Manitoba
Remote Learning

FRAMEWORK

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Manitoba

Contents

Introduction

All students deserve to feel a sense of belonging in a learning community where their value and worth as contributing members are realized and acknowledged. All students deserve a chance to feel efficacious in their ability to accomplish challenging tasks and achieve their goals—that is, they should have the opportunity to succeed. Students also deserve to have their voices heard in order to foster a sense of learner autonomy and independence. These aspects of their education are critically important to students' success in both face-to-face and virtual learning environments. It can be challenging to ensure that *all* students develop the skills, competencies, and dispositions to be independent, self-directed online learners, given the diverse strengths and needs of the students in our educational system. Unfortunately, issues of inequity exist and, therefore, in order to meet the needs of *all* students, there is a need to achieve greater consistency in implementing the Manitoba Education Standards for Remote Learning in schools across the province (see www.edu.gov.mb.ca/k12/covid/support/remote_learn_standards.html). Ensuring equitable outcomes for all students requires a concerted and cohesive provincial effort. These are the reasons why a provincial framework for remote learning is needed at this time.

> Success in schools lies in the strength of believing that, through their combined efforts, principals and their faculty can accomplish great things for the learning lives of students (Hattie, Donohoo, & DeWitt, 2020).

How can greater consistency and more equitable outcomes be achieved? Success in schools lies in the strength of believing that, through their combined efforts, principals and their faculty can accomplish great things for the learning lives of students (Hattie, Donohoo, & DeWitt, 2020). Collective efficacy is the shared conviction that educators make a significant contribution in raising student achievement. When a school staff believes that they have what it takes to influence student outcomes positively, measurable improvements are realized. Classroom educators can work together to find ways to implement evidence-based strategies for online learning and teaching, and to realize collective impact. System and school leaders can support teachers, foster a sense of collective efficacy, and create the conditions necessary to achieve cohesion within and across schools.

> "It is important to remind teachers that it's not the time in class, nor the medium of delivery, but *what they do with the time they have* that really matters" (Hattie, Donohoo, & DeWitt, 2020).

A provincial framework outlining foundational beliefs and guiding practices for the Manitoba Remote Learning Support Centre has been created to help build common understandings and support the implementation of evidence-based practices for online learning and teaching. Included are practical strategies for

a)   establishing a sense of belonging and community in an online environment

b)   increasing student efficacy and teacher efficacy for online learning

c)   increasing student ability to be independent, self-regulated learners

These principles apply to all students of all abilities and reflect Manitoba's Philosophy of Inclusion, which states:

> " Inclusion is a way of thinking and acting that allows every individual to feel accepted, valued, and safe. An inclusive community consciously evolves to meet the changing needs of its members. Through recognition and support, an inclusive community provides meaningful involvement and equal access to the benefits of citizenship." (See www.edu.gov.mb.ca/k12/specedu/aep/inclusion.html.)

Teachers are encouraged to consider the principles of universal design as they develop plans to meet the needs of their diverse student population. (For more information on the principles of universal design, see www.edu.gov.mb.ca/k12/specedu/programming/universal.html.)

Why? All students deserve to feel a sense of belonging, self-efficacy, and autonomy in an environment that is conducive to learning.

How? Together, educators can discover ways to implement evidence-based strategies for online learning and teaching, and they can realize a collective impact.

What? The Manitoba Remote Learning Framework outlines strategies for engaging, supporting, and challenging students in an online environment.

Three Guiding Principles

The following guiding principles for the Manitoba Remote Learning Support Centre provide the philosophical foundation for learning and teaching through online approaches. These guiding principles reflect a commitment to learners and highlight the importance of creating authentic, relevant, and inclusive learning experiences for students based on shared understandings about how they learn best. They also provide a framework to support system and school leaders and teachers with the consistent implementation of evidence-based strategies in a way that will lead to better outcomes for *all* students.

> These guiding principles reflect a commitment to learners and highlight the importance of creating authentic, relevant, and inclusive learning experiences for students based on shared understandings about how they learn best.

Guiding Principle #1

Student learning and well-being are enhanced when students feel like they belong to a community in which everyone is valued, accepted, and supported.

Underlying assumptions:

- Positive teacher-student relationships are critical to student success and can be cultivated and maintained online.
- A sense of belonging and community can be achieved through virtual means.
- Parents/caregivers are integral extended members of online learning communities.
- Online class members are comfortable seeking help and exposing both what they know and don't know for the purpose of gaining deeper understandings.

Guiding Principle #2

Student learning and well-being are enhanced when students have a sense of efficacy in their ability to demonstrate progress and achievement in an online environment.

Underlying assumptions:

- It is important to instill a sense of efficacy for online teaching and learning because improved outcomes result when *everyone* in an educational setting shares the belief that, individually and collectively, they can have an impact on positive change— regardless of their circumstances and/or specific challenges.

- Teachers can utilize evidence-based practices to enhance students' efficacy for online learning while, at the same time, increasing their own efficacy for online teaching.
- High-expectation, trauma-informed practices and inclusive mindsets and values are demonstrated in teacher-student interactions, tasks and assignments, and assessment strategies.

Guiding Principle #3

Student learning and well-being are enhanced when students feel a sense of autonomy and responsibility fostered through student voice, self-regulation, and metacognition.

Underlying assumptions:

- Students have opportunities to express their voices, and teachers will use information gathered from students to inform their online instruction.
- Through modelling and support from the teacher, students can learn self-regulation strategies in an online learning environment.
- Students can gain knowledge of themselves as learners in order to improve their online learning experiences.
- Exposing students to strategies that facilitate performance while engaging them in critically analyzing the effectiveness and efficiency of strategies can help to support student metacognition in an online environment.

Inside the Framework

This document was created for teachers, school leaders, and system leaders for the purpose of highlighting evidence-based practices for online teaching and learning. Below is a brief description of what readers will find inside the Manitoba Remote Learning Framework.
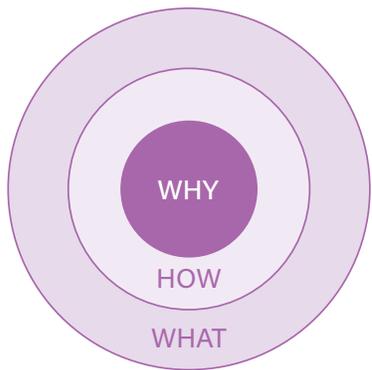
Start with Why

Figure 1. Sinek's (2009) Golden Circle

Sinek (2009) noted that "It is not just WHAT or HOW you do things that matters; what matters more is that WHAT and HOW you do things is consistent with your WHY" (p. 166). The idea behind Sinek's Golden Circle (Figure 1) is that many organizations and individuals work from the outside in, they describe WHAT and HOW without being clear with regard to WHY. Sinek (2009) noted that successful organizations and individuals, however, start with WHY. The WHY represents the purpose, cause, and belief about WHY the organization exists.

The guiding principles, along with the accompanying underlying assumptions on which this provincial framework is designed, represent the WHY. Not only are the guiding principles based on research regarding how students learn, they represent the reasons why educators do what they do every day. The guiding principles represent Manitoba educators' shared purposes to instill in students a sense of belonging, self-efficacy, and autonomy so that they reach their full potential regardless of whether they are learning at school or while at home.

HOW Manitoba educators will accomplish this is through collaborative efforts, joint problem solving, and collective efficacy. Strategies for building collective teacher efficacy have been incorporated throughout this document and labelled as "efficacy-enhancing opportunities." Readers are encouraged to pause and consider ways to strengthen both their individual and collective efficacy as they implement the evidence-based strategies contained in this resource. When teachers share a sense of collective efficacy, it results in quality implementation of evidence-based strategies (Donohoo & Katz, 2020). Fullan (2015) also noted that a sense of efficacy is a contributing factor in the successful implementation of policy.

