



# **Increasing Inclusivity and Social Justice in the Post-Secondary System Through Universal Design**

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## Overview

Over the last couple of decades, there has been an increase in research regarding the education system and classroom design. The current system is geared toward typical students who can succeed in a traditional classroom. For example, teaching is based on in-class lectures and assessments through exams and essays. Unfortunately, these methods are not sufficient for everyone. Research demonstrates that education should not be one-size-fits-all, yet it is still structured in favour of that belief. Every learner is unique, therefore different techniques are required to meet the needs of all students. Implementation of Universal Design for Learning (UDL) in post-secondary classrooms will promote social justice by tackling issues of unequal access in education while providing benefits for students and faculty during a time of immense change.

## Objectives

1. Understand how UDL promotes social justice, and why social justice is important.
2. Understand the benefits of UDL in a post-secondary institution - for both students and faculty.
3. Understand the goals of UDL in the post-secondary classroom.
4. Understand how the methods of UDL can be applied to a post-secondary classroom and remote learning.

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## **Purpose of Research**

The purpose of this educational manuscript is to educate and inform students and faculty of Mount Royal University (MRU) about the importance of social justice and how Universal Design for Learning (UDL) supports social justice in the post-secondary education system. This manuscript was created as part of an independent project for a graduate studies practicum course at Alder University in the Industrial-Organizational Psychology Master of Arts program. As a Mount Royal University alumni, I took a particular interest in MRU's campus, students, faculty, and Accessibility Services. I investigated the relationship between social justice and UDL. Both of these concepts are gaining interest and attention in the public eye and in research endeavours, and they can improve the cultural climate and success rate at MRU. My intention with this project is for MRU faculty to become motivated to incorporate some principles of UDL in their classes to benefit themselves and their students. Implementing these strategies will allow the post-secondary system to focus on inclusivity and create a better experience for all members.

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Social justice has become an increasingly popular topic in research. Although it has several definitions depending on the context, this manuscript focuses on social justice in the post-secondary education system. In this case, social justice refers to advocating for an equal distribution of opportunity and fairness regardless of individual differences in education (Soken-Huberty, n.d.). Traditional classrooms that focus primarily on lectures and written essays without accounting for learner variability are inadequate. Seeking social justice within education means that the level of inclusivity and diversity is actively enhanced in that environment to promote fairness and equality.

Research has found that the involvement of social justice in the education system reduces poverty and allows everyone the equal opportunity to attain a high-level education regardless of their disability or background circumstances. This opportunity enables a higher likelihood of success, and leads to psychological benefits, such as higher self-esteem and competency. This is not a free pass for success; everyone has an equal chance to succeed because an individual has to work just as hard, but unnecessary barriers are removed (Soken-Huberty, n.d.). Social justice promotes anti-bias education and teaching, according to Venkatesh (2015), but it is not enough to simply be against discrimination. To be proactive towards these issues, an all-inclusive system must be in place. The suggested approach to increase social justice is to implement Universal Design for Learning (UDL).

## **Linking Universal Design for Learning to Social Justice**

Universal Design for Learning (UDL) can promote social justice in the post-secondary education system. UDL is an approach that increases equal access and

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opportunity for all individuals, regardless of disability or circumstances. Initially, UDL was an approach proposed to facilitate learning for students with disabilities. In fact, all students demonstrate a wide range of learning styles, abilities, interests, and backgrounds; therefore, UDL is useful for all students. UDL removes potential barriers to make it equally possible for everyone to achieve success in their courses and attain a post-secondary degree while becoming an expert learner.

In the current system, Accessibility Services, and other disability related support programs in post secondary institutions, provides accommodations to students who have provided documentation of disability. Post-secondary institutions are required by law to provide accommodations for these students, but it can be a complicated process, especially during challenging times like the pandemic. An article by Loeppky (2020) features a student who speaks out about the difficulty of getting accommodations and how it is an "issue of human rights" and an "issue of access". This process can be challenging for both students and faculty, and it also excludes many students facing barriers in the classroom who do not meet the diagnostic criteria of disability; making it nearly impossible for the students to receive the help they require.

