

**Universal Design for Learning: School Leaders Meeting Student Needs by Meeting
Teacher Needs First**

by

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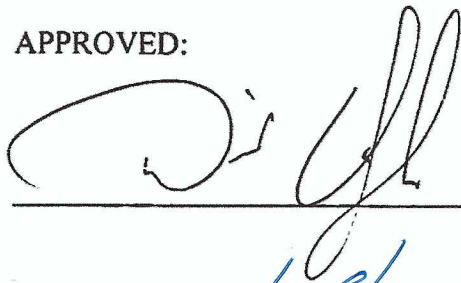
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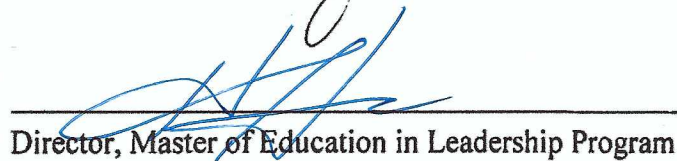
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**Universal Design for Learning: School Leaders Meeting Student Needs by Meeting
Teacher Needs First**

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Dedication and Acknowledgements

I would like to start out by stating that I could not have completed this program alone. I had a strong support network that constantly checked in with me and encouraged me along the way.

I wish to dedicate this capstone to my loving wife, Yvonne. I truly could not have completed this program without her support. I could have just spun my wheels in the mud, but she helped ground me and pushed me to do better. She listened to my rants, my frustrations, and my joys throughout the whole process. She always encouraged me to pursue my master's degree even though it meant giving up our weekends and weeknights. She encouraged me as I wrote this capstone and listened to everything I had to say about it. She is my foundation and deserves to get an honorary master's degree for all the work she has put in to help get me to the finish line.

I would also like to thank my family for helping me through this program. They have constantly checked in with me to see how I was doing and encouraged me along the way. My parents in particular, are the reason I pursued my teaching degree. They instilled in me a love of learning, which has led me to complete my master's.

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Last but not least, to my professors: Thank you for all that you have done. Your teaching and lessons have helped me develop leadership skills that I never thought I could acquire. I still have so much more to learn, but you have given me the tools I need to continue on my journey.

Abstract

Universal Design for Learning (UDL) is a tool that helps all students reach their potential, whatever their learning style. Unfortunately, many teachers do not fully understand how to use such a resource effectively, often feeling ill-equipped or inadequately supported. They want and need their principals to step in and assist. For students to get what they need and for teachers to feel supported, principals need to step in and provide the training and resources required. This capstone will look at the benefits that UDL has on students' learning. It will also focus on what teachers need in order to utilize UDL effectively and will explain the benefits when teachers are supported. Finally, there is a strong focus on how principals can support their staff. Based on the literature review, this capstone provides six recommendations for principals to follow to bring UDL into their school and support their staff in its use.

Keywords: Universal Design for Learning, professional development, teacher support, British Columbia Principals and Vice Principals Association, multiple means of engagement, multiple means of action and expression, multiple means of representation, leadership

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Universal Design for Learning: School Leaders Meeting Student Needs by Meeting Teacher Needs First

Introduction

Universal Design for Learning (UDL) has been gaining momentum in education for many years since its creation by the Center for Applied Special Technology (CAST) in the 1980s. It provides students with the tools to show their learning and understanding in different ways and specifically focuses on three areas: Multiple Means of Engagement (MME), Multiple Means of Representation (MMR), and Multiple Means of Action and Expression (MMAE). This matches CAST's (2023) mantra, which is to tear down any learning barriers by "helping educators and organizations apply insights from the learning sciences and leading-edge practices to educational design and implementation" (About CAST, para.1, 2023). It also "provides detailed checkpoints for designing curricula that enable all learners to actively engage, feel included, and learn enthusiastically with peers in both online and physical classrooms" (Ismailov & Chiu, 2022, p. 2).

Eichhorn et al. (2019) defined UDL as "a framework for teaching and learning, based on neuroscience research, that guides teachers to eliminate barriers and allows the content and curriculum to be accessible to all students" (p. 263). As stated by Rusconi and Squillaci (2023), "The UDL approach aims to provide teachers with concrete ways to remove barriers to the school curriculum by making goals, materials, methods, and assessments accessible to as wide a range of students as possible" (p. 4). UDL plays a role in promoting equal learning for all students, especially those with learning disorders (LD) who often can feel left behind (Almumen,

2020; Flanagan & Morgan, 2021). Teachers can use UDL to promote student engagement, student representation of their learning, and student action and expression. Countless articles have addressed this topic, especially regarding its use in school settings (Almumen, 2020; Flanagan & Morgan, 2021; Gravel, 2017; Hatley, 2011; Mauro, 2018). A more real-world example of UDL can be found in an interviewee's response in Hatley's (2011) work. They stated:

When I plan Christmas dinner, I'm thinking of it like UDL. Ok, I need something for the kids to do over here, while the adults are doing this. And then there [are] those people that want to watch the football game, so we got to have a place for that to happen and then we want to do this and the big goal is we all want to be together as a family, so how are we going to make all those people happy at the same time and still achieve our goal? (pp. 95-96)

The British Columbia Principals' and Vice Principals' Association (BCPVPA) Leadership Standards (2019) document is "designed to hold student and adult development, engagement, and learning central to all leadership practices" (p. 3). According to the BCPVPA Leadership Standard 1 in the Ethical Leadership Domain, leaders should "guide the development and implementation of shared values, vision, mission, and goals to support engagement, learning, and success for all learners" (p. 11). UDL is a tool that will support students to reach success (Almumen, 2020; Flanagan & Morgan, 2021; Ismailov & Chiu, 2022; Meyer et al., 2014; Navaitienė & Stasiūnaitienė, 2021). Principals should therefore promote its usage in schools.

Background Information

UDL is an effective tool to use in the classroom, as it has been proven to promote engagement, representation of learning, and action and expression in many subjects (Almumen,

2020; Coyne et al., 2017; King-Sears, 2014; Moleko & Mosimege, 2021). Some teachers use games in their lessons because they have a UDL framework (Buchheister et al., 2017; Marino et al., 2014), whereas others use it to teach math word problems. Moleko and Mosimege (2021) discovered that using UDL for word problems significantly helped teachers to be flexible in their teaching.

Some teachers know about UDL and its uses, but they do not always understand how to use it well because they do not fully grasp its potential (Hatley, 2011). Since UDL is a strong research-based framework that targets the needs of every learner, teachers need to be trained to implement it well. Principals have the power to make this happen. BCPVPA Leadership Standard 3 in the Leading a Culture of Learning Domain, Action Statement 14, promotes teachers to learn and grow in their own pedagogy (p. 19), which will help them collaborate on how best to use UDL. This ties into BCPVPA Leadership Standard 4 in the Curriculum, Instruction, and Assessment Domain, specifically Action Statement 1, “Communicate, encourage, and support the use of current educational research” (p. 20). The UDL framework is research-based and has proven to benefit both students and teachers alike (Dalton et al., 2019; Sanford & Tabak, 2023). UDL creates an inclusive environment for all learners (Ismailov & Chiu, 2022). Ismailov and Chiu (2022) have found that:

students experience a range of academic challenges related to previous educational experiences and academic preparedness, such as language issues contributing to poorer academic and communication skills, inadequate student support mechanisms, and a lack of understanding of what is expected academically. (p. 2)

Therefore, principals should encourage the growing use of UDL. This will only deepen teacher’s practice and create more opportunities for students to engage and demonstrate their learning.

Statement of the Issue/Problem

Students struggle in the classroom because they lack the motivation to learn, which has led them to be less successful than they can be (Azam et al., 2021; Navaitienė & Stasiūnaitienė, 2021). Azam et al. (2021) found that because classrooms are diverse, teachers are ill-equipped to meet all their students' needs, which can lead to students not being motivated to work because they do not feel supported. Likewise, Navaitienė and Stasiūnaitienė (2021) acknowledged the importance of UDL for students because it helps them participate in the learning process, which in turn makes learning more meaningful and will help students be more motivated. To put it succinctly, “[UDL] should not take the form of filling students with the knowledge, but of students taking care of their learning” (Navaitienė & Stasiūnaitienė, 2021, p. 25). Students need to make learning their own in order to be successful.