Finally, the WHAT are the evidence-based strategies that follow. For each guiding principle, readers will find 10 specific strategies that can be utilized in practice. As noted earlier, these principles apply to all students of all abilities. The strategies are adaptable for different grades and teachers can determine together the developmental and language adaptations that need to be considered based on the students in their classes. Teachers can also consider how to adapt the strategies for the whole class, with groups of students, and with individual students. Readers are encouraged to purposefully select strategies based on their

student learning needs, try them in practice, and determine, along with their colleagues and with support from school leaders, how to achieve quality implementation. As noted by Hargreaves and Fullan (2012) "successful and sustainable improvement can never be done *to or even for* teachers; it can only ever be achieved *by and with* them" (p. 45).

Educators' Voices

Vignettes based on the experiences and advice of Manitoba educators have also been incorporated throughout this resource. Manitoba educators are embracing the new reality and figuring out how to realize equitable and effective outcomes, regardless of the medium through which instruction is taking place.

The Research and Effect Sizes

The guiding principles and strategies contained in this document are informed by educational research. There were very few studies available, however, that examined the learning and teaching experiences of students and educators during the current pandemic. A number of important implications from pre-pandemic online and distance learning studies have been incorporated in this resource. In addition, while some studies included students in upper elementary grades and high school, many of the studies referenced in this document were of students enrolled in post-secondary education simply because they were more abundant and readily accessible. While less is known about online learning for younger students, educators are encouraged to consider the research findings and use their professional judgment to determine what might be applicable and transferable to their practice.

In addition to research evidence, insights from working papers were incorporated, as well as literature reviews that outlined what students, parents, teachers, educators, and policy makers should be considering as they implement learning strategies online and work toward achieving greater equity in the upcoming months.

It is also important to note that seminal studies that provided foundational understandings regarding the critical concepts contained in this framework are referenced throughout. Early studies by Bandura (1977), Johnson and Johnson (1999), Pintrich (1999), Rosenthal and Jacobson (1968), Schunk (1985), and Weiner (1974) are cited within this document. Even though many of these studies were conducted decades ago, they are still relevant today. The findings from these earlier studies continue to influence educational practices and help to inform thinking about online pedagogies.

Finally, where the effect size for particular strategies was available, it has been called out within this document. An effect size emphasizes the difference in magnitude of given approaches for the purpose of comparison. The larger the effect, the more powerful the influence. An effect size of 0 reveals that the strategy had no effect on student achievement. Most researchers suggest that an effect size of 0.20 is relatively small, an effect of 0.40 is medium, and an effect size of 0.60 is large. Readers should keep this in mind as they consider and select for use the various strategies contained in this framework.

Strategies for Each of the Three Guiding Principles

Guiding Principle #1

Student learning and well-being are enhanced when students feel like they belong to a community in which everyone is valued, accepted, and supported.

1. Practise self-care.
2. Build awareness of the benefits of community.
3. Interact with students in ways that promote personal connections.
4. Structure opportunities for students to learn more about each other.
5. Design assignments that facilitate discussion amongst students.
6. Incorporate rituals.
7. Utilize cooperative learning strategies.
8. Gain awareness of the research regarding parents'/caregivers' experiences and support parental involvement.
9. Bring the outside in and the inside out.
10. Acknowledge and respond to the effects of trauma.

Guiding Principle #2

Student learning and well-being are enhanced when students have a sense of efficacy in their ability to demonstrate progress and achievement in an online environment.

1. Convey high expectations coupled by positive reassurance.
2. Follow the Goldilocks Principle.
3. Help students build evidence of success.
4. Foster opportunities for students to observe successful peers.
5. Help students understand the value of effort.
6. Help students become mindfully aware.
7. Engage students in setting proximal goals.
8. Share stories of how efficacy beliefs help people and teams overcome setbacks.
9. Celebrate success.
10. Maintain teacher self-efficacy and collective teacher efficacy.

Guiding Principle #3

Student learning and well-being are enhanced when students feel a sense of autonomy and responsibility fostered through student voice, self-regulation, and metacognition.

1. Provide students with voice and choice.
2. Engage students with learning intentions and success criteria in meaningful ways.
3. Provide effective feedback.
4. Provide opportunities for students to self- and peer-assess what they do and do not know.
5. Teach and reinforce effective learning dispositions.
6. In a developmentally appropriate way, provide opportunities for students to show their thinking.

Help students to self-regulate as developmentally appropriate.

7. Help students self-regulate their environment.
8. Help students self-regulate their motivation.
9. Help students to self-regulate their behaviour.
10. Help students to self-regulate their cognition.

Guiding Principle #1

Student learning and well-being are enhanced when students feel like they belong to a community in which everyone is valued, accepted, and supported.

> "Alone we can do so little; together we can do so much."
> – Helen Keller

WHY

Research demonstrates that students' motivation, perseverance, and academic success correlate with feelings of belonging (Osterman, 2000). Students experience belongingness when they feel connected to others and see themselves as a member of a community. Fostering a strong sense of community is vital to the success of all students in a face-to-face environment, and it is an equally necessary precondition for online learning.

> Students experience belongingness when they feel connected to others and see themselves as a member of a community.

There are numerous benefits resulting from community building, as demonstrated through research. In a study examining the process of online community building, Brown (2001) noted that levels of community experienced by students were closely linked to levels of engagement in the class. Thormann and Fidalgo (2014) examined students' experiences about how community building and interactions should be structured in online classes. The researchers found that, when provided the opportunity to learn from each other, students gained appreciation for the diverse viewpoints of their classmates. They also found that online community building increased the quality of student work. Finally, Wilson, Cordry, and King (2004) noted that fostering community online resulted in greater student satisfaction.

HOW

The process of community building in an online learning environment requires a concerted effort on the part of teachers. Brown's (2001) research demonstrated that, even though it took a longer period of time to create bonds of friendship and camaraderie in an online environment than it typically does in a face-to-face situation, there are certain strategies that can be put in place that can positively affect the formation of an online learning community.

WHAT

Below are evidence-based strategies that have been gleaned from studies examining how community building occurs in an online environment. Teachers are encouraged to consider how to utilize these strategies in their daily practice.

1. Practise Self-Care

In order to make meaningful connections with students, teachers need to first take care of their own well-being. When teachers are feeling their best, both physically and emotionally, they are more resilient and better equipped to deal with stress. Maintaining physical and emotional health will help teachers realize better productivity. Also, by taking the time to care for themselves, teachers become better caretakers for others. In addition, the teacher's state of mind gets transmitted to their students, so it is important to nurture positive emotions within.

Research on the effects of pandemics, however, demonstrates negative psychological consequences, including increased stress (Bai et al., 2004) and anxiety (Bults et al., 2011; Jones & Salathé, 2009). As teachers are required to adapt quickly to new schedules and different ways of teaching, it is perfectly normal that stressors will arise. In environments where there is ambiguity and uncertainty, educators' personal concerns become more intense. For example, teachers might be thinking, "How much of my time is online teaching going to require?" or "What will I need to do to prepare, and how will this shift to online teaching affect my personal life?". These types of concerns are completely legitimate. In fact, research (Hall & Hord, 2015) in schools demonstrates that most change processes begin with almost everyone "having more intense informational and personal concerns from the very beginning" (p. 141) and that teachers' personal concerns are often related to uncertainty about what will be expected and self-doubts about one's ability to succeed with the new way. What is important to note is that while it is perfectly normal for personal concerns to become intensified, over time, with self-care, support, encouragement, and the recognition of small successes, the stress and anxiety that are an inevitable part of the change process will be alleviated and teachers' efficacy for online teaching will increase.

Some ways in which self-care can be practised include

- regularly scheduling breaks and meals
- turning the computer off during scheduled breaks
- increasing exercise and incorporating routine muscle-stretching activities
- being aware of negative self-talk and purposefully shifting perspectives
- engaging in activities that promote calm
- seeking social support and maintaining strong connections with colleagues
- identifying short-term goals and taking the time to pause, reflect, and share positive feelings that ensue when goals have been met

Efficacy-Enhancing Opportunity

Positive feelings and emotions are a source of individual and collective efficacy (Bandura, 1977). Individuals and teams draw upon the emotional reactions (also known as affective states) that they have experienced in the past when forming beliefs about what they are capable of accomplishing in the future. Positive emotions support teams' willingness to tackle difficult challenges. When teams are successful in regulating their responses to negative emotions, they strengthen their resilience.