UDL promotes social justice by taking into account the needs of every student. If every post-secondary institution implemented UDL, it would eliminate the need for Accessibility Services and accommodations altogether. Education is not one-size-fits-all; the current system focuses on mitigating the specific barrier(s) each learner experiences when improvements to the entire system would make the learning experience better for everyone. Over the last couple of decades, the education system has experienced an increase in diversity amongst students and faculty; there needs to

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be a framework in place that supports diversity and enhances inclusivity (Venkatesh, 2015).

### **Benefits of Universal Design for Learning (UDL) for Students**

Universal Design for Learning (UDL) provides numerous benefits for students. Research offers evidence in many areas that demonstrate the benefits for students, and this research allows policymakers to plan accordingly for what creates an appropriate classroom environment (Abell, Jung & Taylor, 2011). Student learning processes vary

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and UDL creates classroom improvements more suitable for students with or without disabilities. For instance, UDL can increase student engagement, which the University of Calgary explains lowers the amount of pressure to track material, such as writing notes; therefore, placing more emphasis on paying attention and absorbing information (La, Dyjur & Bair, 2018). For students with diagnosed disabilities, UDL gives an enhanced opportunity for engagement, expression, and high academic performance without the need for accommodations (Schelly, Davies & Spooner, 2011). Empirical evidence demonstrates that UDL positively impacts student learning, understanding, persistence and retention (Schelly, Davies & Spooner, 2011).

Since UDL leads to higher achievement levels amongst students with and without disabilities, it has a positive psychological impact. Psychological effects from UDL may include higher self-esteem levels and positive perceptions regarding the classroom. Research demonstrates that the perception of the classroom can impact both students and faculty members. Having the perception that the classroom is fair can make them feel better about the instructor and the material (Soken-Huberty, n.d.). Sometimes, when students perceive the classroom or material as unfair, they attribute their failures to other factors such as the faculty member or classroom materials being unfair. However, when students perceive the classroom and material as fair, they are more likely to take accountability for their own failure or success (Soken-Huberty, n.d.). The perception of fairness increases the level of social justice within the post-secondary environment.

The implementation process of UDL alone can promote a greater sense of equal access and opportunity for each student. UDL enables students to have an equal

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chance to succeed regardless of ability, gender, ethnicity or any limitations. UDL can alter the post-secondary system from the current exclusivity it demonstrates and change it into an inclusive environment for all. Inclusivity is enhanced by having a diversity-welcoming climate and can strengthen the positive culture in the institution. Research that focuses on the impact of diversity demonstrates that it increases innovation and the circulation of fresh ideas (Roberge & Van Dick, 2010). Having this kind of positive impact on students will benefit the overall culture of Mount Royal University.

### **Benefits of Universal Design for Learning (UDL) for Faculty**

Research on the benefits for faculty members is limited, however the University of Calgary guide shared some of the benefits they found in a research study they published. They determined that UDL can positively impact the teaching experience since it dramatically increases students' engagement levels (La, Dyjur & Bair, 2018). When students are more engaged and interactive with the material, it makes the instructor's role more rewarding. Implementing UDL also showed a positive impact on professional relationships between peers. Instructors compared notes with each other on the methods they were using and received feedback from others (La, Dyjur & Bair, 2018). Having an improved lesson plan also motivates instructors to think more strategically about how their material can be changed to better suit student learning

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needs. Finding new ways to think about their curriculum can develop a deeper understanding of the different dimensions of the discipline they are teaching. This process may increase their enthusiasm for teaching the topic. If UDL has an overall positive impact on achievement amongst students, this will improve the reputation of the instructor as well. Students who have a better experience in class will be more likely to give the professor a positive student evaluation, reflecting favourably on them.

## **Universal Design for Learning (UDL)**

Research supporting Universal Design for Learning (UDL) has grown exponentially. Initially, Universal Design was created for environmental structures to remove barriers for individuals with physical disabilities or restrictions. For example, the inclusion of ramps for building access rather than only having stairs. Ramps can be used by able-bodied individuals as well as individuals who face mobility related barriers. UDL is an approach to remove barriers for learning similar to removing barriers in a physical environment. It is a practice that eliminates the need for accommodations through Accessibility Services and helps all students, not only those who meet a specific diagnostic criteria. UDL improves the curriculum for all students because it focuses on how each student is unique, rather than how they are the same.

