

EMPOWERING EDUCATORS: DIFFERENTIATED INSTRUCTION AT THE  
ORGANIZATION LEVEL

BY

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DISSERTATION

Submitted in partial fulfillment of the requirements  
for the degree of Doctor of Education in Education Policy, Organization and Leadership  
with a concentration in Learning Design and Leadership  
in the Graduate College of the  
University of Illinois at Urbana-Champaign, 2020

Urbana, Illinois

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# Abstract

Differentiated Instruction (DI) is the process where educators modify instruction to play to the students' strengths and learning preferences while meeting their individual needs rather than teaching all students in the same manner. DI allows the educator to change how they deliver content, what content is provided, the learning environment, and how students demonstrate their knowledge (Tomlinson, 2001). Unlike other publications, this dissertation's intent wasn't to create a guide on how to implement DI, as that has been well documented in the literature. Instead, the aim is to empower DI educators by creating an organization that supports and enables both the educators and the organization to succeed. In short, the goal of this dissertation is to answer the following question: How can education administrators support Differentiated Instruction educators through faculty development, incentives, and the use of new technology to improve students' success?

To investigate this question, the author used two different literature search techniques. First, a substantial literature search on Differentiated Instruction teaching and organizational dynamics was conducted. This provided the evidence needed to validate the research question. The second literature review, an integrative review, was performed to determine specific areas where educators and administrators expressed frustration or a need for assistance (Frederiksen & Phelps, 2018; Whittemore & Knafl, 2005). Next, the author investigated Educative Curriculum Materials (ECM), designed to promote both teacher and student learning rather than traditional curriculum materials

focused on student learning (Davis & Krajcik, 2005; Beyer & Davis, 2009). Davis and Krajcik's Design Heuristics for Educative Science Curriculum Materials are a common framework for designing ECMs (Davis & Krajcik, 2005). The author transformed these heuristics into the Guiding Principles for Empowering Educators.

The output of this dissertation is a guide titled "**Cutting Edge Differentiated Instruction Strategies for Administrators: Supporting Innovation at an Organizational Level**," which not only provides a background of differentiated instruction, technology-enabled education, and organization dynamics it also offers high-level initiatives for administrators to empower their educators.

This dissertation concludes by brainstorming future applications of this guide, including improvements, distribution, and creating measures of success for organizations to track their progress.

# Acknowledgments

John Donne wrote "*No Man Is an Island*" to illustrate the importance of our relationships with our fellow human beings. Writing a dissertation is a year's long process, and without the continual support from the people below, I would not have reached this stage.

**My Family** - I cannot thank my wife, Amanda, and my two daughters, Cecilia and Alice, for their support. From long hours on the computer to missing family time at night to frustrations with both the writing and the writing process, they have given me the strength to keep going. When things were going wrong, Cece told me, "It's ok, daddy, it will get better." Alice told me, "Daddy, you never quit." My wife consistently told me I could get through this. Thank you for your love and support.

**My Advisors** - Thank you, Dr. Kalantzis, for never giving up on me. You were tough but caring, compassionate, but firm. Even when you said I did everything wrong, my interpretation of your words never gave up on me. Thank you for that. Dr. Cope; without you, I wouldn't be in this program. You saw my potential and kept encouraging me to move forward. You had a keen insight into what I was capable of and how this program could help me. I thank you for that.

**My Classmates** - I wish I had the space to acknowledge everyone here. Your peer reviews and support have been invaluable. You helped me feel that I wasn't alone, and we were in this together. I especially want to thank our teaching assistant, Kara Francis,

for always being there. She kept the group together, helped us stay motivated, and on the same page through an ever-evolving program.

**My Colleagues** - I want to thank Heather Wright, Dr. Nora Few, Dr. Jenny Amos, and Dr. Robert Wallon, and Ms. Peg Burnette, for supporting me through every step of the way. You showed compassion and caring for me, even though it wasn't work-related, even though I was frustrated, you were there for me. Thank you so much for always telling me I could do it.

# Dedication

This work is dedicated to all the students who thought they weren't smart enough in school because they didn't understand how the teacher was teaching. You are smart enough, talented enough, and able to achieve everything you set your mind to. You just need a teacher willing to see you as a unique individual and teach you accordingly.

This work is also dedicated to the teachers willing to go above and beyond to ensure students like me, who have difficulties learning certain concepts, are taught in a way that matches our skills and abilities. Without you, we would fall through the cracks of education. You give us the tools to thrive and grow.

Finally, I dedicate this to my wife Amanda and my daughters, Alice and Cece. You have given me support, time, and comfort during this process. You have seen me pulled away from family time to create this work. I would not have completed this with you pushing me and telling me that I can and will finish this work.

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# Chapter 1 - Introduction to Differentiated Instruction and Educator Empowerment

## 1.1. Overview

"Educators should be champions of every student who enters the schoolhouse doors."

(Tomlinson, 2014, p.2)

In a classroom with 30 or more students, some from different socio-economic backgrounds, speaking various languages, different learning styles and interests, and coming from multiple schools, how does an educator teach them all the same content? How can one educator teach them in the same way, in the same environment, and attempt to have comparable student outcomes? The answer to this challenging problem is what this dissertation is exploring. This dissertation will investigate claims made that Differentiated Instruction (DI) enables educators to address all learners' needs and improve their progress towards acquiring and demonstrating knowledge. DI contrasts several assumptions made by a traditional classroom: all students have equal abilities, equal background knowledge, with an equal desire to learn. Furthermore, DI proponents claim that the traditional classroom is an environment where learner diversity is not considered, leveraged, nor celebrated.

On the other hand, proponents of DI purport this framework takes advantage and play to individual students' strengths. Differentiated Learning (DL) outlines how a student customizes their learning environment and plan to their strengths. To



summarize, Differentiated Instruction is a process that requires the educator to change their instruction methods to match the strengths and learning preferences of their students.

This goal of this dissertation is to answer the following question in a Higher Education context:

**How can education administrators support Differentiated Instruction educators through faculty development, incentives, and the use of new technology to improve students' success?**

The second chapter will address this fundamental question through an in-depth exploration of the literature by looking at the history and theories that support DI and then focusing on the educator's professional development. The third chapter explores and presents an interpretive approach for gathering best practices, guiding principles, and determining the best format for presenting the information in a guide for education administrators. The fourth chapter describes the creation and design of an evidence-based guide for administrators (hereafter *The Guide*) which, implements the findings of this dissertation, providing best practices that support a DI approach and provide empowerment strategies for higher education. The fifth chapter includes a brief recap of the results and provides suggestions for future research. The dissertation concludes by presenting *The Guide entitled **Cutting Edge Differentiated Instruction Strategies for Administrators: Supporting Innovation at an Organizational Level.***

## 1.2. Key Concepts and Theories

Listed below are key terms, theories, and concepts that are core to understanding Differentiated Instruction and the overall approach of this dissertation.

- **Administrator** - A person responsible for the overall organization, management, curriculum, and supervision of the school and educators. This non-inclusive list includes directors, deans, provosts, chancellors, and presidents.
- **Differentiating a Classroom** - This is applying the DI framework to a classroom to improve student success.
- **Differentiated Instruction (DI)** - The process in which the educator modifies instruction to play to the students' strengths and learning preferences in the classroom rather than teaching all students in the same manner. DI allows the educator to change how they deliver content, what content is delivered, the learning environment, and how students demonstrate their knowledge (Tomlinson, 2001). A core feature of Differentiated Instruction is that all students meet the same objectives at the end of the class or course (Subban, 2006).
- **Differentiated Learning (DL)**- A philosophy that values what students know and who they are before coming to the classroom and works with them to achieve what they need to learn (Haniya & Roberts-Lieb,2017).
- **Differentiated Literacies** - A theory from Kalantizis and Cope with five principles related to instruction: The Idea of Design, Multimodality, Knowledge Processes, Alternative Navigation Paths, Creating a Learning Environment of Productive Diversity.

- **Faculty Development** – Training activities to help educators build new skills, improve existing skills, and grow in their knowledge of pedagogy, technology, and teaching.
- **Gardner's Theory of Multiple Intelligences** – This theory focuses on problem-solving based on individuals having one of eight intelligences (Subban, 2006).
- **Information and Communication Technologies (ICT)** -ICT is an all-encompassing term that includes any communication device or application, encompassing: radio, television, cellular phones, computer and network hardware and software, satellite systems, and so on, and the various services and applications associated with them, such as video conferencing and distance learning. ICTs are used in particular contexts, such as in education, health care, or libraries. The term is more common outside of the United States (Margaret Rouse 2005).
- **Open Educational Resources (OER)** - Resources created by educators and made available for other educators to use in their courses. Examples include but are not limited to videos, presentations, assessments, rubrics, and learning modules.
- **Organization** - For this work, an organization is a group with a particular purpose, such as schools, districts, colleges, and universities. Organizations are a central point of this dissertation, as this is where administrators can make changes to empower or disenfranchise educators who wish to implement differentiation.

- **Technology Disrupter** - An ICT that impacts the learning environment positively or negatively. It disrupts the status quo in teaching practice.
- **Vygotsky's Zone of Proximal Development** - This core underlying theory for DI references the distance between the actual development level and the level of potential development for that learner. The zone of proximal development (ZPD) links that which is known to that which is unknown (Subban, 2006). The goal of DI is to see where a learner is and help them get to achieve their goals. If a learner's ZPD is known, the educator can craft a lesson plan to take advantage of where they are and build specific interventions to help them achieve the end goal. ZPD also allows the educator to know when to intervene and when a learner will get there without intervention.

## Chapter 2 - Review of the Literature

This literature review will evaluate the claims of influential theorists and practitioners in Differentiated Instruction (DI) to answer the two questions below.

1. How can education administrators harness and optimize Differentiated Instruction frameworks to improve students' success through understanding the educator's needs?
2. How can organizations (schools and administrators) support DI educators through faculty development, incentives, and the use of new technology?

This review will examine the advantages and disadvantages of this instruction framework, gleaning gaps in the available literature regarding DI, educator empowerment, and technology being used to implement DI. The literature will provide the background necessary to investigate if and how differentiating instruction ensures that all students have equal opportunity to learn content, showcase their knowledge in a manner that demonstrates their strengths, and achieve all the objectives in a particular course or curriculum. Furthermore, once the educators' professional development needs are understood and met, their teaching abilities should, in theory, directly correlate to improved student learning outcomes.

This literature review consists of four main sections. These sections will explore theory, application, and interventions encompassing DI. The first three provide the background on Differentiated Instruction while the fourth section delves into the thoughts, feelings, needs, and challenges of DI educators. This review ends with

analyzing the literature gaps and how this dissertation may answer some of these questions.

A. Definition of Differentiated Instruction

B. History and Development of Differentiated Instruction in Schools

C. Faculty Development: Roles and Responsibilities of Organizations In Developing and Supporting DI Educators.

D. Summary and Gaps in DI Literature

## **2.1. Definition of Differentiated Instruction (DI) and Supporting Theories**

"Every child has a different learning style and pace. Each child is unique, not only capable of learning but also capable of succeeding" - Robert John Meehan

Differentiated Instruction is a series of frameworks and interventions used to personalize learning to meet students' preferences, learning styles, and abilities. Hall (2002) states, "to differentiate instruction is to recognize students varying background knowledge, readiness, language, preferences in learning, interests, and to react responsively" (para. 2). Hall further states that DI is the process in which students of **different abilities** are taught in the same class, with instruction tailored to their needs to maximize their learning (Hall 2002). Tomlinson (2000) adds that "Whether teachers differentiate **content, process, product**, or the **learning environment**, the use of ongoing assessment and flexible grouping makes this (DI) a successful approach to instruction." Differentiation is supported by Joseph, Thomas, Simonette, & Ramscook

(2013), who state, "theory and research support the position that teachers should consciously adjust curriculum and instruction in response to student readiness, interest, and learning profile."

Berliner and Biddle (1995) frame this definition in reality by stating that there is a range of needs in a classroom with more than one student, and teachers struggle to provide learning activities that work for each student. In short, "what works for some students will not work for others" (Dixon, Yssel, McConnell, & Hardin, 2014).

DI differs from personalized learning, where students chose their learning outcomes, in that in DI, teachers decide before the beginning of the lesson what knowledge and abilities all students will have after the class or unit (Tomlinson 2000; Tomlinson & Allan, 2000; Algozzine & Anderson, 2007).

## **2.2. History and Development of Differentiated Instruction**

### **History and Theory**

According to Levy (2008), DI is not a new technique as every teacher has at one time or another differentiated instruction. "Teachers differentiated instruction in one way or another when they give a student more time to finish an assignment, allow children choice in what they read, give different types of assessments, and myriad other ways" (Levy, 2008 p162). The one-room schoolhouses showcased this during the 1600s to the 1900s, where one taught all grades at once time. Since that time, schools evolved from the one-room schoolhouse (early differentiated instruction) to the aged-centered

classrooms. During this period, the teachers taught, and students were passive observers (Ashman, 2017).

While the origins of what would later become DI, the rollout will be discussed later, can be traced to the one-room schoolhouse, the research and theories around the need for DI are more recent. Theorists such as Herzberg's motivational theory (1959), Maslow's hierarchy of basic needs (1962), Vygotsky's individual readiness (1978), and Gardner's multiple intelligences (1983) make the case that student tailored learning improves comprehension and performance as opposed to teaching to the middle (Sherman, 2008).

According to Vygotsky (1978), a student's Zone of Proximal Development (ZPD) is "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem-solving under adult guidance, or in collaboration with more capable peers" (p. 86). ZPD is supported by Subbahn (2006) who adds that when "responsive instruction acknowledges what the learner already knows." Challenging students through educator designed lessons can extend the student's development level (Subban, 2006). In essence, DI is the process that allows a learner to build on their base knowledge through interaction with a capable adult, the educator, to achieve the desired learning outcomes.

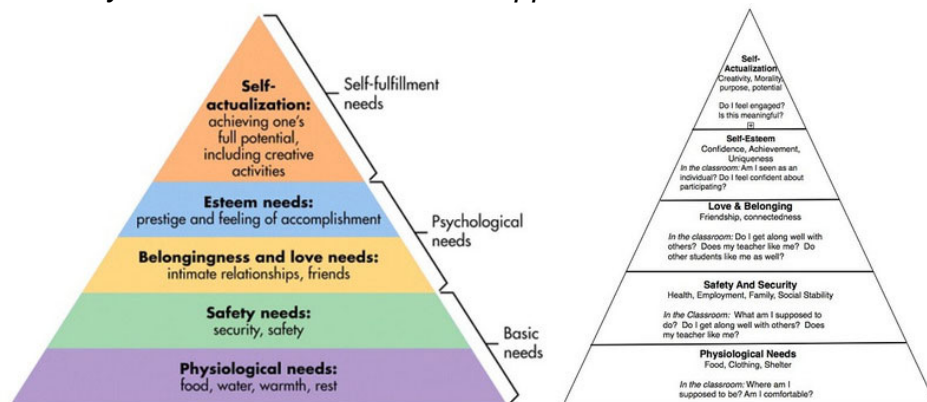
The concept of building on what a student already knows and their abilities is mirrored in Gardner's Theory of Multiple Intelligences (Gardner 1983). Gardner postulates that each person learns in multiple ways and achieves different than others



instead of just one intelligence for everyone (Subban, 2006). Gardner (1999) said, "an instructional technique or program that is heavily reliant on one of the intelligences, minimises (sic) opportunities for students who may not possess a propensity to learn in this way." While this theory doesn't say students can't learn in other ways, it showcases the need for lessons to be presented in multiple ways to allow students to thrive most comfortably.

While Vygotsky and Gardner focused on how a learner learns, Maslow concentrated on the motivations of learning. In his hierarchy of needs, Maslow presents five needs from the basic to psychological to self-fulfillment (Maslow, 1962). This basic hierarchy was extended by Fox & Hoffman (2011) to apply directly to the classroom environment. Figure 2.1 below shows both Maslow's Hierarchy and Fox & Hoffman's application to the classroom setting. One particular area of note is the Self-Esteem level with the question of "Am I seen as an Individual?". This sense of self is showcased by learning and participating in ways preferred by the learner.

**Figure 2.1**  
*Maslow's Hierarchy of Needs and Classroom Application*



While the hierarchy provides a lens for looking at students' needs, Maslow himself stated that the order isn't as rigid as earlier implied (Maslow, 1987). In fact, "the order of needs might be flexible based on external circumstances or individual differences" (McLeod, 2018). Maslow admitting that flexibility is needed supports the belief that education should be individualized to take advantage of learner differences.

Unlike the previous theorists, Herzberg's work on motivational theory was centered in the workplace (Herzberg et al., 1959). His two-factor theory illustrated factors that demotivate when inappropriate and motivators that sustain the effort. According to Bassett-Jones & Lloyd (2005), "once employee needs are identified, and organisational objectives are defined, the next step is to determine rewards and link these to behaviours that both serve the organizational objectives and also satisfy employee needs" (Bassett-Jones & Lloyd, 2005, p932). Understanding the student's needs and desires and aligning teaching to match the student needs can better achieve the given objective in an educational context.

Each of the theories above stresses the need to understand the learner (Vygotsky 1978; Gardner 1983; Maslow 1962) and then meet those needs through tailored instruction and reward practices (Maslow, 1987, Herzberg et al., 1959). In the next section, the rationale for why the implementation of DI is on an uptick, and it's relevance to the changing demographics of the classroom will be explored.

### **Rationale for Implementation**

In recent years, the 1970s - present, there has been an increase in popularity and investigation into the efficacy of DI due to increase in standardized testing, industry

needs, and increase in student body diversity (Tomlinson et al., 2003; Kalantzis & Cope, 2012; Oakes & Lipton, 2007; Lai, 2011). Conventional thinking has shown that industry and our society want learners who can create 'good and powerful ideas' to address our times' economic, social, and global issues (Homer-Dixon, 2006; Lai, 2011). Maslow supports this approach, as he favored a humanistic education approach as it would develop people who are "stronger, healthier, and would take their own lives into their hands to a greater extent. With increased personal responsibility for one's personal life, and with a rational set of values to guide one's choosing, people would begin to change the society in which they lived actively" (Maslow 1971, p. 195).

To begin answering the question of "Why Now?", this dissertation looked at the changing needs and demographics in American classrooms. By 2035, students of color will be the majority due to the increasing number of immigrants having multiple children, multiple languages spoken, and half of all children from single-family homes (Tomlinson et al., 2003). One in five children with an immigrant parent and children under six from immigrant families is the fastest-growing population segment in the United States (Oakes & Lipton, 2007). Lai (2011) states that this diversity in the student body brings different learning styles, needs, and desires that the students educators use to teach. To illustrate this point, Lai shows that in 2000 the total enrollment in higher education worldwide was about 100 million, 200 times more than in 1900, and they estimate it will be around 125 million by 2020 (Lai, 2011). Besides the influx of international students with different languages and cultures, Kalantzis & Cope (2012) postulate that learners from the same family would learn things differently.

An additional factor to consider is the increased number of special education students in the general classroom. According to the National Center for Education Statistics (NCES), 13.4 percent of public school students were being served under the Individuals with Disabilities Education Act of 1994 during the 2001-2002 school year (Richardson, 2007).

To further consider this question, research by Tomlinson (2003) shows that the current teaching methods may not be reaching students' current needs.

"seated side by side in classrooms that still harbor a myth of "homogeneity by virtue of chronological age" are students with identified learning problems; highly advanced learners; students whose first language is not English; students who underachieve for a complex array of reasons; students from broadly diverse cultures, economic backgrounds, or both; students of both genders; motivated and unmotivated students; students who fit two or three of these categories; students who fall closer to the template of grade-level expectations and norms; and students of widely varying interests and preferred modes of learning" (Tomlinson et al., 2003).

This section presents the changing makeup of classrooms as a reason for Differentiated Instruction. It uses theory to show that students with different needs need different types of instruction. The next section will investigate if DI effectively bridges these gaps and if the investment is worth the implementation.

## Challenges to Differentiated Instruction: Barriers

Is there evidence to support that DI, instead of "sage on the stage," enables students to create new and powerful ideas, ultimately leading to success? Theorists (Tomlinson, 2000; Subban, 2006; Hall, 2002; Hardman & Dawson, 2008) believe so and through Public Policy (NCLB; 2001; IDEA; 2004) propose the introduction of Differentiated Instruction in mainstream education as a solution to provide motivation and better outcomes for all students regardless of their ability. While the theories above support DI, what are the challenges associated with DI. Can any identified problems be mitigated, and if so, are the benefits of DI worth the implementation costs.

The most significant barriers to implementing DI are the **time** to differentiate, **school classroom assignments**, **educator aptitude** in differentiating, **educator attitudes** toward DI, and the need to **prepare students for standardized assessments** (Tomlinson, 2000; Subban, 2006; Joseph, Thomas, Simonette, & Ramsook, 2013; Delisle, 2015). Unlike teaching to the middle or the lowest common denominator, DI is a "time-consuming exercise with long hours of planning, organizing, and scheduling individuals and groups" (Joseph, Thomas, Simonette, & Ramsook, 2013). In the article, *"Differentiation Doesn't Work,"* Delisle states that it is impossible to differentiate, and it never will be possible based on how our students are assembled into classes. "Toss together several students who struggle to learn, along with a smattering of gifted kids, while adding a few English-language learners and a bunch of academically average students and expect a single teacher to differentiate for each of them" (Delisle, 2015). Similarly, according to Connor, Morrison, & Katch (2004), many

educators believe that DI is unfair as it is advocating for different opportunities and assessments for students.

Tomlinson sums up the issues when she said: "Teachers perceiving differentiated instruction as a fad that would pass, concerns over time allocated to prepare for the differentiated lesson, unease over student assessments and preparation for testing, disquiet regarding classroom management and perceived teacher insecurity over a change in their role" (Tomlinson, 1995).

While these attitudes may exist, teachers greatly care for their students and want the best for them. Tomlinson (2000) stated that "Teachers are hunters and gatherers of information about their students and how those students are learning at a given point. Whatever the teachers can glean about student readiness, interest, and learning helps the teachers plan next steps in instruction" (p4).

### **Differentiated Instruction: Efficacy**

The efficacy or how much of an impact DI has on learner outcomes is contentious amongst DI proponents and opponents. This is due to a shortage of empirical studies available for comparison and contrasting methods and DI results, though the number of empirical studies increases (Sherman 2008). A sample of these studies shows the general aim of empirical research in Differentiated Instruction.

- Connor, Morrison, and Katch (2004) conducted a study involving first-grade instruction determining growth by labeling activities as teacher-managed or learner managed and if the skills were explicit (the student followed given

strategies) or implicit (the learning evolved naturally). The findings show that when teachers modified their instruction, the students achieved more growth.

- Light (2013) experimented with heterogeneously grouped middle school students to determine if DI techniques would help meet gifted or highly talented students' needs. After the experiment, the researcher gathered qualitative data on the students', parents', and educators' perceptions of how the new interventions met their needs. This research showed that while DI interventions were done before starting this research, these interventions were not consistently meeting the learners' needs. This lack of meeting learners' needs was attributed to a lack of consistent quality, teachers not providing tiered lessons that match the students' readiness and ability levels. After the study, there was an increase in the lessons' value, including the challenge provided and the perception of Differentiated Instruction.
- Aliakbari & Haghghi (2014) performed a gender-based study involving a male and female control group and a male and female experimental group. The experimental group students were taught using DI techniques such as grouping, tiered assignments, and instruction based on three of the four areas of differentiation (content, process, and product). This study showed that both the male and female experimental groups performed better than the control groups. As a side note, the female experimental group performed higher than the male group.
- Bal (2016) focused on assessing DI strategies amongst sixth-grade Algebra students. Bal selected students close in terms of gender distribution and first-

term final grade through chi-square analysis in this semi-experimental study. Also, all of the students chosen were of low socioeconomic status. As with the Aliakbari & Haghighi study, there were control and experimental groups. In one of the many data points collected, Average Persistency Points, "the students from the experiment group is 17.48, corrected to 17.36 when controlling for success points on the last test. The control group's average persistency points total 14.41, corrected to 14.60 when controlling for success points on the last test" (Bal, 2016, p195). Persistency and persistency points refer to the knowledge that is retained from one test to the next. In this case, the students who have had the differentiated instruction intervention retain more information than those in the control group. This shows that the interventions did have a significant impact on learner outcomes.

Despite these studies showing positive impacts of differentiated learning, there are still practitioners who feel that the time, energy, and results don't justify the added resources needed to successfully implement DI (Tomlinson, 1995; Subban, 2006; Joseph, Thomas, Simonette, & Ramsook, 2013; Delisle, 2015). A significant concern with the experiments listed above is that they are not replicable and have different success measures. While showing positive outcomes, the applicability to different situations is limited.

### **2.3. Educator and Organization Development**

The beginning of this literature review focused on the history of Differentiated Instruction, the opportunities and challenges with DI, and educator opinions. That



review uncovered that the most successful educators possessed specific skills and their organization had practices in place to support them. This section will explore these areas through an in-depth literature review focused on two main questions:

1. What skills and training make DI educators successful?
2. What characteristics do organizations need to possess to support their educators effectively?

### **Change the Educators Or The Organization?**

The literature proposed two camps of thought on how to change an organization: change the individual teachers (Bandura, 1977; Berliner, 1988; Hall, 1985) or change the culture and organization of the school (Elmore, Peterson, & McCarthy, 1996; Moon et al., 2004; Tyack & Cuban, 1995). All change theorists, regardless of the camp, agree that change is: complex and multifaceted, systemic change **requires extended time**, and change can be **positively or negatively impacted by specific factors** (Hertberg-Davis and Brighton, 2006). According to the same theorists, the two most significant factors are educator development and organizational support. The next section will explore these two factors.

#### **2.3.1. Educator Development**

"Teaching is not a matter of applying a method or using a strategy; it is a matter of human interactions, within a complex network of interpretations and relationships" -

Cain, 2011

## **Educator Professional Development**

According to Abu-Shreah & Zidan (2017), the educator is ultimately responsible for developing their students' skills and abilities by **implementing effective educational practices** and activities by understanding their students' needs. This responsibility is accomplished through creating a network of relationships with their students (Cain, 2011), understanding students' needs through DI pre-assessment (Tomlinson, 2000), and then differentiating instruction to help each student achieve their individual goals (Smets, 2017). While the educator may know what help their students need, **they may not have the skills** to enact those changes (Gaitas and Martins, 2017; Smets, 2017). Implementing and supporting a system of educator professional development is critical in improving education as the teacher needs to develop the skills to enact the changes to help their students (Abu-Shreah & Zidan, 2017). The next section will explain how the literature describes an organization's role in creating a professional development culture.