As teachers continue to engage in remote learning and teaching and implement the strategies contained within this provincial framework, they are encouraged to be aware of the positive feelings experienced when meeting with success. Educators are encouraged to share small wins with team members and explain how each success made them feel.

2. Build Awareness of the Benefits of Community

Students often do not realize that they can create the opportunity to learn from each other and gain help and support beyond what their teacher can provide. Brown (2001) noted that community building happens more readily when students understand how it can benefit them and when they are given the background, tools, and expectations for community participation. Brown's (2001) research concluded that when the perceived need is created, students will want to fill the need.

Build awareness of the benefits of community by

- having early discussions of a virtual classroom community and its benefits
- involving students in co-creating guidelines that speak to creating and maintaining an inclusive online community (e.g., Prompts might include "What does a truly inclusive community look like for our class?" and "What can each of us do to achieve our shared vision?" Once these guidelines are established, be sure to model them and correct students for occasional non-inclusive and/or disrespectful comments)
- referring to the class as "us", "we", and "our"
- conveying that being part of the virtual community is an expectation (When students think it is an expectation, they will work harder to meet it.)
- periodically asking students to note what they have done to contribute to the virtual community, what others have done to help them feel more included and connected, what this has accomplished, and what still needs to be attained.

To encourage participation in the community, teachers can

- explicitly share time, participation, and accountability expectations while being aware of and empathic to students' individual circumstances (e.g., access issues, lack of functionality in regard to different electronic devices, etc.)

- ensure that students are aware of the expectations for student participation regarding real-time online instruction and independent work outlined in *Manitoba Education Standards for Remote Learning*
- define and discuss what active online participation looks like and how it can be achieved
- ensure that students are aware of accountability expectations and help them to develop an understanding of what accountability entails with regard to their responsibilities as an online community member

Vignette

"I was asked to facilitate an online lesson about Sharing Circles with a class I'd never met. I had no idea about how it would go because a Sharing Circle relies so much on physically being together in a circle—to talk about sharing and community building. I decided to begin with a smudge and explained that I would tell them what I was doing, since I couldn't offer it to them. I told them they could do it along with me if they wanted, and they could think of themselves as they did. Some of the children recognized my bowl and my sage, and those that did went and brought theirs, and their parents appeared in screens to light the medicines. And we smudged together and shared what we had been taught. We talked about how it would be if we were all together—how we could smell the sage and pass a feather or stone, and how we would all see each other, listen to each other, and support each other. From there our Sharing Circle unfolded organically, as it should—all voices sharing bravely, each of us a teacher."

Tracey Laing
Indigenous Student Support Teacher
Fort Richmond, Acadia, and Dalhousie Schools
Pembina Trails School Division

3. Interact with Students in Ways that Promote Personal Connections

Hattie's (2019) research synthesis demonstrated that **teacher-student relationships** has an effect size of **0.48**

Research demonstrates that frequent interactions between the teacher and the students is a key component in creating virtual learning communities (Swan, 2003; Thormann & Fidalgo, 2014). Feelings of belonging are built by fostering teacher-student relationships through meaningful interactions. There are many ways that teachers can promote personal connections by interacting with students in a virtual environment. Below are a few ideas for consideration.

Promote personal connections with students by

- sharing morning announcements and acknowledging birthdays
- disclosing something personal of a vulnerable nature (Note: Use your professional judgment here and be careful with any explicit examples.)
- providing students with a glimpse of your personal side by placing personal items (e.g., artwork, books, awards, etc.) within their view
- addressing students by name, directly referring to their ideas, and inviting them to expand on ideas
- modelling inclusive language
- having your live video on and encouraging students to keep theirs on as well
- paying attention to how you greet the students and managing their arrivals in ways that will make them feel welcomed
- starting online sessions with "connections" activities (e.g., ask students to select a word that demonstrates how they feel and type the word in the chat window, or share a story related to the learning intention)

Vignette

"Our online learners are staying connected to our class by meeting daily via a video platform. The amount of time they are virtually spending with us is giving them equal opportunities to share, comment, or express their opinions. Their presence is continuously acknowledged during live lessons. Sharing my screen through our virtual platform gives students the opportunity to view what the rest of the class is viewing in real time. Online learners virtually access the same lesson materials we use in class and submit completed work online. In some cases, we have printed their submissions, so it is included in the class bulletin. Our goal is for students to feel connected and included while creating equal opportunities."

Mikayla Harrison
Grades 2–3 Teacher
Beaumont Elementary School
Pembina Trails School Division

4. Structure Opportunities for Students to Learn More about Each Other

Feelings of belonging are also built by fostering relationships amongst students and their peers.

Swan (2002) found that interaction among classmates predicted students' perceptions of satisfaction and learning in online classes. Brown (2001) found that helping to facilitate early discovery of commonalities among students helped create feelings of acceptance

in a virtual classroom. Teachers can establish and support an online climate that fosters belonging for all students by providing meaningful opportunities for them to express themselves and get to know each other.

> Feelings of belonging are also built by fostering relationships amongst students and their peers.

Structure inclusive opportunities for students to learn more about each other by

- encouraging students to personalize their backgrounds and offer a glimpse of their personal side by placing personal items (e.g., artwork, books, awards, etc.) in everyone's view

- beginning with "icebreakers" (e.g., using an online collaboration tool such as a whiteboard or Padlet, students list "hopes" on one colour sticky note and "fears" on a different colour, organize them, and engage in a discussion)

- designing "getting to know you" assignments, such as the following:

  - establish small groups and challenge them to find four or five things they have in common, and then share something unique or special about themselves; when reconvening as a large group, have the students share the commonalities

  - ask students to post two or three links that reflect their interests and hobbies, and have the other students guess each other's interests and hobbies

- encouraging students to address each other by name

Vignette

"My students range from Grades 4 to 8 (in literacy levels, the range is much greater) and we meet as a whole group a few times a week. We generally use this time to talk about visual texts (i.e., images/photos, infographics, photo essays, etc.). These discussions usually lead into quick-writing. In early weeks, we use this time to share about ourselves as we generate ideas for writing (e.g., creating "likes/dislikes" charts, "self-portraits of our battle scars," and positive/negative life event graphs). Through these activities, we have been getting to know each other. We have also been passing a question around each morning when we meet (e.g., "If you were an animal, what animal would you be?"). I ask the question to one student who then passes it on to another student, and so on, until it comes back to me. We are mindful to use each other's names as we pass the question on. We have also done some fun polling activities (e.g., raise your hand if you have [*dyed your hair*], [*had an allergy*], [*pets*], [*ever spent a night in the hospital*], [*moved from one city to another*], etc.)."

Tamara Franz
Literacy Coach
Border Land School Division

5. Design Assignments that Facilitate Discussion amongst Students

Hattie's (2019) research synthesis demonstrated that **classroom discussion** has an effect size of **0.82**

Participation in discussions with teachers and their peers has the potential to enrich students' online learning experiences. In a study that examined best practices in Kindergarten to Grade 12 virtual schools, DiPetro, Ferdig, Black, and Preston (2008) noted that when teachers encouraged and supported communication among students, meaningful connections were made and positive social climates resulted. Bender (2003) noted that online discussions allowed students to share rich and deep perspectives, and that perceived psychological distance was reduced when students participated in online discussions.

Online discussions can happen both synchronously and asynchronously, and/or either verbally or by using written communication. There are important considerations to take into account when determining how to best structure opportunities for students to engage in meaningful online discussions that will assist them in gaining essential understandings. For example, since written communication is more permanent than verbal communication, it makes peers' ideas more easily accessible. However, when communicating through writing, it is easy to misinterpret messages. In addition, relying too heavily on written communication can become problematic for some learners who may need to acquire communication strategies that are relevant to text-based online environments. Students who experience difficulties in reading comprehension and expressive writing will need additional support. Also, since English language learners' oral language development is heavily reliant on hearing language as it is spoken, they will need frequent opportunities to hear the English language modelled. Knowing individual students' strengths and needs will help teachers in determining the best approaches to take.