UDL can be applied to education in small increments to improve a curriculum; it does not need to be applied all at once because that can be intimidating. The goals and

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strategies of UDL align with the post-secondary system, and it is the most appropriate method to support learner variability. Research demonstrates that nature thrives on diversity, and this concept can be applicable to the education system (GPRC Moodle, n.d.). If we automatically identify people based on their unique characteristics, it makes sense to have an education system that operates similarly. Expecting one kind of learning style from all students is not realistic. Comparably, one teaching style does not suit all teachers. Every student will engage and act on information differently, which helps them to process and learn more efficiently and effectively. UDL is a system that accounts for individual variances, and can make significant improvements to the quality of the education system as a whole.

## **Goals for Universal Design for Learning**

The goal of Universal Design for Learning (UDL) is to provide an equally accessible curriculum for all students. The number of students experiencing disability related barriers in the post-secondary education system has been increasing over the past several years. A report released in 2018 by the Alberta Treasury Board titled “Labour Market Outcomes of post-Secondary Graduates with Disabilities: Analysis of Graduate Outcomes Survey Data” stated that “the growth rate in students with disabilities who are accessing services (at post secondary institutions) is on average 15% per year” (p. 6). Reducing the need for accommodations can be accomplished by adding the principles of UDL. UDL creates a learning environment that is both flexible and adaptable, with the ability to provide all students the opportunity to succeed. It might seem unrealistic to meet all of the needs of a diverse group of students, however it is possible through the three principles of UDL.

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The goal of UDL is to make the classroom more flexible for everyone by responding to learner variability. Providing academic accommodations to students who provide verification of disability is a human rights issue. Incorporating UDL would remove the additional burden on students who experience disability related barriers in the learning environment. In addition, these students would not be forced to expose themselves through Accessibility Services for having a disability, and they may be more comfortable in a classroom that supports them the way it supports other students.

In a post-secondary classroom students might be experiencing a wide variety of disabilities that create barriers to their learning. For example, students may have a diagnosis like Attention Deficit Hyperactivity Disorder, a psychiatric diagnosis, or a specific learning disability. Additional obstacles might include visual, auditory, cognitive or mobility disabilities. Some students might not meet all of the criteria or symptoms of a diagnosis; therefore, they cannot receive accommodations even though they exhibit some characteristics of a particular disability. UDL provides tools in the classroom to account for individuals who experience a variety of challenges. Unfortunately, many of these students have a significantly difficult time learning in a traditional classroom. This leads to the possibility of the student not graduating which could greatly impact their future. The goal of UDL focuses on fixing the curriculum and environment, rather than trying to fix each difference of the student (Pace & Schwartz, 2008). Many statistics demonstrate that it is less likely for a student with a disability to graduate with a degree, and UDL aims to increase the number of students who graduate.

Students without disabilities also benefit from the changes generated by the implementation of UDL. For instance, the University of Calgary shared a guide that

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identifies the variety of students that can benefit from UDL (La, Dyjur & Bair, 2018). The guide explains that students with unique differences can suffer in the classroom because their different backgrounds, points of view, experiences, abilities, interests, and socioeconomic status impact how they learn. UDL increases the opportunity for all students to become expert learners, whereas the majority of students are currently novice learners in a system that does not support their full needs (Williams, 2016). It is essential to note that the focus of UDL is not to get rid of the current system but to add value through improvements, because the current system is not adequate for all learners. Giving all students the opportunity to become expert learners promotes social justice and will also benefit the workforce. An expert learner is resourceful, knowledgeable and strategic, and these are skills that will benefit the economy when these students graduate from a post-secondary institution (Williams, 2016). The goals of UDL have a more considerable impact than just post-secondary level education; it can positively impact how individuals process information in their future jobs and life experiences.

