end of the intervention or training?

1B: Questions for Mentor Directors Only**Questions for Mentor Directors**

Please answer the following questions:

1. How long have you been a mentor?
2. How does beginning teacher turnover affect your school? Do you think targeted training would impact teacher turnover?
3. In what areas do you see beginning teachers struggle the most?
4. What supports are already in place to help struggling beginning teachers?
5. What supports can be created to further help beginning teachers?

1C: Questions for New Teachers Only

Questions for New Teachers

Please rate your confidence level in the following concepts using a scale of 1-5.

(5 = very confident and 1 = not at all confident)

Concepts	Rating
Knowledge of district policies and procedures	
Knowledge of school policies and procedures	
Knowledge of available district and school resources	
Knowledge of standards and 21st century learning skills	
Classroom discipline	
Relating to at-risk students	
Motivating students	
Using effective teaching tools and strategies	
Inclusion and mainstreaming of special students	
Creating standards-based lesson plans	
Creating standard based daily lesson plans	
Creating effective assessments	
Structuring a classroom and creating a daily class routine	
Managing extra duty work (Paperwork, forms and extra duties)	
Communicating with parents and the community	
Working with colleagues and administration	
Other: Please list any other area of concern to the right.	

Survey adapted from:

<http://webb.nmu.edu/Webb/ArchivedHTML/UPCED/mentoring/forms/NewTeacherSurvey.pdf>

How would you prefer to receive more training on the concepts you feel least confident in?

- a. Face-to-Face Training b. Online Self-Paced Training

1D: Questions for Principals Only

Questions for Principals

Please answer the following questions:

1. Do you think that beginning teacher turnover is negatively impacting the teaching and learning environment at your school?
2. In which areas do you think beginning teachers have the most difficulty?
3. In what ways do you think beginning teachers need more support?
4. Do you think that further training would be beneficial to beginning teachers? If so, which types of training do you think would be the most beneficial to beginning teachers in your school?

Appendix 2 – Questions Asked During the Learner Analysis Phase

2A: Demographics Information Sheet for Teachers

Teacher Demographics Information Sheet

Please fill out the following information.

Age: _____ Gender: _____ Marital Status: _____ Race: _____

(Optional) Is there anything about your culture or ethnicity that should be considered for this training?

Primary Language: _____

1. What is your highest level of education?
2. Did you complete a student teaching program at your university?
3. Are you a lateral entry or a residency model teacher?
4. How many years have you been teaching?
5. What is the name of the school you currently teach in?
6. Is this school considered rural, urban, or suburban?
7. How long have you been teaching at your current school?
8. Have you taught at another school? If so, how many?
9. Do you have access to the internet at home or outside of school?
10. Please rate your skill level in each of the following competencies.

1 (very poor); 2 (poor); 3 (average); 4 (good); 5 (very good)

- a. Ability to utilize basic technology: _____
- b. Ability to absorb and comprehend content via online training: _____
- c. Ability to complete training online and apply it to your profession: _____

11. Please rate your motivation level for each of the following:

1 (very unmotivated)

2 (unmotivated)

3 (neutral)

4 (motivated)

5 (very motivated)

- a. I am motivated to take an online course strictly for beginning teachers.
- b. I am motivated to learn effective strategies for managing my classroom.
- c. I am motivated to learn how to handle paperwork, organization techniques, and non-instructional tasks.

12. Do you have any disabilities that would impact your ability to participate in this online training course?

2B: Questions for BT2 Teachers Only**Follow-up Questions for BT2 Teachers**

Please answer the following questions:

1. What were the biggest difficulties you faced in your first-year teaching?
2. Who supported you during these difficulties?
3. What strategies were you given to help you resolve these difficulties?
4. Describe the culture of your school.
5. Which aspects of teaching do you think would be different at other schools?
6. In your school system specifically, what type(s) of additional training do you feel would have benefitted you in your first year of teaching?