Educator Professional Development, which broader than traditional Faculty Development as it includes anyone educating a learner, can be defined "as those activities that help teachers improve their teaching skills, design improved curricula, and enhance the organizational climate for education" (Kamel, 2016). Traditionally, faculty development consisted of keeping subject matter current (Irby and O'Sullivan, 2019). Shulman (1987) challenged that notion by proposing that educators need to transform their content knowledge into something that learners can understand and access at the learner's unique level of development. This Pedagogical Content Knowledge (PCK) deepens educators' wisdom by allowing them to converse with their students and help

them discover new ways to understand the content (Irby and O'Sullivan, 2019).

Understanding the theory behind educator professional development provides a framework for what the training should look like, how it should be conducted, and the training outcomes.

### **Modalities and Purpose**

Professional development can and should occur in multiple modalities and serve different purposes. Just as an educator modifies instruction to meet the student's needs, teaching various skills requires other professional development activities (Tyunnikov, 2017; Vaughan and Garrison, 2006). Professional development activities should mimic the modalities of the lesson or skill taught. For instance, if an educator is being taught about active learning, the training should have active learning components. As demonstrated in DI's history, both the learning environment and process can significantly impact the learning outcome. "One should pay special attention to those modalities that, firstly, highlight the qualitative uniqueness of the innovative process in relation to the main vectors of innovative activity," or in other words, use a modality that mimics the modality used when teaching students (Tyunnikov, 2017, p. 170).

Another reason for multiple modalities is that traditional faculty development workshops may not create an **opportunity for critical reflection** and discussion of teaching practice (Vaughan and Garrison, 2006). Rice, Sorcinelli, and Austin (2006) suggest that faculty development activities should allow participants to work in communities that respect collaboration, create friendships across departments, and give educators the time to talk about teaching practice and environments. Lieberman (1995) supports the

notion that faculty development is more successful when a collegial network is part of the professional development program. This network, usually of peers, provides a space to talk about challenges and successes openly and includes educator support.

Many faculty development programs are shifting from one time activities to ongoing, cohort-based, experiences also called Faculty Development Communities to provide and nurture networking opportunities (Cox, 2004; Layne, Froyd, Morgan, and Kenimer, 2002; Slavit, Sawyer, and Curly 2003). In addition to being cohort-based, the most successful programs also use multiple modalities for instruction, including but not limited to online, face to face, blended, small groups, large group, and active learning (Dziuban, Hartman, Moskal, Sorg, and Truman, 2004; Garnham and Kaleta, 2002).

In addition to having a network of peers, the training must have relevant content. A core learning objective of any program must not only include "what works" but also improve educators' evidence-based learning skills, help them reflect on their teaching, and how to make appropriate changes to their teaching approach (Nelson, and Campbell, 2017; Zwozdiak-Meyers, 2012).

### **2.3.2. Organization Development**

The previous section illustrated the need for educators to be involved in ongoing, peer-connected professional development. For that to happen, organizations need to support these programs. The Business Dictionary (2019) defines an organization as "A social unit of people that is structured and managed to meet a need or to pursue collective goals." Classrooms, schools, colleges, and universities fit this definition allowing

Weber's principles and associated tactics to be applied to the school setting. The table below showcases five characteristics of Max Weber's Organization Theory: hierarchical authority, specialized administrative staff, rewards differentiated, performance emphasis, and segmental participation (Undy, 1959). Weber's Organization Theory will be used as a framework to support the ideas and practices found in the literature. While these characteristics are not extensively described in this literature review, they support the various authors' conclusions across the literature.

**Table 2.1**  
*Illustration of Weber's Organizational Characteristics*

<b>Characteristic</b>	<b>K-12 Example</b>	<b>Higher Education</b>
Hierarchical Authority	Teacher -> Principal -> Superintendent	Assistant Professor -> Associate Professor -> Professor -> Dean -> Provost/President
Specialized Administrative Staff	Vice Principals, Secretaries, District Support staff	Assistant Deans and Directors for various services: Student Affairs, Faculty Affairs, Budget, Human Resources
Rewards Differentiated	Years Employed and Degree	Degrees, Research, Position, Years Employed
Performance Emphasis	Principal Evaluation	Student Evaluation of Teaching (SET), Peer Observation, Research Productivity.
Segmental Participation	Classrooms, Schools, Districts	Classrooms, Departments, Divisions, Schools, Colleges, Campuses

This section focuses on the literature describing how administrators and their organizations hamper or enhance an educator's ability to implement differentiated instruction successfully. These findings will later be distilled into practical steps to create a culture of support and empowerment.

## **Administrators as Instructional Leaders**

The research underscores the critical role principals have as instructional leaders and as job-embedded support for the educator (Goddard et al., 2010; Honing, 2012). Organizations need to improve in an ongoing, intensive, and consistent way to support instruction (Honig, 2012). Principals, or organizational leaders in general, need to encourage teachers to improve their practice through self-reflection, be involved in professional development, solve problems, and have their teachers be part of the team to enhance instruction overall (Clifford, 2012; Lang, N.D; Lee, Walker and Chul, 2012; Saeed and Ali, 2019). According to Hertberg-Davis (2009), "As systemic change reforms focus on differentiated instruction, **future research on principals' influence on sustaining differentiated instruction** as a focus and priority in the classroom would add to the knowledge of how best to support and develop teachers' commitment and expertise in differentiation over time" (p.101). Furthermore, teachers are challenged to understand and implement the growing number of educational recommendations and organizational mandates (Schleicher, 2011).

Administrators have the responsibility to set an example for educators in creating an organization that is supportive of DI (Goddard et al., 2010). For an organization to be successful at Differentiated Instruction, or any school-wide or district-wide innovation, the change needs to be "deep." And "at the core of everything," the school does (Hewitt & Weckstein, 2012). Saeed and Ali (2019) state educators in this context need to be trained in the same leadership and classroom management skills as administrators. When administrators and educators are trained in the same processes, it provides a common foundation for the future.

At the same time, educators have to prove that what they are doing is significant, which is not an easy task (Hariss and Ingel, 2014). Educators need to have both self-evaluation and an end-of-course evaluation (Rock et al., 2008). While the course evaluation may already exist, the self-evaluation piece may be new.

### **Pedagogy as Scholarship**

Furthermore, while the educator's development is required, it will "never happen without the presence of creative leadership based on innovation and renovation in administrative and educational work" (Abu-Shreah & Zidan, 2017, p21). Scholarship of Teaching and Learning (SOTL) must be seen as a core function of educator development. For this to be a core function, time needs to be set aside to research and experiment in education. For this to happen, organizations must undergo a culture shift, supporting teacher development, and pedagogical scholarship in promotion, tenure, and resource allocation (Ginsberg and Bernstein, 2011).

This dissertation described how administrators could hamper or enhance an educator's ability to be innovative in their classroom. Next, it will explore schools' success or failure to strengthen innovation by looking at three main areas: Assessment and Evaluation, Incentive programs, and additional resources.

#### **2.3.2.1. Assessment and Evaluation of Teaching**

##### **Educator and Course Evaluations**

The traditional school has a curriculum, courses, and program-level objectives. The administrators' and teachers' performance is rated, and the school or district ranked based on the students' performance against standard metrics (Harris and Ingel, 2014). According to Tomlinson (2005), leaders can help educators by offsetting various

challenges such as: providing additional resources, access to curriculum, offering incentives, crafting an environment that supports DI, and allows for professional development.

Traditionally in K-12 schools, principals have been responsible for teacher evaluations (Liu & Johnson, 2006). When administrators are not familiar with DI, they may provide lower evaluations of DI and innovative educators. According to Hertberg-Davis and Brighton (2006), "The level of a principal's verbal and behavioral support of differentiation often had profound effects upon teachers' implementation of differentiation in their classrooms (p.94). When an educator implements a non-traditional intervention in Higher Education, their student evaluation of teaching (SET) scores may decrease (Braga, 2014). This issue is further complicated when only one or two educators implement DI, and the rest of the faculty are not. The problem becomes how do you evaluate two instructors against the same criteria when they are operating their classroom differently. While this may be seen as a problem, Wertheim & Leyser (2002) conducted a study and found no correlation between Teaching Efficacy (TE) and instructional strategies. This is the same argument for DI as how do you evaluate two students who have different learning styles and desires against the same criteria.

One issue of note in the literature is forcing schools to implement Differentiated Instruction. In both the UK and Australia, DI has been forced upon educators. This was done without appropriate educator development or buy-in from the teachers. While DI is an intriguing concept, the shift from concept to the classroom must be done carefully and with buy-in from the educators (Mills et al., 2014),



## **Flexible Evaluations**

A common myth is that DI does not prepare students for standardized assessments or "the real world" (Rock et al., 2008; Tomlinson, 2000a). The common understanding is "if we change what and how students learn, then how will they perform on a standardized test"? Differentiating a classroom can improve performance on standardized tests (Rock, Gregg, Ellis, & Gable, 2008). According to Brimijoin (2010), teachers have a problem trying to check off boxes to ensure students know the test's content. This approach doesn't provide deeper learning that will help them grasp the content and perform well on the assessment (Ellis & Rock, 2001).

In many schools, such as the University of Illinois, students evaluate their teachers through a university-wide system. One such example is the Instructor and Course Evaluation System (ICES). This system allows students to evaluate their instructors based on common core questions and add department-specific items. While this provides some flexibility, only the standard global questions are used to assess the teacher's performance. This evaluation only includes the student evaluation and doesn't provide a mechanism for educator peer review. Furthermore, when an educator is trying something new, their student evaluation scores may go down from previous semesters as students are not used to this new learning way.

Many K-12 schools opt for the Charlotte Danielson Framework, which consists of a pre-observation meeting to set goals and expectations, followed by a formal observation, and concluding with a post-observation meeting (Hewitt & Weckstein, 2012).

**Figure 2.2**

[ESU16 Staff Development Resources Based on the Charlotte Danielson]. Retrieved October 20, 2020, from <https://esu16staffdevelopment.weebly.com/danielson.html>

<b>Domain 1: Planning and Preparation</b> <ul style="list-style-type: none"><li>• 1a Demonstrating Knowledge of Content and Pedagogy</li><li>• 1b Demonstrating Knowledge of Students</li><li>• 1c Setting Instructional Outcomes</li><li>• 1d Demonstrating Knowledge of Resources</li><li>• 1e Designing Coherent Instruction</li><li>• 1f Designing Student Assessments</li></ul>	<b>Domain 2: Classroom Environment</b> <ul style="list-style-type: none"><li>• 2a Creating an Environment of Respect and Rapport</li><li>• 2b Establishing a Culture for Learning</li><li>• 2c Managing Classroom Procedures</li><li>• 2d Managing Student Behavior</li><li>• 2e Organizing Physical Space</li></ul>
<b>Domain 4: Professional Responsibilities</b> <ul style="list-style-type: none"><li>• 4a Reflecting on Teaching</li><li>• 4b Maintaining Accurate Records</li><li>• 4c Communicating with Families</li><li>• 4d Participating in the Professional Community</li><li>• 4e Growing and Developing Professionally</li><li>• 4f Demonstrating Professionalism</li></ul>	<b>Domain 3: Instruction</b> <ul style="list-style-type: none"><li>• 3a Communicating With Students</li><li>• 3b Using Questioning and Discussion Techniques</li><li>• 3c Engaging Students in Learning</li><li>• 3d Using Assessment in Instruction</li><li>• 3e Demonstrating Flexibility and Responsiveness</li></ul>

Figure 2.2 illustrates the 21 dimensions included in educator evaluations. The Danielson framework is used as it is method agnostic. Teachers who are implementing DI will not be penalized as they are using methods other than lecture. The framework is accompanied by a guide and rubric that allows for evaluating the 21 domains, rating each as unsatisfactory, basic, proficient, and distinguished (Danielson, 2017).

Suppose a school implements an agnostic evaluation framework that focuses on what is being taught rather than how. In that case, educators can feel more supported in their innovative efforts.

### **2.3.2.2. Resources: Time, Talent, Training**

Another main factor that impacts administrators is training funding, receiving release-time, resources, collaborative learning, and recognition for teachers who improve their differentiated processes (Brimijoin, 2010; Tomlinson, 1995). In many cases, this a catch-22. The administrators are worried about losing funding due to low performance, which means they don't receive extra money for educator development (Smith and Gorrard, 2007; Levačić, 2009). Simultaneously, with DI based on individuals and differences between classrooms, it is hard to prove that all students will benefit from DI, which could look like using the money for a cause that isn't guaranteed to bring results (Tobin & McInnes, 2008).

### **Incentive Programs**

Incentive programs are those that offer "something" to the educators in exchange for changing what they usually do. The "something" could be additional salary, time off, research dollars, or discretionary funding. Doing "something" different could involve innovation in the classroom, serving on a committee, taking on additional responsibility, or supporting a new program. There are a variety of programs in existence. We will look briefly at what seems to work and what doesn't work when creating these programs.

A program needs to have three main aspects: autonomy, guidance, and a sense of social community or working toward a larger meaningful goal to successfully incentivize innovation (Budwig, 2018). These programs value the educator's worth, evaluate them fairly, and help them see that they are part of a broader community or purpose. This is further supported by motivational psychology, which suggests that

"individuals need space to work in ways the fuel their passions and allow them to take risks, make mistakes and express creativity" (Budwig, 2018).

The opposing argument to incentive programs is that incentive programs don't work. They offer extrinsic motivation that impacts the natural intrinsic motivation that initially inspired the educator to want to innovate (Miller, Deci, & Ryan, 1988). As stated earlier, a specific innovation needs to be deeply rooted at the organization level to be successful. Research shows that at best, incentives create only short-term changes in behavior, eventually reverting to the initial behaviors (Budwig, 2018; Allan & Fryer, 2011).

### **Additional Resources**

A common refrain in teaching is "doing more with less." This is also true in DI as creating and implementing lessons that take individual students' needs into account takes more time (Corley, 2005; Heacox, 2002; Sherman, 2008). When using technology to reduce the educator's overhead and burden, additional funding and support are needed (Joseph, Thomas, Simonette, & Ramsook, 2013). A significant concern with DI is the amount of time to **plan, design, and deliver the content** and finish the curriculum within a given amount of time (Aftab, 2015; Heacox, 2002; Sherman, 2008). In this case, the educator may require more time than they have been allocated. Giving extra time to differentiate can be done in one or more of the following ways: release time, postponing when a course is offered, and providing a teaching assistant to shoulder some of the daily repetitive work.

Another incentive is additional money. This money could be in the form of a promised promotion, increase in salary or stipend, or money to purchase new technology or tools to help with differentiation (Brewster & Railaback, 2001). While an additional wage doesn't create more hours in the day, it can be a short-term motivator for some instructors.

## **2.4. Gaps in the Literature**

Differentiated Instruction is a robust framework for ensuring students receive the best education based on their readiness and skill levels. Educators need to be training and support to deliver DI effectively. This training needs to be tailored to match their readiness and skill levels.

The literature review showcased three significant gaps:

1. How applicable is DI beyond K-12 education?
2. There is a lack of reproducible studies showing the effectiveness of DI in different education settings with diverse student and educator populations.
3. What specific action steps can organizations take to develop and support their educators?

Most of the literature discussed deals with DI in K-12 or low-enrollment higher education classes and its effectiveness. The literature doesn't show if the tactics used to implement DI in small enrollment courses would be effective in high enrollment courses in higher education. This lack of literature for DI at scale makes it challenging to draw appropriate conclusions on the challenges educators may face when trying to

differentiate for large enrollment classrooms. For instance, in an October 2018 search of EBSCOHOST with the following parameters (all databases, full text, scholarly journals, and the terms "differentiated instruction" AND "large class") resulted in only five matches. Only two of those five searches are related explicitly to Differentiated Instruction. This gap limits how to apply DI best practices as most examples or methods are educator intensive and don't scale well.

Based on the lack of literature regarding DI at scale and the shown need for empowering innovative educators, this work aims to make DI accessible to educators teaching any class sizes through technology, supporting organizations, and educator development.

## **2.5. Summary of the Literature**

This literature review examined how DI impacts students by looking at the educators that teach them and organizations that support the educators. When keeping learning at the center, we see the challenges in educating learners with different learning styles and desires in a homogenous manner. After delving into the literature, the benefits of differentiation, and the challenges that exist become clear. While there is no one silver bullet to solve all issues in the classroom, Differentiated Instruction is an approach that theorists and educators state can positively impact assessments and lifelong learning provided that educators have proper support and training through a supportive organization.

"I have little interest in a surgeon who says, "I learned that when I was in medical school. Why should I revisit it?" or who says, "I've done that operation the same way for ten years. Don't bother me with new approaches." I see teaching in the same way." - Carol Ann Tomlinson (DeWitt, 2011)

The quotation above by Carol Ann Tomlinson illustrates teachers' problems in trying to differentiate their classroom. Either they aren't interested, aren't trained enough, aren't supported enough, or don't have the buy-in from the administration, parents, or students, to successfully implement their chosen methods successfully. Based on these challenges, it is essential to provide a guide for creating an organization that supports teachers and their desire to implement DI/DL. The literature has laid the groundwork showing the need for DI/DL, the need for ongoing and continuous educator professional development, and the necessary buy-in and support of administrators and their organizations.

After examining the literature and looking at the gaps, *Cutting Edge Differentiated Instruction Strategies for Administrators: Supporting Innovation at an Organizational Level* will focus on the specific action steps for organizations to more take to more fully develop and support educators. The next chapter will focus on two core methodology approaches to gather data and create an accessible and practical guide for administrators to improve and support DI faculty.

## Chapter 3 - Methodology

As proposed, the goal of this dissertation is to develop a groundbreaking guide for administrators (e.g., Principals, Directors, Deans) that offers practical ways for empowering and supporting innovative educators (teachers, instructors) who are employing Differentiated Instruction (DI) in their classroom. This guide will assist administrators in creating an influential, supportive, and innovative culture. While this guide can be used to empower all educators, special attention is given to innovative and differentiated instruction educators as they may be more open to trying new classroom interventions when there isn't a guarantee of success. The goal is to facilitate teaching/learning environments that are safe and supportive for trials and experimentation.

Building this guide focuses on investigating and understanding three main areas:

- The successful empowerment of differentiated instruction educators.
- Providing best practice tips and tricks for motivating and empowering innovative educators.
- The overall structure, format, and design of this guide.

This chapter outlines the plan and design for a mixed-method research project to answer the second question [ But both below - successful learning & effective administration] posed during the literature review: How can organizations (schools and administrators) support DI educators through faculty development, support, and technology?



First, to investigate what has been successful, a specific literature review method called an Integrative Review (IR) would be used to scour the literature (Frederiksen & Phelps, 2018; Whitemore & Knafl, 2005). This step, using specific key search terms in an IR process, will examine case studies to share best practices from experienced DI educators on what has been both motivational and demotivation in their past.

The second section's goal is to discern the most effective format for both administrator and educator development. This is by employing Educative Curriculum Materials (ECM) to review the structure and format of *The Guide*. ECM are materials that are designed to promote both student and educator learning (Beyer, Delgado, Davis, & Krajcik, 2009).

These two approaches will provide the content, sourced from experienced DI educators and administrators, and the format for the proposed guide for educators. The aim is to create an informative, accessible, and practical guide that administrators can use to support Differentiated Instruction Educators.

This chapter begins with an examination of the strengths and limitations of each of these approaches according to the literature and concludes with the specific approaches for creating the proposed guide: **Cutting Edge Differentiated Instruction Strategies for Administrators: Supporting Innovation at an Organizational Level.**

### **3.1. Integrative Review Method**

The first step in understanding what has and hasn't been successful in empowering DI educators is to examine the literature for trends, examples, and best practices. While

there are many types of approaches to literature reviews, this dissertation will employ an Integrative Review (IR). IR examines past research of various types (experimental and non-experimental), drawing conclusions based on available literature at a specific point in time (Frederiksen & Phelps, 2018; Whitemore & Knafl, 2005).

Integrated Review was selected after examining several types of literature review approaches to find the most relevant. Table 3.1 illustrates the main types of research reviews, their definitions, purpose, scope, sampling frame, and how the analysis is presented.

**Table 3.1**  
Methods of Research Reviews Adapted from Whitemore, R (2005). Rigour in Integrative Reviews

Type of Review	Definition	Purpose	Scope	Sampling Frame	Analysis
Integrative Review	A summary of the literature on a specific concept or content area whereby the research is summarised, analyzed, and overall conclusion are drawn	To review methods, theories, and/or empirical studies around a particular topic	Narrow or Broad	Quantitative or qualitative research; theoretical literature; methodological literature	Narrative
Meta-analysis	A summary of past research using statistical techniques to transform the finding of studies with related or identical hypotheses into a common metric and calculating the overall effect, the magnitude of the effect, and subsample effects	To estimate the effect of interventions or relationships	Narrow	Quantitative research or similar methodology	Statistical

**Table 3.1 (cont.)**

Systematic Review	A summary of past research using an objective and rigorous approach of studies with related or identical hypotheses	To summarise evidence regarding a specific clinical problem	Narrow	Quantitative research or similar methodology	Narrative or statistical
Meta-Summary, meta-synthesis, formal grounded theory, metastudy	A summary of past research combining the findings from multiple qualitative studies	To inform research or practice by summarising processes or experiences	Narrow or broad	Qualitative research	Narrative

The IR method was selected over other review types for a few reasons. First, IR allows the investigator to create a theory or model around a specific viewpoint (Davis & Krajcik, 2005). The goal of *The Guide* is particular and practical, so employing an IR allows for specific searches to meet those needs. This contrasts a traditional systematic review as *The Guide* doesn't look at all information on a broad topic, but rather a very focused field (Smith, Devane, Begley, & Clarke, 2011). This helps achieve the goal of providing very concrete evidence that administrators may use in their organizations to empower educators in general and DI educators in specific.

Second, the summation of data in an IR is in a narrative format rather than just statistical information. This provides the freedom to explain why each source was used and not used and how together they build a body of work useful for *The Guide*. If *The Guide* was limited to only statistical data, the thoughts, feelings, and impact of the interventions might not be as readily known.

Third, IR was chosen over Meta-summary/meta-synthesis, as Meta-summary is limited to just summarizing qualitative studies. IR allows for both qualitative and quantitative studies to be included. The IR allows for more sources and studies to be considered, which will improve the quality of *The Guide*.

The following paragraphs will detail the benefits and challenges of conducting an IR. This Methodology chapter will conclude with the approach this dissertation will use to maximize the benefits and reduce the challenges associated with performing an Integrative Review.

### **3.1.1. Benefits**

In any approach or methodology, the benefits of the chosen type should outweigh any distractors or negative consequences of that approach. One rationale for selecting IR is that it applies to those practicing in the field (Hopia, Latvala, & Liimatainen, 2016; Souza et al., 2010; Whitemore & Knaf, 2005). Furthermore, according to Whitemore & Knaf (2005), an Integrative Review (IR) has many strengths, including, but not limited to:

- incorporating diverse study types (experimental and non-experimental, theoretical, and empirical),
- providing a current state of the literature, and
- direct application to practice.

In this section, we will examine these benefits and describe the approaches that can maximize their impact on the study.

## **Diverse Study Types**

In most literature reviews, only one type of study is included, such as experimental studies in a systematic review. While this makes data analysis more manageable, it ignores other contributions to the field, such as non-experimental studies. This limits the ability to view the phenomenon in question from a holistic viewpoint (Souza et al., 2010). To expound upon this, IR is the only formal review method that is known for and allows the inclusion and synthesis of a variety of sources and types (Hopia, Latvala, & Liimatainen, 2016; Whitemore, 2007). As we will see in the challenges section, this can make IR more difficult as combining different data sets with different assumptions and study parameters can be both difficult and lead to error unless a coding device is created (Jackson, 1980).

While exploring review methods that combine both qualitative and quantitative studies, most sources mention the meta-analysis method to gather data across various fields (Hopia, Latvala, & Liimatainen, 2016; Souza et al., 2010; Whitemore & Knafl, 2005). While meta-analysis is very useful and regulated, it lacks the inclusion of nonexperimentally designed studies, which IR includes (Smith & Stullenbarger, 1991).

## **The Current State of Literature**

The purpose of any literature review is to 1) provide information on a specific topic or topic area, 2) analyze the literature focusings on its place and contribution to the field, 3) identify conflicting views on the subject, 3) identify gaps in the literature, and 4) place the work that is being attempted within the field (Labaree, n.d.). This review allows a reader to become knowledgeable in an area without having to read and search for

multiple sources. According to Hopia, Latvala, & Liimatainen (2016), in many professions, such as medicine, practitioners don't have the time to do their own in-depth research to find information applicable to the problem of the day. In these cases, synthesized research in the form of a literature review is essential.

## **Conclusion of Benefits**

At the beginning of this section, we listed several benefits of conducting an IR, including applicability to practice, multiple source types, and summarizes the current state of the field. These benefits can be further summarized by stating that an IR can provide a comprehensive view of complex concepts and ideas gathered through a variety of sources, methodologies, and purpose (Whittemore & Knafl, 2005).

### **3.1.2. Challenges**

The previous section discussed several of the benefits of conducting an IR. As with many literature reviews approaches, IR has limitations that need to be known and accounted for wherever possible (Cooper, 1982).

Whittemore & Knafl (2005) also provided the weakness or limitations of an integrative review, including:

- combining mixed or diverse methods can insert bias, inaccuracy, or a perceived lack of rigor,
- standardized methods for drawing conclusions may be poorly formulated,
- conducting the review effectively and methodically.

This section will examine these challenges and describe the approaches that can and will be used to reduce their impact on the study.

### **Bias, Inaccuracy, Lack of Rigor**

Each type of study has assumptions, biases, and potential for inaccuracies. In IR, many types of research are included, which can compound the assumptions, biases, and inaccuracies inherent in each study type.

Another challenge related to this mixing of methods is what information is used to draw conclusions. In a Systematic Review, most researchers use methods that align with the standards of quantitative research. IR, on the other hand, uses narrative analysis to bring together these different study types (qualitative and quantitative), which are more aligned with qualitative research studies (Whittemore). By using narrative analysis, statistical data can be explained and expanded upon through personal stories and case studies. The issue in IR is that both types of data are used and can be a problem in the analysis step. While there is a benefit of using narrative analysis, at the same time, this introduces ambiguity as well as can cause misclassification of data.

A significant concern with any literature review, and especially present in an IR, is the rigor of the process employed. This ranges from understanding the problem of conducting the search to analyzing and presenting data. Cooper (1982) created a five-stage process to ensure proper rigor, reduce many of the challenges associated with this method, and allow IRs to be more accepted in the literature review community. These five stages were updated and modified by Whittemore and Knafel (2005). The five

stages (Table 3.2) are problem identification, literature search (previously called Data Collection), data evaluation, data analysis (formerly Analysis and Interpretation), and presentation. The stages will be used as guidelines for ensuring that the search is rigorous, complete, and repeatable.