In addition to knowing their learners well and designing opportunities for verbal and/or written discussion with students' strengths and needs in mind, teachers could also consider the following strategies to maximize student participation and cognitive engagement in online discussions:

■ engage students in developing specific guidelines for online discussions

■ encourage participation with positive and specific feedback

■ teach students conversational skills that foster critical thinking and content understandings (e.g., how to elaborate and clarify, how to support ideas with examples, how to synthesize, using questioning and paraphrasing, and building on/challenging each other's ideas in an online environment)

■ assign students specific roles and responsibilities in an online discussion (e.g., facilitator, timekeeper, mediator, reporter, etc.)

■ divide students into diverse groups and providing discussion prompts

- use tools that allow for verbal asynchronous conversations (e.g., Voxer)
- provide the appropriate amount of think time and/or writing time for students to reflect on their thoughts and generate ideas prior to engaging in an online discussion
- provide sentence starters for students who benefit from additional support (e.g., "I agree with what ____ said because _____.")
- integrate multimedia and provide rich prompts
- use protocols to maximize equal voice and participation (e.g., Penny for Your Thoughts, Virtual Gallery Walks, etc.)
- seek feedback (e.g., students' perceptions about online classroom discussion) and use that information to improve students' experiences

Vignette

"In planning meaningful activities for Grade 5 students to engage in discussions with their peers during remote learning, I found that learners were very successful with open-ended math tasks. When math problems focused not on an 'answer,' but on reasoning and discussion to defend a position, learners were provided with the opportunity to connect with one another, explain their thinking, and participate—in some cases, to a greater extent than they would have in a live classroom environment. Students also gained confidence in their abilities to communicate mathematical thinking in a variety of ways (through writing, diagrams, and other visual representations). Student contribution became more equitable in many ways, as conversations remained open online indefinitely. Learners were able to revisit conversations, revise their thinking, and process information at their own pace."

Julia Penner
River East Transcona School Division

6. Incorporate Rituals

Online learning communities are built on trust. Besides modelling authenticity and their own vulnerability, teachers can build trust by facilitating online rituals with their class. Nicholas Hobson (2017)—a researcher at the University of Toronto—and his colleagues recently conducted experiments to measure the impact that rituals have on people. One important conclusion from this research was that ritual experiences change how people interact with each other, especially when it comes to the amount of trust they extend to others.

Rather than wait for rituals to emerge in a virtual learning environment, teachers can deliberately create social moments. While symbolizing what is important in a community, rituals help students relate to each other, and relationships are built through celebration and/or the recognition that sometimes things can go wrong.

Incorporate rituals in an online class by

- identifying occasions that deserve some form of personal or social ceremony, and then holding a ceremony online
- creating a pledge (along with the students) and engaging students in reciting it as a regular routine
- opening the day with a morning intention prompt (e.g., Ask students to reflect on "What good will I do in our online community today?")
- closing the day with an afternoon prompt (e.g., "What good did I do in our online learning community today?")
- opening each day with a positive quotation and facilitating a whole-class discussion about the quotation, or grouping students in pairs, or having each student share a one-word response
- focusing on gratitude by asking students to identify two or three things they are grateful for and providing opportunities for students to share their thoughts and ideas

Vignette

"In the Early Years, we all love to have a chance to share and talk! The online platform gives me the opportunity to teach students to take turns and listen to one another via the "hands up" icon and mute button. Each morning when we gather online as a class, we sing "O Canada" and then take turns sharing something about ourselves or our day, and we show our classmates items that are special to us. Most students in remote learning have been isolated in their home since the spring, and being "in class" together online each weekday gives them a chance to develop a class community. Students are coming to meetings before the session starts and chatting with each other like they would on the playground at school. At the end of our day together, I have had several students ask to stay online and work while I am doing my prep. When I was away sick the other day and we did not meet virtually, I had several complaints from students that they missed being with their friends."

Diane Doerksen
Westman Remote Learning Consortia
Brandon School Division

7. Utilize Cooperative Learning Strategies

Hattie's (2019) research synthesis demonstrated that **cooperative learning** has an effect size of
0.40

There are many benefits to cooperative learning. Cooperative strategies help in making students feel connected and engaged while providing a way for learners to enter into communications with each other virtually. When students are required to teach and learn from each other the essential understandings based on the learning intentions, it increases retention. Furthermore, when cooperative tasks are structured to promote individual accountability and positive interdependence, individual student efficacy and collective efficacy are enhanced.

Five Elements of Cooperative Learning

The most basic elements of pillars of cooperative learning, according to researchers Johnson and Johnson (2017), include the following:

1. Individual accountability
2. Positive interdependence
3. Promotive interaction
4. Interpersonal and small-group skills
5. Group processing

Online cooperative learning doesn't happen spontaneously. It requires planning and intentional teaching, and it is used as developmentally appropriate. It also requires the right tools to ensure that student participation is smooth and simple. Gradel and Edson (2011) examined how to mesh technology-enhanced learning with cooperative learning pedagogy and offered suggestions on start-up strategies.

Effective implementation strategies identified by Gradel and Edson (2011) included

- starting small and using cooperative learning smartly (e.g., "systematically, for learning tasks that make sense, and sufficiently often while not overusing it" (p. 99))
- keeping groups small (e.g., three to four students per group) and minimizing homogeneous groupings (especially ability grouping)
- starting with what teachers want students to do and then selecting the appropriate online tools

- doing effective frontloading (e.g., help groups understand how to communicate and which tools to use)
- creating opportunities for students to lead (building on their strengths and talents)
- maintaining a "support toolbox folder" and asking students to help grow it

> Finnegan (2017) noted that cooperative learning tasks may be difficult for students with "below-the-surface" challenges such as anxiety, autism, or other issues that interfere with effective social interactions. Teachers can scaffold opportunities for students to learn how to work with each other.

To ensure learner success, teachers can consider the following:

- teaching students the skills for effective online cooperation and communication including turn-taking, planning, and negotiating
- having teams draw up a "team contract" in which they define roles and responsibilities
- asking teams to ensure that labour is equalized within their task-specific roles
- asking students to consider potential barriers and conflicts to online cooperative work and having them determine solutions to potential issues
- monitoring group activities closely

Hattie's (2019) research synthesis demonstrated that **teaching communication skills and strategies** has an effect size of **0.43**

- engaging students in group processing (e.g., Ask students to give each other feedback on how they worked together virtually. What did your peers do well and what do they need to work on?)
- leveraging different technologies (e.g., Google docs or slides allow students to simultaneously work on a project from multiple devices and utilize online spaces that allow for small-group discussion)

Based on the research of Johnson and Johnson (1999), Gradel and Edson (2011) also recommended using different grouping patterns as part of the ongoing use of cooperative learning in an online environment. They described three types of groupings and their purposes below:

Informal groupings are groups doing work that can take a few minutes to a class period or part of a day. Online, this can be an informal interchange with someone else in a blog or Wiki discussion. They are used to check for/process understanding, focus attention, or to get closure.

Formal groupings typically last several days or weeks. These groups are designed to ensure that the five elements of cooperative group structures are in place, and typically involve completing a complex assignment.

Base groups are long-term and are built to give students structure and support. They often last for a semester or a full academic year. We see this done well in face-to-face situations when students sit in clusters and have specific work that they accomplish each day or frequently. Online, these can be assigned teams that check in with each other routinely and/or do routinely assigned work together (p. 200).

8. Gain Awareness of the Research Regarding Parents'/Caregivers' Experiences, and Support Parental Involvement

Hattie's (2019) research synthesis demonstrated that **parental involvement** has an effect size of **0.45**

Parents and caregivers are vital partners in education and, thus, are integral extended members of online learning communities. Research shows that when students are supported by their parents/caregivers in virtual schooling, it contributes to student success in a significant way (Borup et al., 2014; Makrooni, 2019; Woofter, 2019). When their children are learning at home, the parent/caregiver's meaningful involvement is essential to improving students' engagement, experiences, and outcomes.