2C: Questions for Principals Only**Questions for School Principals**

Please answer the following questions:

1. Please describe the atmosphere, demographics and the culture of your school.
2. In looking at both current and previous BTs, what performance gaps have you noticed in your beginning teachers?
3. What are some of the biggest obstacles your BTs face when performing instructional duties?
4. What are some of the biggest problems your BTs face when performing non-instructional duties?
5. How does your school currently support the unique needs of beginning teachers?

2D: Questions for Mrs. Smith Only

Questions for Mrs. Smith (NCDPI)

Please answer the following questions:

1. What concerns do beginning teachers raise about knowledge and skill deficits going into their first year of teaching?
2. What challenges do you expect will emerge as teachers complete this training?
3. What are the general attitudes of BTs with regard to further training?
4. What constraints or limitations do you anticipate will occur during the design and implementation of the training?

Appendix 3 – Explanation of the Lateral Entry Process

Lateral entry is an "alternate" pathway to teaching for qualified individuals who hold a bachelor's degree or higher in an area of need for local school districts. Lateral entry allows qualified individuals to obtain a teaching position and begin teaching in a classroom while obtaining a professional educator's license as they teach. The NC Department of Public Instruction authorizes lateral entry professional educator's licenses in areas that correspond to the individual's academic study.

The State Board of Education is phasing out the "Lateral Entry Pathway." This pathway will no longer be offered effective June 30, 2019. Consistent with the process for this pathway, all candidates issued courses of study connected to a lateral entry license on or before June 30, 2019 will have three years to finish that work. The entire lateral entry route will formally close and all candidates employed under this license option must have all requirements satisfied as of June 20, 2022. Candidates may work with a North Carolina Regional Alternative Licensing Center (RALC) or contact the NC DPI Licensure Section for more assistance with the Lateral Entry license pathway.

As stated in General Statute, "any professional educator license issued by the State Board of Education prior to the effective date of this act shall continue in effect until the expiration of that license. The State Board of Education may continue to issue lateral entry licenses for the 2017-2018 and 2018-2019 school years in accordance with State Board Policy LICN-001" (Reference § 115C.270.25 & Section 3.(d)).

The lateral entry pathway will be replaced by the "Residency Model" pathway (§ 115C.270.20.a.5). The residency model is currently available for those interested (please see below for the specific requirements for this license pathway).

The Residency License as defined in (§ 115C.270.20.a.5) as:

A one-year license, renewable twice, that meets both of the following requirements:

1. Is requested by the local board of education and accompanied by a certification of supervision from the recognized educator preparation program in which the individual is enrolled.
2. The individual for whom the license is requested meets all of the following requirements:
 1. Holds a bachelor's degree.
 2. Has either completed coursework relevant to the requested licensure area or passed the content area examination relevant to the requested licensure area that has been approved by the State Board.
 3. Is enrolled in a recognized educator preparation program.
 4. Meets all other requirements established by the State Board, including completing preservice requirements prior to teaching.

Source: <http://www.ncpublicschools.org/epp/lateral/>

Appendix 4 – Questions Asked During the Context Analysis Phase

4A: Questions for Mrs. Smith and Principals

Please answer the following questions:

1. What physical and resource constraints do you anticipate with this instruction?
2. Do all teachers have access to a reliable device and internet connectivity?
3. How would you like to connect the online learning environment with the real-world application?

4B: Questions for Beginning Teachers (all BTs)

Beginning teachers, please answer the following questions:

1. What are your concerns for this training?
2. What information do you feel you need to gain from this training?
3. What areas of concern do you have in regard to classroom management and organization?

Appendix 5 – Assessment Tools for Beginning Teachers

5A: Daily Preparedness Checklist for BTs

Daily Preparedness Checklist

Beginning Teacher: _____

Course: _____ Date: _____

- _____ Dress appropriately according to employee handbook.
- _____ Create a ready working environment by arranging desks for lessons and activities and organizing books, papers, assignments, and materials each day.
- _____ Plan thoroughly and be ready before each day starts by having materials ready.
- _____ Post the class discipline plan in a prominent place.
- _____ Post classroom procedures, schedules, charts, emergency plan, maps, calendar, clock, student work, etc.
- _____ Post daily and weekly assignments in the same area each week.
- _____ Arrange your desk physically close to students (not isolated) to promote on-task behavior.
- _____ Stand at the doorway for greetings and transitions.
- _____ Put name cards on each desk or project the student seating chart.
- _____ Locate papers for recording attendance and tardies, handling discipline and referrals, homework, classwork, and hall passes.
- _____ Use students' names and pronounce names correctly.
- _____ Prepare a strategic location for students needing isolation.