**Table 3.2**  
The Integrative Review Conceptualized as a Research Project (Cooper, 1982)

	<b>Stage of Research</b>				
<b>Stage Characteristics</b>	<b>Problem Formation</b>	<b>Data Collection</b>	<b>Data Evaluation</b>	<b>Analysis and Interpretation</b>	<b>Public Presentation</b>
Research Question Asked	What evidence should be included in the review?	What procedures should be used to find relevant evidence?	What retrieved evidence should be included in the review?	What procedures should be used to make inferences about the literature as a whole?	What information should be included in the review report?
Primary Function in Review	Construction definitions that distinguish relevant from irrelevant studies	Determining which sources of potentially relevant studies to examine.	Applying criteria to separate "valid" from "invalid" studies.	Synthesizing valid retrieved studies.	Applying editorial criteria to separate important from unimportant information.
Procedural Differences that Create Variation Review Conclusions	1. Differences in included operational definitions. 2. Differences in Operational Detail	Differences in the research contained in sources of information.	1. Differences in quality criteria. 2. Differences in the influence of non-quality criteria.	Differences in rules of inference.	Differences in guidelines for editorial judgment.



**Table 3.2 (cont.)**

Sources of Potential Invalidity in Review Conclusions	<p>1. Narrow concepts might make review conclusions less definitive and robust.</p> <p>2. Superficial operational detail might obscure interacting variables.</p>	<p>1. Accessed studies might be qualitatively different from the target population of studies.</p> <p>2. People sampled inaccessible studies might be different from the target population of people.</p>	<p>1. Non-quality factors might cause improper weighting of study information.</p> <p>2. Omissions in study reports might make conclusions unreliable.</p>	<p>1. Rules for distinguishing patterns from noise might be inappropriate.</p> <p>2. Review-based evidence might be used to infer causality.</p>	<p>1. Omission of review procedures might make conclusions irreproducible.</p> <p>2. Omission of review findings and study procedures might make conclusions obsolete.</p>
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**Standardized Methods for Drawing Conclusions**

As Cooper's research shows, an IR can compound biases by mixing a variety of sources and types of research that generally could be minimized if only one kind of study or experiment was conducted. Without a specific approach to reducing each one of these errors, the resulting report may have exponentially more errors than several single source or typed reviews (Jackson, 1980; Souza et al., 2010; Whitemore & Knaf, 2005). This concern can be reduced through creating and having a documented process for what procedures are used to make inferences about the literature (Cooper, 1982).

**Conducting the Review**

All research methods have benefits and challenges inherent to their design. One common problem across all methods is when the appropriate protocols are not followed.

This introduces errors from data analysis problems to sources that are not high quality to incorrect conclusions being drawn. In an IR, due to the inclusion of various sources, these errors are exacerbated. Therefore it is essential to both teach about and train how to use research methodologies to all who conduct and use IR materials (Hopia, Latvala, & Liimatainen, 2016).

Table 3.3 below illustrates various sources of errors and how to reduce the likelihood these will impact the conclusions reached in an IR.

**Table 3.3**  
Sources of Error and Procedures to Decrease Error in Integrative Reviews  
(Whitemore,2005)

<b>Sources of Error</b>	<b>Definition</b>	<b>Methodological Procedures</b>
<b>Literature Search and Sample Selection</b>		
Unexplained selectivity	Exclusion of literature within the scope of review	Use multiple search strategies
Lack of discrimination	Inattention to the quality of primary sources	Evaluate the quality of primary sources and include in the analytic effort
<b>Data Analysis</b>		
Erroneous detailing	Incorrect extraction of data from primary sources	Define coding procedures, use piloted data extraction forms, have two independent reviewers extract data from primary sources
Double counting	Multiple reports from one study sample or same authors on same topic	Develop inclusion and exclusion criteria to address this
Non-recognition of faulty author conclusions' unwarranted attribution or overstated author conclusions.	Uncritical acceptance of all conclusions of primary sources	Critique primary sources, including a quality assessment rubric
Suppression of contrary findings	Lack of acknowledgment of contrary findings	Include all evidence from primary sources that meet search criteria. Explain and give space to those that are contrary to each hypothesis.

**Table 3.3 (cont.)**

<b>Conclusion Drawing</b>		
Consequential errors	Inability to draw accurate conclusions due to previously stated errors	Be consistent in the use of systematic and objective methods
Generalization doesn't include all evidence		Use well-defined data extraction and analysis procedures

### **3.2. Educative Curriculum Materials**

In the Literature review chapter, this dissertation discussed the following issues: the individual needs of learners, educator development and support requirements, new technology, and how it might enhance teaching and learning. All these issues have a role to play in any effort to create a useful, practical guide for administrators that empower and support DI educators. In addition to those challenges, for *The Guide* to be helpful, it must be easy to understand, written at the appropriate level, and applicable to daily administration.

The following section will explore Educative Curriculum Materials (ECM) as a reference for building this guide. Educative Curriculum Materials are those materials primarily aimed at K-12 instruction and designed to promote both teacher and student learning rather than traditional curriculum materials that are mainly focused on student learning (Davis, & Krajcik, 2005; Beyer & Davis, 2009). While ECMs have been traditionally used in science education, the practices are applicable to all fields. These materials can be anything from textbooks, problem sets, journals, kits, teacher guides, teacher editions books, and other multimedia sources (Beyer, Delgado, Davis, & Krajcik, 2009).

For the proposed guide, the traditional roles on who the ECMs are created for will be flipped. Administrators will be the educators, and educators will be the students. This contrasts traditional ECM, where the materials are written for educators and students. When blueprinting the educators' side of ECMs, they should increase educator knowledge in a specific subject or activity while at the same time providing general information that can apply to any situation (Davis, & Krajcik, 2005). For our proposed guide, the focus is to give the administrators pedagogical content knowledge (PCK) and build relationships with the educators to create a supportive environment. This dissertation has explained the differences between ECM and standard curriculum materials; providing for educator learning is what distinguished ECMs from traditional teacher guides or instruction manuals.

Before digging into what makes a good ECM, the next sections will examine how the base or foundational curriculum is described and created. Regardless of the materials used, the curriculum should have the following traits: authoritative material, expansive content, ongoing opportunities for students to explain their ideas, a clear rationale for why students are learning the material, be organized in a coherent manner, and be based on effective pedagogies (Davis, & Krajcik, 2005). Once the base curriculum contains these features, then an administrator or educator can begin planning and creating ECMs for educator learning. As a clarification, Educative Curriculum Materials is not a curriculum but rather materials that support a given curriculum.

The following sections will examine the benefits and challenges of creating and using ECM. The chapter will conclude with the approach this dissertation will use to maximize the benefits and reduce the challenges associated with using ECMs.

### **3.2.1. Benefits**

As described in the previous section, ECMs provide for both student and educator learning. According to Davis and Krajcik (2005), ECMs benefit for promoting educator growth that falls into two main categories: increasing content knowledge and increasing pedagogical understanding. The following section describes the characteristics of each of these categories.

#### **Increasing Content Knowledge**

Educator time is precious and limited. Many educators do not have extra time to attend professional development workshops. ECMs provide the opportunity for educators to expand their content knowledge while preparing a lesson for their students (Collopy, 2003). Many ECMs use stories to situate learning and offer examples for students. According to Schneider and Krajcik (2002), educators increase their content knowledge by teaching these stories and cases. As stated by Males (2011), ECMs that focus on content knowledge can be of great help for educators teaching in subjects that are not their core area. This is of interest to the Administrators' Guide, as many administrators are not fluent in Differentiated Instruction. These materials will provide the background knowledge on DI as well as how to empower their educators.

As educators deepen their knowledge of a particular lesson or subject, they are better able to anticipate the questions that students will ask. ECMs support this knowledge growth by providing recommendations, rationales, additional content, and how others have implemented specific lessons (Davis et al., 2014).

Furthermore, they can incorporate those anticipated questions into their lesson planning (Davis, Krajcik, Davis, & Krajcik, 2005). This alleviates the need for the students to ask that particular question, provides a deeper understanding of the content, and potentially allows for additional content to be covered. Teacher's guides created in the ECM framework help teachers learn what the students are thinking and can provide the educator with questions to engage the students better.

This not only helps the teacher learn but also creates a deeper relation between students and the teacher (Ball & Cohen, 1996).

A key point to this new knowledge acquisition is that the knowledge must be situated in the place it will be used (Putnam & Borko, 2000). For example, having a workshop that provides new skills or content for an educator that isn't related to their daily activities will have diminishing returns. On the other hand, those training sessions and materials that are situated in the day to day will help teachers integrate their ideas to build better connections throughout the lesson, course, and curriculum (Davis et al., 2014).

While educators may increase their skills and knowledge through ECMs, a problem still exists in that curriculum materials are separated by module and course to course. This problem is illustrated by students, and sometimes even the educators not

seeing the interconnectivity of their courses and educators not providing information linking courses and sessions together. Traditional guides provide content knowledge and activities for a particular session. They are seldom designed to help teachers think of the construction of the entire curriculum (Ball & Cohen, 1996). ECMs provide ideas and roadmaps educators can use to show students how the different pieces of the curriculum fit together.

### **Increased Pedagogical Understanding**

In teaching, there is what to teach and how to teach, also known as content vs. method. For at least 100 years, this tension has existed in education. John Dewy (1904/1960) described, "Scholastic knowledge is sometimes regarded as if it were something quite irrelevant to method. When this attitude is even unconsciously assumed, method becomes an external attachment to knowledge of subject matter"(p. 160). This leads to educators who know what to teach and not how to teach; likewise, there are experts in education who don't understand the content to be taught. In ECMs, pedagogical content knowledge (PCK), initially postulated by Schulman and his colleagues (1986), is used to link the pedagogy of teaching with the content that is being taught (Ball, 2000). This bridges the gap between these two realms. In addition, ECMs explain why a particular pedagogy is being used. This helps the educator know what is being used and why which in turn can help them to decide why they are using their choice of pedagogy and instruction method.

Traditional curriculum materials tell the teacher what to teach, how to teach it, and then they use the materials to plan and deliver the lesson (Beyer & Davis, 2009).

This causes frustration in the educator as the materials are not customized to the learner or the teacher, can impede DI implementation, and treats the educator as a cog rather than a provider of learning. This problem is exacerbated further when an educator teaches outside of their core content area.

ECMs, on the other hand, provide for educators opportunities to learn how to make the choices on what pedagogies to use based on the content, their specific students, and their familiarity with the content. As seen above, the educator's content knowledge is increased through ECMs. With that new knowledge in hand, along with knowing why they have made pedagogical choices, the educator is equipped to modify instruction to meet the needs of their students. In short, ECMs directly prepare an educator to implement DI in their classrooms. In fact, when designed correctly, ECMs can change how an educator teaches a specific course based on an innovative pedagogical approach (Beyer & Davis, 2009).

### **3.2.2. Challenges**

The previous section examined the benefits of ECMs and how they add new tools to the educator's toolbox. The next section will describe and explain the four main challenges associated with the creation and use of ECMs: base curriculum, educators themselves, ECMs as a Panacea, lack of empirical evidence supporting the use of ECMs.

#### **Base Curriculum**

As defined earlier, ECMs are support materials for a curriculum and not a curriculum in themselves. ECMs do not contain what the students will learn but are instruction



materials for the educator. They help the educator teach the students the materials in the curriculum in a better manner. It is essential the chosen curriculum be of high-quality content and pedagogy (Davis, & Krajcik, 2009). In essence, this means that goals, objectives, and content need to be well defined, well distributed, and evaluated. Without a clear understanding of what the goals of the curriculum are, no ECM or educator will be able to meet them.

The problem that links the base curriculum to that of the teachers is how the curriculum interacts and takes into account the educator. Ball and Cohen (1996) postulate that the only way for curriculum materials to be core to an educator's learning is if by using the ECMs, the content becomes central to learning rather than the method of teaching.

## **Educators**

Differentiated Learning explores the notion that all students are different, bringing with them a multitude of ways to learn, along with various motivations and experiences. Educators are no different. A challenge with ECMs involves how do educators or curriculum authors create materials that are effective for all educators who are teaching different subjects, with different backgrounds, and different students? The answer is, they can't. Well designed ECMs are content and content-specific while still supporting general educator knowledge and growth in a broader subject area (Schneider & Krajcik, 2002).

To effectively create ECMs, the role of the educator in the classroom needs to be fully understood and supported. In the past, many curriculum reform efforts failed as the

materials failed to take in the role that teachers play as providers of knowledge and policy implementers (Beyer, Delgado, Davis, & Krajcik, 2009, p. 997). In short, the materials were created with a specific objective in mind, with specific content to teach, in a specific manner that doesn't take into account the knowledge, background, and training of either the educator or the students they are teaching.

Creating curriculum materials leads to two main challenges. The first challenge is that teachers rarely go to the textbook or teacher's guide to learn (Collopy, 2003). The second is educators are now "trained" not to use curriculum materials to learn. That may cause educators not to read ECMs as they may equate them with traditional curriculum materials.

Another critical challenge with educators of different skill and background is how does an author determine the appropriate level of guidance to provide? Give too much direction, and the educator feels they are just teaching what the book says. Give too little guidance, and the educator can feel lost. Not only is there tension on too much or too little guidance, but there is also the fact that educators are busy and don't have extra time to look at materials that may not be relevant to their immediate needs (Davis, Krajcik, Davis, & Krajcik, 2005).

### **ECMs As a Panacea**

Like DI for meeting student's need, ECMs is not a complete solution for educator professional development. They are not designed to replace or remove the need for other educator development activities and should be used as part of a robust program

of faculty development (Davis, Krajcik, Davis, & Krajcik, 2005; Schneider & Krajcik, 2002; Collopy, 2003).

A prime example of this is inquiry-based learning. Many textbooks provide content and instructions for educators to deliver an inquiry-based lesson. The problem is most educators didn't learn this way or how to teach this way, providing a disconnect from the materials and the educator's ability (Beyer, Delgado, Davis, & Krajcik, 2009). In addition to an ECM, workshops, readings, and online materials can provide the foundational skills to allow an educator to use the ECM more effectively.

### **Empirical Evidence**

The previous section discussed the benefits of ECMs, as well as their challenges. In scouring the literature to learn about ECMs and how best to employ them in the creation of this guide, one issue kept appearing: lack of empirical evidence supporting curriculum materials, let alone ECMs (Males, 2011; Schneider & Krajcik, 2002; Davis, Krajcik, Davis, & Krajcik, 2005; Collopy, 2003).

The proposed guide will use specific case studies along with disclaimers to a state where the information came from and any limitations in that study. For instance, when a particular task or tip is provided in *The Guide*, it will also provide guidance as to how to use it and any potential issues for implementing the given task.

### **3.3. Approach**

The previous section in this chapter discussed the benefits and challenges associated with using both an Integrative Review (IR) and creating Educative Curriculum Materials

(ECM). This section will outline the approach this dissertation will take to maximize the benefits and reduce the challenges associated with each method.

### 3.3.1. Integrative Review Approach

Now that the benefits, challenges, and procedures to reduce the challenges associated with conducting an IR have been described, this section will delve into the specific approach this dissertation will use for data gathering. This approach has two main elements: inclusion/exclusion criteria and source evaluation/data syntheses.

#### Step 1 - Developing Inclusion and Exclusion Criteria

The search consisted of the inclusion and exclusion criteria listed in table 3.4. to effectively and efficiently scour the literature. These searches Included sources are publications that are: less than 15 years old, originally written in English, focused on teacher empowerment, including organization effectiveness and peer-reviewed.

**Table 3:4**  
*Inclusion and Exclusion Criteria*

Inclusion Criteria	Exclusion Criteria
Original publication in English	Vocational, Technical, or non-traditional higher education
Full Text Available	Sources that do not reference an educator's perspective on the empowerment intervention.
January 2000 - January 2020	
Peer-reviewed (Dissertations included)	
Sources must have a case study or educator perspective included	
Both Qualitative and Quantitative Studies	

## Step 2 - Searching the Literature

Related to the inclusion and exclusion criteria are the search keywords and terms.

Table 3.5 contains the core keywords along with synonyms that will be used to ensure adequate coverage of the topic area. These synonyms and related terms were developed through the use of the ERIC.ED.Gov website.

**Table 3.5**  
*Core Keywords and Synonyms*

Core Topic	Related Terms and Synonyms
Differentiated Instruction	Individualized Instruction; Differentiated Learning;
Teaching Methods and Innovation	Teaching Methods; Instructional Design; Educational Strategies; Educational Innovation
Student Focus	Student-Centered Learning; Student Needs;
Educator Empowerment	Instructor Empowerment; Teacher Empowerment; Professional Autonomy; Faculty Development; Self Actualization

Table 3.6 illustrates how the search will be conducted and reported. In chapter 4, a section with the final results, including search strings, databases, and results, will be provided to ensure proper coverage of the area and reproducibility of the literature review.

**Table 3.6**  
*Overview of the initial search results*

Keywords / Areas	Search String	Date Range	Hits	Relevant Hits	Search Area (Databases)
Differentiated Instruction					

**Table 3.6 (cont.)**

Teaching Methods and Innovation					
Student Focus					
Educator Empowerment					

### **Step 3 - Analyzing and Summarizing the Data**

After the search is complete, the sources will be evaluated according to the Data Collection Phase of the Integrative Review, as stated in table 3.2. From those sources, best practices and direct quotations from educators will be used to form the content for *The Guide*.

The next section explores how to take this content and craft it into a useable and accessible guide for administrators who wish to empower and support their organizations.

#### **3.3.2. Educative Curriculum Materials Approach**

Having discussed what ECMs are, their benefits, and their challenges, this chapter will describe the approach for creating the proposed guide for administrators by leveraging an adapted version of Davis and Krajcik's 9 Design Heuristics of ECMs (see Appendix I). A key point, as mentioned in the challenges, authors of ECMs need to take into account the individuality of the administrators who will use this guide and that this guide is about empowering Differentiated Instruction.

The proposed guide will be comprised of five brief chapters: Introduction, Focus on the Educator, Focus on the Learner, Focus on the Organization, Next Steps.

The introduction chapter will provide *The Guide's* purpose, the goals of DI, how *The Guide* was created, and how to use *The Guide*.

Each focus chapter includes selected initiatives an administrator can use to empower educators. By segmenting *The Guide* into those three audience sections, the administrator will see how the proposed guide is relevant to themselves, their educators, and their students. Each initiative will have the following elements

- **TITLE**
- **DESCRIPTION**
- **TARGET AREA(S)**
- **GUIDING PRINCIPLES**
- **SETTING GOALS**
- **MAKING A PLAN**
- **CONSIDERING TIME IMPLICATIONS**
- **REQUIRED RESOURCES**
- **IMPLEMENTATION STRATEGIES**
- **EVALUATING EFFECTIVENESS**
- **EXAMPLE PROGRAMS:**
- **BACKGROUND READINGS**

A point to remember is the proposed guide isn't directed at educators nor a particular discipline. The purpose is to provide administrators with easy to use Initiatives to empower and support educators who employ DI, with the goal of creating an organization that is supportive of all innovative teachers. The Initiatives in *The Guide* follow the staples of DI: a pretest to understand the background knowledge of the educator and a post-assessment to determine the effectiveness of the intervention. In effect, the administrators will be using Differentiated Instruction to help empower DI instructors.

### **3.4. Conclusion**

This chapter explored the Integrative Review method for scouring literature (content) and Educative Curriculum Materials (format and design) for designing educator materials. These methods will form the basis for creating cutting-edge DI strategies for administrators, including how to support supporting innovation at an organizational level.

Both methods (IR and ECM) have benefits that meet the goals outlined at the beginning of this chapter: To investigate and understand what has been successful in empowering differentiated instruction educators (IR), the most effective format and design of a guide that is easy to understand and provides easy to implement interventions (ECM), and to gather and share practical advice from educators on what motivates and demotivates them in their quest to be innovative.

This chapter identified approaches that illustrate the benefits of the Integrative Review and Educative Curricula Materials while reducing the challenges associated with each method. The goal is to provide needed background information without introducing many of the potential errors or biases that can come from IR in an easy to understand and approachable format.



## Chapter 4 - A Guide for Empowering Differentiated Instruction Educators

The impetus for this dissertation was to answer the question. "*How can education administrators support Differentiated Instruction educators through faculty development, incentives, and the use of new technology to improve students' success?*" The end product was the "**Cutting Edge Differentiated Instruction Strategies for Administrators: Supporting Innovation at an Organizational Level.**" This section will explain how *The Guide* was created based on the proposed methodology.

As a refresher, two approaches were used to create *The Guide*. First, a modified Integrative Review was conducted to determine the areas of concern from educators. The Educative Curricula Materials (ECM) framework was applied to these concerns to create the format and structure of *The Guide*.

### 4.1. Data Gathering

As discussed in Chapter 3, the data gathering was conducting a modified Integrative Review (IR). IR examines past research of various types (experimental and non-experimental), drawing conclusions based on available literature at a specific point in time (Frederiksen & Phelps, 2018; Whittemore & Knafl, 2005). The scope of "*Cutting Edge Differentiated Instruction Strategies for Administrators: Supporting Innovation at an Organizational Level*" was narrowed since the original methodology was proposed to include only Higher Education, which also narrowed and focused the IR. This section outlines the process used along with the main findings. These findings, which this dissertation refers to as **the main areas of focus for educator empowerment and**

**organizational change**, will be used to create *The Guide* Initiatives and guiding principles. *The Integrative Review Process: Yes, You Can!* by Crawford & Rondinelli, 2013, will serve as a roadmap for conducting this review.

Below are the three main steps in conducting an Integrative Review.

1. Correctly framing the research question
2. Conducting the searches
3. Analyzing the results

While this dissertation follows the three steps, the analysis of the data in step 3 was conducted at a higher level than most Integrative Reviews. The purpose was to determine, from an educator's perspective, where they thought administrators could help to empower and support them. As such, this author deemed that it was not needed to have in-depth calculations on those areas. If an area was mentioned, it was added to the list. Those areas were then grouped for ease of creating guiding principles and focus areas.

### **Step 1 - Framing the Research Question and Scope**

**Dissertation Research Question:** How can education administrators support Differentiated Instruction educators through faculty development, incentives, and the use of new technology to improve students' success?

Traditional IR's used in Nursing set the question in the PICOT format

- **Patient Population**
- **Intervention or Interest Area**

- Comparison Intervention
- Outcome
- Time

For this study, we will form the question using PICOT as shown below

- **Patient (Educator) Population** - Higher Education (12-16+) Differentiated Instruction and Innovative Faculty
- **Intervention or Interest Area** - Programs (focus areas) that help to empower and support educators.
- **Comparison Intervention** - This is challenging for this study. We will use the status quo, no intervention, as a comparison. In essence, how do implementing educator empowerment programs positively impact educator wellness and organization culture?
- **Outcome** - Educator opinions and perspectives on areas where they feel they need the most support and empowerment.
- **Time** - This review will focus on the 20 year period beginning on January 1, 2000 - January 1, 2020

**IR Formated Question** - What programs have a positive impact on Higher Education educator empowerment, as compared to current or non-focused efforts?

### IR Scope

Table 3.4 proposed the initial inclusion and exclusion criteria for this search. As the scope has been narrowed to Higher Education, additional exclusions terms have been incorporated.

**Table 4.1**  
*Inclusion and Exclusion Criteria*

Inclusion	Exclusion
English as the original publication language	Non-Higher Education Sources including but not limited to: Vocational, Technical, K-12

**Table 4.1 (cont.)**

Full text available	Sources that do not reference an educator's perspective on empowerment or support initiatives
Peer-reviewed sources, Dissertations, and theses	
Sources must have a case study or educator perspective included	
Qualitative and Quantitative Studies  (No specific ratio of these is targeted)	
All document types selected	
Date Range: January 1, 2000 – January 1, 20202	

In addition to the inclusion and exclusion criteria, this dissertation defined core topics along with related terms and synonyms. Below is a modified version of Table 3.5. The significant change is the elimination of Student Focus as a core area. While student outcomes are the result of good Differentiated Instruction, the scope of this search and the resulting guide is educator empowerment and organizational culture.

**Table 4.2***Core Keywords and Synonyms*

<b>Core Topic</b>	<b>Related Terms and Synonyms</b>
Differentiated Instruction	Individualized Instruction, Differentiated Learning
Teaching Methods and Innovation	Teaching Methods, Instructional Design, Educational Strategies, Educational Innovation
Educator Empowerment	Instructor Empowerment, Teacher Empowerment, Professional Autonomy, Faculty Development, Self Actualization.

Below is a list of the terms and constraints used to answer the proposed IR question.

- **Search Terms:** Differentiated Instruction, Individualized Instruction, Differentiated Learning, Teaching Method and Innovation Teaching Methods, Instructional Design, Educational Strategies, Educational Innovation, Educator Empowerment, Instructor Empowerment, Teacher Empowerment, Professional Autonomy, Faculty Development, Self Actualization
- **Limits:** 2000 -2020; higher education (including professional education but not non-traditional adult education); peer-reviewed and dissertations; English language, full text
- **Databases Engines:** BSCOHost; ProQuest Ultimate
- EBSCOHost Selected Databases - Academic Search Ultimate; Education Full Text (H.W. Wilson), ERIC, SOCIndex with Full text
- ProQuest Ultimate Dissertations and Theses
- ProQuest Ultimate

## **Step 2 - Conducting the Search**

Several searches were conducted following *The Guidelines* above. The first series of searches were performed by using general categories (DI, Teaching Methods, Educator Empowerment) and the Boolean operator "or" for similar terms. This approach was chosen to try to reduce any missed results due to different terms being used. These searches resulted in far too many results to be meaningful.

The second set of searches joined the two main areas, DI and educator empowerment, to provide more specific results. This set of searches proved to be more fruitful based on the number of results.

Below are the results of both sets of searches, including terms used, and in some cases, alternative search parameters. The italicized rows are those searches that provided a subset of results that could realistically be reviewed within the allotted time.