The constant navigation of barriers can prove to be students' undoing and adds to their struggles with their learning (Ismailov & Chiu, 2022; Navaitienė & Stasiūnaitienė, 2021; Rusconi & Squillaci, 2023). Barriers can block students' attempts at achievement and therefore must be removed or overcome. The goal behind UDL is to help students succeed through removing “barriers to the school curriculum by making goals, materials, methods, and assessments accessible to as wide a range of students as possible” (Rusconi & Squillaci, 2023, p. 4). Removing barriers opens up learning to all students, including those with an LD. Almumen (2020) argued for the importance of UDL for students with LDs by stating, “Students with [LDs] will have opportunities to access learning in multiple ways, have a better understanding of it, and accordingly can share their perspectives, ideas, and concepts with all their peers” (p. 3). UDL helps struggling students succeed in their learning.

Despite UDL gaining momentum in school settings, teachers are struggling with implementing it well because they lack the knowledge of how to use it. According to van Thiel (2017), “Teachers need continuous [professional learning] that involves peers in hands-on situations where they share and create together” (p. 4). Teachers need to be supported if schools want to use UDL. Flood and Banks (2021) shared the same view as van Thiel (2017), arguing that if UDL is to be used in schools, then “teachers need to be supported through effective professional learning” (p. 5). Principals will benefit greatly if they provide teachers with the time and resources to implement UDL. Hatley (2011) listed the supports that teachers need to facilitate UDL as “...mentors, collaboration time, technology, and UDL facilitator support” (p. 157).

There has been much research about the effectiveness of UDL in the classroom, but teachers still do not feel prepared to use it (Altowairiki, 2023; Gravel, 2017; Hatley, 2011; Meyer et al., 2014). If they do not use UDL, it simply becomes wasted potential. Teachers need professional development (PD) to hone their skills and ensure every learner is supported. Altowairiki (2023) argued that “UDL provides a blueprint for educators to guide them in designing a flexible learning experience that meets diverse learners’ needs without reducing academic rigor” (p. 297). This is important because it targets every learner without decreasing the difficulty of their assignments.

Purpose of the Study

The purpose of this capstone is to reveal the importance of leaders providing opportunities for teachers to grow in their understanding and practice of UDL as a strong tool for teachers to use to assist all learners, especially those with LDs (Almumen, 2020; Dalton et al., 2019; Flanagan & Morgan, 2021; Messinger-Willman & Marino, 2010). Root et al. (2020) researched

the application of UDL in math for students with LDs, and they found that it removed the barriers and provided students with Multiple Means of Representation (MMR), specifically using graphic organizers and colour-coding. Flanagan and Morgan (2021) argued that teachers should look at how they can apply MMR, MMAE, and MME in their classrooms for students with LDs because of their effectiveness.

UDL is not an untested tool, and it has proven to be effective. According to Smith and Harvey (2014):

UDL is based on research within the neurosciences, developmental psychology and learning differences that suggests teachers should consider how to integrate three principles [Multiple Means of Representation, Multiple Means of Engagement, and Multiple Means of Action and Expression] into their instruction and assessment practices that are based on three interrelated types of brain networks (recognition, strategic and affective networks).
(p. 225)

If UDL is a tested and effective tool for reducing barriers and creating equal opportunities for students to learn, then providing teachers with resources and PD will allow them to better understand the concept and apply its strategies in their teaching, which in turn will help students in their educational journey. Studies have argued for teacher education programs to build UDL into their curriculum because of its effectiveness in helping students (Hatley, 2011; King et al., 2011; Wu, 2012). As useful as that is for teachers-in-training, the problem is certified teachers not understanding UDL and principals not providing the necessary tools and opportunities for teachers to learn more about it.

Research Question or Thesis Statement

This capstone project addresses the following research questions:

- 1) How is UDL beneficial for all learners, especially those with learning disabilities?
- 2) How can teachers effectively utilize UDL in the classroom?
- 3) How can a school leader create an environment that fosters a shared UDL vision?

Significance of the Study

This study highlights the need for UDL and its benefits for all students, especially those with LDs. Every student learns differently, and it is the educator's job to facilitate different learning styles. UDL is a tool that will target every student's style; therefore, schools will benefit greatly by implementing UDL (Altowairiki, 2023; Garrad & Nolan, 2023). Students with LDs will not feel like they are being left behind because assignments are created with them in mind, giving them opportunities to show their learning in a variety of ways. According to Cook and Rao (2018), students with LDs enter school without the fundamental skills required to meet grade-level standards (p. 179) and struggle further to meet the standards of the following grade, often falling even further behind. Therefore, encouraging the use of UDL will help meet these students where they are and make them feel more included (Ismailov & Chiu, 2022). UDL creates an inclusive classroom in which the teacher works alongside students to co-create knowledge "rather than [distribute knowledge] in front of them" (Ismailov & Chiu, 2022, p. 3).

Teachers need to scaffold and support the learning of students with LDs through the use of UDL (Almumen, 2020). Many resources provide strategies for teachers such as using games to cover the three central ideas of UDL: MMR, MMAE, and MME. Buchheister et al. (2017) and Marino et al. (2014) argued for the use of games in their classes as a way to implement UDL, stating that games "not only motivate students to learn mathematical concepts, but games also embody the principles of Universal Design for Learning" (Buchheister et al., 2017, p. 2). Marino

et al. (2014) reported similar findings: "...students reported appreciating the content and gaining a more thorough understanding of the concepts during game play" (p. 97). Throughout both articles, the authors showed how games use all three elements of UDL (MME, MMR, and MMAE) to remove barriers to learning.

This study will primarily discuss the importance of principals providing PD and tools for teachers in order to better equip them to use UDL. If UDL is such an effective tool, then principals need to provide opportunities for teachers to learn how to use it well so they can effectively reach all students and provide multiple ways for them to demonstrate their learning. It is a system that starts from the top and works its way down.

Outline of the Remainder of the Paper

Chapter 2 will review the literature that demonstrates why we must use UDL and its effectiveness when teachers are provided with the proper tools and training. It will also look at how teachers can implement UDL in the classroom. Finally, it will conclude with a look at how principals can support teachers in utilizing UDL. Chapter 3 will focus on recommendations for principals to assist their staff, with a specific focus on the BCPVPA standards guiding the study.

Chapter 2: Literature Review

Introduction

Principals are responsible for promoting an environment that allows teachers to try new techniques, grow in their learning, and support students (BCPVPA, 2019). Every student has their own method of learning; it is therefore critical for teachers to meet students where they are (Fauziah & Cahyono, 2022; Garrad & Nolan, 2023; Navaitienė & Stasiūnaitienė, 2021; Rusconi & Squillaci, 2023; Zhang et al., 2023). Students have strengths and weaknesses as learners. Some students are visual learners, others are kinesthetic, and still others are auditory learners (Fauziah & Cahyono, 2022). Fauziah and Cahyono (2022) stated, “Being aware of the learning style helps students design their learning strategies to enable more effective learning without overriding other preferences” (p. 1386). Garrad and Nolan (2023) claimed that “The UDL instructional framework is a proactive approach to support the facilitation of today's diverse learners, including, but is not limited to, attributes such as age, ethnicity, socioeconomic status, ability, and gender” (p. 2).

It is the principal's job to make sure teachers have the correct tools and strategies to get students from where they are to where they need to be (BCPVPA, 2019). Students often feel left behind because their needs are not being met (Cook & Rao, 2018; de Boer & Kuijper, 2021). They struggle with texts and assignments or fail to grasp the course concepts. Once they fall behind, it can be difficult for them to catch up to their peers (Cook & Rao, 2018). According to de Boer and Kuijper (2021), not only do they feel left behind academically, but they also feel separated from their peers socially. Almunen (2020) argued that “UDL is motivational and enhances the social inclusion of all students, especially those with disabilities” (p. 3). Therefore,

principals need to help their students by ensuring that teachers are trained in using UDL. It is not enough for teachers to know about UDL and try to implement it in their classrooms; they need to be thoroughly trained in its use with administrative support.