In a pre-pandemic survey, online teachers identified the following parental scaffolds as helpful to the success of their students while engaging in virtual learning:

a) helping to organize and manage students' schedules

b) nurturing relationships and interactions

c) monitoring and motivating student engagement (in a supportive way, as opposed to a surveillance approach)

d) helping to instruct students, as necessary (Borup, 2016)

While these supports are helpful to students and teachers, the reality is that many parents/caregivers feel unprepared and ill equipped to effectively support their children's online

learning experiences. As parents/caregivers are clearly critical partners and stakeholders to students' success, it is important for educators to be aware of the struggles parents are experiencing, to demonstrate empathy, and to try to determine ways to strengthen family-school partnerships.

In a working paper, Adams and Todd (2020) provided an overview of the challenges facing parents as schools moved to full-time or partial distance learning. The authors noted that parents are faced with the challenge of balancing priorities of supporting the family's financial security, ensuring the health of safety of their children, and supporting their children's education and academic success. Garbe and colleagues (2020) investigated parents' experiences as they took on the new role of learning facilitator and noted that parents agreed with school closure policies and were generally satisfied with the level of support provided by school divisions. The researchers also noted the following areas where parents were struggling: balancing responsibilities (e.g., balancing employment demands while supporting multi-levels of learners at home), motivating their children to engage in remote learning, attending to their child's special learning needs, and accessing technology and learning resources. In addition, parents described their lack of content knowledge and pedagogy as a barrier to supporting their children during remote learning, and they expressed concerns about their child's academic progress and social-emotional development (Garbe et al., 2020).

In a report that focused on how educators can support equitable, effective teaching and learning regardless of the medium through which it takes place, Darling-Hammond and colleagues (2020) noted the importance of strengthening partnerships with families. While acknowledging the importance of engaging families from diverse backgrounds, the researchers noted that, in communities where trust has been violated, embracing a philosophy of partnership in which power and responsibility are shared will go a long way. They suggested that rebuilding relationships requires a proactive, authentic process in which educators practise extensive listening and demonstrate that they are trustworthy.

Specific strategies outlined by Darling-Hammond and colleagues (2020) included

- conducting virtual home visits to build relational trust and to help make families feel welcomed
- planning teacher time for student-teacher-parent conferences that are flexibly scheduled around parents' availability and designed to help teachers learn from parents/caregivers about their children
- reaching out to involve families in online classroom activities
- communicating regularly through positive phone calls, emails, or text messages

As parents/caregivers take on the new and unfamiliar role of supporting their children's online learning, many will require assistance and guidance. The following specific strategies have been gleaned from Darling-Hammond et al.'s (2020) paper and Garbe et al.'s (2020) study:

- acknowledging the challenges parents/caregivers are facing
- acknowledging how parents/caregivers are feeling

- providing frequent and clear communication regarding tasks, timelines, and expectations
- providing the big picture or scope of what needs to be learned, along with information that outlines the progression of learning intentions and the success criteria
- providing checklists that break down the steps for task completion and making them readily available to students and parents/caregivers
- encouraging flexibility and providing online tutorials

Vignette

"The connection to the home has been a positive increase. I am in touch with parents far more than I would be in a traditional setting. This connection obviously aids in the student's whole learning process because of the support system that is created. My students all feel like they are part of a tight-knit community and it shows in their conversations. They already are asking if we can be together as a class next year."

Stephen Reid
Westman Remote Learning Consortia
Brandon School Division

9. Bring the Outside In and the Inside Out

At times, virtual learning might seem very isolating and compartmentalized for learners. Schaeffer and Konetes' (2010) research demonstrated that social isolation was the main reason for students' dissatisfaction in online classes. While learning at home, students do not have the ability to interact with their peers in the hallway before or after school or in cafeterias during lunch breaks. Also, when students only have opportunities to engage in interactions with their classmates in a single virtual classroom with a single teacher, they might lose sight of the fact that they are part of a larger community.

Teachers can help to increase students' connectedness with the entire school community and even extend connections with a larger community by "bringing the outside in." Teachers can do this by

- occasionally making joint classes—virtually with teachers and students in the same school or in another school (in a different city or country)
- inviting guests to join from time to time (e.g., someone from the outside who can bring value inside)
- taking students on virtual field trips (e.g., teachers can access livestream recordings from national parks, etc.)
- orchestrating a virtual scavenger hunt (e.g., teachers can access virtual tours from museums and create a scavenger hunt)

Vignette

"Parents and community members were asked to place an animal stuffy in their yard for a student safari scavenger hunt. The response and participation were amazing. There were nearly 200 different animals placed in yards all over the community. Students rode bikes, walked, or went with their parents to take pictures and find all of the animals. Many future Joseph H. Kerr School students also took part as families with younger children were encouraged to participate. There was a flood of pictures. Some families walked for over two hours to find all of them! It was a terrific event to involve all of our community members and children of all ages getting outside, enjoying the sunshine, having good exercise, and staying active in a safe way.

We also had a tiger on the loose during the event. School secretary Ausra Gagnon wore the tiger suit and visited the students who were out on safari."

Joseph H. Kerr School
Frontier School Division

Furthermore, teachers can make online learning more relevant by bringing the inside out. When students have opportunities to share their work with an authentic audience, it helps them understand why the task is worthwhile. Teachers can extend students' audiences and "bring the inside out" by

- making student work public on a class website (Note: Be sure to adhere to school division policies regarding the sharing of student names, images, and artifacts.)
- asking students to post digital book reviews
- asking students to submit work to contests and competitions
- hosting a virtual classroom showcase event
- creating and sharing student work through a virtual gallery walk

10. Acknowledge and Respond to the Effects of Trauma

There is no doubt that some students are distracted by stresses brought on by trauma, which might be the result of living in poverty, living in a dysfunctional home, bullying, physical abuse, grief, medical trauma, and refugee trauma to name a few. Trauma is even more widespread due to the realities of 2020. Nadine Burke-Harris (2020), pediatrician and founder of the Center for Youth Wellness, noted that the pandemic is a huge stressor for students and it can affect students in a variety of ways. Just like when teachers are stressed, when students are stressed, it has an impact on their resilience, productivity, and ability to learn.

Tomlinson (2020) noted that the most powerful lesson in teaching students who struggled with trauma was that "empathy is a great healer." Tomlinson noted "To the degree that we were able, together, to take steps forward, empathy was the reason" (p. 33).

Relationships and well-being should take priority over assignments.

Teachers cannot stop trauma from occurring, but they can help to create safe online communities where students feel supported regardless of the trauma that is affecting them.

The importance of teacher-student relationships was outlined earlier in this document. Relationships and well-being should take priority over assignments. Minahan (2020) noted that teacher-student relationships can "mitigate the adverse effects of trauma, making relationship-building of utmost importance during the pandemic and in the future" (p. 22). Besides ensuring for positive teacher-student relationships, Minahan (2020) suggested that teachers can respond to students' anxieties and fears by

- validating students' feelings
- reminding students of what they can control
- being thoughtful to avoid specific fear-inducing topics when designing lessons
- promoting joy and fun throughout the day
- sharing emotion-regulation strategies
- reframing negative comments
- listening to and responding to students' behaviour (since many students will communicate their feelings through changes in behaviour)
- ensuring that routines and practices are consistent and predictable
- partnering with school-employed or community-based mental health and trauma professionals to connect students with additional targeted or intensive supports to meet their needs

Efficacy-Enhancing Opportunity

Vicarious experiences are a source of individual and collective efficacy (Bandura, 1977). They occur when teachers observe their colleagues meeting with success and sparking the epiphany that "I too can be successful".

As teachers continue to engage in remote learning and teaching and implement the strategies contained within this provincial framework, take opportunities to share successes and small wins with colleagues. Consider inviting colleagues into virtual spaces as you are experimenting with different strategies, and figure out together the best way to move forward and strengthen student outcomes.

Guiding Principle #2

Student learning and well-being are enhanced when students have a sense of efficacy in their ability to demonstrate progress and achievement in an online environment.