**Table 4.3**  
*Individual Search Results – EBSCOHost*

<b>Key Search Terms (2000 - 2020)</b>	<b>Academic Search Ultimate</b>	<b>Education Full Text (H.W. Wilson)</b>	<b>ERIC</b>	<b>Soc Index with Full text</b>	<b>All 4</b>
Differentiated Instruction with related words selected	345	386	249	16	996
Differentiated Instruction; Individualized Instruction; Differentiated Learning	381	405	255	20	1067
Teaching Methods with related words selected	19,513	13,597	16,743	1,447	48,300
Teaching Methods and Innovation; Teaching Methods; Instructional Design, Educational Strategies; Educational Innovation	23,965	13,188	19,748	1,370	69,058
<i>Educator Empowerment with related words selected</i>	<i>15</i>	<i>5</i>	<i>3</i>	<i>4</i>	<i>27</i>
Educator Empowerment; Instructor Empowerment; Teacher Empowerment, Professional Autonomy; Faculty Development, Self Actualization.	6,869	1,393	2,436	388	8,030

**Series 1** - Search results and strings for core terms with related terms checked in the search.

- **Differentiated**  
**Instruction** - <http://search.ebscohost.com.proxy2.library.illinois.edu/login.aspx?direct=true&db=sih&db=asn&db=eft&db=eric&bquery=differentiated+instruction&cli0=FT&clv0=Y&cli1=RV&clv1=Y&cli2=DT1&clv2=200001-202001&dli0=LA99&dlv0=Eng&dld0=asn&dli1=DE3&dlv1=Higher+Education&dld1=eric&dli2=LA99&dlv2=eng&dld2=eric&dli3=LA99&dlv3=eng&dld3=sih&type=1&searchMode=Standard>
- **Teaching Methods** -  
- <http://search.ebscohost.com.proxy2.library.illinois.edu/login.aspx?direct=true&db=sih&db=asn&db=eft&db=eric&bquery=teaching+methods&cli0=FT&clv0=Y&cli1=RV&clv1=Y&cli2=DT1&clv2=200001-202001&dli0=LA99&dlv0=Eng&dld0=asn&dli1=DE3&dlv1=Higher+Education&dld1=eric&dli2=LA99&dlv2=eng&dld2=eric&dli3=LA99&dlv3=eng&dld3=sih&type=1&searchMode=Standard>
- **Educator Empowerment**  
- <http://search.ebscohost.com.proxy2.library.illinois.edu/login.aspx?direct=true&db=sih&db=asn&db=eft&db=eric&bquery=educator+empowerment&cli0=FT&clv0=Y&cli1=RV&clv1=Y&cli2=DT1&clv2=200001-202001&dli0=LA99&dlv0=Eng&dld0=asn&dli1=DE3&dlv1=Higher+Education&dld1=eric&dli2=LA99&dlv2=eng&dld2=eric&dli3=LA99&dlv3=eng&dld3=sih&type=1&searchMode=Standard>

**Series 1B** - Search strings for core terms, including all related terms in the search string and related terms checked.

- **Differentiated Instruction with all related terms** - <http://search.ebscohost.com.proxy2.library.illinois.edu/login.aspx?direct=true&db=sih&db=a9h&db=eft&db=eric&bquery=%26quot%3bdifferentiated+instruction%26quot%3b+or+%26quot%3bdifferentiated+learning%26quot%3b+or+%26quot%3bindividualized+instruction%26quot%3b&cli0=FT&clv0=Y&cli1=RV&clv1=Y&cli2=DT1&clv2=200001-202001&dli0=LA99&dlv0=Eng&dld0=a9h&dli1=DE3&dlv1=Higher+Education&dld1=eric&dli2=LA99&dlv2=eng&dld2=eric&dli3=LA99&dlv3=eng&dld3=sih&type=1&searchMode=Standard>
- **Teaching Methods with related words selected** - <http://search.ebscohost.com.proxy2.library.illinois.edu/login.aspx?direct=true&db=sih&db=asn&db=eft&db=eric&bquery=%26quot%3bTeaching+Methods+and+Innovation%26quot%3b+or+%26quot%3bTeaching+Methods%26quot%3b+or+%26quot%3bInstructional+Design%26quot%3b+or+%26quot%3bEducational+Strategies%26quot%3b+or+%26quot%3bEducational+Innovation%26quot%3b&cli0=FT&clv0=Y&cli1=DT1&clv1=200001-202001&dli0=DE3&dlv0=Higher+Education&dld0=eric&dli1=LA99&dlv1=eng&dld1=eric&dli2=LA99&dlv2=eng&dld2=sih&type=1&searchMode=Standard>
- **Educator Empowerment with related words selected**-  
<http://search.ebscohost.com.proxy2.library.illinois.edu/login.aspx?direct=true&db=eric&db=asn&db=eft&db=sih&bquery=%26quot%3bEducator+Empowerment%26quot>

26quot%3b+or+%26quot%3bInstructor+Empowerment%26quot%3b+or+%26quot%3bTeacher+Empowerment%26quot%3b+or+%26quot%3bProfessional+Autonomy%26quot%3b+or+%26quot%3bFaculty+Development%26quot%3b+or+%26quot%3bSelf+Actualization%26quot%3b&cli0=FT&clv0=Y&cli1=RV&clv1=Y&cli2=DT1&clv2=200001-202001&dli0=LA99&dli0=Eng&dli0=asn&dli1=DE3&dli1=Higher+Education&dli1=eric&dli2=LA99&dli2=eng&dli2=eric&dli3=LA99&dli3=eng&dli3=sih&type=1&searchMode=Standard

As a note, for ProQuest, two groups of searches were completed to be able to include dissertations, which are usually not peer-reviewed, and limited other publications to those that have been peer-reviewed. ProQuest has different features than EBSCOHost, resulting in different search options. The search settings for ProQuest are below:

- **Source Type:** Blogs, Podcasts, & Websites, Books, Conference Paper & Proceedings, Magazines, Scholarly Journals, Speeches & Presentations
- **Document Type:** Article, Bibliography, Blog, Book, Book Chapter, Case Study, Conference Paper, Conference Proceeding, Essay, Instructional Material/Guidance, Literature Review, Panel Discussion
- **Language:** English
- **Limits:** Full text and Peer-Reviewed

**Table 4.4**  
*Individual Search Results - ProQuest Ultimate*

Key Search Terms (2000 - 2020)	Results
Differentiated Instruction	44,755
Differentiated Instruction; Individualized Instruction; Differentiated Learning	86,798
Teaching Methods	203,956



**Table 4.4 (cont.)**

Teaching Methods and Innovation; Teaching Methods; Instructional Design; Educational Strategies; Educational Innovation	381,490
Educator Empowerment	7,727
Educator Empowerment; Instructor Empowerment; Teacher Empowerment, Professional Autonomy; Faculty Development, Self Actualization.	378,531

1. Differentiated Instruction - <https://search-proquest-com.proxy2.library.illinois.edu/search/1819614?accountid=14553>
2. Teaching Methods - <https://search-proquest-com.proxy2.library.illinois.edu/search/1819635?accountid=14553>
3. Educator Empowerment - <https://search-proquest-com.proxy2.library.illinois.edu/search/1819636?accountid=14553>

### Search Strings for ProQuest Ultimate - Dissertations and Theses

- Source Type: All
- Document Type: Dissertation/Thesis
- Language: English
- Limits: Full text

**Table 4.5**

### *Individual Search results - ProQuest Ultimate - Dissertations and Theses*

Key Search Terms (2000 - 2020)	Results
Differentiated Instruction	175,849
Differentiated Instruction; Individualized Instruction; Differentiated Learning	339,418
Teaching Methods	649,999
Teaching Methods and Innovation; Teaching Methods; Instructional Design; Educational Strategies; Educational Innovation	794,649
Educator Empowerment	94,491
Educator Empowerment; Instructor Empowerment; Teacher Empowerment, Professional Autonomy; Faculty Development, Self Actualization.	889,787

**Series 2** - Search results and strings for core terms combined and with related terms checked in the search.

**Table 4.6**  
*Combined Search Results EBSCOHost*

<b>Key Search Terms (2000 - 2020)</b>	<b>Academic Search Ultimate</b>	<b>Education Full Text (H.W. Wilson)</b>	<b>ERIC</b>	<b>Soc Index with Full text</b>	<b>All Four Databases</b>
<i>Differentiated Instruction AND Teaching Methods</i>	54	43	16	2	163
<i>Differentiated Instruction AND Educator Empowerment</i>	0	0	0	0	0
<i>Differentiated Instruction AND Teacher Empowerment</i>	2	5	1	1	5

- Differentiated Instruction and Teaching Methods  
- <http://search.ebscohost.com.proxy2.library.illinois.edu/login.aspx?direct=true&db=sih&db=asn&db=eft&db=eric&bquery=%26quot%3bdifferentiated+instruction%26quot%3b+AND+%26quot%3bteaching+methods%26quot%3b&cli0=FT&clv0=Y&cli1=RV&clv1=Y&cli2=DT1&clv2=200001-202001&dli0=LA99&dli1=Eng&dld0=asn&dli2=DE3&dli3=Higher+Education&dld1=eric&dli2=LA99&dli3=eng&dld2=eric&dli3=LA99&dli3=eng&dld3=sih&type=1&searchMode=Standard>
- Differentiated Instruction and Teacher Empowerment  
- <http://search.ebscohost.com.proxy2.library.illinois.edu/login.aspx?direct=true&db=eft&bquery=%26quot%3bdifferentiated+instruction%26quot%3b+AND+teacher+Empowerment&type=1&searchMode=Standard>
- **Combined search ("differentiated instruction" AND "teaching methods" OR ("differentiated instruction" AND "teacher empowerment")) -**  
[http://web.b.ebscohost.com.proxy2.library.illinois.edu/ehost/resultsadvanced?vid=1&sid=c93f26e7-2068-4397-97b4-9e381fe62b3a%40pdc-v-sessmgr06&bquery=\(+%22differentiated+instruction%22+AND+%22teaching+methods%22+\)+OR+\(+%22differentiated+instruction%22+AND+%22teacher+empowerment%22+\)&bdata=JmRiPXNpaCZkYj1hc24mZGI9ZWZ0JmRiPWVyaWMmY2xpMD1GVVZjYHYwPVkmY2xpMT1SViZjbHYxPVkmY2xpMj1EVDEmY2x2Mj0yMDAwMDEtMjAyMDAxJmRsaTA9TEE5OSZkbHYwPUVvZyZkbGQwPWFzbiZkbGxkPURFMyZkbHYxPUhpZ2hlcitFZHVjYXRpb24mZGxkMT1lcmljJmRsaTI9TEE5OSZkbHYwPUVvZyZkbGQyPWVyaWMmZGxpMz1MQTk5JmRsdjM9ZW5nJmRsaZDM9c2loJnR5cGU9MSZzZWZyY2hNb2RIPVN0YW5kYXJk](http://web.b.ebscohost.com.proxy2.library.illinois.edu/ehost/resultsadvanced?vid=1&sid=c93f26e7-2068-4397-97b4-9e381fe62b3a%40pdc-v-sessmgr06&bquery=(+%22differentiated+instruction%22+AND+%22teaching+methods%22+)+OR+(+%22differentiated+instruction%22+AND+%22teacher+empowerment%22+)&bdata=JmRiPXNpaCZkYj1hc24mZGI9ZWZ0JmRiPWVyaWMmY2xpMD1GVVZjYHYwPVkmY2xpMT1SViZjbHYxPVkmY2xpMj1EVDEmY2x2Mj0yMDAwMDEtMjAyMDAxJmRsaTA9TEE5OSZkbHYwPUVvZyZkbGQwPWFzbiZkbGxkPURFMyZkbHYxPUhpZ2hlcitFZHVjYXRpb24mZGxkMT1lcmljJmRsaTI9TEE5OSZkbHYwPUVvZyZkbGQyPWVyaWMmZGxpMz1MQTk5JmRsdjM9ZW5nJmRsaZDM9c2loJnR5cGU9MSZzZWZyY2hNb2RIPVN0YW5kYXJk)

**Table 4.7**  
*Combined Search Results ProQuest Ultimate*

<b>Key Search Terms (2000 - 2020)</b>	<b>Results</b>
Differentiated Instruction AND Teaching Methods	5,079
Differentiated Instruction AND Educator Empowerment	264
Differentiated Instruction AND Teacher Empowerment	427

- Differentiated Instruction and Teaching Methods - <https://search-proquest-com.proxy2.library.illinois.edu/search/1819768?accountid=14553>

- Differentiated Instruction and Educator Empowerment - <https://search-proquest-com.proxy2.library.illinois.edu/search/1819731?accountid=14553>
- Differentiated Instruction and Teacher Empowerment - <https://search-proquest-com.proxy2.library.illinois.edu/search/1819767?accountid=14553>
- Combined search ("differentiated instruction" AND "teaching methods" OR ("differentiated instruction" AND "teacher empowerment")) - <https://search-proquest-com.proxy2.library.illinois.edu/search/1820313?accountid=14553>

**Table 4.8**

*Combined Search results ProQuest Ultimate - Dissertations and Thesis*

Key Search Terms (2000 - 2020)	Results
Differentiated Instruction AND Teaching Methods	123,007
<i>Differentiated Instruction AND Educator Empowerment</i>	3
Differentiated Instruction AND Teacher Empowerment	35,252

- Differentiated Instruction AND Teaching Methods - <https://search-proquest-com.proxy2.library.illinois.edu/search/1819772?accountid=14553>
- Differentiated Instruction AND Educator Empowerment - <https://search-proquest-com.proxy2.library.illinois.edu/search/1819771?accountid=14553>
- Differentiated Instruction AND Teacher Empowerment - <https://search-proquest-com.proxy2.library.illinois.edu/search/1819733?accountid=14553>

Based on the above search results, the terms that provided the most usable results are those explicitly looking for Differentiated Instruction and Educator Empowerment. Following the many searches above, a refined search was used to ensure that the number of results was manageable, accessible, and relevant. The searches that will be used and further refined are listed in Table 4.9 along with the specific search strings.

**Table 4.9**

*Searches Used in Final Analysis*

Source	Topic	Results
EBSCOHost	((("differentiated instruction" AND "teaching methods") OR ("differentiated instruction" AND "teacher empowerment")) NOT ("elementary school" OR "middle school" OR "high school"))	109

**Table 4.9 (cont.)**

ProQuest Ultimate - Dissertations and Theses	((("differentiated instruction" AND "teaching methods") OR ("differentiated instruction" AND "teacher empowerment")) NOT ("elementary school" OR "middle school" OR "high school"))	166
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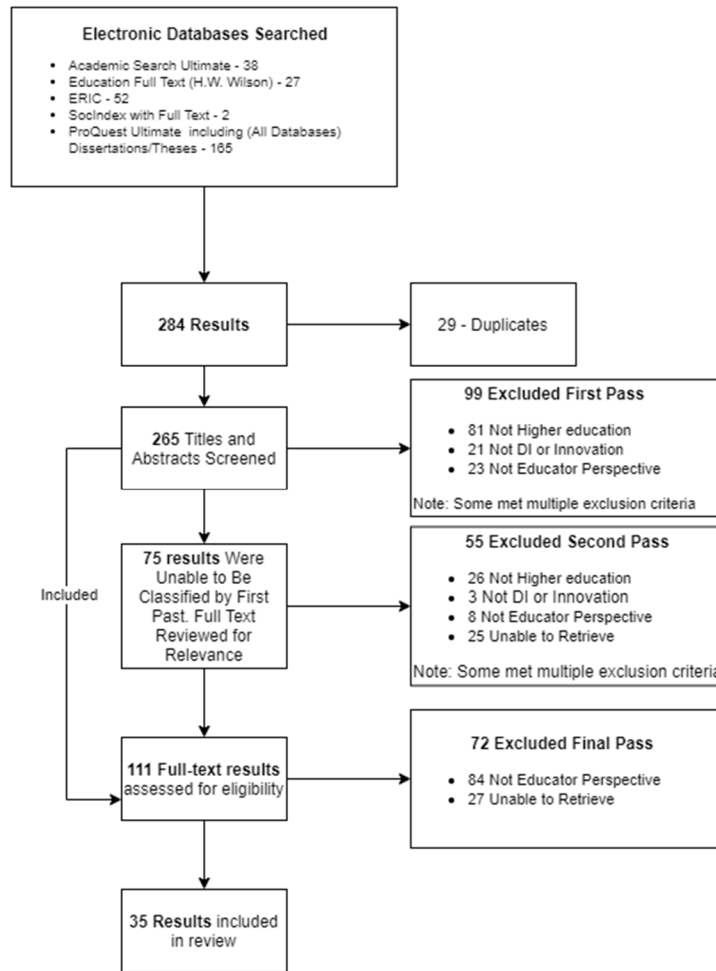
**Total Results - 284**

The table above only has one row for Proquest Ultimate. Initially, there was a separate search for dissertations and theses from standard peer-reviewed results. During the data analysis, it was discovered that the dissertations and theses were already included, thus the need for only one search.

The next part of the search was to refine the results to ensure they met the criteria (English, Full-text, 1/2000 - 1/2020, Higher Education, and Peer Reviewed) and were examined for relevance against the following research question: "Does the evidence have a direct bearing on or connection with our research questions" (Crawford & Rondinelli, 2013)?

For this review, relevant results are defined as having "specific examples, case studies, or testimonials from educators regarding which areas they need to be empowered or supported by their administrators." If not addressed, the result will be considered as not relevant. Each result was further reviewed for adherence to the search criteria. If a result didn't align, it will was also eliminated. Please see Fig 4.1 for each step of the inclusion and exclusion process.

**Figure 4.1**  
*Integrative Review Inclusion and Exclusion Process*



### Step 3 - Analyzing the Results

In a full IR, all evidence is searched for its relevance and then weighted across various metrics. This weighting provides a grade that is used in grouping results to make conclusions about the data. The purpose of this IR isn't to go into an in-depth ranking but rather to see which areas of empowerment are most crucial to DI and innovative educators.

The purpose of the final review of results was to look at the keywords and ideas that focused on the challenges from an organizational perspective that educators experienced and any mention of potential; initiatives to help reduce their challenges and empower them for success.

**Table 4.10**  
*Key Terms (Ungrouped) And Counts*

Term	Count	Term	Count	Term	Count	Term	Count
Professional Development	22	resources	4	curriculum planning	2	organization training	1
organization support/buy-in	10	incentives	4	coaching	2	organization improvement	1
pedagogical training	8	evaluation	4	support staff	1	involvement	1
time	7	community of practice	4	student buy-in	1	faculty flexibility	1
content	7	technology	3	standards (policy)	1	educator buy-in	1
collaboration	7	strategic planning	2	space (classroom)	1	continuous improvement	1
administrator buy-in	6	skill development	2	social learning	1	class size	1
mentorship	5	peer coaching	2	policy challenges	1	change	1
administration support	5	evidence-based	2	partnership	1	assessment	1

Figure 4.2 below shows the raw data, based on count in a word cloud. Word clouds visualize the most frequently used terms and ideas.

**Figure 4.2**  
*Word Cloud of Ungroup Terms by Weight*



The next step involved collapsing like terms into usable categories, which would then best used to select focus areas, guiding principles, and initiatives for educators. Table 4.11 showcases the new categories along with the terms that are part of those categories.

**Table 4.11**  
*Categories of Terms*

Category	Related Terms
Professional Development	professional development, pedagogical training, faculty flexibility, continuous improvement, content, educator buy-in, social learning

**Table 4.11 (cont.)**

Organization / Administration	organization support/buy-in, administration buy-in, administration support, resources, incentives, organization training, organization improvement, change, policy challenges
Skill Development	skill development, technology
Resource Challenges	time, resources, incentives, support staff
Peer Collaboration and Mentoring	collaboration, mentorship, community of practice, peer coaching, partnership
Assessment and Evaluation	evaluation, assessment
Evidence-Based Planning	evidence-based
Strategic Planning	strategic planning, change, class size, curriculum planning
Other	student buy-in

## Conclusion

This integrative review began with trying to answer the question, "What programs have a positive impact on Higher Education educator empowerment, as compared to current or non-focused efforts? The results of the IR provide concrete areas to be targeted to empower differentiated instruction and innovative educators.

The next chapter will examine how to format *The Guide* so that it is not only accessible and easy to use but also provides the resources to address the challenges raised during this review.



## 4.2. Guide Format

### From Design Heuristics to Guiding Principles

The methodology chapter provided an approach to building an accessible, approachable, and easy to use guide by using Educative Curriculum Materials as a framework. Davis and Krajcik's Design Heuristics for Educative Science Curriculum Materials (2005) served as the seminal source for information. Davis and Krajcik proposed 9 Design Heuristics to guide educators in creating curriculum materials, see Appendix I.

This researcher looked at the heuristics to find how best they could be applied not only to the creation of this guide but also used in day to day decision making, helping administrators reach their goal of empowering and supporting educators. By using the knowledge gained during the literature and integrative reviews, the researcher worked to transform these design heuristics into actionable guiding principles.

The first pass at this transformation was simply to change the word "student" to "educator" and "teacher" to "administrator." This was done to change the initial focus of the heuristics from student-focused to teacher/educator focused. While this first pass was helpful, the results still were not specific or actionable enough to lay the framework for *The Guide*. The second pass was to look at how these heuristics could be turned into actional objectives. This proved to be challenging but resulted in the initial draft of the Guiding Principles For Empowering Educators. The next step was seeing what topics arose in the literature reviews that were not represented in initial design heuristics. This investigation resulted in two main missing areas evaluating success and educator wellness. Two new principles were created to focus on these areas. That is

why there are 9 Design Heuristics from Davis and Krajcik and 13 Guiding Principles for Empower Educators.

Throughout the literature reviews, it became evident that from best practices, concerns from educators, and opportunities for improvement fell into three core topic areas: Professional Development, Organization Involvement and Improvement, and Assessment and Evaluation. After identifying these areas, this researcher saw a natural fit between these guiding principles and topic areas. Table 4.12 shows the relationship of the guiding principles to core areas of focus.

**Table 4.12**  
*Guiding Principles for Educator Empowerment*

<b>Professional Development</b>	<b>Organization Involvement and Improvement</b>	<b>Assessment and Evaluation</b>
Building Content Knowledge	Brainstorming and Strategic Planning	Assessing Evaluation Tools
Creating Sound Activities	Collecting and Analyzing Data	Refining Evaluation Tools
Fostering Openness to new ideas	Initiative Evidence-Based Change	Establish Observational Opportunities
Creating Educator Communities	Proposing Organizational Change	
Facilitating Administrator Development	Ensuring Educator Wellness	

## **Guide Structure**

The 13 guiding principles, along with the focus areas listed above, enabled the next step, which was to create the overall structure of *The Guide*.

Differentiated Instruction is about playing to the strengths of the learner and providing choice. *The Guide* offers varying levels of **content** (background information

regarding DI) for those who need it, different **processes** (seven example initiatives for the administrator to choose), **product** choices program inventory and reflection), and finally, **learning environment** (different ways and places to implement initiatives). This accomplishes two primary goals. First, it helps the administrator be familiar with DI by working through *The Guide*, and second, makes *The Guide* approachable and flexible. The flexibility comes in, allowing the administrator to pick and choose what they feel is most important.

The second chapter provides **in-depth information on DI** (history, background, pros, and cons) and the role administrators and organizations serve in supporting and empowering their educators. While this content is important, if an administrator already knows this, they can skip ahead to the program and organization inventory.

The **program and organization inventory** represents the readiness assessment in DI. This is a crucial step where administrators list the strengths, weaknesses, challenges, and opportunities their organization is facing. The results of this inventory help in initiation selection. Again, this is an optional step. If a school has already completed a climate survey and knows which areas they need to focus on, they can jump right to the example initiatives.

In the **guiding principles** section, administrators can view each principle to see which objectives are accomplished by each one. This provides flexibility in allowing administrators to see which principle(s) resonate with their current situation. Each of the principles is then grouped into focus areas. An administrator can select a primary area of focus when choosing example initiatives.

The "**selecting your initiatives**" section provides an easy to use table that illustrates which initiatives support which guiding principles. The example initiatives also overlap in which principles they support, providing for more choice as well as more opportunities to try different initiatives.

The **example initiatives** section provides administrators with a choice of seven different initiatives. These initiatives are not step-by-step instructions on how to implement. Instead, they acknowledge the differences in each organization by providing a scaffold to help in implementation. In addition to the guidance these examples offer, each one lists several example programs (colleges or universities) that have implemented these initiatives. They provide context as well as contacts to reach out to for best practices. Finally, each initiative ends with several background readings, in most cases, scholarly articles, to provide more information on the "why" behind each initiative. *The Guide* also provides an example blank initiative for administrators to use when creating an initiative to address challenges not covered by an existing initiative.

*The Guide* ends with a short **future-focused** chapter. This chapter provides encouragement and support for administrators undertaking the Herculean challenge of trying to shift organizational culture. The author also guides how to work through *The Guide*, initiatives, and how to keep working to achieve the goals each administrator or organization created prior to starting this process.

## Chapter 5 - Discussion and Future Opportunities

The purpose of this dissertation was to answer the following question:

**How can education administrators support Differentiated Instruction educators through faculty development, incentives, and the use of new technology to improve students' success?**

Unlike a traditional dissertation or empirical paper, this dissertation instead focused on practical ways for higher education administrators to empower their educators to be creative, innovative, and feel supported in teaching in a DI format. In a traditional dissertation, this final chapter would serve to evaluate how the data answers or doesn't answer the hypothesis and extrapolate the data for future work. Instead, this final chapter will focus on the importance, ways to disseminate, and limitations of *Cutting Edge Differentiated Instruction Strategies for Administrators: Supporting Innovation at an Organizational Level*, and close with pondering potential future work in this field.

### 5.1. Importance

This guide is unique in the field of DI as it focuses not on the educators providing DI but on the administrators, who create an environment that supports and empowers their educators. A September 2020 Google Books Search with Differentiated Instruction in the title returned 253 books. A similar search with Differentiated Instruction in the content field returned 174,000 matches. A final search for teacher empowerment with differentiated instruction as the subject resulted in zero book results.

The path to *The Guide* led to the creating of Guiding Principles for Empowering Educators, which were derived from Davis and Krajcik's *Design Heuristics for Educative Science Curriculum Materials* (Davis 2014). These guiding principles not only provide a framework for this guide; it also provided educators and administrators a tool to scaffold any future activities around empowerment. In addition, while this guide is aimed at Higher Education, the strategies presented allow *The Guide* to be used in any education or even business setting.

Lastly, instead of presenting on the needs for empowerment or the challenges faced by both administrators and educators, this guide provides practical, step-by-step instructions for both assessing the current challenges and actionable steps to begin resolving these problems.

## 5.2. Dissemination

*Creating "Cutting Edge Differentiated Instruction Strategies for Administrators:*

*Supporting Innovation at an Organizational Level"* was a labor of love that

involved scouring the literature and finding ways to make the content meaningful and attractive to both administrators and educators. Like any paper or project, if it isn't in the hands of those who will use it, it can not serve its designed purpose. Dissemination of

*The Guide* falls into two main camps: awareness and use. Administrators **must be aware** that this guide exists and can help them achieve their organizational goals.