5B: Classroom Management Checklist for BTs

Classroom Management Checklist

Beginning Teacher: _____

Course: _____ Date: _____

- _____ BT uses positive verbiage.
- _____ Rules are age-appropriate.
- _____ Rules are posted in an easily visible location within the classroom.
- _____ Rules are consistently enforced and referenced daily.
- _____ Consequences are written from least to most severe.
- _____ Rules and consequences have been thoroughly explained and modeled for students.
- _____ Classroom procedures have been thoroughly explained and modeled for students.
- _____ Transitions are smooth, quick, and quiet.

5C: BT Observation Tool for Observing a Veteran Teacher

BT Observation of Veteran Teacher

Instructor: _____ Course: _____

Observing Teacher: _____ Date & Time: _____

What I am looking for:	Notes from what I observed:
Classroom Flow • <i>How did the teacher start class?</i> • <i>How did the teacher transition from one task to the next?</i> • <i>How much time did they spend on transition?</i> • <i>What were the students doing during the transition?</i> • <i>Were there any non-behavioral disruptions to instruction? (Such as a phone call, fire drill, announcements, etc.). How was this handled?</i> • <i>What techniques do you want to apply in your own class?</i>	
Rules and Procedures • <i>What rules and procedures did you notice in the classroom?</i> • <i>Where these rules and procedures expressed orally and reiterated throughout the instructional time?</i> • <i>Where these rules posted in the class or on the class website?</i> <i>*Meet with the observed teacher to get a full list of rules and procedures. Take notes here.</i>	

Behavioral Management • <i>What acceptable behaviors did you notice? How were these addressed or rewarded?</i> • <i>What non-acceptable behaviors did you notice? How were these addressed or redirected?</i> <i>*Meet with the observed teacher and review their behavioral management plan with them. Take notes here.</i>	
---	--

Based on what you have learned in this training, by observing a veteran teacher, and talking with your mentor, create your own class rules, procedures, and behavioral management plan (to be evaluated by your mentor).

5D: Beginning Teacher Classroom Management Teaching Observation Rubric for**Module 1, Objective 1**

Classroom Management Teaching Observation Rubric

Beginning Teacher: _____ Course: _____

Observing Teacher: _____ Date & Time: _____

Observable					
	Not Observed	Approaching	Proficient	Mastery	Comments
Expectations are clearly posted.	Observer could not see posted expectations.	Observer had to search for expectations around the room.	Expectations clearly posted and could easily read from most locations in the room.	Expectations clearly posted and clearly visible from all locations in the room.	
BT is holding students accountable for following expectations.	BT did not discipline students who were not meeting expectations.	BT made minimal efforts to discipline students who were not meeting set expectations.	BT disciplined majority of students who did not meet expectations.	BT disciplined all students who did not meet expectations.	
Transitions are smooth, quick and quiet.	Transitions took 5 or more minutes and students were making noise; students were unaware of directions.	Transitions took 3-5 minutes; students were not quiet; students were aware of directions OR Students were quiet while transition, but it took 5 or more minutes;	Transitions took less than 3 minutes; the majority of students were quiet, but some were still unclear on specific directions.	Transitions took less than 3 minutes; the entire class remained silent; all students followed clear directions.	

		students were aware of directions.			
BT is ensuring students are actively engaged.	BT made no effort to keep students engaged.	Students are somewhat engaged. At least 1 instructional method is used in the lesson.	Students are actively engaged. At least 2 instructional methods are used for engagement.	BT uses a variety of instructional methods to keep all students consistently engaged throughout the lesson.	