Through a comprehensive review of current UDL literature, this capstone focuses on the importance of school leaders supporting their teachers in UDL practices so that all students can have the necessary tools to thrive in their learning (Katz & Sokal, 2016; Mauro, 2018; Zascavage & Winterman, 2009). Students are ripe for UDL to be added into the classrooms (Sanford & Tabak, 2023) because it is beneficial for all students to have a choice as to how they can demonstrate their learning and gain a better understanding of the content (Mauro, 2018). A one-size-fits-all method of teaching is not helpful, so teachers need to create lessons that target every learning style, no matter how difficult it may be. The job of a teacher is to teach, and the job of a student is to learn. If the student cannot learn because their learning style is not accommodated, then they will struggle. Therefore, teachers must be instructed on how to implement UDL effectively, and principals are there to make that happen (Azam et al., 2021; Hatley, 2011; Rusconi & Squillaci, 2023). According to the BCPVPA Leadership Standard 3 in the Instructional Leadership Domain, leaders need to “create a learning environment that recognizes the learners as core participants” (p. 18).

Chapter 2 is divided into three sections. The first section will focus on the effectiveness of UDL for all students, especially those with an LD. The second section will review the literature on the importance of teachers being properly trained on how to use UDL and the resources they will require for its implementation. The final section will review how principals can assist their staff with the startup of UDL and their continued growth with it.

Definitions of Terms

Multiple Means of Engagement: The CAST (2023) website defines MME as “In reality, there is not one means of engagement that will be optimal for all learners in all contexts; providing multiple options for engagement is essential” (Provide multiples means of engagement, para. 1).

Multiple Means of Representation: CAST (2023) believes that “Learners differ in the ways that they perceive and comprehend information that is presented to them... Others may simply grasp information quicker or more efficiently through visual or auditory means rather than printed text” (Provide multiple means of representation, para. 1).

Multiple Means of Action and Expression: CAST (2023) stated “Learners differ in the ways that they can navigate a learning environment and express what they know. Some may be able to express themselves well in written text but not speech, and vice versa” (Provide multiple means of action and expression, para. 1).

Effectiveness of UDL for Students

Every student learns and demonstrates their learning in different ways. It is a challenge for students when their learning domain is not being targeted (Fauziah & Cahyono, 2022; Garrad & Nolan, 2023; Navaitienė & Stasiūnaitienė, 2021; Rusconi & Squillaci, 2023, Zhang et al., 2023). UDL thus may be the solution for many students, as it has “positive effects...on samples of school-aged children with benefits in academic, cognitive, behavioral, and social skills” (Rusconi & Squillaci, 2023, p.4). According to Katz and Sokal (2016), “UDL has been shown to support access, participation, and progress for all learners” (p. 41). They continue by stating that UDL is beneficial for students who have a LD as well as for students who are English language learners (ELL). UDL is not a one-size-fits-all strategy (Meo, 2008) but one that works for every student.

There are many ways for teachers to present relevant course concepts. Some examples include lectures, pictures, and electronic readings. In fact, Mauro (2018) argued that:

UDL offers educational choices for the student's demonstration of knowledge and diversity in how the students are engaged. UDL reduces barrier[s] in instruction by providing appropriate accommodations, supports, and challenges, while maintaining high achievement expectations for all students, including students with disabilities. (p. 1)

Every student could potentially benefit from this type of instruction, no matter who they are or where they come from. UDL changes the teacher's role from that of the bestower of knowledge to the supporter of student learning. It also changes the student's role from passively receiving knowledge to making it their own (Ismailov & Chiu, 2022; Meo, 2008).

One way that UDL benefits students is that it offers them a choice, and this is where MMAE comes into play. Using MMAE, "teachers activate the strategic network of the brain that is associated with the 'how' of learning and help students plan and execute actions and reactions to information presented" (King et al., 2011, p. 53). Teachers can promote MMAE in a variety of ways; some students can write a song or draw mind maps, while others might want to stick with text-based approaches (Ismailov & Chiu, 2022). The objective of MMAE is to give students the choice of how they want to demonstrate what they know. This also ties in with MMR, which utilizes the section of the brain that asks about the "what" of learning (King et al., 2011).

Student choice in their learning is valuable because it promotes motivation and engagement (Coyne et al., 2017; Ismailov & Chiu, 2022; Navaitienė & Stasiūnaitienė, 2021; Rusconi & Squillaci, 2023). In one classroom, Coyne et al. (2017) noted that when it came to a reading and research assignment, students chose articles that interested them even though they were above their reading level, observing that "students exhibited a considerable degree of

autonomy and self-direction in their literacy activities and expressed excitement about being able to choose for themselves what, when, and how to read” (p. 9). The array of choices motivated them to delve deeper into their area of interest. Coyne et al. (2017) noted that one student was reading a book on whales; a few weeks later, the same student was looking for an article on science and nature. UDL gave the students a choice, which led them to grow in their area of developing interest. Students need to be actively engaged in their learning, and the best way to do that is to offer them choice. UDL does just that.

Mauro (2018) offered another example of choice through the use of a UDL math menu. Mauro described a math menu as:

...a choice board with teacher-predetermined options challenging students at all levels.

Each student selects which activities to complete, is responsible for their own learning and demonstrates what they know by representing their own understanding with preferences, interest and strengths. Students complete a designated number of selections in the order they choose. (p. 13)

Even though students are given choices in their learning, there are still guidelines to which they must adhere to. The math menus need to be familiar to students so that when they work by themselves, they are demonstrating their own learning and not copying what their peers have done, which better assesses the student’s understanding of the material. Next, Mauro (2018) argued that each math menu needs to include “tiers of independent work activities, learning centers, and individualized homework enrichment projects” (p. 13). This allows students to explore and play a role in their own learning, essentially becoming active stakeholders in their education (Hatley, 2011; Ismailov & Chiu, 2022).

The math menus proved beneficial for learners as they encouraged students to choose whether they work independently, with a partner, or in a group setting. Games are included to help promote cooperation, practice skills, apply reasoning, and sharpen critical and strategic thinking (Mauro, 2018). The menus also revealed that students became more engaged, motivated, and excited in their learning. Teachers strive to craft their lessons to include these aspects. Logan (2011) noted that when students used the math menus, they did better in math than students who did not use the math menus. Mauro (2018) reported that students thrived using the math menus in the classroom and that their achievement scores increased. This provides evidence for the effectiveness of UDL in providing choice for students.

Another piece of evidence proving the usefulness of UDL is a meta-analysis review conducted by King-Sears et al. (2022), in which they performed studies to determine whether it was beneficial for learners. They found that “the academic achievement of learners from UDL-based instructional settings was moderately better than that of learners from non-UDL-based instructional settings” (p. 8). They also found that UDL was effective for students in all subjects as long as teachers using UDL were properly trained.

Kennette and Wilson (2019) reaffirmed King-Sears et al. (2022) when they found that “students find UDL principles to be useful for their learning” (p. 21). Students in the study had a greater sense of autonomy, which led them to be highly motivated. Likewise, Garrad and Nolan (2023) noted that “The implementation of UDL as the unit design framework in an inclusive education unit resulted in a significant increase in student engagement rates...” (p. 5). Students were more engaged because the resources they required were always readily available for them at all times, which allowed them to engage with the lesson as much as they needed. Almumen’s

(2020) study discovered that “UDL provided flexibility to access knowledge by providing appropriate accommodations and needed scaffolds” (p. 11).

Engagement and motivation are not always easy things for teachers to instill in their learners, but they are nonetheless important (Azam et al., 2021; Ismailov & Chiu, 2022; Navaitienė & Stasiūnaitienė, 2021). Azam et al. (2021) found that student engagement helped students complete school, get high marks, and pursue more education. One way to motivate and engage students is through the use of games. According to Buchheister et al. (2017), games help motivate students to learn because they not only involve all three areas of the UDL framework (MME, MMR, and MMAE), but they also teach various skills such as critical thinking and problem-solving while making connections between what they are learning and real life.

Students can be even more engaged and motivated through the use of video games. Marino et al. (2014) noticed that:

...students with LDs were highly engaged during the UDL-science units...They made connections between the virtual worlds in the games and their experiences in class. In addition, they reported gaining an in-depth understanding as they interacted with scientific content in novel ways. (p. 97)

The use of video games in learning changes the way students receive information because it is conveyed in a way that is more meaningful and relatable to students. In their study, Marino et al. (2014) found that students greatly enjoyed learning this way and were able to work with peers to complete their objectives. One student praised a plant game because they found it insightful to “see how genetics actually happened in a plant shop” (Marino et al., 2014, p. 94). The student added that the game especially helped them with a group project on genetically

modified crops. A few other students reached the same conclusions, saying they liked the connections between the game and real-world applications.