## **The Design of Universal Design for Learning**

There are many ways that Universal Design for Learning (UDL) can be used in a post-secondary classroom, and can be adopted to the teaching style of the instructor and the discipline being taught. For instance, the UDL principles utilized in a math class may be different than those used in a history class. The framework of UDL can be broken down into three main principles that cover different aspects of the curriculum. A plethora of research validates the effectiveness of the three principles used in UDL.

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According to the University of Calgary Guide, UDL has been found useful according to research in a variety of scientific fields including cognitive neuroscience, neurobiological research, environmental design, learning theory, and teaching practice (La, Dyjur & Bair, 2018). The three principles of UDL align with the brain and how it processes information; it includes the affective, recognition, and strategic networks of the brain. The three principles of UDL are multiple means of engagement, multiple means of representation, and multiple means of action and expression (CAST, 2016).

The first principle of Universal Design for Learning (UDL) provides multiple means of engagement within the classroom. Providing numerous means of engagement for learners is connected to the affective brain network, which is the “why” of learning (La, Dyjur & Bair, 2018). Different options for engagement include looking at various methods to motivate students or by encouraging them to take on assignments of their choice based on a menu of options (Morin, n.d.). Engagement is a vital aspect of classroom interaction, and it focuses on how learners become involved with the course material, instructors, and peers. Classroom engagement can be enhanced through UDL by providing clear goals and presenting flexible options. Giving students multiple means of engagement can be seen as an opportunity to foster collaboration and come up with new ideas while supporting students to take risks while trying new activities (CAST, 2016). According to CAST (2016), which is one of the forerunners in studying UDL, providing multiple means of engagement can increase the level of interest, effort, and self-regulation amongst learners. Working with different aspects of engagement within the classroom can allow learners to be actively purposeful and motivated when interacting with the fresh UDL approach (CAST, 2016).

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The second principle of Universal Design for Learning (UDL) provides multiple means of representation within the classroom. Providing numerous means of representation for learners is connected to the recognition brain network, which is the “how” of learning (La, Dyjur & Bair, 2018). Means of representation refers to how information or materials are shared in the classroom. Course concepts can be taught using a variety of platforms such as lecture, visuals, audio, videos, or hands-on activities (Morin, n.d.). Students benefit from experiencing information through different techniques and will learn more effectively. Providing different means of representation while using the UDL approach can lead to students becoming resourceful and knowledgeable learners (CAST, 2016).

The third principle of Universal Design for Learning (UDL) provides multiple means of action and expression within the classroom. Providing numerous means of action and expression for learners is connected to the strategic brain network, which is the “what” of learning (La, Dyjur & Bair, 2018). Action and expression are vital elements of the classroom; which focuses on the assessment element of the curriculum. This part of the UDL approach relates to how students interact with the material and demonstrate what they have learned (Morin, n.d.). For example, giving students the option to do a project in the form of a written essay, powerpoint presentation or oral video provides them with the freedom to complete the task in a way that is meaningful to them. These options equally demonstrate what the student has learned in the course, and gives them a choice based on their personal strengths. Some students are successful in traditional classroom methods, such as essays, but they might excel in another option or learn more through an alternate experience. When students are encouraged to express their

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knowledge in different forms through the UDL approach, they learn to become strategic and goal-directed (CAST, 2016).

It is important to evaluate and assess the implementation of UDL strategies. Evaluating and gaining feedback from students allows the instructor to see where improvements have been made and what areas still need more attention (GPRC Moodle). Clearly defining the goals expected from implementing the UDL approach can contribute to assessment after a trial semester or year, and ideally, the differences will be noticeable. An additional benefit of collecting reviews after implementing UDL principles is that it fosters open communication with students and allows them to have a voice in their education. Some research has demonstrated that informing the students about what UDL is and why the instructor is using it can give them a positive perception of the classroom and their education. For instance, the Vanderbilt University Centre for Teaching Guide shares that a positive perception of the learning environment can alter students' learning experience and result in a better learning environment (Thurber & Bandy, 2018).