Administrators **must also understand how to use** this guide within the confines of their organization's resources, culture, and willingness to change.

## Awareness

Awareness is a critical part of this process, disseminating *The Guide*. Without awareness, administrators will not have the tools to understand their challenges, the examples to change their organization, nor a method to evaluate the changes they wish to make. Furthermore, without awareness and use, there isn't a way to determine how effective *The Guide* is or how to revise it for an even more significant impact. This dissertation proposes the following outlets for awareness: websites, journal publications, conferences, and word of mouth.

- **Websites:** The author is contemplating creating a website to house *The Guide* along with additional content such as videos, survey tools, a discussion board, and current events in differentiated instruction and educator empowerment.
- **Journal Publications:** Engaging with educators and administrators is critical for sharing this work. Potential academic journals include *Review of Research in Education*, *American Journal of Education*, *International Journal of Instruction*, and the *Universal Journal of Educational Research*.
- **Conferences:** Leadership in Higher Education, American Educational Research Association (AERA), International Conference on Future Education and Pedagogical Sciences,
- **Word of Mouth** - Once administrators begin to use *The Guide*, they can share their experience within their networks, spreading *The Guide* to new audiences. Furthermore, both social media and *The Guide's* website will provide an online place for Guide users to discuss, collaborate, and share their experiences.

## **Use**

*The Guide* is currently presented with background DI and technology information with specific examples on how to use it. Each initiative also provides links to schools that have used these initiatives and further academic reading on each topic. While the author created *The Guide* with an aim to make it accessible and easy to understand, a walkthrough may need to be created. This walkthrough could be in the form of examples of organizations or departments that have put the strategies suggested into practice.

### **5.3. Limitations**

Like all projects, *The Guide* has limitations. While these limitations wouldn't necessarily prevent an organization from applying the principles of *The Guide*, they may limit the use and effectiveness in practice. This dissertation will first examine the limitations and, in the next section, brainstorm ways to reduce or eliminate them. The list below looks at some of the limitations of *The Guide*.

#### **Organizational Inventory**

The Organizational Inventory has not been used in practice. The questions are based on the program areas derived from the Guiding Principles of Educator Empowerment. The items may be unclear, may leave areas unaddressed, and may lead administrators to make false assumptions based on their understanding of their organization.



## **Automation and Tools**

*The Guide* currently is a static document lacking any automation. It requires the administrator to manually enter the answers to the questions in the Organizational Inventory, then from their responses, determine the next steps. Furthermore, *The Guide* doesn't provide an easy way to evaluate the effectiveness of these initiatives, nor does it provide a way to view the effectiveness over time.

## **Missing or Incomplete Areas**

*The Guide* was created through extensive literature searches and the application of practice knowledge. While '*The Guide*' provides excellent examples across various program areas, are their situations or areas missing? Each organization is different and may have specific needs and challenges that aren't addressed by the current program areas or initiatives. Furthermore, are any of the Guiding Principles not adequately addressed by the initiatives? Is there a need for further incorporation of Guiding Principles throughout the initiatives?

## **Time and Resources**

Perhaps one of the biggest challenges is time and resources—the time needed to implement organizational change and resources to support DI and innovative teachers. There are perceived and real-time and resource challenges that must be addressed. If an organization truly wants to change, it needs to provide release time and additional support staff to help educators. Without addressing Time and Resources, any effort will be short-lived.

## **Training**

As mentioned previously, the goal of *The Guide* was to create an easy to use accessible tool for administrators to create organizational change. For many administrators, they have never been trained in organizational change or project management. It is possible that the tactics and strategies outlined in this guide do not provide enough direction or step by step instruction for administrators to use *The Guide* as intended.

## **Impetus and Motivation**

Creating change, especially in a large organization, can be difficult. It requires enough inertia to devote the time and resources needed to make a change. With a multitude of time commitments already on the administrator, they may not have the impetus or will to create this change. The motivation lies not only on the administrators but also on the educators. They need to voice their concerns on the status quo to help motivate and ensure change happens.

## **Static Content**

*The Guide* consists of text with simple forms for administrators to fill out. This approach, while straightforward, lacks interactivity and various mods of learning. A core tenet of DI is modifying the content to draw on the strengths of the learner. *The Guide* does not address this in its current form.

## **5.4. Future Works**

In the previous section, this dissertation listed five key limitations associated with *The Guide*. This section will brainstorm ways to address these limitations in addition to looking at other areas of Guide improvement.

### **Organizational Inventory (OI)**

The organizational Inventory needs to go through a process of evaluation and assessment. To evaluate the inventory, pilot organizations will be asked to complete a survey before conducting the organization inventory, after finishing it, and again after implementation of their selective initiatives. This will provide feedback to revise the inventory to ensure it can accurately capture the needed information.

### **Automation and Tools**

Tools are needed to reduce the burden on administrators. These may include but are not limited to:

- Online forms for the Organizational Inventory
- Evaluation forms to gather feedback from organizations
- Automated assessment of the OI to suggest focus initiatives
- Database for tracking progress on initiatives, OI, and assessment
- Discussion boards or links to social media for like-minded organizations to share best practices

Having these tools available will reduce the overhead of using this guide and may help build communities of practice across organizations.

### **Missing or Incomplete Areas**

This limitation may never be fully addressed due to the unique and individual nature of Higher Education organizations. The best attempt is through program evaluation and feedback. By using the feedback provided, *The Guide* can be revised through changes to the OI, revising current initiatives, creating new initiatives, or improving available training resources. The feedback provided can also address the incorporation of the Guiding principles. This can ensure that those principles are followed thoroughly throughout each of the initiatives.

### **Time and Resources**

*The Guide* provides a high-level estimate for the amount of time and resources an initiative may require. As more administrators use *The Guide* and share the real-time and resources needed, *The Guide* can be updated to provide more accurate time and resource estimates.

### **Training**

While '*The Guide*' intended to be self-sufficient, some administrators may need additional support or training. This can be addressed by providing additional real-world examples and training materials. One possibility is creating interactive videos that step an administrator through the process from completing the OI to selecting and

implementing initiatives to evaluating the success of the initiatives. These short videos would provide another method of providing both content and support for administrators.

### **Impetus and Motivation**

Motivation is an intrinsic quality and can be very difficult to address. There is an initial level of support needed to 1) identify needed improvement, 2) provide the resources and time to make the change, and 3) a commitment to follow through with the project. Two suggestions would be providing results from pilot organizations and getting input from various educators. The hope is that by seeing improvement in peer organizations, administrators will feel the need to begin the process on their own.

### **Static Content**

DI is focused on creating a learning environment that addresses the strengths and weaknesses of learners. Similarly, *The Guide* should provide different methods of accessing the content, documenting their progress, and assessing the outcomes of their initiatives. The suggested future work is providing training videos, an adaptive OI that asks different questions based on your answers, an OI that provides suggestions for initiatives based on responses, a dashboard or other tool to show projects in progress visually and what tasks are next. By creating a living website, administrators will be able to access the content in a variety of ways and see their progress in real-time.

**Table 5.1***Limitation and Improvement by Area*

<b>Area</b>	<b>Limitation</b>	<b>Improvement</b>
Organizational Inventory	Practical Application of <i>The Guide</i>	Pilot Organizations Survey Results
Automation and Tools	No automation No automated direction based on results	Online database and surveys Suggestions for initiatives based on results
Missing or Incomplete Areas	Current initiatives may not address all areas	Discussion board with pilot organizations Revisions based on surveys
Time and Resource	Time and Resource needs are not clearly defined. Time and Resource needs may not be fully available	Guide User's feedback can refine the time and resource estimates Guide User success stories can help show the importance of making time and resources available
Training	Administrators may lack the training to implement these initiatives	Introduction to Project Management Skills Interactive Training Videos
Impetus and Motivation	Administrators may lack the motivation, time, or resources to enact change	Share success stories Garner educator buy-in
Static Content	Content is all text with simple forms	Interactive Quizzes Video Introductions Peer Review

## **Administrators Perspective**

From the initial inception of *The Guide* through creation, the focus was on educators and empowering educators. A relevant area, though not in scope for this version of *The Guide*, is how do administrators feel about empowering and supporting DI and innovative educators? Another question is what training, support, and resources are available for them to be more successful in their role. This is an exciting area to research because, just as educators will be limited in their success if an organization is not successful, if an administrator is not supported, both the administrator and educator will be limited in their success.

## **5.5. Conclusion**

Six years ago, the author began a course of study that led to this dissertation. The goal was to create something new to address a current need rather than a static dissertation. This goal was achieved by developing, **Cutting Edge Differentiated Instruction Strategies for Administrators: Supporting Innovation at an Organizational Level**. While far from perfect, '*The Guide*' not only provides practical ways to address current organizational challenges, the dissertation offers ways to reduce the limitations of '*The Guide*' and make it more accessible for all administrators who wish to empower their teachers to use Differentiated Instruction and be innovative in their classes.

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## Appendix A - Design Heuristics

Davis and Krajcik's Design Heuristics for Educative Science Curriculum Materials, with Examples and Elaborations Selected to Illustrate a Range of Supports in Designing Educative Curriculum Materials to Promote Teacher Learning, 2005.

### I. Design Heuristics for PCK for Science Topics

#### *Design Heuristic 1—Supporting Teachers in Engaging Students with Topic-Specific Scientific Phenomena*

Curriculum materials should provide teachers with productive physical experiences that make phenomena accessible to students as well as rationales for why these experiences are scientifically and pedagogically appropriate. Curriculum materials should help teachers adapt and use these experiences with their students, for example, by making recommendations about which experiments are important and feasible for students to conduct themselves and which might be more successful as demonstrations. Curriculum materials should warn of potential pitfalls with specific physical experiences. Curriculum materials should suggest and help teachers think about productive sequences for experiences.

#### *Design Heuristic 2—Supporting Teachers in Using Scientific Instructional Representations*

Curriculum materials should provide appropriate instructional representations of scientific phenomena (e.g., analogies, models, diagrams) and support teachers in adapting and using those representations, for example, by noting changes that would

lead to inaccuracies with regard to the science content. Curriculum materials should be explicit about why a particular instructional representation is scientifically and pedagogically appropriate and what non-scientific ideas it might promote if used improperly. The curriculum materials should help teachers determine the most salient features of an instructional representation.

*Design Heuristic 3—Supporting Teachers in Anticipating, Understanding, and Dealing with Students' Ideas About Science*

Curriculum materials should help teachers recognize the importance of students' ideas and help teachers identify likely student ideas within a topic. Curriculum materials should help teachers gain insight into how they might be able to deal with the ideas in their teaching, for example, by giving suggestions of thought experiments likely to promote the development of more scientific ideas.

## **II. Design Heuristics for PCK for Scientific Inquiry**

*Design Heuristic 4—Supporting Teachers in Engaging Students in Questions*

Curriculum materials should provide driving questions for teachers to use to frame a unit and should help teachers identify questions that they can use with their students, including focus questions for guiding a class discussion. Curriculum materials should help teachers understand why these are scientifically and pedagogically productive questions. Curriculum materials should help teachers engage their students in asking and answering their own scientific questions by providing suggestions for productive

questions and ideas about how to guide students toward those or other productive questions.

*Design Heuristic 5—Supporting Teachers in Engaging Students With Collecting and Analyzing Data*

Curriculum materials should provide teachers with approaches to help students collect, compile, and understand data and observations; help teachers understand why the use of evidence is so important in scientific inquiry; and help them adapt and use these approaches across multiple topic areas even when the data being collected seem fairly different (e.g., plant growth as opposed to weather conditions).

*Design Heuristic 6—Supporting Teachers in Engaging Students in Designing Investigations*

Curriculum materials should help teachers recognize the importance of sometimes having students design their own investigations. Curriculum materials should provide guidance for how teachers can support students in doing so by providing ideas for appropriate designs and suggestions for improving students' inappropriate designs.

*Design Heuristic 7—Supporting Teachers in Engaging Students in Making Explanations Based on Evidence*

Curriculum materials should provide clear recommendations for how teachers can support students in making sense of data and generating explanations based on evidence that the students have collected and justified by scientific principles that they have learned. The supports should include rationales for why engaging students in



explanation is important in scientific inquiry and why these particular approaches for doing so are scientifically and pedagogically appropriate

*Design Heuristic 8—Supporting Teachers in Promoting Scientific Communication*

Curriculum materials should provide suggestions for how teachers can promote productive communication among students and teachers in conversations and student artifacts. The curriculum materials should provide rationales for why particular approaches for promoting communication (e.g., class discussions, student presentations, lab reports) are scientifically and pedagogically appropriate

**III. Design Heuristic for Subject Matter Knowledge**

*Design Heuristic 9—Supporting Teachers in the Development of Subject Matter Knowledge*

Curriculum materials should support teachers in developing factual and conceptual knowledge of science content, including concepts likely to be misunderstood by students. Support should be presented at a level beyond the level of understanding required by the students to prepare teachers better to explain science concepts and understand their students' ways of understanding the material. Curriculum materials should help teachers see how the scientific ideas relate to real-world phenomena and to the activities in the unit and why strong subject matter knowledge is important for teaching

# Appendix B - Guiding Principles For Empowering Educators

## Guiding Principles for Empowering Educators

Note, the guiding principles below are heavily adapted and distilled from Davis and Krajcik's *Design Heuristics for Educative Science Curriculum Materials, with Examples and Elaborations Selected to Illustrate a Range of Supports in Designing Educative Curriculum Materials to Promote Teacher Learning, 2005*. The focus of the adaptation was to transform these heuristics from applying to science education curriculum material to applying to administrators who will support, empower, and engage DI and innovative educators.

These principles will be used to identify the format, content, and primary goals for each guide initiative.

**Table B.1**  
*Guiding Principles for Empowering Educators*

<b>Professional Development</b>	<b>Organization Involvement and Improvement</b>	<b>Assessment and Evaluation</b>
Building Content Knowledge	Brainstorming and Strategic Planning Assessing	Evaluation Tools
Creating Sound Activities	Collecting and Analyzing Data	Refining Evaluation Tools
Fostering Openness to new ideas	Initiating Evidence-Based Change	Establishing Observation Opportunities
Creating Educator Communities	Proposing Organizational Change	
Facilitating Administrator Development	Ensuring Educator Wellness	

## **1 - Building Content Knowledge**

The goal of this principle is to engage educators in DI conversations. Initiatives that support this principle will:

- provide administrators with productive real-world case studies that they can share with their educators to make DI more real and accessible to educators, including rationales for why these studies pedagogically appropriate.
- help administrators adapt and use these cases as examples their educators may emulate in their courses.
- warn of potential pitfalls with specific case studies and interventions.
- suggest and help administrators think about productive sequences for how to share this information with their educators.

## **2 - Creating Sound Activities**

The goal of this principle is to help administrators create activities for their educators that are pedagogically sound. Initiatives that support this principle will:

- provide appropriate examples and representations of pedagogical activities (e.g., DI interventions, innovations in teaching, active learning techniques) and support administrators in adapting for potential use by their educators,
- be explicit about why a particular instructional representation is pedagogically appropriate and what issues may happen if educationally sound teaching isn't used in the classroom.

- help administrators determine the most important features of an instructional representation.

### **3 - Fostering Openness to New Ideas**

The goal of this principle is to help administrators anticipate, understand, and support educators' ideas about differentiated instruction and innovative teaching. Initiatives that support this principle will:

- help administrators recognize the importance of educators' ideas and goals.
- help administrators gain insight into how they might be able to support mentoring and advancement of educators.
- provide ways to engage educators in meaningful organizational change
- provide a mechanism for meaningful professional development. This includes but is not limited to conferences, workshops, release time, and innovation grants.

### **4 - Creating Educator Communities**

The goal of this principle is to help administrators create opportunities for educators to talk about teaching practices. Initiatives that support this principle will:

- provide suggestions for how teachers can promote productive communication with their peers to discuss the art of teaching.
- provide rationales for why particular approaches for promoting communication (e.g., meetings, communities of practice, grand rounds, discipline-specific conferences, education conferences) are pedagogically appropriate.

- provide for organizational policies that support the creation of teaching communities.

## **5 - Facilitating Administrator Development**

The goal of this principle is to provide opportunities for administrator professional development. This includes but is not limited to expanding their understanding of Differentiated Instruction, Organizational Dynamics, and Educator Empowerment.

Initiatives that support this principle will:

- provide administrators with factual and conceptual knowledge of Differentiated Instruction, Innovative teaching, pedagogical approaches, and potential concepts likely to be misunderstood by students.
- provide administrators with ways to train educators new to differentiated instruction.
- help administrators see how their policies, actions, and interventions impact the day to day teaching of their educators.
- help administrators to understand the challenges and opportunities faced by their educators.

## **B. Organization Involvement and Improvement**

### **6 - Brainstorming and Strategic Planning**

The goal of this principle is to help administrators promote educator involvement in organizational change by providing opportunities to share ideas and recommendations.

Initiatives that support this principle will:

- provide driving questions for administrators to use to frame their ideas for creating a program of empowerment and support. They should also help administrators identify questions that they can use with their educators including focus questions for guiding staff meetings and workshops.
- help educators understand why these are productive questions to help them in creating a supportive organization.
- provide various forums where educators can share these ideas and recommendations in a supportive environment.

## **7 - Collecting and Analyzing Data**

The goal of this principle is to enable data collection and analysis. The data being collected is used to support and recommend policy and organizational changes.

Initiatives that support this principle will:

- provide administrators with approaches to help educators' collect, compile, and understand data and observations to support their innovative teaching.
- help teachers understand why the use of evidence is so important in showing the success of DI in their classrooms.
- help them adapt and use these approaches across multiple subjects even when the data being collected seem fairly different..
- provide support for data collection
- offer approaches to using data to support organizational change.

## **8 - Initiating Evidence-Based Change**

The goal of this principle is to provide educators with practical ways to incorporate data into organizational change proposals. Initiatives that support this principle will:

- provide clear recommendations for how administrators can support educators incorporating data and generating evidence-based explanations.
- include rationales for educator buy-in is essential for any successful organizational development proposal.

## **9 - Proposing Organizational Change**

The goal of this principle is to empower educators to create their own organizational support proposals based on investigations, research, and experiments. Initiatives that support this principle will:

- help administrators recognize the importance of having educators champion their own projects that support recommended changes.
- help administrators provide ideas and support for appropriate designs and suggestions for improving incomplete designs.
- provide opportunities for educator involvement in organizational decision making. This includes town halls, open forums, committee assignments, and leadership positions.

## **10 - Ensuring Educator Wellness**

The goal of this principle is to provide administrators with a way to support educator wellness. This includes promotional opportunities, develop long-range goal setting, and general satisfaction with the organization. Initiatives that support this principle will:

- help administrators understand the daily constraints educators face
- provide administrators with tools to assess and monitor overall wellness
- provide opportunities to change organizational culture to better support wellness.

### **III. Assessment and Evaluation**

## **11 - Assessing Evaluation Tools**

The goal of this principle is to help administrators assess the effectiveness of the tools used to evaluate educators. Initiatives that support this principle will:

- provide tools to evaluate how effective any given evaluation tool is.
- help administrators share what specific features and functions are being evaluated by each tool.
- gather educator feedback on the perceived effectiveness of these evaluations.

## **12 - Refining Evaluation Tools**

The goal of this principle is to help administrators engage educators in creating evaluations that are fair, balanced, and reflective of the items being evaluated.

Initiatives that support this principle will:



- ensure evaluations are crafted to assess specific skills
- multiple methods of evaluation will be used to ensure a variety of perspectives are included
- educators trying new innovative teaching methods will not be harmed by lower scores due to the new innovation.
- ensure evaluations reflect those aspects under the auspices of the educator.  
(i.e., Outside influences will not negatively impact an educators evaluation)

### **13 - Establishing Observation Opportunities**

The goal of this principle is to ensure educators have multiple opportunities for formative observation. Initiatives that support this principle will:

- provide examples of non-punitive formative assessment
- provide for peer observation of teaching skills
- reassure and affirm that being innovative involves the risk of failure and that these setbacks will not be used to punish or impact teacher advancement.

## **Appendix C – The Guide**

### ***THE GUIDE***

Cutting Edge Differentiated Instruction Strategies for Administrators:

Supporting Innovation at an Organizational Level

2020

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# 1. Introduction

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Hello and Welcome,

If you are reading this guide, you have a desire to empower innovative educators in your school or organization. You may have come upon this guide either as a solution to a current problem you have, a desire to try to empower teachers for the first time, or you want to learn how as an administrator, you can be proactive in helping your organization

This guide, while primarily aimed at empowering Differentiated Instruction Educators in Higher Education, can be applied to any discipline or grade level where you want to foster innovative teaching and learning in your organization.

This guide has three sections: Understanding Differentiated Instruction (DI), a toolkit for Empowering Innovative Teachers, and Implementing Long-Lasting Change.

The first section provides background information on Differentiated Instruction as a teaching methodology, the role administrators and organizations play in the success of DI. This section describes DI background, different areas for differentiation (content, process, product, and learning environment), and the pros and cons of this type of instruction. While primarily aimed at those new to DI, this background helps get everyone on the same page using the same terminology and understanding of the process.

The second section is a toolkit that, like differentiated instruction in general, starts with gathering information about your organization. This inventory then helps to identify focus areas for your school. Once you have focus areas identified, you can select the initiatives that apply to your situation more directly. These initiatives are presented as outlines to help scaffold the process. They are not step-by-step instructions to implement. As in DI, all students are different, and one size teaching doesn't fit all; one size empowerment initiatives won't fit all. This lets you tweak the initiative to fit your organizational needs and context. While not all of these will necessarily work to meet the specific needs of your school, they are provided along with which particular problems and issues they address.

The final section focuses on the age-old question of "what next"? How do we use these initiatives to make long-lasting change in our schools? What can we do to expand beyond these initiatives to create a lived culture that supports innovative teaching and learning for all students and educators?

I hope you find this guide beneficial as it has been a labor of love to scour relevant best practices, examine case studies, and survey educators to find out what has worked in their institutions.

Sincerely

Sol Roberts-Lieb

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## 2. Understanding Differentiated Instruction

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### **Differentiated Instruction - History, Advantages, and Challenges**

Differentiated Instruction (DI) is a new name for an old concept. Beginning in the 1600s, a teacher in a one-room schoolhouse would teach many students at various grade levels, abilities, and interests simultaneously. The teacher was responsible for developing curricula, including activities, assessments, and content for each student.

Over the 300 years from the 1600s to the 1900s, schools evolved from the one-room schoolhouse to the aged-centered classrooms that we are most familiar with today. During this period, the teachers taught, and students were passive observers (Ashwin, 2006; Schneckenberg, 2009 as cited in Lai, 2011). In essence, the teacher was a 'sage on the stage,' transmitting information to the receiver, the student, who would then send it back to the teacher in the form of an assessment. The student's mind is a storage vessel for that information, which can be opened when needed, and closed again (Sfard, 1998 as cited in Lai, 2011).

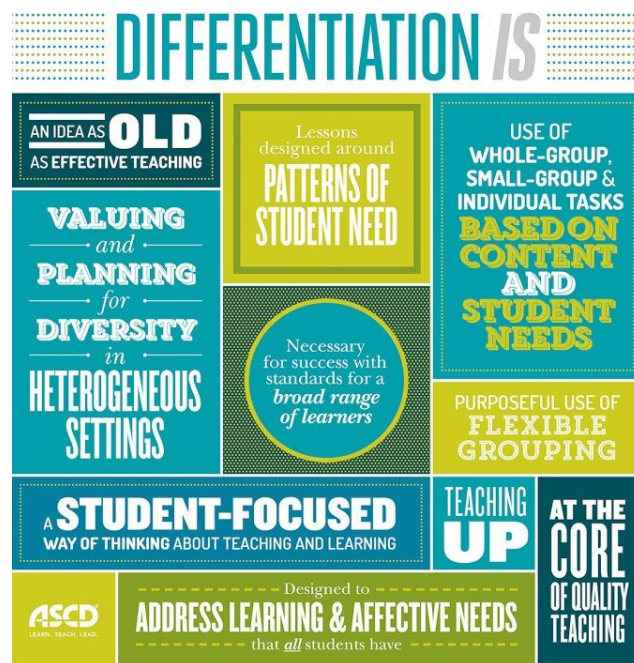
Conventional thinking has shown that industry and our society want learners who can create 'good and powerful ideas' to address the economic, social, and global issues of our times (Homer-Dixon, 2006; Feinstein, Vorhaus & Sabates, 2008 as cited in Lai, 2011).

The question we need to ask ourselves is, "What evidence exists that supports DI's claim that it enables students to create new and powerful ideas which ultimately lead to success. To answer this question, we share the thoughts of several theorists

(Tomlinson, 2000; Subban, 2006; Hall, 2002) and Public Policy (NCLB; 2001; IDEA; 2004; Hardman & Dawson, 2008, p6) who propose the introduction of Differentiated Instruction in mainstream education as a solution to provide motivation and better outcomes for all students regardless of their ability. We will also look in-depth at what DI is, the challenges it brings, and how best to overcome those challenges.

**Figure 2.1**

Differentiation Is (Tomlinson, 2016)



**A. Rationale, Opportunities and Challenges for Differentiated Instruction**

We began this background section by looking at the history of Differentiated Instruction; from the time of the one-room schoolhouse to the chronologically aged centered classrooms of today. This is best illustrated by Tomlinson, who said,

"seated side by side in classrooms that still harbor a myth of "homogeneity by virtue of chronological age" are students with identified learning problems; highly

advanced learners; students whose first language is not English; students who underachieve for a complex array of reasons; students from broadly diverse cultures, economic backgrounds, or both; students of both genders; motivated and unmotivated students; students who fit two or three of these categories; students who fall closer to the template of grade-level expectations and norms; and students of widely varying interests and preferred modes of learning"

(Tomlinson et al., 2003)

The problem with this approach is students in the lower third of the class will fall behind, students in the middle third will perform as expected, students in the upper third may be bored and not perform to the best of their ability.

This section will explore the rationale for differentiated instruction, student differences, areas where an educator can differentiate, and conclude with challenges associated with differentiated instruction.

### **Student Differences**

While Tomlinson has laid the foundation for Differentiated Instruction, we need to dig deeper into the differences between our students and why instruction needs to change accordingly. Some of these differences include gifted students, special needs students, and students with different sexual orientations, educational experiences, and those who have limited access to learning resources. Each group of students all have different learning backgrounds and preferences. Finally, even learners from the same family would learn things differently from other members of their family (Kalantzis & Cope, 2012 as cited in Haniya & Roberts-Lieb, 2017).