Another way UDL has proven helpful for students is that it reduces barriers to learning (Kennette & Wilson, 2019). UDL removes those barriers for the learner. A large barrier for students is printed text (Hatley, 2011), as the “disadvantage or limitation of printed text is the inherent rigid format that makes printed text inaccessible to many learners, especially for individuals with vision or physical impairments, or for individuals with reading, learning and other disabilities” (p. 46). This is where technology comes in handy. Students can use resources such as text-to-speech or digital formats that read text aloud to students. However, it is important for students to be trained on how to use technology early on because they need support in its use right away and not once they reach high school (Hitchcock & Stahl, 2003).

Trained Teachers and Required Resources

Despite UDL being a great tool for learners, teachers struggle to understand it and to know how to use it effectively (Almumen, 2020; Hatley, 2011), often falling into a spiral of hearing about UDL, trying it, not knowing how to use it well, and then discarding it. The UDL literature review strongly argues that teachers need to be properly trained in UDL for it to be effective for all learners (Almumen, 2020; Altowairiki, 2023; Azam et al., 2021; Navaitienė & Stasiūnaitienė, 2021; Rusconi & Squillaci, 2023). Teachers also require the appropriate resources to implement it well. Hatley (2011) noted this in her research, finding that:

...teachers...viewed UDL as a tool to help plan lessons, but personally felt they needed assistance in implementing or the “how-to” of UDL in the classroom. This indicates that teachers had a general understanding of UDL and could incorporate its principles into planning, but the actual application of UDL, the “how do I do it?” component was where

they doubted themselves...all teachers interviewed felt that applying UDL into lesson design helped to increase student motivation and engaged learning. (p. 163)

Teachers know the benefits of UDL for both their students and themselves, but they lack the confidence, trust, and support needed to use it fully in their lessons.

It is important for teachers to be well trained in new teaching strategies that have proven beneficial for students and teachers alike (Almumen, 2020; Altowairiki, 2023; Azam et al., 2021; Rusconi & Squillaci, 2023). Yet, just as students face barriers in their learning, teachers encounter barriers to learning UDL, including lack of time (Lakkala & Kyrö-Ämmälä, 2021; Messinger-Willman & Marino, 2010). Professional Development (PD) is a way to train teachers; however, there is still the issue of lack of time. As Messinger-Willman and Marino (2010) stated:

Another barrier stems from a lack of professional development opportunities. Many secondary teachers have limited time to explore, experiment, and study...UDL integration. Some school districts use top-down professional development models, which fail to produce consistent change over time. This leads to nonexistent, inconsistent, or inadequate support for educators. (p. 10)

Not only is there a problem with lack of time, but PD opportunities are often substandard and do not help teachers develop their UDL skills. Gravel (2017) came to a similar conclusion and argued that “While teachers encounter numerous professional development opportunities, these opportunities are all too often poorly conceptualized and do not support teachers to create meaningful change in the classroom” (p. 17). The literature argues against this type of PD. Instead, as Gravel (2017) argues, “the literature underscores the value of sustained, contextualized support” (p. 17). Learning a skill takes time and should never be a one-off learning opportunity. A skill needs to be honed on a daily basis so that teachers can become

experts. Knapp (2003) argued for “rigorous and cumulative opportunities for professional learning over time” (p. 120).

According to Altowairiki (2023), “To reach desired outcomes, instructors need more than acquiring a knowledge of UDL; they need to be guided throughout UDL implementation” (p. 300). Rusconi and Squillaci (2023) supported this by stating, “simply adopting a teaching framework is no guarantee that everyone will understand it in the same way or that everyone will point out similar evidence about the different components. To achieve such consistency, training is needed to ensure a common understanding of the relevant framework” (p. 3). They push the importance of teacher training, as UDL “seems to have positive effects in terms of student support, the results of studies conducted in [supporting students] show promising evidence of competencies in terms of planning and implementing lessons that are more responsive to student diversity, differentiated and accessible” (p. 16). Altowairiki (2023) advocated offering multiple opportunities for teachers to learn, “ranging from informal sessions to formal programs, from short one-hour sessions to a long four-week program, or from group support to one-on-one coaching” (p. 305). With this kind of sustained training, teachers will become more familiar with UDL and its applications.

Van Thiel (2018) supported the above beliefs by stating that “Teachers need continuous [PD] that involves peers in hands-on situations where they share and create together” (p. 4). She went into great detail on what PD should include; for example, she noted that teachers require four elements in PD: training, relevancy, access, and leadership. For training, “There is a need for both training to use technology and pedagogy...which incorporates 21st-century skills into student activities.” With respect to relevancy, “Sessions should be grade and/or subject relevant, with teachers working together, guided by local experts, with time provided to learn and hands-

on opportunities arranged” (van Thiel, 2018, p. 13). To ensure proper and consistent access, there needs to be a proper infrastructure that supports the learning, whether it is with devices or the internet. Finally, teachers need administrators to play a role in their journey (van Thiel, 2018).

At times, teachers can feel like they are at a loss as to what to do. In the words of Edyburn (2010), teachers “are left to [their] own devices to try to apply the UDL principles to create more accessible accommodations” (p. 36). This does not create an environment for teachers to learn. It is not a common practice for teachers to leave their students to figure something out on their own without any guidance or support, and the same is true for teachers. UDL does not occur naturally but instead is a “learned skill, one that is refined over time, to produce high levels of performance” (Edyburn, 2010, p. 38).

Edyburn is not the only one who argues for properly trained staff. Flood and Banks (2021) believe that if teachers do not have the confidence to utilize UDL, then they will not use it. In a study, they found that teacher participants were more often than not confused or found the “UDL guidelines difficult to follow at times” (p. 4). Proper training will help clarify for teachers what UDL is and is not and give them the confidence they need. Teachers should not be left to their own devices to figure out UDL. They need to be properly supported through the use of PD because the appropriate training and support have been proven to work in the classroom (Flood & Banks, 2021).

Collaboration time is a vital resource for teachers (Azam et al., 2021), allowing them to come together and work through any UDL questions or problems they might have. Wu (2012) argued that “Collaboration between general and special education teachers is essential” (p. 1). Hatley (2011) also realized this, arguing for the importance of “Teachers [working] together to

create lesson plans” (p. 32). Gravel (2017) came to the same conclusion and stated “the need for teachers to wrestle *together* with the tensions, confusions, and successes that come with new learning” (p. 18). However, she provided a prerequisite when she said, “in order to nurture this collaboration, [there needs to be an] importance of developing trusting relationships” (p. 18). Teachers need to feel safe when they are sharing their struggles and triumphs. Wei et al. (2009) argued that trust “provides a basis for inquiry and reflection into teachers’ own practice, allowing teachers to take risks, solve problems and attend to dilemmas in their practice” (p. 6), and Gravel (2017) reinforced this idea of trust when she maintained that “the development of trust is especially important when collaborating with outside experts; the expertise of the collaborators as well as the teachers must be valued” (p. 19).

In Hatley’s (2011) study on teachers and UDL, she found that teachers strongly believed they needed collaboration time, finding that “The lack of *collaboration* was seen as a concern for some teachers because they had no time daily or even weekly to collaborate with others regarding UDL” (p. 155). She also found that teachers wanted time to collaborate with other staff. One interviewee said that a working lunch once a week was a good opportunity to collaborate because it was important to build relationships with other teachers who shared the same UDL journey as themselves. However, it was clear that more time to collaborate would have been very useful (Altowairiki, 2023). Teachers clearly need to have time carved out of their schedule to work with other teachers. However, it is important for special education teachers to be a part of the collaboration as well, since they work hand-in-hand with students with LDs (Hatley, 2011; Wu, 2012). Hatley (2011) provided a solution for collaboration:

For school districts wanting to improve collaborative efforts, consider creating an infrastructure that provides time for teachers to collaborate with others, and include

collaboration with special education teachers. Teachers should seek out special education teachers and instructional media personnel to gain fresh ideas on how to accommodate for diverse learner needs. During collaboration meetings, special education teachers could provide consultation in planning for individual needs. Instructional media personnel could supply information regarding the potential of digital media. Districts could benefit from collaboration teams that include special education teachers, general education teachers, and instructional media personnel. (p. 155)

It is not just general teachers who need to be a part of the UDL journey, but special education teachers need to participate as well (King et al., 2011). Learning and implementing UDL effectively is a team effort (Lakkala & Kyrö-Ämmälä, 2021). Lakkala and Kyrö-Ämmälä (2021) discovered that utilizing UDL involves more than one teacher, and implementing UDL requires the whole school to be involved.