## **Implementation Strategies in Universal Design for Learning (UDL)**

The implementation process for Universal Design for Learning (UDL) can be conducted in many ways and can be left to the discretion of the instructor. It does not all have to be done at once; the instructor can initiate it in increments. In fact, a faculty member at Mount Royal University might realize that they have been using some of these strategies already without being aware that it is a UDL principle. It can be intimidating to incorporate new teaching and/or assessment methods into a curriculum,

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but the benefits can be worth it. As mentioned in the design section, the three main principles of UDL consist of multiple means of engagement, multiple means of representation, and multiple means of action and expression. Each component interacts with a different brain network. These three principles enable every learner to have an equal chance to succeed in the classroom environment and have the potential to increase their level of achievement. In the reference section of this document, under UDL Applied Strategies from the Goalbook Toolkit, is a comprehensive list of suggestions that align with each of the three principles.

The following section provides examples of teaching strategies that align with each of the three principles of UDL. Firstly, multiple means of engagement includes strategies that interact with the learner's affective brain network and focuses on why they are learning. Engagement has a profound impact on the students' interests and motivations when working with the material, so it is important to use strategies that aid this process. The UDL Applied Strategies Goalbook Toolkit lists several different techniques to increase engagement. Some are more appropriate for a post-secondary environment than others, so it is essential to keep that in mind. One method to engage learners in the course material is to provide a menu of options. A menu of options is a list of activities that a student can choose from when asked to demonstrate their understanding of the material or a skill they have learned (UDL Applied Strategies). This method allows students to utilize their strengths and will enable them to be comfortable interacting with the materials in class, resulting in a better learning experience. The menu of options might consist of demonstrations through written, oral, visual, kinesthetic or reflective communications or activities (UDL Applied Strategies).

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An additional strategy that is useful for engagement in post-secondary education is allowing opportunities for a student to self-monitor. Self-monitoring enables the student to actively reflect on their learning process or complete an assessment based on their academic goals (UDL Applied Strategies). Before the self-monitoring process, there might be a checklist the student creates, which clearly states the educational goals they have for themselves. Student awareness regarding their academic progress helps contribute to becoming an expert learner and improves future self-monitoring during other tasks.

Secondly, UDL methods promote having multiple means of representation in the classroom, which interacts with the student's recognition brain network to help strengthen what they are learning. UDL aims to provide an inclusive learning environment for people with a variety of visual, auditory, cognitive or motor disabilities. For instance, supplying transcripts for auditory material will support all students and ensure that they have an equal opportunity to understand the course material (UDL Applied Strategies). Turning on captions during a video or audio recording will help students who struggle with auditory processing. In some cases, it might also be helpful to have a note-taker post a transcript of each lecture.

Some students have difficulty seeing visual material and would benefit from auditory options. For instance, having a listening station in class can help represent material differently. A listening station can be a spot in a class where groups or partners take turns listening to verbal explanations of the material taught in class (UDL Applied Strategies). The listening materials could also be provided outside of class too, such as providing all students with recorded lectures online. These are two suggestions that can

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create a drastic difference for some students in the classroom and result in greater success, and will account for students that struggle with this barrier in the classroom.

Lastly, having multiple means of action and expression in the classroom interacts with the strategic brain network, which focuses on how students are learning. When it comes to how students are learning, they must have an outlet to express how they are processing the course and share their thoughts about the material. A strategy referred to as the parking lot can allow students to provide feedback both regularly and anonymously. It is a space in class provided by the instructor to let students share ideas for improvements or ask questions anonymously. The parking lot can be an area in the classroom divided into organized sections based on questions, concerns, ideas for improvements, and other suggestions (UDL Applied Strategies). This process gives students a voice to communicate comfortably and anonymously in the classroom.

Anonymity during classroom discussions can be useful for students with language or confidence barriers (UDL Applied Strategies). There is an increasing number of technology options that enable privacy during classroom discussions. For example, Kahoot is a game-based learning platform that allows students to answer questions based on study material anonymously. Kahoot is a UDL friendly learning tactic to incorporate in the classroom; in fact, some faculty at Mount Royal University already use it.