The diversity in our classrooms mentioned above is only the beginning. By 2035, students of color will be the majority due to the increasing number of immigrants having multiple children, multiple languages spoken, and half of all children being from single-family homes (Tomlinson et al., 2003). One in five children has an immigrant parent, and children under six from immigrant families are the fastest-growing population segment in the United States (Oakes & Lipton, 2007, p7 as cited in Haniya & Roberts-Lieb, 2017). This wide variety of students provides a challenge even to the most skillful of teachers. DI is one way to help address the differences in preferences and backgrounds.

While the government has provided K-12 education, access to higher education has been out of reach for many students. In recent years, the increase in programs, including scholarships and online learning, has enabled more students to attend than ever before. These new students bring learning styles, needs, and desires different from traditional students in higher education (Lai, 2011). To illustrate this point, Lai (2011) shows that in 2000, the total enrollment in higher education worldwide was about 100 million, 200 times more than in 1900, and they estimate it will be around 125 million by 2020. This influx of new students from different backgrounds shows that higher education is not immune to the issue that has been present in public K-12 schools since the beginning.

### **Learning Styles and Multiple Intelligences**

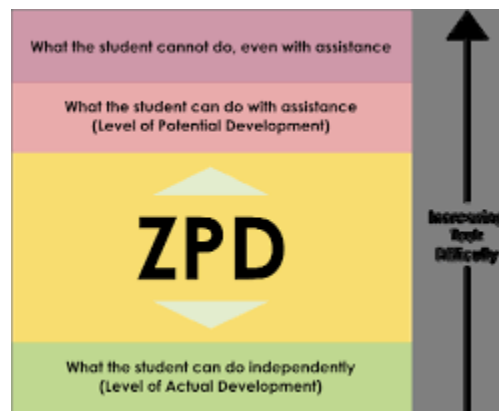
As shown previously, one classroom contains students from different backgrounds and abilities. To help ground our thinking on DI, we will examine two main theories,

Gardner's Theory of Multiple Intelligence and Vygotsky's Zone of Proximal Development. These theories illustrate the problem with the current approach of "teaching to the middle" in a classroom of students with different abilities.

First, Gardner's Theory of multiple intelligences postulates that each person has multiple ways of learning and achieving rather than just one intelligence for everyone (Subban, 2006). When applying this theory to the classroom setting, Gardner says "an instructional technique or program that is heavily reliant on one of the intelligence, minimises (sic) opportunities for students who may not possess a propensity to learn in this way (Gardner 1999, as cited in Subban, 2006). The core tenant of DI is to take advantage of students' strengths. While DI doesn't focus specifically on which intelligence a student has, understanding that students think and perform differently based on how they are taught is crucial in helping students reach their highest potential.

Second, Vygotsky postulated that each student's **Zone of Proximal Development** (ZPD) is the distance from what the student knows to where the student can go. In other terms, it's the area where something is challenging but still achievable with support.

**Figure 2.2**  
*Zone of Proximal Development (Lui, 2012)*



In a traditional classroom, all students of the same age are expected to learn the same information at the same time. If a student has a small ZPD and starts on the lower end of the spectrum, teaching them in the same manner with the same tools as students with large ZPDs or students with small ZPDs who start on the higher end of the spectrum will result in minimal advancement and them not achieving the same results as other students (Lewis, 2017).

In DI, the ZPD has two significant impacts. The first is understanding the capabilities, attitude, and background knowledge of each student. We can achieve this through the initial readiness assessment, which we will explore in the next section (MacGillivray and Rueda, 2001 as cited in Subban, 2006). The second impact, which is the core of DI, is that a learner must have interactions with a knowledgeable adult or capable peers to realize the potential in their ZPD fully. A teacher or expert must be a guide for students to gain maximum success (Subban, 2006).

An educator needs to know what the student knows, how they interact with others, the material, how they show their knowledge, and their general aptitude for learning the

content. With that knowledge, the educator can construct DI materials to help the student reach their maximum potential.

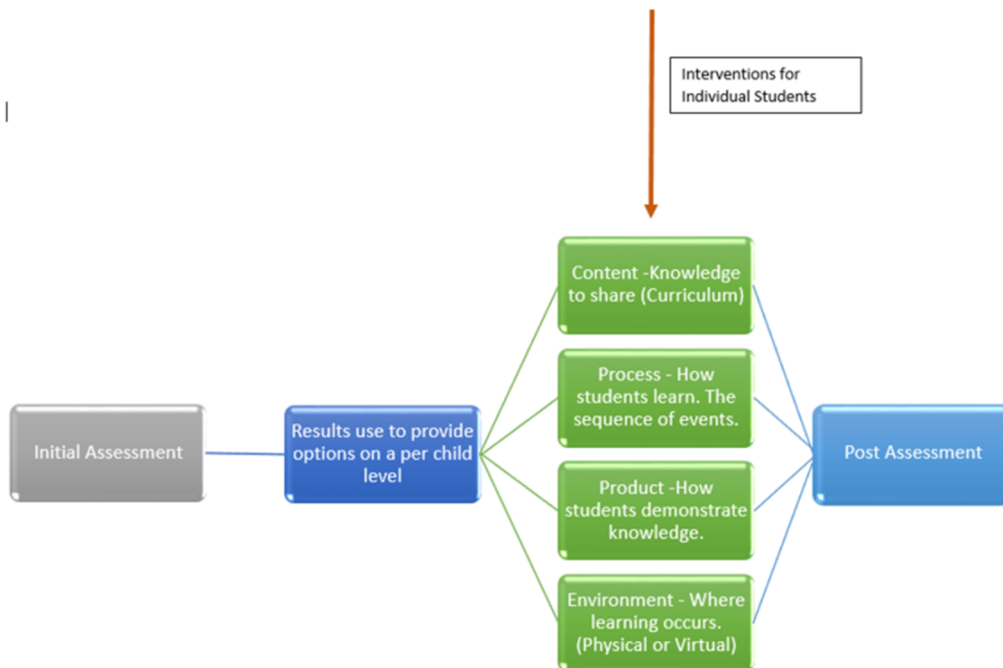
### **Public Opinion is Changing**

The literature suggests that Public Education Policy is receptive to implementing and experimenting with DI. For example, according to "the National Board of Professional Teaching Standards (1989), expert teachers should base their practice on knowledge of students' abilities, interests, prior experiences, and relationships with family and friends. Conflicts often arise, however, when teachers are missing essential pedagogy and support that facilitate differentiation" (Brimijoin, 2005, p 255). This policy is stating that educators wishing to differentiate, need to have the pedagogical understanding of why and how to differentiate (Ismajli & Imami-Morina, 2018, p208). A later section will explore the lack of training as a challenge in differentiated learning.

### **ii. Areas of Differentiation**

We have discussed the history, background, and rationale for Differentiated Instruction. Now we will focus on the six key elements that form a differentiated classroom. The first two relate to understanding our students and their abilities (Tomlinson et al., 2003), while the final four are specific areas to differentiate lessons, classrooms, or curriculum (Tomlinson, 2000).

**Figure 2.3**  
*Differential Instruction Model (Haniya & Roberts-Lieb, 2017)*



### Readiness Assessment

Joseph, Thomas, Simonette, & Ramsook, 2013 state, "Theory and research support the position that teachers should consciously adjust curriculum and instruction in response to student readiness, interest, and learning profile." The student readiness step is often forgotten by those who want to differentiate, which causes problems in instruction as this step provides the educator with the background information on the students. Without this information, an instructor can not effectively create interventions to differentiate successfully.

In the readiness assessment step, the educator works with the student to understand what they know about a given subject (Differentiated Instruction Educator's Guide,

2016). Next comes the student interests section of the initial assessment. This is usually done through surveys, introductions, and by asking questions to find out what a student wants to learn or is interested in learning (Differentiated Instruction Educator's Guide, 2016, p18 n.d). Understanding what a student knows is regarded as essential to be able to differentiate content; even more important is how they learn (process/learning environment) and what interests (content/product) they have. *The Differentiated Instruction Educator's Guide* further states that this assessment must be done before the instruction begins to create appropriate learning goals.

In *Assessment in a Differentiated Classroom*, Tomlinson & Moon (2013) state that the initial assessment can be performed in a variety of ways, including but not limited to surveys, previous tests, interviews, small groups, audience response systems, and content tests. A prime factor is that none of these assessments should count for a grade or be reflected in any assessment rubric. The only use for this information should be to help the educator modify their instruction methods to meet the students where they are.

Tomlinson & Moon further state that these assessments should be conducted using multiple methods (formal and informal) to ensure results are as unbiased as possible. For instance, if a student is a terrible test taker, and the assessment is a multiple-choice test, their understanding of the content may not be adequately measured. While there is no perfect solution for assessing knowledge, multiple methods help to reduce that issue. By using a single task for assessment " for all learners of varying readiness levels with only occasional modifications probably falls short for many students because the task itself is outside their zones of proximal development, and minor changes in the task do not correct the mismatch between task and learner" (Tomlinson et al., 2003).

## Objectives

The literature agrees that the creation of **clear objectives** and goals prior to differentiating is required for successful implementation. If the course doesn't have well-defined learning objectives, it is challenging to differentiate effectively.

While the instructional design of a course is not the intent of this work, it is necessary to highlight how an educator can create a course outline that will make DI easier to implement. One method of creating or refining a course is embracing the Understanding by Design (UDB) methodology (Bowen, 2017). UDB has the following steps:

- UDB begins with defining the knowledge they want the student to be able to demonstrate at the end of the class or course.
- Second, the educator decides how they will show this knowledge (content).
- Third, the educator lists activities the students will engage with to learn the content. Examples of these activities are group activities, lectures, individual study times.
- Fourth, the educator prepares the content the students need to learn.
- Finally, the educator develops the objectives of the course.

When an educator uses UDB to create a course, the areas for differentiation are more straightforward and require less re-engineering as differentiating can be done during the outline and design stages.

## Content

The first core principle, **content differentiation**, states that all students still have access to all the content; it is just presented in a variety of ways matched to students learning styles (Tomlinson, 2002).

"In a differentiated environment may not be covered or covered to the same extent for all students. If the course is designed according to differentiated instruction characteristics, the content the students learn is the same, just presented in different ways, and there may be additional content made available to those who want or need it" (Haniya & Roberts-Lieb, 2017).

When differentiating content, the educator can achieve two impacts with one learning tactic. The students have the knowledge that they may not have otherwise gained in traditional teaching, and they have a deeper understanding of the content, allowing them to perform as well or better on standardized tests. This helps to address a significant detractor of DI, which states that students who are in a DI classroom don't have equivalent knowledge to peers in traditional classrooms.

In content differentiation, while students access the same content, remedial or advanced content is available for those students who need extra help or have already mastered the content.

Providing this extra content is not new, as educators have always provided handouts or links to additional resources for students who needed them. In most cases, this was when a student wasn't progressing at the same level as their peers. Technology has reduced the time-consuming nature of creating handouts, finding specific links for



specific students, and trying to see what content they need when. Adaptive learning platforms provide this information for the student based on their performance on various assessments. In this case, the educator creates or finds the information once, and the software provides this to the student as needed.

## **Process**

The second core principle, **process differentiation**, is multimodal thinking. In essence, it is providing students with multiple ways to interact and learn content. "In many cases, differentiating process is the most time-consuming because determining how students learn can lead to more options than are feasible to support" (Haniya & Roberts-Lieb, 2017). One way to reduce the burden on educators is to use open educational resources (OER) as reusing materials created by other educators can be just as effective as creating their own materials. Another dimension of process differentiation is the timing and pace of instruction, along with the time to comprehend the material and when to assess that new knowledge (Subban 2006).

Here is an example of process differentiation.

- **Traditional Teaching** - An educator stands at the front of the classroom and gives a lecture on a specific topic while the students passively receive the information.
- **Differentiated Instruction** - An educator assigns a variety of options for students to learn the content. This includes but is not limited to watching a movie, reading a book, having a or engaging in a group activity.

These can all be equally effective, but as earlier stated, this does require time, effort, and in some cases, such as group work, additional people to be involved (Haniya & Roberts-Lieb, 2017).

## **Product**

The third core principle, **product differentiation**, allows students to choose how they demonstrate their knowledge. In non-DI classes, assessing knowledge is usually done by a test or writing a paper. In the vast majority of these cases, writing isn't what is being evaluated, nor is the ability to take a test, but rather what the student knows or can apply about specific content.

DI proposes that if a student could demonstrate subject mastery in a non-traditional manner such as giving a presentation, singing a song, creating a piece of art, it is just as valid as a report or a test. The most challenging process of product differentiation is how to assess the product. Many educators use rubrics that only apply to standard term paper or presentation. In a standard paper rubric, besides the content, there is usually a column that lists grammar, spelling, font, word spacing, and more. In this case, a student may understand the content but not be the best writer, and then would get a lower score than if their content knowledge is what was being assessed. There are cases when the writing is what is being assessed, and then a writing product would be a valid assessment.

Educators can reduce the burden of grading by creating one rubric that applies to any possible medium a student may use. This is called a **product-agnostic rubric**, and it shares many characteristics with a traditional rubric (Haniya & Roberts-Lieb, 2017). The

main difference is instead of a writing column with grammar, spelling, etc., the rubric would have a column for effective use of medium and how the medium was used to showcase the content. While the rubric wouldn't mention how to assess a song, it could be applied to see if the song showcases the content, has appropriate phrasing, hook, etc. If the product were a painting, the same rubric could be applied to assess if the painting showcased the content.

The end goal of a product-agnostic rubric would be to have one rubric that has a clear set of criteria for the student to follow, understand what they are being graded on, and apply to any product (Stanford, 2010).

## **Learning Environment**

The fourth core principle, **learning environment differentiation**, uses technology, furniture, and environmental controls to modify the physical or virtual learning space. According to Tomlinson (2016), the routines and processes students follow can be designed to support the students and provide new opportunities for learning.

- **Physical Learning Spaces Differentiation** - Specific examples of how to differentiate a physical classroom include different chairs, music, noise levels, views of windows, desks, and time to do things in the classroom.
- **Online Learning Space Differentiation** - Specific examples of how to differentiate a virtual classroom include when to meet (time), asynchronous vs. synchronous, the learning management system, closed captioning for videos, screen size, and specific software for interaction (Haniya & Roberts-Lieb, 2017).

While technology is an excellent addition to the toolbox for DI educators, there is a word of caution that tools may be used in ways that the educator never envisioned.

(Tarantino, 2013). A prime example is the use of discussion boards. While they may be started for class discussion, the students may use them for different topics, answer each other's questions, or have entirely unrelated or tangential discussions. These are valuable, but the educator needs to understand this before selecting a new tool.

## **Overview**

The rationale for DI is clear: teach in such a way that students can use their strengths to learn the information being presented. The steps to differentiate have been described to provide an overview of what goes into a differentiated classroom. Next, we will look at the challenges of DI.

### **iii. Challenges with Differentiated Instruction**

We spent the last section talking about the benefits of DI. One thing to remember is that Differentiated Instruction is not the panacea for all learning issues. It is one framework among many that help to improve student success. This section will outline the significant challenges and potential pitfalls of implementing Differentiated Instruction.

**Figure 2.4**  
*Differentiated Instruction Is Not* (Tomlinson, 2016)



## Assessing Instruction

Good teachers genuinely care that they are providing quality instruction. One challenge for DI teachers is the need to frequently assess the instruction quality (Tomlinson, 2000) continually. For example, if an educator is differentiating the product and has four different ways to assess knowledge, it is not easy to ensure that the four different products are evaluated in the same way. This goes back to the need for and the correct implementation of the readiness assessment. The manner of assessing students (both during readiness and as part of the course) can be problematic if it is not planned out before the class begins.

## **Educator Attitude, Aptitude, and Training**

Unlike some methods of teaching that have a guidebook, there is no recipe for differentiation (Tomlinson, 2000). There is no fool-proof guide to teach you how to interpret the results of a readiness assessment and know precisely the best way to differentiate, how much to differentiate, or what intervention to use for each student. In "Where is the Evidence to Support Differentiation" (2017), Greg Ashman discusses the elasticity of the term, the lack of implementation even after training, and the overall misunderstanding of what differentiation is or could be.

Educators need to be willing to differentiate and understand that consistent and constant assessment is required and must be linked to the instruction. "Teachers are hunters and gathers of information about their students and how those students are learning at a given point. Whatever the teachers can glean about student readiness, interest, and learning helps the teachers plan the next steps in instruction" (Tomlinson, 2000). As Tomlinson states, DI is an iterative process of trying something, seeing the results, and then tweaking the instruction. This is a partnership between students, educators, parents (where appropriate), and administration. The challenge this provides is that some students and educators want a simple proven one and done solution. Failure is not something that they want to have. While a DI intervention not working isn't a failure, it can be seen as a setback for some students and educators.

Still, some educators perceive the way they've always taught is the best and most effective way for students to learn. "Teachers perceiving differentiated instruction as a fad that would pass, concerns over time allocated to prepare for the differentiated

lesson, unease over student assessments and preparation for testing, disquiet regarding classroom management and perceived teacher insecurity over a change in their role" (Tomlinson, 1995 as cited by Subban, 2006). Breaking through this perception and ensuring that time, training, and willingness to change is essential to effective differentiation.

A significant issue in DI relates to the attitude, aptitude, and training is the amount of time that this pedagogy takes. Unlike teaching to the middle or the lowest common denominator, DI is a "time-consuming exercise with long hours of planning, organizing, and scheduling individuals and groups" (Joseph, Thomas, Simonette, & Ramsook, 2013). Teachers are already stressed and asked to do more with less. This seems like another step that may or may not provide benefits for the time they invest.

Another issue raised by the literature is that even with training, some teachers are still not differentiating because there isn't a standard definition of what it means to differentiate (Delisle, 2015). In the article, "Differentiation Doesn't Work," Delisle states that it is impossible to differentiate, and it never will be possible based on how our students are assembled into classes. "Toss together several students who struggle to learn, along with a smattering of gifted kids, while adding a few English-language learners and a bunch of academically average students and expect a single teacher to differentiate for each of them" (Delisle, 2015). This article reinforces the need for DI as no one could even try to teach everyone at the same level and expect all students to perform at or above expectations. One way to lessen the burden on teachers is to group by students' abilities to help lessen the impact on the instructions.

The literature raised three main challenges with implementing DI: training and understanding DI, student benefits, and organization support. First, educators need to have appropriate training to build the skills necessary to design, implement, and evaluate a DI classroom. Second, educators need to know how this extra work and change in instruction will benefit their students. Finally, they need to understand how the organization will support them while they take on this new type of instruction.

### **Student Perception**

As discussed in the previous section, both educator buy-in and appropriate in-depth training are necessary for successful implementation. How the teachers teach, how they are trained, and how they feel about the DI is as important as the changes they make in their teaching.

Similar to how educator perceptions reflect the quality of DI, how students perceive DI is equally important. Most students have never experienced DI, and their perception of how it works or doesn't work impacts their performance. In a recent study of students in a differentiated classroom, of the 192 respondents, 43% said they were satisfied, 37% said they were satisfied, with 17% somewhat satisfied and 3% dissatisfied (Joseph, Thomas, Simonette, & Ramsook, 2013). All in all, these are very supportive numbers. The one caveat to this study is it is teachers teaching student teachers. This is a biased group, but it does show that they are favorable despite the challenges mentioned above. In other settings, it will be essential for educators to explain DI to the students and get their buy-in. This is a long process that can be helped through discussion, trial and error, and showing the results of the interventions. A key to remember is that DI



requires collaboration "with students so that both teacher and student can determine challenge levels that are appropriate, while also teaching students to be active and responsible for their own learning" (Tomlinson, 2001).

## **Final Thoughts**

*In this section, we covered a lot of ground in the DI World. We looked at the history, background, advantages, process, and challenges associated with Differentiated Instruction.* This section was created to help you have a better understanding of what your educators are trying to do when they say they want to differentiate a classroom. This is not easy and is ripe with many opportunities and challenges. As an administrator who wishes to empower your educators, understanding their hopes and objectives is critical. Next, we will look at the roles that you, as an administrator and your organization play in empowering, supporting, and developing educators.

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## 3. Empowering and Supporting Educators

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Just like you, your educators do not work in isolation. Everything they do is interconnected to everything else. They teach and manage a course that is part of a curriculum, which in turn is part of a department or school, which is then part of a college or university. While the educator controls many aspects of the day to day operations of the classroom or course, they are held accountable to supervisors, policies, and standards. This is where conflicts between the desire to differentiate and the ability to differentiate become evident.

In this section, we will focus on how administrators and organizations hamper or enhance an educator's ability to be innovative, including differentiation, in the classroom.

### **Support from Administration**

As you are aware, most educational organizations have objectives. They come in the form of session, course, and program level objectives, with each level supporting the level above it. In K-12 education, student performance is measured against the standard district, state, and federal metrics. Failure to meet these metrics or to show improvement can turn into a loss of funding and reputation. In Higher Education, teachers' evaluations from their students have a major impact on their promotion and tenure, along with the reputation of the school. Educators and administrators have a fear of implementing any program or change that may lower their evaluations, which in turn may lower their rankings.

Differentiated Instruction is an innovative strategy that requires increased resources during course development and could, in fact, lower student evaluations of teachers or even lower performance during the early stages as the process becomes more streamlined and bugs worked out.

If you are reading this, you may be like many administrators who are not familiar with DI. A conflict can arise between an educator and administration when they implement a non-traditional intervention. The first time they do this, it may not have the desired effects, but with time and practice, the results will improve. The conflict is that educators are usually evaluated based on their student evaluations and scores. In DI, as with being innovative in general, your first time running these differentiated lessons may negatively impact evaluation scores. If an administrator understands DI and there is open communication between educators who are trying to be innovative and their administrators, this dip in performance can be justified, and the conflict removed.

This issue is further complicated when only one or two educators are implementing DI, and the rest of the faculty are not. The problem becomes how do you evaluate two instructors against the same criteria when they are operating their courses differently. This is the same argument for DI as how do you evaluate two students who have different learning styles and desires against the same criteria.

To help combat these conflicts, our administrators need to have the same training as the educators they supervise on the effectiveness of DI, what DI is, and, more importantly, that DI doesn't mean that students will not pass standardized assessments. This provides a common language and can level-set expectations.

One issue of note is that DI should be a choice for educators to make and not be required. In both the UK and Australia, DI has been forced upon educators. This was done without appropriate educator development or buy-in from the teachers. While DI is an intriguing concept, the shift from concept to the classroom must be done carefully and with buy-in from the educators (Mills et al., 2014, p331).

A common myth is that DI does not prepare students for standardized assessments or for "the real world." The common understanding is "if we change what and how students learn, then how will they perform on a standardized test"? In fact, differentiating a classroom can improve performance on standardized tests (Rock, Gregg, Ellis, & Gable, 2008). According to Brimijoin 2010, a problem that teachers have is trying just to check off boxes to make sure students know the content for a test. This doesn't provide deeper learning that will help them grasp the content and perform well on the assessment. When looking at where readiness for standardized assessments fall, this author decided to add it in the administration support section as it could go in others. The reason for placing it here is that school administration is responsible for accreditation, funding from the state, all of which is predicated in most cases on student achievement on standardized exams. This can cause pressure from administrators on educators not to try something new but go with the standard model of teaching.

Another main factor that impacts administrators is the funding for training, release-time, resources, collaborative learning, and recognition for teachers who improve their differentiated processes (Brimijoin, 2010). In many cases, this a catch-22. The administrators are worried about losing state funding due to low performance, which means they don't receive extra money for educator development. At the same time, with

the individual nature and the difference between differentiated classrooms, it is hard to prove that all students will benefit from DI, which could look like using the money for a cause that isn't guaranteed to bring results.

Administrators have the responsibility to set an example for educators in creating an organization that is supportive of DI. For an organization to be successful at Differentiated Instruction, or any school-wide or district-wide innovation, the change needs to be "deep," and at the core of everything, the school does (Hewitt & Weckstein, 2012, p36). At the same time, educators have to prove that what they are doing is effective, which is not an easy task. In essence, there is self-evaluation and course evaluation. The course evaluation should be consistent with what is already done in courses, and the self-evaluation may be new.

## **Organizational Structure and Policies**

In the previous section, we examined how specific administrators can hamper or enhance an educator's ability to be innovative in their classroom. This section will look at the success or failure of schools to increase innovation by looking at four main areas: Professional Development, Flexible Evaluations, Incentive Programs, and additional resources for innovation.

### ***Professional Development and Mentoring***

According to Abu-Shreah & Zidan, 2017, the educator is ultimately responsible for developing the skills and abilities of their students by implementing effective educational practices and activities by understanding the needs of their students. The educator

knows the needs of the students and has ideas on how to help them achieve their goals. As previously stated, DI is not new, but while the teacher knows how to help their students, they may not have the skills on how to enact those changes. One method is to have a structured professional development program that promotes innovation, including differentiation. Also, according to Abu-Shreah (2017), having a system of professional development is at the heart of improving education as the teacher needs to develop the skills to help the students develop the required skills.

Furthermore, while the development of the educator is required, it will "never happen without the presence of creative leadership based on innovation and renovation in administrative and educational work" (Abu-Shreah & Zidan, 2017, p21). This illustrates the importance of an organization based professional development system. While this top-down approach is important to show the buy-in from the administration, different types of innovation, including different abilities of educators, just like DI for the students, require various activities and opportunities in professional development (Tyunnikov, 2017, p169). A prime example of different activities for development revolves around the modalities chosen for the training. As we saw in the areas for DI, both the learning environment and process can significantly impact the learning outcome. According to Tyunnikov, "one should pay special attention to those modalities that, firstly, highlight the qualitative uniqueness of the innovative process in relation to the main vectors of innovative activity," or in other words, use a modality that mimics the modality used when teaching students (Tyunnikov, 2017, p170).

### ***Flexible Evaluations***

In many schools, such as the University of Illinois, all teachers are evaluated by students through a standard instrument such as the Instructor and Course Evaluation System (ICES). This system allows students to evaluate their instructors based on common core questions as well as the optional department created questions. While this provides some flexibility, only the standard global items are really used in evaluating the teacher's performance. This is also only a student evaluation of the instructor and doesn't provide for a mechanism for other educators to assess them. Furthermore, when an educator is trying something new, their scores may go down from previous semesters as the students are not used to this new way of learning.

In K-12 schools, many are opting for the Charlotte Danielson Framework, which consists of a pre-observation meeting to set goals and expectations, a formal observation, and a post-observation meeting (Hewitt & Weckstein, 2012, p36).