Another way for teachers to grow in their UDL journey is to participate actively in their learning (Altowairiki, 2023). Gravel (2017) asserted that “In order to promote teacher learning, teachers need space to experiment, problem-solve, and construct their own understandings” (p. 19). This is more or less the same function that teachers serve for students: They give a lesson, provide examples for students to work through, and give them time either to work individually or with a partner to wrestle through the questions. Therefore, teachers should meet the exact same bar that they ask of their students.

Since UDL encourages students to be active participants in their learning, teachers should also “play a role in their own learning” (Hatley, 2011, p. 19) and engage “in meaningful discussion, planning, and practice” (Garet et al., 2001, p. 925). Teachers can be active in their learning through “exploring student work, experimenting with flexible educational tools, and

analyzing video footage of teachers' own practice" (Gravel, 2017, p. 19). By carrying out these practices, teachers will engage with what they are learning and gain a deeper and more meaningful understanding of UDL, which in turn will prove highly useful for their learners.

Principal Participation

Throughout the literature on UDL, principal participation was a constant theme (Altowairiki, 2023), as principals are tasked with "Creat[ing] a learning environment that recognizes the learners as core participants" (BCPVPA, 2019, p. 18). As stated above, teachers require proper opportunities for training that specifically focus on UDL (Altowairiki, 2023; Flood & Banks, 2021; Hatley, 2011; Messinger-Willman & Marino, 2010; van Thiel, 2018; Wu, 2012). This ties in with the BCPVPA (2019) Leadership Standard 3 in the Instructional Leadership Domain, whereby leaders need to "Establish a continuum of learning" as well as "Focus professional learning and development on addressing the needs of the population through challenging and stretching the status quo" (p. 16). In order for teachers to learn about UDL, they should have ample opportunities to learn it and gain a thorough and deeper understanding of it. Principals can create those opportunities for teachers to continue to learn, as Altowairiki (2023) argued, claiming that "UDL implementation starts at the institutional level, the 'macro level,' through creating a clear vision and policy, offering resources, and rewarding [teachers]" (p. 304).

Hatley (2011) offered suggestions on how leaders can provide teachers with such growth opportunities. First, principals need to be active participants in change. If they want UDL to be used in their school, then they must lead the charge. An example of this can be found in an interview that Hatley (2011) conducted. The principal shared the goal of UDL by saying:

UDL drives everything that we do...we'd like to get [to] the point that we're not talking about pockets of excellence, but that we're talking about where we have...Eighty percent

of our teachers across the district understand UDL and I would say we have an understanding close to that, but then the actual application is where we're working on now. And if we could get to that 80% mark, I think we'd be in good shape, but we're not there yet. (p. 109)

For UDL to work, it must start from the top. The same principal interviewed above also said, "We view [UDL as] instructional so our system-wide emphasis was on really beginning to work with teachers and getting them to understand that they had to really be very reflective about their instructional practices" (Hatley, 2011, p. 109). Another of Hatley's interviewees reiterated this point:

Well, I'm part of a committee, the instructional consultation team...that's really considered to be under the UDL umbrella because our role is to help the teachers and the students increase their performance in the classroom and it's to make that match at where ever they are...in their reading or math or behavior or whatever...[our role] is to make sure that you help the teacher find that match and so I'm part of that. (p. 110)

These principals are modelling what the BCPVPA Leadership Standards are guiding them to do, especially Standard 3 in the Instructional Leadership Domain: "Promote reflection and dialogue about teaching and learning" and "Embed a culture of continuous improvement" (p. 19). They also looked at what the research indicated about UDL and implemented it in their schools. This ties in with the BCPVPA Leadership Standard 4 in the Instructional Leadership Domain: "Communicate, encourage, and support the use of current educational research" (p. 20). Leaders need to consult the research and find ways to implement its recommended changes in their schools, especially if it proves beneficial for their learners.

Another area where principals can take the lead is supporting their staff. Some of the areas where Hatley (2011) argued for greater support are “professional development or trainings, creating an environment for change, and using resources to support UDL” (p. 111). When it comes to PD, there is the risk that it becomes a one-off event. This has not been useful for teachers, which is evident from this response: “Many, many, many trainings are what I call drive-by trainings, where somebody comes in. They train a bunch of people. They walk away. That’s not useful” (Hatley, 2011, p. 112). Flood and Banks (2021) made the same argument that teachers needed “to be supported through effective professional learning” and that “training improved the lesson planning process across all three UDL principles” (p. 5). There is a strong need for teachers to have both training and time; Altowairiki (2023) found that “Affording a variety of educational development opportunities is required to build teaching capacity to redesign learning experiences based on UDL” (p. 307). Therefore, it is important for principals to give their staff adequate time.

In order to work around this, one principal used whatever time they could get to have staff trained on UDL. They stated that:

Teams of departments...are working...both before school, after school meetings, and lunch time meetings and most of our [meetings] happen during lunch so you can eat your lunch and have the professional conversation and it doesn’t impact child care...we can still do our other work and still have that collegiality it takes and the inspiration it takes to keep moving. (Hatley, 2011, p. 112)

This is an example of a leader using the resources they have to better equip their staff to use UDL. It is critically important to note the key term *professional conversation* because it means that staff are wrestling together with UDL to gain a better understanding of what it means

(Gravel, 2017). This fulfills the BCPVPA (2019) Leadership Standard 3 in the Instructional Leadership Domain, where leaders need to “Engage in ongoing and targeted conversations regarding the progression of learning” (p. 16).

Creating teams designated to focus on UDL is another area principals can focus on to better support their teachers (Altowairiki, 2023). Edyburn (2010) argued that “it has proven far easier to help the various stakeholders understand the potential of UDL than it has been to implement UDL on a large scale” (p. 40). To help stakeholders, leaders can form teams to support learning. Once such teams are formed, Edyburn (2010) argued that it is vital to “clarify the core stakeholders (developers or teachers) who will be trained to create UDL products. [They] need to understand what it means to implement UDL” (p. 40). Altowairiki (2023) restated the importance of having a team of teachers with the objective “to provide an opportunity for instructors to support each other’s practice and learn from and with each other” (p. 304). He noted the importance of having a go-to person on staff with whom teachers can share their practice and work through any challenges they are experiencing.

It is not enough to learn about UDL; teachers need to know what it means to implement it (Almumen, 2020). In her interviews, Hatley (2011) noted that teachers understood the relevance and importance of UDL for their students, but they struggled with how to implement it properly in the classroom. Principals need to take steps to solve this problem. Hatley (2011) stated:

Allowing UDL facilitators into the classrooms to evaluate the teacher’s implementation of UDL through a non-threatening process [...This] could encourage teachers to reflect on the process and make changes toward the application of UDL into the classroom, without feeling a direct threat to their status or professional evaluation. (Hatley, 2011, p. 163)

The goal of these teams would be to go into the classroom and assist teachers where they need it. Hatley (2011) continued by arguing that it is not enough for facilitators just to observe a lesson and provide help when needed; a close partnership should occur between the two parties. She wrote that “Teachers should meet with UDL facilitators for assistance in aligning lesson plans with established curriculum and UDL checklists or guidelines” (p. 174). However, a level of trust is required (Gravel, 2017). Building these trusting relationships falls under BCPVPA (2019) Leadership Standards 1 in the Ethical Leadership Domain, whereby principals are required to “Foster a safe and inclusive environment focused on student learning” (p. 12). If staff come together and know that they are on the same side, then trusting relationships will be easier to form. The same standard provides principals and vice-principals with questions to help guide their reflection process: “What are the key values, vision, and goals of your learning community?” and “How do you foster a shared vision with your community and partner groups?” (p. 12). Just as teachers need to self-reflect on their UDL learning, school leadership should do the same when helping their staff.