> " I just wish people would realize that anything's possible if you try." – Terry Fox

WHY

Hattie's (2019) research synthesis demonstrated that **student self-efficacy** has an effect size of **0.71** and **teachers' collective efficacy** has an effect size of **1.39**

Student self-efficacy is the judgments students make about their own capability to accomplish what they are being asked to do. Efficacy beliefs create differences in students' learning experiences. Research demonstrates that in an online environment, self-efficacy predicts students' emotions (Holder, 2007), perceived satisfaction (Sun et al. 2008), amount of effort and perseverance expended toward learning (Bates & Khasawneh, 2007), and their actual performance (DeTure, 2004; Wang & Newlin, 2002; Wang et al., 2013; Yukselturk & Bulut, 2007).

Achieving success in an online learning environment requires persistent effort. When students have a well-established sense of self-efficacy, they are more likely to persist and demonstrate resilience when faced with challenges or obstacles.

When students have a low sense of self-efficacy, they doubt their abilities, give up more easily, and avoid certain tasks because they don't think they have what it takes to succeed. Learners who have low confidence in their ability to carry out what is being asked of them can become overwhelmed, frustrated, and unmotivated. Achieving success in an online learning environment requires persistent effort. When students have a well-established sense of self-efficacy, they are more likely to persist and demonstrate resilience when faced with challenges or obstacles.

HOW

Teachers can help to increase students' self-efficacy as well as work toward building their own efficacy for online teaching. As students are continually reassessing their efficacy beliefs, they will take into consideration the unfamiliar situation in which they find

themselves. Students who have not experienced online learning may be unsure of what it entails. Some of our most vulnerable learners will be those who have already doubted their ability to learn in traditional environments. The situation of having to learn while at home is likely to diminish efficacy further unless teachers do something intentionally to intervene.

WHAT

There are a number of practical strategies that teachers can employ to help enhance student efficacy. The strategies outlined below can be impactfully implemented in an online environment.

1. Convey High Expectations Coupled by Positive Reassurance

Hattie's (2019) research synthesis demonstrated that **teacher expectations** has an effect size of **0.43**

Teachers' expectations can greatly influence student performance (Rosenthal & Jacobson, 1968). When teachers expect that certain students are underachievers, they are likely to provide less encouragement, less challenging assignments, and take less responsibility for the learning of those students. On the other hand, when teachers expect that students are capable of achieving to high standards, students rise to the occasion. This self-fulfilling proficiency, known as the Pygmalion effect, was first uncovered in schools by Rosenthal and Jacobson (1968). In their study, they found that when teachers held high expectations, they were more likely to provide encouragement, support, and rigorous tasks for students.

The notion of holding high expectations, however, is often misinterpreted by educators to mean that they expect that their students will follow the rules, log in on time, be prepared, complete their homework, and submit assignments on or before the due date. There is no doubt that these are important learning skills and work habits that can be, and often need to be, fostered in students. They do not, however, capture the inherent meaning behind the phrase "convey high expectations."

Of course, it is important to help students understand what is expected of them in regard to time commitment, participation, and accountability. These ideas were addressed in the previous section under "build awareness of the benefits of community." It was previously noted that it is important to convey to students that being part of the virtual community is an expectation and there were strategies shared to help encourage time, participation, and accountability expectations.

What is meant by "conveying high expectations"? It is when teachers communicate to their students their unwavering belief that students can perform at high levels—that students have the capacity to think critically, conceptually, and metacognitively. When teachers hold high expectations, it means that they firmly believe that their students are capable of complex problem solving, comprehending difficult material, understanding relationships between concepts, and transferring knowledge to new and novel situations. As noted earlier, research shows that when teachers expect that their students can perform at high levels, students are more likely to perform better (Hattie, 2019).

At a young age, children often begin to view themselves as others see them. Low expectations are often linked to socioeconomic, racial, cultural, or gender bias. When teachers communicate high expectations of every student on a regular basis, it helps in raising students' expectations of themselves.

Hattie's (2019) research synthesis demonstrated that **students' expectations** has an effect size of **0.68**

Conveying high expectations coupled by positive reassurance might sound as follows:

- *"The assignment you will be completing will require you to give it some careful thought and consideration. If you become perplexed, I know you will be able to work it out."*

- *"This learning intention represents a complex idea. Together, we'll work through it and I know that you'll get there in the end."*

- *"This online task requires your 'thinking cap.' It's a challenging one and I know you'll be successful at it."*

- *"You'll need to tap into your learning powers (e.g., Persistent Penny) and you will be successful."*

Scott (2017) noted the subtle yet powerful difference in the message conveyed when substituting the word *and* for *but*. In the examples of what conveying high expectations sounds like, the use of the word *and* was purposeful. It conveys a much more positive message about what the teacher believes the student is capable of achieving than the word *but* does.

It is essential to maintain awareness of how teachers' expectations are expressed in verbal and non-verbal ways in both synchronous and asynchronous online environments. A teacher's firm belief in the capacity of each and every student to be able to learn online is an important message for teachers to convey.

Teachers can convey high expectations and positive reassurance by

- knowing students' strengths and needs, and commending students when they demonstrate growth in an identified area of need
- co-creating achievable and complex* learning experiences
- asking/posting challenging questions that require more than basic recall
- providing a variety of tasks that require multiple skills and different abilities—and ensuring that students (with different abilities) take turns leading while giving credit to students who demonstrate accomplishments

*The Critical Difference Between Complexity and Difficulty

Sousa (2011) noted that complexity and difficulty describe "different mental operations, but are often used synonymously" (p. 263). Complexity describes the thought process that the brain uses to deal with information, and difficulty refers to "the *amount of effort* that a learner must expend *within* a level of complexity to accomplish a learning objective" (p. 263).

In relation to complexity, when asking a student "What is the capital of Manitoba?", the question is at the recall level. "Tell me in your own words what is meant by the term *provincial capital*" is an example of a question at an increased level of complexity.

Sousa (2011) pointed out that "it is possible for a learning activity to become increasingly difficult without becoming

more complex" (p. 263). For example, the task *"Name the provinces"* is at the recall level of complexity. The task, *"Name the provinces and their capital cities"* is still at the recall level but is more difficult because more effort is needed to recall that additional information. Sousa (2011) pointed out that these examples show "how students can exert greater effort to achieve a learning task while processing at the lowest level of thinking" (p. 263).

Sousa also pointed out that "when seeking to challenge students, classroom teachers are more likely (perhaps unwittingly) to increase difficulty rather than complexity as the challenge mode" (p. 263). Teachers often believe that complexity is more closely linked to student ability, but Sousa (2011) noted that the real connection to ability is difficulty, not complexity.

2. Follow the Goldilocks Principle

Hattie's (2019) research synthesis demonstrated that **using the Goldilocks Principle of Challenge** has an effect size of **0.74**

Teachers want the best for their students and therefore, a mindset that is pervasive in education is that it is important to set students up for success—especially early on. When designing and posting initial online assignments, many teachers assigned review material and made the choice not to introduce anything too challenging in order to provide their students an opportunity to build confidence. In order for their efficacy to be enhanced, however, students must succeed on the very types of tasks in which they think they are not capable of accomplishing (while attributing success to their efforts and strategies). It is also important to note that when forming judgments of self-efficacy, students consider how difficult they perceive the task to be (Bandura, 1998). If students perceive the task as too difficult, it becomes more likely that they will disengage. This strongly suggests that teachers must follow the Goldilocks Principle when creating online assignments.

The term *the Goldilocks Effect* was coined by Hess and Waring (1978) and was used as an analogy for getting something "just right" (as when Goldilocks eats the porridge that is neither too hot nor too cold, but "just right"). In education, the Goldilocks Principle states that when designing tasks for students, teachers should focus on material that is not too easy or too hard, but "just right."