## **Universal Design for Learning (UDL) in the Post-Secondary Classroom**

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Although the principles of Universal Design for Learning (UDL) are meant for all ages, it can be tailored to post-secondary systems. Implementing UDL in post-secondary classrooms helps students find more enjoyment and excitement out of attending university while also increasing achievement levels. As stated previously, higher levels of achievement helps students build self-confidence and improve their skills as competent learners. Currently, Mount Royal University, and the rest of the world, is in a time of significant change and challenges due to the Coronavirus pandemic. The pandemic has forced changes in education systems at all levels. This situation has created an opportunity for widespread use of technology in remote learning. This is an example of the real world validation of UDL.

### **Universal Design for Learning (UDL) in Remote Learning**

Coronavirus has forced learning to go mostly online. This has been a challenging adjustment for many people, especially for students who already experience disability related barriers in learning or who have difficulty learning online. During online learning, engagement is significantly different from in-person learning. Engagement plays a prominent role in facilitating student learning by increasing interest in the course material. According to scholars Hollingshead & Carr-Chellman (2019), classroom engagement is based on behavioural, cognitive and emotional components. Research argues that all three components must be present for teaching methods to be effective.

UDL principles support all three components to create an opportunity for enhanced engagement in online learning. Since online learners are not physically present with the instructor and materials in the classroom, UDL supplies other methods

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to increase engagement. For instance, behavioural engagement can be conducted through interactive synchronous sessions. Cognitive engagement can be experienced by having the opportunity to reply to questions that the instructor asks through online discussions or games. Lastly, emotional engagement can be achieved by having options for group projects or other creative activities. Remote learning environments are often difficult because there is more alienation, and it can be difficult to form relationships with both the instructor and peers. Recent research regarding education during the pandemic has expressed concern that the methods used in regular classrooms are not adequate for this situation (Rappolt-Schlichtmann, 2020).

Successful remote learning offers both flexibility and adaptability, which is why UDL is the most reliable approach. UDL provides a framework that acknowledges diversity and unique differences among students. Online learning can focus on the three principles of UDL to help navigate the unknown. Each of the three principles can be applied in a similar way that was suggested previously, but some might need to be altered to be better suited for online learning. For multiple means of engagement, a menu of options can be provided to students to determine how they want to interact with the material. They could choose to write a paper, submit a video, or create a short play or story to demonstrate their knowledge of the topic. Multiple means of representation for synchronous sessions can use a note taker to share notes with all students, so students with auditory processing impairments will have equal access to the material. Lastly, using Kahoots as a means of action and expression by providing an anonymous discussion response works as well online as it would in class.

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Implementing UDL during the pandemic can be challenging, however, the University of Guelph has produced a toolkit of the best practices for teaching online. The guide mentions four simple steps, which includes design, development, delivery, and evaluation (“Best Practices for Online Learning”, n.d.). The first step is to design a course blueprint and determine the best place to incorporate UDL principles in the classroom. While creating the blueprint, it is suggested to consider the quality standards as a guide and exceed what is expected. The development stage is where the blueprint is used to guide the choice of instructional material that align with the newly implemented UDL principles and strategies. The instructional material might include resources, instructor notes, lecture notes, activities, assessments, and media sources to teach the material. The delivery stage executes and delivers the instructional plan for the curriculum. Lastly, the evaluation or assessment reviews how the students performed and what kind of reaction they had to the UDL principles. The reviews and assessments can help determine where improvements need to be made in the future. The University of Guelph suggests this process be used regularly to ensure that UDL is implemented smoothly and that the curriculum does not risk becoming stagnant or outdated (“Best Practices for Online Learning”, n.d.).

### **Closing Notes**

On a closing note, the world is constantly evolving and adapting to change is an essential survival skill. Similarly, the education system is rapidly changing, and UDL provides the necessary flexibility to keep up with changing student expectations. Embracing new changes can be beneficial and can give many organizations a competitive edge, such as a university leading the changes to curriculums based on

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UDL. Change can promote organizational survival, innovation, and diversity as society evolves (Wisdom for Life, 2020). Research verifies that UDL makes education more socially just. Social justice is an important concept that is gaining attention in both research and society, and it significantly aligns with UDL. UDL in the post-secondary system promotes social justice and encourages the development of an education system that honours and values each unique student and provides them every opportunity to achieve their highest potential.

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