**Figure 3.1**

[ESU16 Staff Development Resources Based on the Charlotte Danielson]. Retrieved October 20, 2020, from <https://esu16staffdevelopment.weebly.com/danielson.html>

<b>Domain 1: Planning and Preparation</b> <ul style="list-style-type: none"><li>• 1a Demonstrating Knowledge of Content and Pedagogy</li><li>• 1b Demonstrating Knowledge of Students</li><li>• 1c Setting Instructional Outcomes</li><li>• 1d Demonstrating Knowledge of Resources</li><li>• 1e Designing Coherent Instruction</li><li>• 1f Designing Student Assessments</li></ul>	<b>Domain 2: Classroom Environment</b> <ul style="list-style-type: none"><li>• 2a Creating an Environment of Respect and Rapport</li><li>• 2b Establishing a Culture for Learning</li><li>• 2c Managing Classroom Procedures</li><li>• 2d Managing Student Behavior</li><li>• 2e Organizing Physical Space</li></ul>
<b>Domain 4: Professional Responsibilities</b> <ul style="list-style-type: none"><li>• 4a Reflecting on Teaching</li><li>• 4b Maintaining Accurate Records</li><li>• 4c Communicating with Families</li><li>• 4d Participating in the Professional Community</li><li>• 4e Growing and Developing Professionally</li><li>• 4f Demonstrating Professionalism</li></ul>	<b>Domain 3: Instruction</b> <ul style="list-style-type: none"><li>• 3a Communicating With Students</li><li>• 3b Using Questioning and Discussion Techniques</li><li>• 3c Engaging Students in Learning</li><li>• 3d Using Assessment in Instruction</li><li>• 3e Demonstrating Flexibility and Responsiveness</li></ul>

The framework above clearly illustrates the 21 dimensions that a teacher will be evaluated on. This framework is chosen and excels as it is instruction method agnostic, meaning that teachers who are implementing DI will not be penalized as they are teaching differently than in a traditional didactic approach. The framework is accompanied by a guide and rubric that allows for evaluation of each of the 21 domains, rating each as unsatisfactory, basic, proficient, and distinguished (Danielson, 2017). When a school implements a framework for evaluation that is agnostic to the methodology, like the Danielson framework, and focuses on what is being taught rather than how then the educators can feel more supported in their efforts to be innovative.

### ***Incentive Programs***

Incentive programs are those that offer "something" to the educators in exchange for changing their everyday practices. The "something" could be an additional salary, time



off, research dollars, or discretionary funding. Doing "something" different could involve innovation in the classroom, serving on a committee, taking on additional responsibility, or supporting a new program. There are a variety of programs in existence. We will look briefly at what seems to work and what doesn't work when creating these programs.

A program needs to have three main aspects: autonomy, guidance, and a sense of social community or working toward a larger meaningful goal to successfully incentivize innovation (Budwig, 2018). These programs value the worth of the educator, evaluate them fairly, and help them see that they are part of a broader community or purpose. This is further supported by motivational psychology, which suggests that "individuals need space to work in ways that fuel their passions and allow them to take risks, make mistakes and express creativity" (Budwig, 2018).

The opposing argument to incentive programs is that incentive programs don't work. They offer extrinsic motivation that actually impacts the natural intrinsic motivation that initially inspired the educator to want to innovate (Miller, Deci, & Ryan, 1988, p 233). As stated earlier, a specific innovation needs to be deeply rooted at the organization level to be successful. Research shows that at best, incentives create only short-term changes in behavior, eventually reverting to the initial behaviors (Budwig, 2018; Allan & Fryer, 2011, p12).

### ***Additional Resources***

A common refrain in teaching is "doing more with less." This is also true in DI as creating and implementing lessons that take the needs of individual students into account takes more time. When using technology to reduce the burden on the educator,

additional funding and support are needed (Joseph, Thomas, Simonette, & Ramsook, 2013). A significant concern with DI is the amount of time to "plan, design, and deliver the content," as well as having to finish the curriculum within a given amount of time (Aftab, 2015, p97). In this case, more time is needed than the educator has typically set aside for course design. Giving extra time to differentiate can be done in one or more of the following ways: release time, postponing when a course is first offered, or providing a teaching assistant to shoulder some of the daily repetitive work.

Another resource that can be used to incentivize educators is additional money. This money could be in the form of a promised promotion, increase in salary or stipend, or money to purchase new technology or tools to help with differentiation (Brewster & Railback, 2001, p16). While additional wage doesn't create more hours in the day, it can be a short term motivator for some instructors.

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## 4. Empowering Innovative Teacher Tool Kit

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### Getting Started

When we teach our students, we want them to learn and be able to show their learning. While we may assess that learning in different ways, we need to know what they know and if our instruction was effective. In DI, we start the process by knowing what they know before instruction begins. By performing a preassessment, we can modify the content to ensure we are giving them content at the appropriate level. Likewise, when we look at improving our colleges and departments, we need to find our foundation or starting point. Knowing our foundation helps us to understand where we have strengths and where there may be soft spots.

In this section of the toolkit, we will ask you to reflect upon your school or department. This reflection begins with listing your current programs and initiatives, as well as any challenges you are facing. Then you will then use this data to help select the initiatives to match your goals. Remember, there are no right or wrong answers. The purpose of this toolkit is to help you see the current state of your organization.

## A. Organization Inventory

Please answer the questions below to the best of your ability. Some of these questions may be challenging to answer, and others may invoke strong emotions regarding your organization. The intent of this is two-fold. First, to objectively assess what your organization is currently doing to empower and support your educators. Second, to invoke passion and drive to improve your organization.

**Support** - *The questions below relate to available educator support systems.*

1. What are the support systems available to educators?
  - Peer Mentoring
  - Professional Development
  - Release Time For Course Development
  - Sabbatical Time
  - Tuition Reimbursement
  - Funding for Innovation
  - Other
  
2. What mentoring programs are available to your educators?
  - Formal Peer Mentoring
  - Formal Mentor/Mentee
  - Formal educator group/cohort mentoring
  - Ad-hoc peer mentoring
  - Ad-hoc mentor/mentee
  - Ad-hoc educator group/cohort mentoring
  - No formal program
  - Other
  
3. What type of professional development opportunities are available to your educators?
  - Local formal workshops
  - Local ad-hoc workshops

- Regional workshops
- National
- Content or discipline-specific workshops and meetings?
- Other

4. What is the frequency of these opportunities?

- Monthly
- Semesterly
- Yearly
- Ad-hoc
- Other

5. What type of release-time is made available for educators?

- On request
- Set amount of time for every new course taught
- Set amount of time for new modules or initiatives
- Release time is not available outside of sabbatical
- Other

6. What are the funding opportunities available?

- Professional Development workshops and training
- Books, software, and equipment
- Tuition waiver or reimbursement
- Support staff
- Other

**Evaluation** - *The below questions relate to educator evaluation.*

7. How often do you evaluate your educators?

- Each course
- Each Semester
- Each Year
- As required for promotion and tenure
- No formal educator assessment

- Other

8. Who evaluates your educators?

- Peers
- Supervisors
- Students
- External Reviewers
- Other

9. What aspects of educator performance are evaluated?

- Classroom Organization
- Content Coverage
- Adherence to organizational or occupational standards
- Other forms of evaluation
  - Experimentation and Innovation
  - Student success rate
  - Student evaluations of educators
  - Peer evaluation of educators
  - Progress from previous evaluations
- Other

***Organization Involvement*** - The questions below relate to educator involvement in organizational decision making.

10. To what extent can educators impact organizational decision making?

- None
- Minimal
- Moderate
- High
- All Aspects
- Other

11. In what roles or positions can educators serve in to impact organizational decision making

- Committee Member

- Committee Chair
- Division or Department Head/Chair
- Faculty Senate
- Faculty Union
- Advisory to leadership (Director, Dean, or Department Head)
- Other

12. In what areas can educators impact organizational decision making?

- Budget / Finance
- Building / Facilities
- Course content
- Program / Concentration content and structure
- Curriculum content and structure
- Assessment and Evaluation
- Human Resources (Retention, Recruitment)
- Promotion and Tenure
- Student Affairs / Student Life
- Other
- Technology

### ***General Organization Questions***

The questions below relate to an overall feeling for your organization. These open-ended questions allow you to reflect on the successes, challenges, and opportunities for growth of your college, school, or department.

- List and describe three major strengths of your organization?
- List and describe three major challenges your organization faces?
- How would you describe the environment of your organization?
- How would you describe your organization's willingness to adapt and change?

- Do your educators feel empowered to be innovative? If so, please describe how this is observed.
- Do your educators feel that you and other administrators understand their needs?
- What barriers exist for supporting Differentiated Instruction for your students?
- What are the biggest obstacles in supporting innovative educators?
- In the past, how has your organization attempted to empower innovation in your educators? If so, how would you rate those attempts?

**Congratulations!** You have completed your organization's program inventory.

Before we move onto the various initiatives, take time to reflect on this experience by answering the below questions. These answers will be used again after you complete a few of the initiatives to help evaluate your commitment to change.

- How did it make you feel?
- Do you have more positive, neutral, or more negative feelings about your organization?
- How about your ability to enact change?

It is natural to feel overwhelmed at this point. You are looking at making a change to the status quo. Understanding these feelings will help you make the best choices regarding which initiatives to pursue and when. Remember, organizational change isn't completed overnight. It takes baby steps, buy-in, and time.



## B. Guiding Principles

Now that you have completed the organization inventory, you have a better idea regarding your focus areas for improving and creating a culture of educator empowerment. Below are the 13 Guiding Principles for Educator Empowerment. The principles fall into one of three focus areas of improvement: Professional Development, Organization Development and Involvement, and Assessment and Evaluation. Each of these principles will be applied to one or more initiatives that we will discuss in the next section. The purpose is to make each initiative action-oriented with clear objectives. The guiding principles provide those objectives.

**Table 4.1**  
*Guiding Principles for Educator Empowerment*

<b>Professional Development</b>	<b>Organization Involvement and Improvement</b>	<b>Assessment and Evaluation</b>
Building Content Knowledge	Brainstorming and Strategic Planning	Assessing Evaluation Tools
Creating Sound Activities	Collecting and Analyzing Data	Refining Evaluation Tools
Fostering Openness to new ideas	Initiating Evidence-Based Change	Establishing Observation Opportunities
Creating Educator Communities	Proposing Organizational Change	
Facilitating Administrator Development	Ensuring Educator Wellness	

### **Professional Development**

#### **1 - Building Content Knowledge**

The goal of this principle is to engage educators in DI conversations. Initiatives that support this principle will:

- provide administrators with productive real-world case studies that they can share with their educators to make DI more real and accessible to educators, including rationales for why these studies pedagogically appropriate.
- help administrators adapt and use these cases as examples their educators may emulate in their courses.
- warn of potential pitfalls with specific case studies and interventions.
- suggest and help administrators think about productive sequences for how to share this information with their educators.

## **2 - Creating Sound Activities**

The goal of this principle is to help administrators create activities for their educators that are pedagogically sound. Initiatives that support this principle will:

- provide appropriate examples and representations of pedagogical activities (e.g., DI interventions, innovations in teaching, active learning techniques) and support administrators in adapting for potential use by their educators,
- be explicit about why a particular instructional representation is pedagogically appropriate and what issues may happen if educationally sound teaching isn't used in the classroom.
- help administrators determine the most important features of an instructional representation.

## **3 - Fostering Openness to New Ideas**

The goal of this principle is to help administrators anticipate, understand, and support educators' ideas about differentiated instruction and innovative teaching. Initiatives that support this principle will:

- help administrators recognize the importance of educators' ideas and goals.
- help administrators gain insight into how they might be able to support mentoring and advancement of educators.
- provide ways to engage educators in meaningful organizational change
- provide a mechanism for meaningful professional development. This includes but is not limited to conferences, workshops, release time, and innovation grants.

## **4 - Creating Educator Communities**

The goal of this principle is to help administrators create opportunities for educators to talk about teaching practices. Initiatives that support this principle will:

- provide suggestions for how teachers can promote productive communication with their peers to discuss the art of teaching.
- provide rationales for why particular approaches for promoting communication (e.g., meetings, communities of practice, grand rounds, discipline-specific conferences, education conferences) are pedagogically appropriate.

- provide for organizational policies that support the creation of teaching communities.

## **5 - Facilitating Administrator Development**

The goal of this principle is to provide opportunities for administrator professional development. This includes but is not limited to expanding their understanding of Differentiated Instruction, Organizational Dynamics, and Educator Empowerment. Initiatives that support this principle will:

- provide administrators with factual and conceptual knowledge of Differentiated Instruction, Innovative teaching, pedagogical approaches, and potential concepts likely to be misunderstood by students.
- provide administrators with ways to train educators new to differentiated instruction.
- help administrators see how their policies, actions, and interventions impact the day to day teaching of their educators.
- help administrators to understand the challenges and opportunities faced by their educators.

## **Organization Involvement and Improvement**

### **6 - Brainstorming and Strategic Planning**

The goal of this principle is to help administrators promote educator involvement in organizational change by providing opportunities to share ideas and recommendations. Initiatives that support this principle will:

- provide driving questions for administrators to use to frame their ideas for creating a program of empowerment and support. They should also help administrators identify questions that they can use with their educators including focus questions for guiding staff meetings and workshops.
- help educators understand why these are productive questions to help them in creating a supportive organization.
- provide various forums where educators can share these ideas and recommendations in a supportive environment.

### **7 - Collecting and Analyzing Data**

The goal of this principle is to enable data collection and analysis. The data being collected is used to support and recommend policy and organizational changes. Initiatives that support this principle will:

- provide administrators with approaches to help educators' collect, compile, and understand data and observations to support their innovative teaching.
- help teachers understand why the use of evidence is so important in showing the success of DI in their classrooms.

- help them adapt and use these approaches across multiple subjects even when the data being collected seem fairly different..
- provide support for data collection
- offer approaches to using data to support organizational change.

## **8 - Initiating Evidence-Based Change**

The goal of this principle is to provide educators with practical ways to incorporate data into organizational change proposals. Initiatives that support this principle will:

- provide clear recommendations for how administrators can support educators incorporating data and generating evidence-based explanations.
- include rationales for educator buy-in is essential for any successful organizational development proposal.

## **9 - Proposing Organizational Change**

The goal of this principle is to empower educators to create their own organizational support proposals based on investigations, research, and experiments. Initiatives that support this principle will:

- help administrators recognize the importance of having educators champion their own projects that support recommended changes.
- help administrators provide ideas and support for appropriate designs and suggestions for improving incomplete designs.
- provide opportunities for educator involvement in organizational decision making. This includes town halls, open forums, committee assignments, and leadership positions.

## **10 - Ensuring Educator Wellness**

The goal of this principle is to provide administrators with a way to support educator wellness. This includes promotional opportunities, develop long-range goal setting, and general satisfaction with the organization. Initiatives that support this principle will:

- help administrators understand the daily constraints educators face
- provide administrators with tools to assess and monitor overall wellness
- provide opportunities to change organizational culture to better support wellness.

## **Assessment and Evaluation**

### **11 - Assessing Evaluation Tools**

The goal of this principle is to help administrators assess the effectiveness of the tools used to evaluate educators. Initiatives that support this principle will:

- provide tools to evaluate how effective any given evaluation tool is.

- help administrators share what specific features and functions are being evaluated by each tool.
- gather educator feedback on the perceived effectiveness of these evaluations.

## 12 - Refining Evaluation Tools

The goal of this principle is to help administrators engage educators in creating evaluations that are fair, balanced, and reflective of the items being evaluated. Initiatives that support this principle will:

- ensure evaluations are crafted to assess specific skills
- multiple methods of evaluation will be used to ensure a variety of perspectives are included
- educators trying new innovative teaching methods will not be harmed by lower scores due to the new innovation.
- ensure evaluations reflect those aspects under the auspices of the educator. (i.e., Outside influences will not negatively impact an educators evaluation)

## 13 - Establishing Observation Opportunities

The goal of this principle is to ensure educators have multiple opportunities for formative observation. Initiatives that support this principle will:

- provide examples of non-punitive formative assessment
- provide for peer observation of teaching skills
- reassure and affirm that being innovative involves the risk of failure and that these setbacks will not be used to punish or impact teacher advancement.

## C. Selecting Your Initiatives

The **Organization Inventory** provided an opportunity to list and describe the various programs and initiatives your organization employs to develop, empower, and support educators. The next step is using the inventory to help select which initiative(s) are best suited for your organization.

The chart below connects the guiding principles to the initiatives. Some principles are reflected in multiple initiatives, and some initiatives support multiple guiding principles. You can use the results of your organizational inventory in one of two ways. The first is looking at the area of focus (professional development, organization involvement, and

improvement, assessment and evaluation) and select the initiative(s) that have the most checks. The second way is looking at the various initiatives and seeing which have the most number of checks across the board. The first method is area-specific, while the second is focused more on overall organizational change. There is no right or wrong way to select your initiatives. The key to success is having your educator buy-in to the process and, most important, being flexible in implementation.

As previously mentioned, this isn't a course syllabus or a step by step guide for creating change. No guide will guarantee if you follow each step, you will be successful. These guiding principles and initiatives are provided as a starting point that allows for your unique situation to be addressed.

**Table 4.2**  
*Guiding Principle and Initiative Matrix*

		Teaching Squares	Shared Organizational Governance	Evidence-Based Decision Making	Communities of Practice	Strategic Curriculum Planning	Educator Wellness	Peer Coaching
Professional Development	<b>Building Content Knowledge</b>				X	X	X	
	<b>Creating Sound Activities</b>				X	X		X
	<b>Fostering Openness to new ideas</b>	X	X		X	X	X	X
	<b>Creating Educator Communities</b>	X			X	X	X	X
	<b>Facilitating Administrator Development</b>				X	X	X	
Organization Involvement and Improvement	<b>Brainstorming and Strategic Planning</b>		X	X		X		
	<b>Collecting and Analyzing Data</b>		X	X		X		
	<b>Initiating Evidence-Based Change</b>		X	X		X		
	<b>Proposing Organizational Change</b>		X	X		X		
	<b>Ensuring Educator Wellness</b>		X	X		X	X	
Assessment and Evaluation	<b>Assessing Evaluation Tools</b>		X			X		
	<b>Refining Evaluation Tools</b>		X			X	X	
	<b>Establishing Observation Opportunities</b>	X		X		X		

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## 5. Example Initiatives

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In the previous section, we discussed which initiatives supported which guiding principle. To reduce complexity and make the initiatives easy to follow, we have created a standard template. We hope this format makes these initiatives easy to follow and implement for your organization. At the end of this section is a blank initiative for you to create your own to meet a need that isn't addressed through one of the example initiatives.

**TITLE:** This is the title of the initiative

**TARGET AREAS:** These are the specific areas of improvement that are addressed by this initiative.

**GUIDING PRINCIPLES:** This lists which of the 13 guiding principles are supported by this initiative

**SETTING GOALS:** This includes the purposes and detailed objectives for the initiative.

**MAKING A PLAN:** The planning piece includes tips and tricks for making your implementation plan, including communication and needed resources.

**REQUIRED RESOURCES:** This includes the participants, stakeholders, the time implications, funding if required, and other supplies that may be needed. Time will be shown as low (>5 hours), medium (5-40), long (40-80), very long (80+ hours), and ongoing.

**IMPLEMENTATION STRATEGIES:** Implementation strategies, including tips, tricks, and potential pitfalls.

**EVALUATING EFFECTIVENESS:** How this effectiveness of this initiative will be measured. Are you meeting the goals of the initiative? Can you see improvement in the feelings, attitudes, and perceptions of your educators?

**EXAMPLE PROGRAMS:** This section will contain links to organizations that have implemented this initiative.

**BACKGROUND READINGS:** This section provides supplemental background reading to help you dig deeper into the initiative, differentiated instruction, and educator empowerment.



**TITLE:** Teaching Squares

**DESCRIPTION:** Teaching squares is a unique way to provide peer observation in a friendly, reciprocal, and collegial atmosphere. Unlike an evaluation, observations look at the best parts of teaching. A teaching square consists of four faculty members who desire to learn from each other to share best practices and build new teaching capabilities. Faculty members will take turns observing one another, not to evaluate teaching, but to learn. After each faculty member has observed the other three members of their square, they meet to discuss.

A teaching square could be a one and done situation, or it could be a longitudinal experience that creates a community amongst the participants. Educators may want to be observed multiple times as they put new practices into place.

**TARGET AREA(S):** Professional Development

**GUIDING PRINCIPLES:** Fostering Openness to New Ideas, Creating Educator Communities, Establishing Observation Opportunities.

**SETTING GOALS:**

- Provide educators the opportunity to see their peers teach.
- Provide a forum for a small cohort of educators to share the best practices and unique teaching elements they saw from each of their peers.
- Provide a safe, non-evaluative space to try new teaching methods.

**MAKING A PLAN:**

- Find a minimum of four educators willing to open their classroom door to observers.
- Find a facilitator to help schedule the observations, meetings (kick-off and closing), and provide any forms to help guide the observation.
- Create a way to evaluate the effectiveness of each round.

**REQUIRED RESOURCES:**

- **Time Needed- Low / Medium**
- Participants - Minimum of four educators and one facilitator.
- Training - minimal facilitation training for the facilitator. Educators need to understand that this is not to evaluate their peers; instead, the purpose is to see best practices and innovative teaching styles in action.

**IMPLEMENTATION STRATEGIES:**

- Look for willing educators first. Once one or two rounds of teaching squares are implemented in your school, educators will see the low bar to entry and the high reward.

- Find ways to promote this program. Ideas include newsletters, digital signage, emails, and word of mouth. After a round or two, have one of the participants share their stories with their colleagues at a team, department, or college meeting.
- Keep it low key. This initiative is to help the faculty feel connected and learn from watching. There are no reports or homework needed. Ideally, the faculty will incorporate one or more of the ideas they see into their teaching.

#### **EVALUATING EFFECTIVENESS:**

- Did all four educators participate in the process?
- What comments were given during the closing meeting?
- Have any of the educators implementing any of the teaching strategies into their courses?
- Have any of the educators wanted to continue for another round of observation?
- Have any of the educators wanted to be a facilitator for their own teaching square?
- Do the educators feel more connected to their peers, their department, or their organization?

#### **EXAMPLE PROGRAMS:**

- Appalachian State University - Overview: <https://cae.appstate.edu/teaching-learning-student-success/teaching-squares> Detail: <https://sites.google.com/appstate.edu/teaching-circles/home>
- San Fransico State University - <https://ceetl.sfsu.edu/content/online-teaching-squares>
- Tufts - <https://provost.tufts.edu/celt/initiatives/teaching-squares/>
- University of British Columbia - <https://wiki.ubc.ca/images/c/c5/Teaching-squares.pdf>

#### **BACKGROUND READINGS:**

- Cox, M. D. Introduction to Faculty Learning Communities. In Cox, M.D, and Richlin, L. (Eds.), *Building Faculty Learning Communities: New Directions for Teaching and Learning* 97: 5–23. Jossey-Bass: San Francisco, CA, 2004.
- Haave, Neil. “Teaching Squares: A Teaching Development Tool.” *The Teaching Professor* 28, no. 10 (December 2014): 8.
- Lang. J. M. (2016). *Small Teaching*. San Francisco, CA: Jossey-Bass.
- Quinlan, K. M (1996). Involving peers in the evaluation and improvement of teaching: A menu of strategies. *Innovative Higher Education*, 20(4).

**TITLE:** Peer Coaching

**DESCRIPTION:** Peer coaching is a newer type of coaching where both participants are of equal status. The purpose of this relationship is to provide open, candid, and confidential feedback regarding teaching observations. This initiative will help your educators to build relationships across your organization, have a peer review their teaching, and provide feedback that not only helps that educator improve but improves the teaching experience for the students.

**TARGET AREA(S):** Professional Development

**GUIDING PRINCIPLES:** Creating Sound Activities, Fostering Openness to New Ideas, Creating Educator Communities, Ensuring Educator Wellness, Establishing Observation Opportunities

**SETTING GOALS:**

- Create an environment of trust and openness between the peers.
- Provide opportunities to observe teaching practices.
- Create space and time for both participants to list their goals and outcomes for the program.
- Allow for both positive and constructive feedback regarding teaching.
- Create a schedule that provides multiple opportunities to meet one on one and observe each other.

**MAKING A PLAN:**

- Find two educators willing to enter into a peer mentoring program
- Both coach and participant need to dedicate time to this initiative.
- Find one person willing to facilitate an initial meeting between the two participants. This person will need facilitation and mentorship training.
- How long with this coaching?
- Time Needed - Low

**IMPLEMENTATION STRATEGIES:**

- Peer Coaching is meant to be a formative experience. While the same techniques can be used for formal evaluation, the intent of this initiative is to create a safe space and build a relationship between the coach and the educator. All observations and conversations between the coach and educator should remain confidential.
- Prior to starting the relationship, both participants should agree to a length of time for coaching. This provides an easy out when complete. This can easily be extended if both parties agree.

- Participants should be of equal rank and position. While not required, having different ranks or positions could negatively impact the dynamic of the group. A supervisor and their employee should not be in a peer coaching pair.

### **EVALUATING EFFECTIVENESS:**

This initiative is evaluated in two ways: initiative level and individual level.

- **Program Level:** At the end of the coaching experience, both the coach and the participant will complete a survey of the program. This evaluation will be combined with other coaches/participant pairs to determine the overall effectiveness of the program.
- **Individual Level:** While the results for the program level will help you as an administrator improve the strength and support for the initiative, there may be variance among individual participant/coach pairs. This initiative can be deemed successful if the participant believes they are improving as an educator. This may also be reflected in their student or peer course evaluations.

### **EXAMPLE PROGRAMS:**

- Baylor College of Medicine - Peer Coaching for Educators  
- <https://www.bcm.edu/education/academic-faculty-affairs/faculty-resources/faculty-development/programs/peer-coaching-for-educators>
- Cornell University - Peer Review of Teaching  
- <https://teaching.cornell.edu/teaching-resources/assessment-evaluation/peer-review-teaching>
- Stonehill University - Mentoring Program - <https://www.stonehill.edu/offices-and-services/center-for-teaching-learning/new-faculty-programs/>
- University of Minnesota - Peer Review of Teaching  
- <https://faculty.umn.edu/faculty-support-and-resources/peer-review-teaching>
- University of San Francisco - Peer Coaching - <http://usfcte.net/peercoach/>
- University of Lethbridge - Peer Feedback  
- <https://www.uleth.ca/teachingcentre/peer-feedback>

### **BACKGROUND READINGS:**

- Bell, Adriane E., Holly S. Meyer, and Lauren A. Maggio. "Getting Better Together: A Website Review of Peer Coaching Initiatives for Medical Educators." *Teaching and Learning in Medicine* 32, no. 1 (March 2020): 53–60. <https://doi.org/10.1080/10401334.2019.1614448>
- Carlson, Kristy, Allison Ashford, Marwa Hegagi, and Chad Vokoun. "Peer Coaching as a Faculty Development Tool: A Mixed Methods Evaluation." *Journal of Graduate Medical Education* 12, no. 2 (April 2020): 168–75. <https://doi.org/10.4300/JGME-D-19-00250.1>
- Huston, Therese, and Carol L. Weaver. "Peer Coaching: Professional Development for Experienced Faculty." *Innovative Higher Education* 33, no. 1 (June 1, 2008): 5–20. <https://doi.org/10.1007/s10755-007-9061-9>

- Latz, Amanda O., Kristie L. Speirs Neumeister, Cheryll M. Adams, and Rebecca L. Pierce. "Peer Coaching to Improve Classroom Differentiation: Perspectives from Project CLUE." *Roeper Review* 31, no. 1 (December 15, 2008): 27–39. <https://doi.org/10.1080/02783190802527356>.
- Parker, Polly, Ilene Wasserman, Kathy E. Kram, and Douglas T. Hall. "A Relational Communication Approach to Peer Coaching." *The Journal of Applied Behavioral Science* 51, no. 2 (June 2015): 231–52. <https://doi.org/10.1177/0021886315573270>.