Teachers can follow the Goldilocks Principle by

- following and incorporating the guiding principles of universal design
- gaining an understanding of students' background knowledge
- understanding students' readiness levels (readiness levels are going to differ and so must the level of challenge present in tasks)
- identifying students' instructional level and independent level and assigning tasks accordingly
- using checking for understanding techniques via tech-based tools (e.g., polling tools at the beginning of a lesson or a short-response question in the middle of a lesson—by embedding questions this way, teachers can check for understanding during the course of the lesson)
- providing a variety of access points

Vignette

"My colleague and I were covering a remote learning class of Grades 7 and 8 students for two weeks while they were in between permanent teachers. Our class met at 9:00 a.m. each morning for 45 minutes to build community, to follow up on learning experiences from the previous day, and to give students an opportunity to share their learning with each other. We initially gave them a formative assessment that began with questions around foundational fraction understanding, and then progressed up to multiplying and dividing fractions. Students submitted photos of their whiteboards with their thinking shown. We used this assessment to determine where we would start with them during our first one-on-ones. This assessment gave us a starting point for individualized instruction. For the rest of the week, we met one-on-one with students for 20 minutes each day, tailoring our conversations and follow-up practice questions to where they were at and where they were beginning to move in their understanding. We gave feedback on their practice using technology and used this feedback as a springboard to begin the next meeting. They were given a choice in how many questions they felt they needed to complete before submitting two or three pictures that communicated their understanding. At the end of the week, we provided a student-friendly progression of fraction understanding for students to fill out themselves before we assessed them using it. We feel this individualized guidance encouraged students to put effort into their math learning, and they gained confidence in identifying where they were at and where they were going with their fraction understanding."

Russ Dirks and Charmaine Mackid
Hanover School Division

3. Help Students Build Evidence of Success

A student's self-efficacy is influenced through different sources. Previous performance accomplishments tend to influence a student's self-efficacy the most since they are based on firsthand experiences (Bandura, 1998). A strong past performance in a particular subject, successful completion of a challenging online task, and/or the efficient execution of a particular procedure or strategy all serve to positively influence a student's self-efficacy perceptions. These are referred to as "mastery" experiences and they shape students' future beliefs about what they are capable of accomplishing.

The strength of a student's self-efficacy, however, often varies for different subject areas and tasks. For example, a student may have a high sense of self-efficacy in understanding a concept in mathematics while at the same time feel a lack of efficacy in science. Also, a student might feel a sense of high self-efficacy in performing well on a math test, but not feel as high a sense of efficacy about their ability to solve problems. In this respect, self-efficacy beliefs are situation-specific, and even though students may have a high sense of efficacy in their ability to perform well in a face-to-face environment, they may have a diminished sense of efficacy in their ability to perform well online.

There are ways that teachers can capitalize on the sources that influence students' beliefs about what they are capable of accomplishing in an online environment and, thus, strengthen students' efficacy beliefs in specific subjects and for specific online tasks. Teachers can tap into mastery experiences as the number one source of efficacy by

- providing progressively challenging tasks and helping students track their progress as they master tasks at different levels (Note: The assignments will need to be tailored to students' individual instructional and independent levels.)

- identifying progressions and scaffolds that students will need to be successful at the task

- helping students progress in their learning by using responsive, targeted instruction and scaffolding for learning growth

- ensuring that students' track their progress and document evidence of success

- acknowledging individual students' learning growth at different points in time

Hattie's (2019) research synthesis demonstrated that **scaffolding** has an effect size of **0.58**

Efficacy-Enhancing Opportunity

Mastery experiences help to shape teacher self-efficacy and collective teacher efficacy (Bandura, 1998). When teachers experience success and interpret that success through a growth mindset, it helps in fostering their efficacy. There is evidence of success in the vignettes shared in this document, which have been written by Manitoba educators. Teachers can build their own evidence of success. As teachers implement the strategies contained within this provincial framework, they might consider keeping a log of successes they experience every day. Documenting and reflecting on these successes will help them to see how they are making progress and positively affecting students and, thus, enhancing student's efficacy for remote learning and teaching.

4. Foster Opportunities for Students to Observe Successful Peers

A second source that students' draw upon when forming judgments about their capability is vicarious experiences (Bandura, 1998). When students see their peers succeed, it helps to instill a confidence that "if he can do it, then I should be able to succeed as well." Teachers can tap into vicarious experiences by

- creating opportunities for students to observe their peers who are working through or have mastered a similar challenge
- creating opportunities for students to observe their peers who can model effective strategies
- structuring opportunities for students to listen to each other think aloud
- ensuring that students are attributing their success to effort and effective strategies

> The most effective peer models are those whom the observer relates to or admires (Margolis & MaCabe, 2006).

Vignette

"In an online music class that is delivered asynchronously, it is challenging to build self-efficacy, but it can be done. Musical learning experiences must be scaffolded in a series of short activities that ensure students are successful at every level. Each level builds on the knowledge of the last, and students can offer video evidence of each level of mastery. Feedback can be provided by the teacher as well as by peers. Students are able to see their classmates complete activities successfully, which contributes to their own self-efficacy. Choice of activities, when possible, can also play an important role in student success."

Ingrid Pedersen
Arts Education Coordinator
The Louis Riel School Division Learning from Home School (LFHS)/
L'École Apprendrechez-soi

5. Help Students Understand the Value of Effort

Hattie's (2019) research synthesis demonstrated that **effort** has an effect size of **0.77**

A third source of student self-efficacy comes from feedback received from teachers and peers about the particular factors that are influencing a student's performance. Providing feedback that attributes the end result to something specific (e.g., using an online strategy effectively; planning, monitoring, and evaluating online learning) helps students to make the connection between success, effort, and the efficient and correct use of strategies (Margolis & McCabe, 2006).

There are concepts related to effort that are foundational for teachers to understand when considering how to enhance student self-efficacy for online learning. Firstly, Bandura (1998) noted that student success must be achieved through effort in order for it to enhance their sense of efficacy. If students experience only easy tasks, they will come to expect quick results and become easily discouraged by failure (Bandura, 1993). Secondly, attribution theory (Weiner, 1974) states that students attribute success and/or failure to things such as ability, effort, task difficulty, and/or luck. The amount of effort students will expend on an activity is partially determined by their attributions for success and/or failure. When students attribute lack of success to lack of effort (as opposed to lack of ability), they are more likely to persist with future tasks (Bandura, 1993).

In order to help students persist at online tasks, teachers can help them establish the belief that they are capable and competent (as noted earlier, by expressing high expectations) and that occasional setbacks are the result of other factors (such as lack of sufficient effort or ineffective strategy use). Ability attributions for success are likely to be beneficial *when paired with effort attributions*. If students think they already have all the ability they need to succeed online, then they may also feel that additional effort is not needed. Ideally, a student's attribution for learning successfully online would sound like, "I was successful with this online assignment because I am competent and I put forth my best effort."

It is important for teachers to help students understand the value of effort in online environments. This can be done by

- clarifying the meaning of effort*

- explicitly sharing the expectations that students will need to be effortful in order to progress and achieve (Note: Effortful learning helps students to develop a greater sense of self-efficacy.)

- helping students understand the notion of "productive struggle" as it relates to the complexity and difficulty of the online tasks students are assigned

- helping students to see how their efforts are paying off (e.g., when they are successful at a task, point out where their increased effort or effective strategy use contributed to their success)

- reinforcing students' effective use of academic learning time

- providing feedback for **prior success (e.g., "You succeeded because you focused your efforts effectively while completing that task" versus "You need to put forth more effort next time")

*The Meaning of Effort

An accurate concept of effort is important in reinforcing its value. Effort is more than just a student trying harder or trying their best. It is also not simply spending more time doing ineffective activities. Effort for online learning is most usefully defined as students dedicating "effective academic learning time to the task" (Rao, 2012).

**Provide Feedback for Prior Success

Schunk (1985) noted that attributional feedback may convey different efficacy information to students, depending on how teachers link it to outcomes. When teachers help a student recognize that their effort has helped with past success, it supports the student's perceptions of progress and conveys the idea that if the student continues to work hard, they should continue to perform well. Conversely, if teachers link effort to future success, it may convey to a student that they are not doing well, causing them to reach the conclusion that they are not capable.