Principals should encourage their staff to not treat UDL as a one-size-fits-all method. Ismailov and Chiu (2022) found in their study that some saw opportunities, whereas others saw barriers. UDL does reduce barriers, but it is important that principals help teachers scrutinize their application of the UDL framework “and adjust them to their specific course without relying too much on institutionally recommended settings” (Ismailov & Chiu, 2022). This gives teachers autonomy on how they want to work with the UDL framework, which Navaitienė and Stasiūnaitienė (2021) reinforced:

There cannot be a universal learning strategy for each student. The ability to choose from a variety of teaching and learning methods and their combination helps maintain focus and

interest, facilitates the memorisation of knowledge, influences learning motivation and improves the skills of the student expert. (p. 222)

Therefore, principals should maintain teacher autonomy by reminding teachers that they are free to use UDL in a way that works best for them and their learners.

Despite indications that UDL has proven beneficial for students, some teachers do not want to utilize it in their classroom (Hatley, 2011). If school leaders want to apply the UDL framework in their schools, they require teacher buy-in. They need to “inspire a shared vision” (Altowairiki, 2023; Kouzes & Posner, 2017). Kouzes and Posner (2017) maintained that “[Leaders] can’t command commitment; [they] have to inspire it. [They] have to *enlist others in a common vision by appealing to shared aspirations*” and “When [leaders] express [their] enthusiasm and excitement for the vision, [they] ignite the same passion in others” (p. 15). Altowairiki (2023) reinforced the above statement when they reasoned “that the role of the [leader] is reconceptualizing, and creating a vision for people to work toward, and then strategizing to support that” (p. 304). During her interviews with school leaders, Hatley (2011) found that buy in was not always easy. One of her interviewee’s stated:

We, probably like a lot of districts, have some teachers who kind of have the mindset of, “this is how I do things and if you don’t learn the way I do things, it’s your problem.” So really getting teachers to understand that if kids aren’t learning...the kid’s not broken, the teacher’s not broken. We haven’t got the right instructional match. (p. 116)

Another leader described similar difficulties:

Getting teachers to change, in some cases, helping teachers change their beliefs about instruction and their beliefs about kids who learn in different ways. And I guess really shifting the focus from student behavior to teacher behavior and that what needed to

change was “us” not the kids...So really getting teachers to understand that if kids aren’t learning it’s the teacher. Not the teacher-person problem, but the instructional-practices problem; that there is not a match between the strategies and instructional activities. (pp. 116-117)

Both leaders made sure to clarify that it was not because of the teachers that students were not learning, but because instructional practices were not keeping pace with how students learn. They did mention that some teachers were not willing to change because they are comfortable with what they have been doing for years. They both noted that “getting all teachers to *buy into* UDL, to make the changes to their *beliefs* regarding their teaching philosophy [were] viewed as an important factor in implementing UDL” (Hatley, 2011, p. 119). In order for buy-in to occur, leaders need to promote their vision of UDL. They also need to use what the current research recommends to get staff on board. This falls under the BCPVPA (2019) Leadership Standard 5 in the Relational Leadership Domain, which states that leaders need to “Remain current regarding research, best practice, and trends in education” (p. 24).

Once leaders have inspired their staff to have the same vision and teachers are using UDL, leaders cannot leave them to their own devices. Like a good shepherd, they need to continue to keep an eye on their flock by checking in and having clear expectations. A school leader in Hatley’s (2011) study said that “Our expectations are that teachers will utilize the principles of UDL in their instructional planning and delivery...Our expectation is that [teachers] are thinking about personalizing the learning goals for that lesson and looking at multiple ways to engage kids” (p. 113). There are expectations that this leader has developed, so they need to make sure that all staff are following them. Leaders can go even further by “including UDL in

[teachers'] professional goals" (Hatley, 2011, p. 115), which would help leaders keep teachers accountable to the school's expectations.

When looking at UDL, there tends to be a strong emphasis on the staff, leaders, and students. There is another stakeholder that leaders need to consider: parents. There should be a team effort between UDL implementation and parents (Hatley, 2011; Lakkala & Kyrö-Ämmälä, 2021). The BCPVPA (2019) Leadership Standard 7 in the Relational Leadership Domain states that leaders "Encourage and support positive parental involvement and advocacy for their child's learning" (p. 28). Parents are an integral part of their child's life; therefore, they should play a part in their education as well. Ellsworth (2000) noted, "By mobilizing these stakeholders and providing them with relevant information – and training in appropriate skills – parents, school boards, and other community groups can play a key role in guiding implementation and reduction turbulence" (p. 97). Fullan (2007) supported this idea by arguing that "...educational reform requires the conjoint efforts of families and schools. Parents and teachers should recognize the critical complementary importance of each other...Otherwise [they] are placing limitations on the prospects for improvement that may be impossible to overcome" (p. 205).

There needs to be constant communication between the two parties for the implementation process to go smoothly (Lakkala & Kyrö-Ämmälä, 2021). Hatley (2011) argued that "...teachers should inform parents and community regarding the implementation of UDL and maintain regular correspondence through community information sessions regarding the progress of UDL immersion" (p. 159). Lakkala and Kyrö-Ämmälä (2021) noted that:

...collaboration with parents increased the parents' commitment to their children's schoolwork. The collaboration reflected positively on the classroom atmosphere and the

pupils' outcomes. In addition, when the parents showed their appreciation towards the teachers' work, it had a positive influence on the teachers' well-being as well. (p. 268)

School leaders should not neglect parents in their child's education, as parents are key stakeholders and can be a school's greatest ally. Likewise, they can also be a school's worst nightmare, so leaders should "Develop and maintain an open system of communication amongst the school staff, parents, and community" and "Provide opportunities for dialogue" (BCPVPA Leadership Standard 7, 2019, pp. 27-28). By doing so, school leaders can create a powerhouse team of teachers and parents to better support student learning.

Summary

This chapter has shown the importance of UDL for student learning (Kennette & Wilson, 2019; King-Sears et al., 2022). Students felt that they could achieve more when their learning needs were met. They could engage with the material in multiple ways, it was easier to gain understanding due to the different ways the content was being presented, and they could demonstrate what they had learned in a variety of ways. UDL unlocked their potential for all of this.

Likewise, teachers also saw the benefit of using UDL in their classroom, as studies have revealed what teachers require in order to incorporate UDL properly and effectively in their lessons. Collaboration was key to teachers gaining a clearer understanding of using UDL. The fact that they could come together and communicate what worked well and what did not proved beneficial for them (Hatley, 2011).

Finally, school leaders have an integral part to play in implementing UDL and need to inspire a shared vision (Kouzes & Posner, 2017) with their staff so that everyone is on board. They also need to develop and foster leadership in other teachers (BCPVPA, 2019) because it is

a big job, and they need all the help they can muster. Creating a team allows staff to support the vision because they see other teachers joining the vision. Effecting change is a significant task, so it is important that all stakeholders are involved. That is why school leaders should look to their parent community for assistance and advice (Ellsworth, 2000; Fullan, 2007; Lakkala & Kyrö-Ämmälä, 2021).

Chapter 3: Summary, Recommendations, and Conclusions

Summary of Findings

The purpose and central theme of this capstone was to look into the important benefits of UDL and how it impacts all stakeholders, specifically students, teachers, and principals. For one, the benefits that it has for every student's learning is crucial (Katz & Sokal, 2016; Rusconi & Squillaci, 2023). Students thrived when they participated in a UDL lesson (Kennette & Wilson, 2019). They saw that they had choice, not only on how they presented their learning, but also how they could engage with the lesson and have it represented to them in a variety of ways.

Likewise, teachers also benefitted from UDL, finding that it made lesson planning simpler and more enjoyable (Hatley, 2011). Ironically, using a tool designed to reduce barriers actually generated some new barriers because teachers required better and proper training in UDL (Almumen, 2020; Altowairiki, 2023; Azam et al., 2021; Edyburn, 2010; Flood & Banks, 2021; Gravel, 2017; Hatley, 2011; Messinger-Willman & Marini, 2010; Navaitienė & Stasiūnaitienė, 2021; Rusconi & Squillaci, 2023; van Thiel, 2018; Wu, 2012). Teachers found that without the proper training, they were left to fend for themselves and ended up discarding UDL. Teachers also noted the importance of collaboration (Gravel, 2017; Hatley, 2011), which provides teachers time to share their findings on their lesson plans and student work. It also allows them to actively participate and wrestle with their learning (Gravel, 2017), which is important because it makes education more meaningful and models to their students that teachers are learners too.