Non-Observable					
	Not Present	Developing	Proficient	Accomplished	Comments
Expectations are positively written.	No expectations are set in place OR Less than 70% of expectations are written in a positive manner.	70-79% of the expectations are written in a positive manner.	80-89% of expectations are written in a positive manner.	90-100% of expectations are written in a positive manner.	
Consequences flow from least severe to most severe.	A clear set of consequences are not in place.	Consequences are in place, but the severity does flow from least to greatest.	Consequences are in place and flow from least to greatest.	Consequences were developed in connection with expectations; consequences clearly flow from least severe towards most severe.	
Use of consequences are consistently documented.	No documentation of consequences.	70-79% of use of consequences accurately documented.	80-89% of use of consequences accurately documented.	90-100% of use of consequences accurately documented.	

5E: Self-Evaluation for Module 1, Objective 1

Module 1 Self-Evaluation

Beginning Teacher: _____

Course: _____ Date: _____

Task	Implemented/Frequency	Strengths	Ways to Improve
Hold students accountable for following expectations.			
Transitions are smooth, quick, and quiet.			
Students are continuously engaged.			
Consequences are enforced.			
Communicate with parents (if necessary).			

5F: Evaluation Rubric for Daily Lesson Plan, Objective 2, Module 2

Evaluation Rubric for Daily Lesson Plan

Beginning Teacher: _____ Date: _____

Course: _____ Lesson: _____

With the BT, discuss the following questions on how the lesson was developed.

1. What standards are being taught in this lesson?
2. How do these standards correlate with what students have previously learned?
3. How did you utilize NCDPI resources to plan your lesson?
4. What data sources did you refer to when choosing instructional materials?
5. How did you integrate technology into this lesson?

Lesson Planning Rubric

	Not Present (Place Check)	Developing	Proficient	Accomplished	Comments
Objectives are clearly stated.		Objectives are stated, but do not clearly relate to the standard being taught.	Objectives closely align with standards; appropriate adjectives were not included.	Objectives clearly align with standards and include adjectives that clearly state what students are expected to learn.	
Lesson activities clearly reflect state standards.		Activities reflect below 1-2 of required skills needed to be taught.	Activities reflect 3-4 required skills needed to be taught.	Activities reflect all required skills needed to be taught.	
A variety of instructional materials and methods have been chosen.		2-3 instructional materials have been incorporated into the lesson.	4-5 instructional materials have been incorporated into the lesson.	More than 5 instructional materials have been incorporated into the lesson.	
Increments of time are included for each section of the lesson.		Increments of time do not realistically reflect length of lesson sections.	Increments of time realistically reflect length of lesson sections.	Increments of time realistically reflect length of time and maximize instructional time provided.	

5G: Self-Evaluation for Objective 2, Module 2

Module 2 Self-Evaluation

Beginning Teacher: _____

Course: _____ Week of: _____

Task	Check if Completed	Challenges That Arise
Review pacing guide to determine unit being taught.		
Review standards being taught.		
Refer to NCDPI documents to determine what skills students need to learn.		
Pace out when standards will be taught and how long it will take.		
Analyze available data to determine students' current abilities.		
Write clear objectives that align with NC standards and Bloom's Taxonomy.		
Choose engaging activities that align with state standards.		
Determine whether activities will be used for guided practice, independent practice, or formative assessment.		
Find ways to integrate technology into the lessons.		
Begin organizing all activities into structured lesson plans.		

5H: Professional Development Plan Evaluation Rubric for Objective 3, Module 3

Professional Development Plan Evaluation Rubric for Module 3

Beginning Teacher: _____ Course: _____

Observing Teacher: _____ Date & Time: _____

Criteria	Developing	Proficient	Accomplished
Teacher Standard Alignment and Measurability	Demonstrates a general understanding of the standards, but does not align measurable goals to specific standards.	Demonstrates an understanding of the teaching standards and aligns goals to standard that is somewhat measurable.	Demonstrates a deep understanding of the teaching standards and aligns measurable goals to each standard.
Timeline	Does not provide a timeline.	Provides somewhat of a clear timeline that does not specify when activities will be implemented to meet the learning goals.	Provides a clear timeline that demonstrates when activities will be implemented to meet the learning goals.
Activities and Evidence	Does not include evidence or activities.	Includes some evidence and activities, but does not show how they directly align with the learning goals.	Includes a complete list of activities and evidence that directly aligns to learning goals and shows learning growth.
Evaluation	Does not include the assessment component that shows teacher growth.	Includes some components of an assessment that will show some growth in teacher learning.	Includes several components of an assessment that will show teacher growth.