**TITLE:** Shared Organizational Governance

**DESCRIPTION:** According to the American Association of University Professors, "Shared Governance calls for shared responsibility among the different components of institutional government and specifies areas of primary responsibility for governing boards, administrations, and faculties." This initiative will help create a system where all levels of an organization are represented and have a voice in aspects of the organization, including but not limited to academic freedom, curriculum, evaluation, budget, promotion, and tenure, among other areas. The overall goal of this initiative is to help build buy-in and direction from everyone involved in the organization.

**TARGET AREA(S):** Organization Involvement and Improvement, Assessment and Evaluation

**GUIDING PRINCIPLES:** Fostering Openness to New Ideas, Brainstorming and Strategic Planning, Collecting and Analyzing Data, Initiating Evidence-Based Change, Proposing Organizational Change, Ensuring Educator Wellness, Assessing Evaluation Tools, Refining Evaluation Tools

**SETTING GOALS:**

- Create a structure that provides all who will be affected by a decision a voice at the table.
- Create an environment built on consistent, trustworthy communication that is multidirectional and reciprocal.
- Governance should be flexible to adjust to changes in the environment.
- Ensure buy-in from all levels of the organization.
- Create a specific scope for governance. Ensure that this scope is complementary to other groups and activities on your campus, college, or within your department.

**MAKING A PLAN:**

- Find core team members. Ensure equal opportunity at all levels and ranks in your organization. This helps get initial buy-in
- Get executive sponsorship for this. Without this, the structures and groups you create will not have any real power. This can lead to frustration.
- Create a phased approach. What are the goals you want to accomplish? How best is this done?

**REQUIRED RESOURCES:**

- **Budget** - If responsibility for curriculum planning, staffing, facilities, and training is included, what funding is allocated? The governance committee needs to have both the authority and budget to make these proposals.
- **Time Needed** - Very Long

- Different stakeholders will have different time requirements. The overall time requirements to make a successful governance program measures in months to years. Getting started is a long process.
- **Office Support** - Having a project manager is crucial in creating the initial structure and ensuring tasks are completed. After the initial creation phase, a project manager can be useful to help ensure any activities that the shared governance committee wants to implement are completed. In addition, having office support personnel is needed. This provides support for scheduling, minutes, documentation, and any other task that may derail the group from making progress.

#### **IMPLEMENTATION STRATEGIES:**

- Organizational Governance can be daunting. Create a phased approach for implementation. Start small. You don't have to have the entire structure created on day 1.
- Find a small core group of people willing to help create the proposal for governance. Note: These people do not have to continue after the project phase if they don't want to. This will help them to buy-in without making a long commitment.
- Ensure a communication plan is created and followed. Educators, and all unit members, in general, need to know how this initiative is going to affect them. Even if all the answers aren't known at the beginning, communicate that.

#### **EVALUATING EFFECTIVENESS:**

- As part of the initial plan, the core group should create an evaluation plan. This includes measures of success.
- Potential measures of success may include the percent of educators involved, organizational climate survey, progress on strategic goals, faculty retention, and recruitment rates.

#### **EXAMPLE PROGRAMS:**

- The State University of New York - <https://www.suny.edu/about/shared-governance/sunyvoices/cgl-toolkit/shared-governance/>
- Youngstown State University - <https://ysu.edu/provost/principles-practice-shared-governance>
- University of Illinois at Urbana-Champaign - <https://provost.illinois.edu/policies/provosts-communications/communication-27-shared-governance-for-academic-units/>
- University of Washington - <https://www.washington.edu/informedchoice/shared-governance/>

## BACKGROUND READINGS:

- American Association of University Professors Resources on Governance - <https://www.aaup.org/our-programs/shared-governance/resources-governance>
- Bahls, S. C. (2014). How to Make Shared Governance Work: Some Best Practices. Association of Governing Boards of Universities and Colleges, 22(2), 10.
- Shared Governance | AAUP. (n.d.). Retrieved September 12, 2020, from <https://www.aaup.org/our-programs/shared-governance>
- Taylor, M. (2013). Shared Governance in the Modern University: Shared Governance. Higher Education Quarterly, 67(1), 80–94. <https://doi.org/10.1111/hequ.12003>



**TITLE:** Evidence-Based Decision Making

**DESCRIPTION:** Best practices and evidence are critical for making decisions. Too often, decisions are made through intuition, experience, or emotion rather than being based on evidence. This initiative helps transform your organization to focus on how to gather data, analyze the data, and use it to make organizational changes. Examples of outputs could be changes to promotion and tenure, size of classes, and degree programs. Using evidence can also play a significant role in the budget, resource, and assignment allocation. By understanding the impact of proposed changes through research and evaluation, administrators, working with educators, can make more informed decisions.

**TARGET AREA(S):** Organization Involvement and Improvement

**GUIDING PRINCIPLES:** Brainstorming and Strategic Planning, Collecting and Analyzing Data, Initiating Evidence-Based Change, Proposing Organizational Change

**SETTING GOALS:**

- Create a culture of using credible data to make decisions.
- Understand biases related to decision-making in higher education
- Identify key metrics that will be used for specific decisions.

**MAKING A PLAN:**

An Evidence-Based Decision-making plan should include the following: stakeholders, scope, and implementation period.

- The stakeholders should be identified early so they can be part of defining the scope and implementation period. These individuals should be key members of your leadership, key educators and understand the need for evidence in decision making.
- The scope needs to be clearly defined. The scope should include what decision or areas, if any, will not part of this process. Meaning those decisions will still be made as they have in the past. The second part is to determine which metrics, evidence will be used and who are the data stewards.
- The implementation period should be a reasonable amount of time to examine the data, determine access, create new data, then analyze and distribute the evidence to those who need it.

**REQUIRED RESOURCES:**

- **Budget** - Having an evidence-based decision-making process doesn't require any funding. The places that may require additional funding is any new data collection tools, data analysts, or technology to help you sort and store data.
- **Time Needed** - Medium to Very Long. EBD is a culture shift from making decisions based on experience and impression to using data. This takes time to have the culture accept this new paradigm.

## **IMPLEMENTATION STRATEGIES:**

- A phased approach is needed as data may not exist or is not available for items requiring immediate or short-term decisions. Creating a plan for how to roll out this new paradigm is critical.
- What happens if you can't find evidence? Let's face it, there are times when data either doesn't exist, can't realistically or cost-effectively be gathered, or time doesn't allow for data collection. When setting up this new process, the process needs to allow for these situations. They should be the edge case rather than standard practice. In these cases, there must also be pseudo-evidence, such as past performance or experience, to supplement the lack of data.

## **EVALUATING EFFECTIVENESS:**

This initiative is evaluated indirectly on a rolling basis. Decisions not using EBD were made prior to implementing EBD and will also be made afterward. One point of evaluation is what percentage of decisions are made using evidence vs. those that are not. If the ratio is not high due to missing data, an organization improvement process should be used to find ways to capture, store, and analyze evidence for future decision making.

## **EXAMPLE PROGRAMS:**

- The University of Chicago - <https://harris.uchicago.edu/academics/programs-degrees/executive-education/evidence-based-decision-making>
- IDEAs That Work presents: Evidence-Based Practice (EBP) Module - <https://ccrs.osepideasthatwork.org/teachers-academic/evidence-based-practices-instruction>
- What Works Clearinghouse - <https://ies.ed.gov/ncee/wwc/FWW>
- Evidence-Informed Practice INto A Specialized MSW Curriculum - <https://www.tandfonline.com/doi/abs/10.1080/10437797.2018.1434440?journalCode=uswe20>

## **BACKGROUND READINGS:**

- Beerkens, M. (2018). Evidence-based policy and higher education quality assurance: Progress, pitfalls, and promise. *European Journal of Higher Education*, 8(3), 272–287. <https://doi.org/10.1080/21568235.2018.1475248>
- Jenkins, D., & Kerrigan, M. R. (2008). Evidence-Based Decision Making in Community Colleges: Findings From a Survey of Faculty and Administrator Data Use at Achieving the Dream Colleges. *Community College Research Center*, 65.
- Jessani, N. S., Hendricks, L., Nicol, L., & Young, T. (2019). University Curricula in Evidence-Informed Decision Making and Knowledge Translation: Integrating Best Practice, Innovation, and Experience for Effective Teaching and Learning. *Frontiers in Public Health*, 7. <https://doi.org/10.3389/fpubh.2019.00313>

- Leimer, C. (2012). Organizing for Evidence-Based Decision Making and Improvement. *Change: The Magazine of Higher Learning*, 44(4), 45–51. <https://doi.org/10.1080/00091383.2012.691865>
- Marsh, J. A., Pane, J. F., & Hamilton, L. S. (2006). Making Sense of Data-Driven Decision Making in Education: Evidence from Recent RAND Research. [https://www.rand.org/pubs/occasional\\_papers/OP170.html](https://www.rand.org/pubs/occasional_papers/OP170.html)

**TITLE:** Communities of Practice

**DESCRIPTION:** A community of practice (CoP) is a group of individuals who share a common interest. There isn't a leader or an expert per se; rather, everyone helps to lead and share their knowledge. This initiative will help bring together like-minded educators who wish to grow in their understanding of DI and innovation. Implementing this initiative can be as broad or as narrow as your organization requires. The intent is by getting like-minded people together in a group where they will grow together, sharing best practices, peer observations, and support for each other beyond the classroom.

**TARGET AREA(S):** Professional Development

**GUIDING PRINCIPLES:** Building Content Knowledge, Creating Sound Activities, Fostering Openness to new ideas, Creating Educator Communities, Facilitating Administrator Development, Ensuring Educator Wellness, Establishing Observation Opportunities

**SETTING GOALS:**

- Create a "why" for educators to join this community. What do they get out of it?
- Create a light-weight process for self-governance. The group should lead itself. Once a core group is found, how do they set the directions of the community?
- Determine the primary purpose of the CoP. An effective CoP must have a specific community with a particular purpose. A CoP that has a vague scope will not function as effectively or be as beneficial to the members. Examples may include Differentiated Instruction Teachers, Educational Technology Teachers, Best Practices in Assessing Student Learning.

**MAKING A PLAN:**

- Determine what resources are available to the CoP. This can include space to meet, release time, budget for events, food, and professional development.
- Determine how you will solicit members for the CoP.

**REQUIRED RESOURCES:**

- **Time Needed** - Varies, minimum Medium. Time is broken into two main areas—the creation of the CoP and membership in the CoP. The creation time requirement is the amount of time that the initial stakeholders or founders of the CoP need to get the group going. Membership time varies as a CoP is as active and meets as often as the membership desires.
- **Membership** – The first step in building a CoP is soliciting a core group of members. This includes those who have a passion for this CoP. The first CoP's focus can be anything where there is an interest from your educators. It could be something you heard in meetings or hallway talk. Empower a few different educators to try to get this started. Remember, keep it light. Let the CoP grow organically.

## **IMPLEMENTATION STRATEGIES:**

- Keep the CoP lightweight. Allow the group to lead itself. The most important part of a CoP is for educators to build trust, a sense of belonging and help each other learn.
- Provide an opportunity for the CoP(s) to share their work. This is an opportunity to grow the CoPs, share best practices with educators outside the group, and provide the impetus for new CoPs to form.
- Allow for staff and students to join the CoP where appropriate. This enriches the experience for everyone involved.
- Remember that membership is fluid. A CoP isn't a time-bound commitment. It is a community that exists as long as it's beneficial to the members.

## **EVALUATING EFFECTIVENESS:**

In a community of practice, the effectiveness isn't measured the same as in a formal program. Most communities of practice are independent groups that work together to build each other up, teach each other skills, and help learn concepts. A simple way to evaluate the CoP is by asking if the group meets regularly and has membership stayed level or grown? The answers to these two questions help to gauge the health of the CoP. If the group isn't meeting regularly or the membership isn't stable or growing, this can indicate the CoP isn't working effectively.

## **EXAMPLE PROGRAMS:**

- Ashford University - <https://www.ashford.edu/blog/career-tips/the-power-of-a-community-of-practice-cultivating-communities-of-practice-in>
- The University of Adelaide - <https://www.adelaide.edu.au/learning/academic-development/communities-of-practice>
- University of Washington Disabilities, Opportunities, Internetworking, and Technology - <https://www.washington.edu/doit/resources/communities-practice>
- University of Wisconsin - Madison - <https://hr.wisc.edu/professional-development/communities/>

## **BACKGROUND READINGS:**

- Cambridge, D., Kaplan, S., & Suter, V. (n.d.). Community of Practice Design Guide: A Step-by-Step Guide for Designing & Cultivating. 8.
- Kim, J. H., So, B. H., Song, J. H., Lim, D. H., & Kim, J. (2018). Developing an Effective Model of Students' Communities of Practice in a Higher Education Context. *Performance Improvement Quarterly*, 31(2), 119–

140. <https://doi.org/10.1002/piq.21273>

- Iaquinto, B., Ison, R., & Faggian, R. (2011). Creating communities of practice: Scoping purposeful design. *Journal of Knowledge Management*, 15(1), 4–21. <https://doi.org/10.1108/13673271111108666>
- Wenger, E., McDermott, R. A., & Snyder, W. (2002). *Cultivating communities of practice: A guide to managing knowledge*. Harvard Business School Press.

**TITLE:** Strategic Curriculum Planning

**DESCRIPTION:** The mere mention of strategic planning instills dread in most people. We know planning is important, but why is strategic planning so dreadful? The reason is we spend time countless hours in focus groups, planning sessions, and individual work to create a plan that, when completed, usually lives on the shelf.

This initiative isn't your traditional strategic planning effort. The goal of this is to spend less time on the planning and more time on the strategy. While this may sound counter-intuitive, the purpose of strategic planning is to focus on where you want the organization to go. For the purposes of educator empowerment, our educators need to be part of the process, have a voice in the overall strategy, see where they fit in, and then help to create a path forward. If too much emphasis is placed on the planning and not the strategy, where you want to go will be lost in how to get there.

**TARGET AREA(S):** Professional Development, Organization Involvement, and Improvement, Assessment and Evaluation

**GUIDING PRINCIPLES:** Building Content Knowledge, Creating Sound Activities, Fostering Openness to new ideas, Creating Educator Communities, Facilitating Administrator Development, Brainstorming and Strategic Planning, Collecting and Analyzing Data, Initiating Evidence-Based Change, Proposing Organizational Change, Ensuring Educator Wellness, Assessing Evaluation Tools, Refining Evaluation Tools, Establishing Observation Opportunities

**SETTING GOALS:**

- Create a list of what is in scope for this effort. Is there anything that is "sacred" and cannot be changed? An example may be time for graduation is set at four years.
- Ensure that everyone has a voice in the process and in setting the goals of the effort.
- Be bold in setting goals for this initiative. This is the one initiative that includes all of the guiding principles for educator empowerment.

**MAKING A PLAN:**

- Create a communication plan before starting this effort. Ask a few of the following questions: How do I solicit people to be involved in this project? What are the roles and responsibilities we want to have? How will we measure effectiveness? One started, how do we make this a living strategy that is continually addressed?
- Ensure that you have the proper representation from across your organization.
- Determine how you will incentivize people to join this process. Are you offering release time or a financial incentive?
- Once the initiative is started, how will you ensure that those making the decisions have all of the information needed? (See Evidence-Based Decision Making

Initiative). This is curricula to make sure those that may be impacted by these changes are both represented and understand.

### **REQUIRED RESOURCES:**

- **Time Needed** - Very Long. The initial phase can be a six to 18-month process. While this phase may result in one or more operational plans, when done correctly, this initiative becomes part of your standard practices.
- **Budget** - Based on the "in scope document," what resources are available for changes to the curriculum? Are there additional faculty needed? What are professional development opportunities available to help educators teach new or varied material? Will students be impacted either by the cost of education or additional "extras" that may be offered through this curriculum planning?

### **IMPLEMENTATION STRATEGIES:**

- Try not to get bogged down in the operations of the strategic plan. Keep the why you are doing this front and center. What is the outcome that you are trying to achieve by going through this process?
- Involve everyone in the planning. This includes all faculty, staff, and students. Buy-in is critical to ensure the outcome is one that everyone can support and see how it impacts them.
- Keep in mind that strategy is not the same as operational priorities. A strategic plan is one that is always being reviewed and not time-bound. Operational plans have specific due dates and milestones.

### **EVALUATING EFFECTIVENESS:**

There are two main areas to evaluate effectiveness: Process and Outcome.

- **Process** - This should be evaluated regularly. This includes how your organization feels about the overall process. This can be done through surveys and focus groups. Involvement, communication, expectation setting, organizational satisfaction are a few areas that should be covered. This helps to ensure buy-in is continued, and those impacted by the planning and eventual outcomes have their voices heard.

### **EXAMPLE PROGRAMS:**

- College of DuPage  
- <https://www.cod.edu/about/administration/research/pdf/slrp.pdf>
- Penn State Department of Curriculum and Instruction  
- <https://ed.psu.edu/internal/strategic-plan-2014/curriculum-instruction>

### **BACKGROUND READINGS:**

- Colleges need to rethink strategic planning (opinion) | Inside Higher Ed. (n.d.). Retrieved September 12, 2020,



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- Dolence, M. G. (2004). The Curriculum-Centered Strategic Planning Model. Educause Center for Applied Research, 11.
- Harden, R. M. (1986). Ten questions to ask when planning a course or curriculum. *Medical Education*, 20(4), 356–365. <https://doi.org/10.1111/j.1365-2923.1986.tb01379.x>
- Hinton, K. E. (2012). A practical guide to strategic planning in higher education. Society for College and University Planning. <http://site.ebrary.com/id/11022267>
- The integration ladder: A tool for curriculum planning and evaluation. (2000). *Medical Education*, 34(7), 551–557. <https://doi.org/10.1046/j.1365-2923.2000.00697.x>

**TITLE:** Educator Wellness

**DESCRIPTION:** Student well-being is an essential aspect of teaching and has been addressed through many school social programs. Educator wellness is not as easily understood and not as commonly addressed. Educator wellness is "defined as an integrated pattern of living focused on six dimensions: emotional, intellectual, environmental, physical, spiritual, and social." (Sackney, Noonan & Miller, 2010). The purpose of this initiative is to get beyond the output of your educators (teaching, research, and service) to find out how they truly are feeling. Aspects include work/life balance, physical well-being, work enjoyment, work culture, and overall feeling of happiness and effectiveness with and in their work.

**TARGET AREA(S):** Professional Development

**GUIDING PRINCIPLES:** Building Content Knowledge, Fostering Openness to new ideas, Creating Educator Communities, Facilitating Administrator Development, Ensuring Educator Wellness

**SETTING GOALS:**

- The overall goal must be to positively contribute to your educator's professional success and personal well-being. All decisions around a wellness program should focus on this goal.
- Wellness programs must be voluntary. If this is required, it may cause more harm than good as some educators are already overtaxed or don't see the benefit of wellness programs.
- Respect, confidentiality, and encouragement must be at the center of this program.

**MAKING A PLAN:**

- Determine the scope of the wellness program. Is this in conjunction with a college or university program? Does your college or university have centralized resources that can help? Which of the five domains of wellness from the University of Arkansas for Medical Sciences will be addressed: physical, emotional, spiritual, intellectual, and social?:
- Who will lead this effort? How will the wellness program be staffed? Wellness isn't a one and done event. It requires a commitment and investment in the program.

**REQUIRED RESOURCES:**

- **Time** - Creation Phase - Medium. Implementation Phase - Very Long and Ongoing
- **Budget** - What resources are you going to put towards this initiative? This includes money for personal and professional development programs. Is there a monetary or time-release incentive for those participating? What staff resources will be used to create and coordinate this program?

## IMPLEMENTATION STRATEGIES:

- The most important strategy is a wellness program that can't be seen as "yet another thing to do." Many educators are working at capacity and are unable to add something else.
- The benefits to the educators must be immediately apparent.
- Special attention needs to be given to how to create margins for educators to engage in wellness. This can be through the reduced workload, shared responsibilities, and by streamlining processes and required obligations.
- Wellness isn't a one size fits all. Within the five domains of wellness, educators will have different ways of expressing themselves and various activities that will appeal to their strengths and personal preference. This is no different than creating a Differentiated Instruction program. The needs of the learner, in this case, the educator, need to be front and center.

## EVALUATING EFFECTIVENESS:

This initiative is evaluated in two parts: Personal Effectiveness and Program Effectiveness.

- **Personal Effectiveness** is how do the individuals who have taken advantage of the wellness program feel? A survey or one on one conversation can help gather this information. This is a self-reflection on what activities the person attended, what their level of commitment to the program was, what their initial goals were, and how being a participant in this program has positively contributed to their personal and professional success.
- **Program Effectiveness** gathers information from all participants and facilitators. The goal is to see which programs were effective and how the overall program is contributing to the success of the organization. This can be done in the form of a climate survey before the program begins and at regular intervals. Questions can focus on the various aspects of the program, including but not limited to personal involvement, organizational openness, respectful culture, work/life balance, supportive colleagues, supportive administration.

The results of these evaluations help both the educator to see how they are improving and allows faculty, students, and staff to know the organization's commitment to wellness.

## EXAMPLE PROGRAMS:

- Northwestern University - <https://www.northwestern.edu/provost/faculty-resources/work-life/faculty-wellness.html>
- University of Arkansas for Medical Sciences - <https://faculty.uams.edu/fw-program/>. This website provides in-depth examples for each of the domains of wellness, including a wellness self-assessment quiz.

- University of Ottawa - <https://med.uottawa.ca/professional-affairs/faculty-wellness-program>
- University of Dayton - <https://udayton.edu/hr/wellness-program/index.php>

### **BACKGROUND READINGS:**

- Improve teacher wellbeing with self-care strategies and formalized peer connections. (2020, May 21). EAB. <https://eab.com/insights/blogs/district-leadership/improve-teacher-wellbeing/>
- Lever, N., Mathis, E., & Mayworm, A. (2017). School Mental Health Is Not Just for Students: Why Teacher and School Staff Wellness Matters. Report on Emotional & Behavioral Disorders in Youth, 17(1), 6–12.
- Sackney, L., Noonan, B., & Miller, C. M. (2000). Leadership for educator wellness: An exploratory study. International Journal of Leadership in Education, 3(1), 41–56. <https://doi.org/10.1080/136031200292858>
- Spring 2019, M. M. / P. (2019, March 18). Teacher wellness program counters trauma and stress in the classroom. The Hub. <https://hub.jhu.edu/magazine/2019/spring/happy-teacher-revolution-stress-trauma/>

## **Create Your Own Initiative**

By now, you have completed the Organizational Inventory, assessed where your organization is and looked at all of the provided example initiatives. You may find a focus area is missing or a need that is unmet by the examples. Below is a template to create your own initiative.

Before you get started, here are a few suggestions:

- Make sure you complete the template before beginning the initiative. It is tempting to get an idea and run with it. The template provides all of the sections needed to help this be successful
- Get feedback and help. As you are writing this initiative, show it to other administrators and educators. This will create buy-in, which is crucial for organizational growth, and ensure that you aren't missing any key elements.
- Just like in any paper, presentation, or project, you will need to revise the initiative based on your experiences. Be open to feedback provided **AND** be willing to assess and change on the fly. Since the goal is to improve your organization, you want to be nimble during an initiative to avoid potential harm.
- Breathe and Good Luck. It doesn't have to be perfect to have a big impact.

**TITLE:**

**DESCRIPTION:**

**TARGET AREA(S):**

**GUIDING PRINCIPLES:**

**SETTING GOALS:**

**MAKING A PLAN:**

**REQUIRED RESOURCES:**

- Time Needed -
- Budget Required -

**IMPLEMENTATION STRATEGIES:**

**EVALUATING EFFECTIVENESS:**

**EXAMPLE PROGRAMS:**

**BACKGROUND READINGS:**

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## 6. Implementing Long-Lasting Change

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Congratulations! You have now completed one or more guide initiatives. It is time to take a moment and celebrate. How do you share your successes? Is there one or more moments during this process that helped you realize this change was for the better? Was there an "a-ha" moment when one or more of your educators just "got it" or felt that you just "got it"? These are the moments that will help you as you move forward. Understanding where we have been and where we are going is essential for keeping the momentum going. While you just have finished round one, you aren't done yet.

Organizational change doesn't happen overnight. Like a newborn baby, it requires continual attention, care, and adjusting your approaches. After celebrating and sharing your success, it is time to complete the Organizational Inventory again. Once you finished that, come back here. I will be waiting.

Now, take out your original OI and your new OI. Can you pull out the differences? Have you made the change you wanted to or at least started on the path? Remember, change is constant and incremental. Below are some thoughts and activities to keep you moving forward.

- Try a new initiative.
- Perhaps repeating or making one of these initiatives part of your standard academic year will continue to move your organization along.
- Use the blank template and create your own initiative
- Brainstorm how to get new people involved in these efforts

- Reach across department and organization lines to get more ideas. Often someone outside of your organization can shed new light on your situation.
- Plan a fun activity to celebrate your success.
- Have a fun, informal brainstorming session to see where others think your organization should be heading.

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Remember, there is no one size fits all or one answer for empowering Differentiated Instruction Educators. Just like in DI, where you modify the content, process, product, and learning environment, you need to adjust your approach and goals to make sure you are taking advantage of the strengths of your educators and minimizing any weakness.

You have got this!

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## **Appendix D – The Guide Standalone**

The product of this dissertation is a guide titled, “*Cutting Edge Differentiated Instruction Strategies for Administrators: Supporting Innovation at an Organizational Level*”. A copy of the guide is included in Appendix C. A supplemental PDF file titled “The\_Guide\_Final.PDF” includes a standalone copy of this guide. The content is the same and includes slightly different formatting along with renumbered sections.