A consistent theme among teachers in the literature review was that school leaders should be involved in the process of implementing UDL and providing teachers with resources to use it

well (Altowairiki, 2023; Flood & Banks, 2021; Gravel, 2017; Hatley, 2011; van Thiel, 2017; Wu, 2012). Leaders need to create time for teachers to collaborate and wrestle with what they are learning (Gravel, 2017). Principals need to “Foster a safe and inclusive environment focused on student learning” (BCPVPA, 2019, p. 12) and “Create opportunities to build professional relationships that inspire trust and demonstrate respect” (BCPVPA, 2019, p. 17). This will allow teachers to work together and create lessons and to realize that they do not need to work alone to figure out a difficult concept. The research shows that teachers need to feel comfortable sharing with their peers (Hatley, 2011).

The literature also demonstrates that parents’ voices are crucial, as they are their child’s primary caregivers and should have a say on what they learn. Parents can also play a crucial role in helping principals deliver new initiatives and therefore should be included in the decision-making process (Ellsworth, 2000; Fullan, 2007; Hatley, 2011; Lakkala & Kyrö-Ämmälä, 2021). As this is a significant task, principals should develop leaders to help teach UDL. Hatley (2011) noted that it benefited teachers if they had a team that they could go to and seek guidance about UDL. This team would also go into classrooms to observe lessons and provide guidance for teachers an opportunity to grow in one’s understanding of UDL rather than to critique a lesson. By creating these teams, principals would be following the BCPVPA (2019) Leadership Standard 6 in the Relational Leadership Domain: “Foster leadership capacity in others” and “Facilitate team development and collaboration” (p. 25). Teams play a vital role in helping other teachers with UDL implementation. Finally, trying to carry out a large school initiative is not always easy, so principals need to inspire a shared vision (Kouzes & Posner, 2017) because it is important that everyone is on board for UDL to be effective.

Implications

The importance of UDL has been demonstrated throughout this capstone and the literature review, establishing that it is critical for principals to mobilize teachers and parents to effect important change in their schools. Each stakeholder has a part to play in the implementation of UDL. The research has shown UDL's effectiveness; therefore, principals need to share their vision and work to get everyone on board. A team unified by a vision can bring about a shift more effectively than a team without a shared vision or purpose. The more collaboration and communication, the better. Therefore, principals should create more opportunities for collaboration between teachers.

UDL is significant because it creates opportunities for students to demonstrate their understanding in a variety of different ways, engage with the content in a meaningful way, and have it represented to them in multiple ways (Hatley, 2011; Ismailov & Chiu, 2022; Katz & Sokal, 2016; King et al., 2011; Mauro, 2018; Navaitienė & Stasiūnaitienė, 2021; Rusconi & Squillaci, 2023). It is common knowledge that every student learns and wrestles with information in their own way, so schools should be using UDL to better unlock a learner's potential (Altowairiki, 2023; Garrad & Nolan, 2023). Therefore, it is the principal's job to implement a tool that has been proven to be beneficial for everyone (King-Sears et al., 2022). This is evident in the BCPVPA (2019) Leadership Standard 4 in the Instructional Leadership Domain, where leaders need to "Communicate, encourage, and support the use of current educational research" (p. 20).

Recommendations

According to Pate (2019), "The principal is a central agent in establishing a culture in which a learning community can grow and flourish" (p. 32). It is the role of the principal to

ensure that their school is a safe and secure learning environment for all students (BCPVPA, 2019). Every student has the right to an education and to learn in a way that is meaningful to them. Therefore, there are a few recommendations for principals to follow if they want to implement UDL effectively in their schools. These recommendations will follow what was discussed in Chapter 2 to merge with the BCPVPA (2019) Leadership Standards. Each recommendation will include questions for principals to answer to inspire reflective thinking.

Recommendation #1: Collaboration. Throughout the literature, there was strong support for collaboration (Altowairiki, 2023; Gravel, 2017; Hatley, 2011; Wu, 2012), which teachers require in order to fully grasp the concept of UDL. Working with others allowed teachers to work through what they are learning. In the words of Gravel (2017), there is a “...need for teachers to wrestle *together* with [the content]” (p. 18). When teachers work together, they feel like they have better support and understanding. If they are struggling to grasp a concept, they can ask a peer for input. Students find working together beneficial because they can work through the content; therefore, teachers should do the same. Principals need to create the time for teachers to collaborate with one another. This could be anything from lunch meetings, before-or-after-school meetings, or designating a time during the school day. Teachers will benefit from this. The BCPVPA (2019) Leadership Standard 6 in the Relational Leadership Domain encourages principals to “Facilitate team development and collaboration” (p. 25). To promote deeper reflection on whether principals follow the action statement, Standard 6 asks “How do [principals] create opportunities for collaboration, cooperation, and connectedness within the learning community?” (p. 25). This is an important question because it will force principals to think about whether they promote opportunities for collaboration and will hopefully encourage them to seek out ways to do so.

Recommendation #2: Focus on Creating a UDL Team. Bringing forth a new initiative is not always easy; therefore, principals need to realize that they cannot and should not do it alone. They need to create a team of teachers with a passion for implementing UDL and must be willing to support teachers in their own UDL journey (Altowairiki, 2023). This is exactly what the BCPVPA (2019) Leadership Standard 6 in the Relational Leadership Domain encourages principals to do to “Foster leadership capacit[ies] in others” (p. 25). That means they need to consistently be on the lookout for potential leaders among their teaching staff. By creating these teams, principals can focus on gathering more research and tools and let the teams distribute them to staff. The effectiveness of this is evident in Hatley’s (2011) interviews, where she notes “...the importance of the building level team leaders and the role they play in the UDL initiative” (p. 114). Each grade should have a UDL team representative because it then becomes more of a unified team rather than one grade dominating the school. It takes a diverse team to properly roll out a new initiative because each person has a different perspective on how they understand and use UDL. This idea also appears in the BCPVPA (2019) Leadership Standard 6 in the Relational Leadership Domain: “Create an inclusive school that recognizes and values diversity” (p. 25). With regard to developing leaders in the school, one question that leaders can ask themselves is “How do you create opportunities to develop people’s leadership capacity?” (BCPVP, 2019, p. 25). The next school leaders are in the school, so principals should be on the lookout to help them develop their leadership skills.

Recommendation #3: Develop Trust. Trust proved to be an important factor among teachers when it came to UDL (Gravel, 2017; Wei et al., 2009; Wu, 2012). Teachers argued that if they were going to work together, they needed a trusting environment. Gravel (2017) recommended developing trusting relationships, especially with outside people. Wu (2012)

echoed that idea by stating that there needs to be “...mutual respect for each other’s expertise” (p. 9). Teachers need to know that they can trust those around them in order to share their thoughts, feelings, and challenges. If they do not feel like they can trust their peers, then they are less likely to share for fear of embarrassment. It is also important for teachers to feel respected. The BCPVPA (2019) Leadership Standard 3 in the Instructional Leadership Domain advises principals to “Create opportunities to build professional relationships that inspire trust and demonstrate respect” (p. 17). Principals can create opportunities that will build trust among teachers. To help get started, principals can ask themselves two questions from the BCPVPA document. The first question is “How do you acknowledge the expertise and talent of staff?” The second question is “How do you inspire trust and demonstrate respect?” (p. 17). These two questions should help principals reflect on their own practices because it is important for teachers to feel trusted and respected in their own work environment.

Recommendation #4: Inspire a Shared Vision. It is not always easy to get everyone on board with a new initiative. There will be those teachers who are enthusiastic, and there will be those who are more reluctant to give it a try, possibly because they are unsure of the new initiative or they do not want to try something new. Either way, principals need to have everyone on board in order for the new initiative to succeed (Altowairiki, 2023; Hatley, 2011; Kouzes & Posner, 2017). This is where inspiring a shared vision comes into play. Kouzes and Posner (2017) argued that “When [leaders] express [their] enthusiasm and excitement for the vision, [they] ignite the same passion in others” (p. 15). If principals are enthusiastic, then staff are more likely to catch and share that enthusiasm. Kouzes and Posner (2017) stated that “[Leaders] can’t command commitment; [they] have to inspire it. [They] have to *enlist others in a common vision by appealing to shared aspirations*” (p. 15). Likewise, Hatley (2011) and Altowairiki (2023)

argued the case for principals getting everyone on board and the importance of buy in. The BCPVPA (2019) Leadership Standard 5 in the Relational Leadership Domain advises principals to “Understand the importance of engaging in actions, activities, and communication that develop relationships” (p. 23). Principals should ask two reflective questions when it comes to this standard. First, principals should ask “How [do they] develop positive relationships with others?” and second, “How do [they] prepare for, engage in, and reflect upon challenging conversations?” (p. 23). Difficult conversations can occur if teachers do not want to get on board, so principals need to be prepared to address that resistance respectfully and professionally.