Feedback and Comments:

5I: Application of Differentiation Techniques in Lesson Plans Evaluation Rubric

Beginning Teacher: _____ Course: _____

Observing Teacher: _____ Date & Time: _____

Note: Before observing, confer with the BT about students who have accommodations.

Classroom Observation					
	Not Observed	Developing	Proficient	Approaching	Comments
Accommodations for students with IEP/504 being provided.	Accommodations for students were not provided.	Accommodations for students were provided 70-79% of the time.	Accommodations for students were provided 80-89% of the time.	Accommodations for students were provided 90-100% of the time and ensures that students are consistently using their modifications.	
Students are grouped accordingly by data.	Students are randomly grouped together.	Students have been grouped accordingly, but are remaining in the same group for an extended period of time.	Students have been grouped accordingly, but are regrouped once new data becomes available.	Students are grouped accordingly and are given the opportunity to be regrouped based on frequent formative assessment data.	
Level of questioning is appropriate for all learners.	BT only focuses on the task at hand. Asks no additional questions.	BT poses questions that only prompt students to recall information.	BT poses questions that prompt students to recall and explain information.	BT poses a variety of questions that require students to strategically think in order to build connections between topics.	

Post-observation conference questions:

1. What accommodations are you required to implement and how do you best implement them?
2. How do you determine what types of questions you will present to students?
3. How do you group your students? How often do you regroup?
4. In what other ways do you differentiate to meet the needs of your students?

Appendix 6: Participant Instructional Feedback

Please answer the following questions:

1. Did you participate in the instruction as a mentor or BT?
2. Do you believe that the information taught in the modules was important to learn?
3. How helpful do you feel the instruction was?
4. Were the modules clear and easy to navigate?
5. Were the assignments helpful and easy to understand?
6. Were the rubrics helpful and easy to understand?
7. How prepared did you feel after submitting your work to the summative portfolio?
8. How motivated were you by the instruction?
9. Do you feel you effectively met the learning goals?
10. How could this training better meet your needs as a mentor or BT?

Additional feedback:

Appendix 7: Expert Walkthrough Report

Expert Walkthrough Report

Part I. Introduction

Description of Web-based Instruction

This instruction is an asynchronous training for beginning teachers. It is broken down into three modules, each pertaining to a specific area of concern for beginning teachers. The training begins on the homepage, where the learning goals and objectives are clearly stated. BTs will move chronologically through all three modules. They will have two weeks to complete each one. Module 1 focuses on classroom management techniques. BTs will complete the EdPuzzle video as the introduction. They will move through the instructional material by accessing all links and videos in order. For additional practice, BTs will observe a veteran teacher. Next, BTs will teach a self-created lesson and will be assessed using the classroom observation rubric.

Module 2 will begin with an introductory EdPuzzle video, a video on common core, and a Padlet. The module will present new content via Google slides, accompanied by links to resources. Then, BTs will walk through three standards-based lesson plans demonstrating all of the principles required to create a lesson. Lastly, each BT will be asked to create their own lesson plan that will be evaluated by their mentor.

The third and final module, focuses on non-instructional tasks. BTs will watch two introductory videos and participate in a Padlet discussion. They will be presented with new material using Google slides and will be provided with resources through URLs. Lastly, BTs will be asked to practice by completing a list of non-instructional duties. These include a PDP plan, a lesson plan differentiated using sample IEP/504 plans,

standards-based substitute plans, and parent contact logs. All assessments and assignments from the modules will be stored in each BT's digital portfolio. The portfolio tab at the top of the modules will be used as a tool to show teacher growth.

Stakeholders

There are four major stakeholders for this instructional training: school districts, principals, teachers, and students. The primary stakeholders are the beginning teachers (BTs) because this training is designed specifically to help them. Principals and school districts will be impacted due to their involvement in the training's implementation and support requirements. Specifically, these stakeholders will be positively impacted because the goal of the training is to decrease teacher turnover. Lastly, students are important stakeholders as they will be directly impacted by the effectiveness of their classroom teachers.

Focus of Evaluation & What Was Evaluated

For this evaluation, design experts evaluated the web-based instructional modules. They focused on the ease of navigation, design principles, and flow of content. These experts were not required to focus on the quality of the content as some of the experts do not have experience in the field of public education.

Part II. Data Collection

Data Collection Procedure

In order to collect data, this web-based instructional tool was made available to the design experts. They were given as much time as needed to work through each module. Experts were informed that some of the links were not fully developed, so

feedback was requested on what was fully developed. Design experts provided feedback in paragraph form, detailed below.

Feedback from Evaluators

Nathaniel P.:

I really like how you have defined your modules. It makes the course easy for me to follow and see what comes next. The consistency of the templates helps me navigate the layout of each of the content areas and the use of alternating backgrounds highlights the important areas such as the objectives and summary sections.

One addition you may want to consider is adding an action button to the homepage screen in the space below the heading image that invites the user to start the course or provide an overview of each of the modules. Currently I feel a little stuck when I arrive at the homepage until my eye wanders up to the top menu. Directing the user with a well-defined 'next step' would help them get started and participating in the course. I don't know if the site editor will let you, but it might be nice to include a brief summary for each module under the module title area. That way users can quickly understand the scope of the module before appropriating time to begin. The course is well-designed and supports your instructional goal. Great job!

Grayson B.:

Really incredible job! The amount of information that you provided makes your prototype very robust! One suggestion I would have is the amount of information on each page. I think that while everything works together and obviously flows from one section to the next, I feel that the amount on each page could be overwhelming, especially to a BT. The images on your webpage are clear and vibrant in color and I think that that helps. Many times, BT training is boring and not very exciting. Finally, I loved the portfolio page at the end. A page that makes it easy to locate all the critical information was helpful. Thank you for sharing.”

Part III. Findings

Overall, the feedback we received showed that Module 2 was easy to navigate and was appealing to the eye. However, as Nathaniel stated, we need to add some sort of button to the homepage directing users to the module buttons at the top of the homepage. We received positive feedback regarding the amount of information included in the training as a whole, but some pages may have included too much information.

Part IV. Revision Plan Based on Expert Walkthrough

Based on the feedback received, we need to address the issue of having too much information on a single page. Breaking the modules into multiple pages will likely solve this issue, but we want to ensure that the website remains easily navigable. We also need to make changes to the homepage, specifically including clearer directions for where users need to begin. The solution could be a “Next” button or textual directions, guiding the user to the buttons at the top of the web page.

Appendix 8: Pilot Testing Report

PILOT-TESTING REPORT

Part I. Introduction

Description of Web-based Instruction

This instruction is an asynchronous training for beginning teachers. It is broken down into three modules, each pertaining to a specific area of concern for beginning teachers. The training begins on the homepage, where the learning goals and objectives are clearly stated. BTs will move chronologically through all three modules. They will have two weeks to complete each one. Module 1 focuses on classroom management techniques. BTs will complete the EdPuzzle video as the introduction. They will move through the instructional material by accessing all links and videos in order. For additional practice, BTs will observe a veteran teacher. Next, BTs will teach a self-created lesson and will be assessed using the classroom observation rubric.

Module 2 will begin with an introductory EdPuzzle video, a video on common core, and a Padlet. The module will present new content via Google slides, accompanied by links to resources. Then, BTs will walk through three standards-based lesson plans demonstrating all of the principles required to create a lesson. Lastly, each BT will be asked to create their own lesson plan that will be evaluated by their mentor.

The third and final module, focuses on non-instructional tasks. BTs will watch two introductory videos and participate in a Padlet discussion. They will be presented with new material using Google slides and will be provided with resources through URLs. Lastly, BTs will be asked to practice by completing a list of non-instructional duties. These include a PDP plan, a lesson plan differentiated using sample IEP/504 plans,

standards-based substitute plans, and parent contact logs. All assessments and assignments from the modules will be stored in each BT's digital portfolio. The portfolio tab at the top of the modules will be used as a tool to show teacher growth.