Recommendation #5: Involve Parents. As stated above, parental involvement can be overlooked, even though they can be a valuable asset (Lakkala & Kyrö-Ämmälä, 2021). It is crucial for the parent community to be a part of the UDL initiative for two reasons. First, parents are the primary caregivers of their children, and they know them best, including how they best learn. Inviting them into the conversation gives parents a voice in their children’s education. The importance of parent involvement is evident in the BCPVPA (2019) Leadership Standards, specifically Standard 3 in the Instructional Leadership Domain, which states that principals should “Develop a mutually supportive and trusting relationship with the community” (p. 17). By bringing parents into the conversation, principals allow that trusting relationship to develop. Parents will see this invitation as a way for them to be heard. Principals can ask themselves two important questions in this regard: “What needs to be considered when developing a collaborative community?” and, “How do [principals] create a collaborative community?” (BCPVPA, 2019, p. 17).

The second piece of evidence of the importance of parent involvement is in Standard 7 in the Relational Leadership Domain, which encourages principals to “Provide opportunities for

dialogue” (p. 27). By participating in an open dialogue, parents are able to have a voice in their child’s educational development (Lakkala & Kyrö-Ämmälä, 2021). It is important for them to know that they are heard and that their views and opinions about their child’s education matter. Hatley (2011) supported this view when she advocated that “...teachers should inform parents and [the] community regarding the implementation of UDL and maintain regular correspondence through community information sessions regarding the progress of UDL immersion” (p. 159). Dialogue should happen between school and parents, since all parties need to be heard. Another question to help principals think about this topic is: “How do you develop an inclusive learning culture that focuses on improving student and adult learning?” (p. 27). Parents can help the school create a UDL environment that will benefit all students.

The final piece of evidence is also found in Standard 7, which recommends that principals “Encourage and support positive parental involvement and advocacy for their child’s learning” (BCPVPA, 2019, p. 28). Parents are key stakeholders who must be involved when it comes to helping push a new school-wide initiative (Ellsworth, 2000). As quoted above, Ellsworth (2000) understood the importance of involving parents and stated that “By mobilizing these stakeholders and providing them with relevant information...parents...can play a key role in guiding implementation...” (p. 97). Likewise, Hatley (2011) advocated that principals present UDL initiatives to parents. She continued that it should not be a one-time correspondence, but a regular one; parents should be updated frequently on what is going on. Fullan (2007) also argued for parents being kept in the loop because if parents and teachers do not work together, then there is a chance that the initiative will fail before it starts. Principals can involve parents effectively by having them come into a classroom to “...volunteer reading to students, or lead small group discussions on curriculum topics” (Hatley, 2011, pp. 159-160). Principals can self-start by

answering this question: “What structures or activities have you established to provide parents the opportunity to be involved in their child’s education?” (BCPVPA, 2019, p. 28).

Recommendation #6: Professional Development. Throughout the literature review, many teachers stated that they lacked sufficient training in UDL to implement it effectively (Almumen, 2020; Altowairiki, 2023; Azam et al., 2021; Rusconi & Squillaci, 2023). In most cases, they were given the information and then left to their own devices. Principals can rectify this situation by providing more PD for teachers. Three BCPVPA Leadership Standards promote this recommendation. The first is Standard 3 in the Instructional Leadership Domain, which states that principals should “Focus professional learning and development on addressing the needs of the population through challenging and stretching the status quo” (BCPVPA, 2019, p. 16). UDL is not currently a normal part of teaching and learning; it is rather a relatively new concept that challenges the “old ways” of teaching. Where students used to rely on rote memorization to display their learning, UDL provides more options for students to demonstrate their knowledge. Rote memorization is the ice, and UDL is the hammer that smashes, thereby challenging the status quo. Principals should ask themselves two questions with respect to this standard: “How do [principals] support and encourage changes in professional practice?” and “How do [principals] work with [their] staff to support school goals and vision alignment?” (BCPVPA, 2019, p. 16).

Standard 4 in the Instructional Leadership Domain includes two action statements. The first is “Communicate, encourage, and support the use of current educational research” (BCPVPA, 2019, p. 20). For principals to create better PD opportunities, they need to have a grasp of current UDL research and can thus better inform their staff on best practices highlighted in the research. To make UDL more effective, Hatley (2011) argued for all PDs to be brought

“under the framework of UDL” (p. 111). That way, the learning goals are clear and can be carried over to the next PD. Teachers need to keep informed on current practices to instruct their students in an ever-changing society. UDL is an effective way to achieve this currency because it targets all learners and their needs.

The second action statement from Standard 4 is “Promote the continual development of teaching and learning” (BCPVPA, 2019, p. 21). As stated by Hatley (2011), PD cannot be a one-time training event. For teachers to properly learn how to use UDL in a way that will benefit their students, it is essential that teachers be continuously trained and work with others in the process. They need to wrestle with their understanding, which will also in turn promote their confidence. Flood and Banks (2021) emphasized the importance of teacher confidence and that it plays “an important role in UDL implementation” (p. 4). The more teachers are trained, the higher their confidence will be. A question that principals can ask themselves is “What structures and processes are in place to support inquiry, professional learning and development, and the advancement of education?” (BCPVPA, 2019, p. 21). This can help principals rethink how they are supporting their staff and boosting their confidence in UDL.

PD is critically important for principals best train their staff in the implementation of UDL. They need to gather relevant and current research and use that information to plan effective UDL-related PD that will build confidence in their staff. The students and teachers alike will all be better for it.

Suggested Directions for Future Research

This capstone has shown the important role that principals play in implementing UDL, the effectiveness of UDL on student learning, and what teachers need in order to implement UDL. It has shown what principals need to do to make their schools into functioning UDL

environments. However, there are still areas that deserve examination. Future studies should focus in more detail on parent involvement, since it is recommended that principals involve parents in the UDL process. The research argues for parents to be involved, but what happens when they choose not to or they choose to go against the school's goals? If that is the case, what can principals do to get their parent community on board?

Teacher involvement should be another focus of future research. Like parents, what can principals do if their teachers are not on board with the vision? It takes a unified team to make a massive change, so when the team is not strong, the vision runs the risk of collapsing and students suffering accordingly.

These two areas of research could help strengthen this field of study. UDL is an important tool to be used in schools; therefore, research needs to be conducted on both parent and teacher involvement or lack thereof. This could help craft and promote recommendations for principals to use to inspire everyone to participate in the shared vision.

Conclusions

The object of this capstone is to reveal the importance of UDL for student success. It showed that students benefited from receiving information, engaging more closely with the lessons, and demonstrating their learning in multiple ways. As previously stated, every student learns differently, so they should have a number of options that cater to their varied learning styles to succeed. However, for them to succeed, their teachers need to know how to utilize UDL in their classrooms effectively and properly. Having a great tool but not knowing how to use it is completely fruitless a waste of a tool and a waste of a teacher. Train the teacher and give them the proper resources, and that tool becomes a powerful instrument. A participant in Hatley's (2011) study used this analogy: "What you're really doing is giving a great builder a hammer

instead of a power tool and that means more human effort and that eventually, those folks will wear out” (p. 158). If teachers are left to figure UDL out on their own, they might discard the tool because they have exhausted every avenue and do not want to try and solve it anymore.

This leads to the last and most important conclusion. Principals need to support, train, and provide the proper resources for their staff to help them learn UDL. Previous studies have demonstrated how critical principal involvement is. They cannot leave their staff to figure out something on their own and risk them not using UDL. A good leader gets down in the mud with their staff and helps them succeed and does not let them flounder and figure a new process out for themselves. UDL is important, and principals are important to making it happen in their schools. Their teachers, their students, and their parent community will all be better because of it.

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