Stakeholders

There are four major stakeholders for this instructional training: school districts, principals, teachers, and students. The primary stakeholders are the beginning teachers (BTs) because this training is designed specifically to help them. Principals and school districts will be impacted due to their involvement in the training's implementation and support requirements. Specifically, these stakeholders will be positively impacted because the goal of the training is to decrease teacher turnover. Lastly, students are important stakeholders as they will be directly impacted by the effectiveness of their classroom teachers.

Focus of What Was Evaluated (including evaluation questions)

The focus of the evaluation process is to make sure the instructional content is meaningful, and the website design is easily navigable. The evaluation will provide feedback for us to determine if the website is easy to follow and the assignments have clear explanations. The following questions will be asked on the evaluation form:

General information:

Name:

Subject and Grade Level Taught:

Role: BT or Mentor

Please rate the following:

1 (Strongly disagree) to 5 (Strongly agree)

1. I was able to easily navigate through the website and find each section of the training.
2. The progression of each module was easy to follow.
3. Module directions were coherent.
4. Assignment directions were clearly explained.
5. Rubrics were straightforward and concise.
6. I can apply the content from Module 1 to my current classroom.
7. I can apply the content from Module 2 to my current classroom.
8. I can apply the content from Module 3 to my current classroom.

Short answer questions:

1. What aspect of the training did you find most helpful?
2. What would you have expected to see in the training that you did not?

Additional feedback:

Who Conducted the Evaluation

The evaluation tool was created and distributed by the design team. It was distributed to four beginning teachers (BTs) and one BT Mentor from two different schools in NC. Due to time constraints, the evaluation was limited to 5 teachers.

Part II. Methods and Procedures**Description of Evaluation Methods and Tools/Instruments Used**

The preliminary tool for evaluation was a Google Forms survey. In it, we asked the 5 teachers the evaluation focus questions. A follow-up interview was conducted with every participant in the pilot test. These interviews will allow us to obtain more detailed feedback as to which aspects of the training were helpful and which concepts they felt they needed more explanation or practice with.

How Data Was Collected and Analyzed

Data from the Google Forms survey was analyzed based on the responses to the rating statements. If any statement receives below a 4 (agree) by more than two participants, we will need to revise and edit the design in order to improve upon these topics. We will use the interview portion of the evaluation to determine specifically what the participants found difficult. We will make adjustments according to their feedback.

When and How the Evaluation Was Conducted (Procedures)

Teachers from various schools in North Carolina were provided with the link for the training website and the Google Forms survey. Each teacher was encouraged to spend approximately 30-45 minutes working through the content of each module. For the evaluation portion, teachers were not required to complete the observations or lesson plans. They only completed the workable content within each module (i.e.

Padlets, EdPuzzles, etc.). Participants were given three days to work through the instruction and complete the Google Forms survey. Data and feedback were collected and analyzed after all Google Forms were complete. Based on the feedback we received, minor design adjustments were made. This includes making the videos and slides public so that access is not denied to users out of the NCSU domain.

Part III. Findings

For the purpose of rating the instructional design, teachers used the following scale: 1 (Strongly disagree) to 5 (Strongly agree). According to our survey, all teachers rated the training as a 4 or a 5 on this scale. All teachers agreed that the site was easy to navigate, the directions were clear and concise, and the content was meaningful and useful. Some informed us that a few of the links were not working correctly. We explained that the links were not fully developed yet. Additionally, they suggested that we allow for more teacher feedback. Feedback links will be developed upon school systems' implementation of the program. According to the feedback we received, the amount of mixed media we used was the most attractive concept in our design. Overall, teachers rated the training as successful and beneficial.

Part IV. Recommendations

The evaluative surveys recommended that we need to include a feedback option on all assignments. Additionally, we must ensure that all slides and materials do not have permission restrictions. We will make certain that all recommendations are appropriately implemented.