6. Help Students Become Mindfully Aware

The fourth source of efficacy-shaping information that students draw upon is physical and emotional states. Negative feelings such as anxiety and stress diminish a student's sense of efficacy. Positive feelings enhance student self-efficacy. Teachers can help students become mindfully aware and engage in emotional self-regulation by

- checking in with students about how they are feeling
- explicitly teaching about emotions and how emotions drive behaviour and have an impact on self-efficacy
- helping students become aware of what their bodies and sensations are telling them
- helping students to take deep breaths while imagining that they are exhaling stress from their bodies
- teaching students how to identify their strengths
- having students make a list of the skills they possess that will help them be successful prior to starting a challenging task
- creating online emotional planners*

Vignette

"In our online class, we often talk about growth mindset and, if we get frustrated, we remind ourselves and each other, "I can't do it *YET*", and pair that with breathing techniques."

Louise Roberts
Westman Remote Learning Consortia
Brandon School Division

*Sample Emotional Planner

Friday, December 4th				
Acivity	**Emotion**	**Strategy 1**	**Strategy 2**	**Strategy 3**
Online Math Quiz	anxious, nervous, overwhelmed	drink water	don't pay attention to what others are doing	watch the clock (pace and allocate time)
Webquest	bored, tired	collaborate with a peer	focus and make predictions about the content	create a list of questions that you might explore further

7. Engage Students in Setting Proximal Goals

Hattie's (2019) research synthesis demonstrated that **goal commitment** has an effect size of **0.40**

Setting goals can have a substantial impact on student self-efficacy for online learning because goals help students to gauge their progress. Proximal goals are goals that can be achieved in a short amount of time and distal goals take longer to achieve. Research (by Bandura and Schunk, 1981) demonstrates that proximal goals tend to provide better self-efficacy information for students than do distal goals, because students can better judge progress toward goal achievement with proximal goals.

Setting goals can have a substantial impact on student self-efficacy for online learning because goals help students to gauge their progress.

Below are a few examples of proximal goals.

- *During the next week, I will use more persuasive techniques in my writing when I respond to online posts.*

- *Before the end of the month, I will find an effective study system and investigate different study strategies for online learning.*

- *By Friday, I will demonstrate at least three different ways of representing fractions.*

- *Before next week, I will be able to count to 100.*

- *By the end of the week, I will invite three different friends to read with me.*

In an experimental study of children who exhibited disinterest and low achievement in math, Bandura and Schunk (1981) created different goal conditions (proximal, distal, or no goals) as students pursued a program of self-directed learning. Distal goals had no demonstrable effects, but under the proximal goals students progressed rapidly in self-directed learning. Also, under proximal goals, the researchers found that students achieved substantial mastery and developed a sense of self-efficacy and intrinsic interest. The researchers noted that proximal goals had three effects, including that they motivated students, provided immediate incentives, and acted as the vehicle in the development of self-efficacy.

Teachers should keep in mind that goals should be challenging but not outside the range of students' capabilities. Difficult but achievable goals give students the opportunity to put forth effort and obtain feedback as they make progress toward their completion. Goals that are too far beyond students' knowledge or skill level will likely lead to frustration and may actually diminish a student's self-efficacy.

Teachers can engage students in setting proximal goals by

- having whole-class conversations about goal-setting

- having students reflect on a quotation related to goals (e.g., "The most important thing about goals is having one.") and asking students to take a position as to whether they agree or disagree, and why

- asking students to first reflect on what they do well, and then having them reflect on something in the short term that they need to improve (e.g., using three stars and a wish, students identify three things they are good at [the stars] and a wish [which becomes their goal])

- pairing students up and asking them to help one another with goal-setting and monitoring

- asking students to share with their parent/caregiver their goals and their progress toward these goals

- revisiting goals regularly and having students reflect on their strategies and efforts toward achieving them

- acknowledging progress toward goals and helping students to make the link between effort and goal attainment

8. Share Stories of How Efficacy Beliefs Help People and Teams Overcome Setbacks

Storytelling is a powerful medium to use in any classroom (online classrooms as well as face-to-face). In order to enhance a sense of self-efficacy and collective efficacy amongst students, teachers can share stories about how a strong sense of efficacy helps individuals and teams overcome challenges. Teachers can do this by

- sharing stories about how self-efficacy beliefs helped them overcome a particular setback or failure in their life

- sharing stories about how self-efficacy beliefs helped others overcome challenges (e.g., former NBA basketball star Michael Jordan's story of accepting failure as part of his success)

- sharing stories about how a strong sense of efficacy helps groups/teams achieve better outcomes

- having students tell or write and digitally share their own efficacy stories

'The Little Engine That Could' is a classic children's story that demonstrates the power of efficacy beliefs.

9. Celebrate Success

Celebrating student success helps to develop further an online community of learners and it can provide a boost to a student's self-efficacy.

In an online environment, it is important to maintain the practice of recognizing students for their learning triumphs. Celebrating student success helps to develop further an online community of learners, and it can provide a boost to a student's self-efficacy. Teachers can celebrate student success by

- running a discussion board with a theme (e.g., in math, showcase the different ways students solved problems), and screen-capturing students' work
- sharing what they are noticing (e.g., "I notice you are able to...") during whole-group discussions, in a chat pod, or through social media platforms
- sending virtual notes to students who might not prefer to be praised publicly
- contacting students' parents/caregivers and providing compliments about the student
- inviting students to become an expert in an area and engaging them in creating a blog resource or instructional how-to video
- engaging students in recognizing their peers online (e.g., create a Google slideshow; title slides with individual students' names, and the class can type compliments to each other on the slides)
- displaying student work in a digital gallery walk

10. Maintain Teacher Self-Efficacy and Collective Teacher Efficacy

Hattie's (2019) research synthesis demonstrated that **teacher efficacy** has an effect size of **0.71**

Hattie's (2019) research synthesis demonstrated that **collective teacher efficacy** has an effect size of **1.39**

When teachers have a strong sense of efficacy, they confront educational challenges head-on and are more likely to willingly experiment with evidence-based online teaching strategies. High-efficacy teachers are able to maintain students' online engagement, improve students' confidence and risk-taking, and increase students' sense of efficacy. Low-efficacy teachers, on the other hand, take a different view and dismiss evidence-based practices because they believe them to be unmanageable in an online environment. When students are taught by teachers who have a weakened sense of efficacy, they tend to have a weakened sense of efficacy as well. As unsure students, they concede their efforts and sometimes even resort to disruptive behaviour or totally disengage and surrender their presence in the online community.

Research has also demonstrated that collective teacher efficacy helps teachers overcome temporary setbacks and failures (Goddard, Hoy, & Woolfolk Hoy, 2004). According to the Visible Learning research (Hattie, 2019), collective teacher efficacy is greater than three times more predictive of student achievement than a student's socio-economic status. It has a greater impact on student achievement than a student's home environment and the level of parental involvement in their child's education. This is because collective teacher efficacy results in greater persistence and the investment of the time and energy required for educators to overcome challenges. As noted by Goddard, LeGerfo, and Hoy (2004), "the expectations for attainment set by perceived collective efficacy influence the diligence and tenacity with which teachers approach their work" (p. 420). A diminished sense of efficacy, on the other hand, causes individuals and teams to lower their expectations (Chong et al., 2010), decrease the goals they set (Greenlees et al., 2000), and slacken their efforts (Bandura, 1997). Therefore, it is important that teachers do not let any circumstance place their efficacy at risk.

Just as students' efficacy beliefs are influenced by past experiences, so are teachers' efficacy judgments. Mastery experiences, vicarious experiences, social persuasion, and positive feelings all contribute to the formation of teachers' efficacy beliefs (Bandura, 1998). There are ways in which teachers can purposefully tap into these sources and maintain a sense of efficacy, even if teaching in an online environment is new to them. Teachers can maintain individual and collective efficacy by

- becoming mindfully aware of negative emotions and regulating them accordingly
- providing support to one another (when teachers feel supported, they feel less stress)
- collaborating and engaging in joint problem solving

- breaking down larger tasks into easier manageable chunks
- keeping a log of successes and small wins experienced every day
- attributing success to individual and team efforts and strategies
- observing colleagues who are faced with similar challenges and/or opportunities who are doing well and making progress
- setting proximal goals
- celebrating individual and team achievements

Bandura (1998) noted that "seeing people similar to oneself succeed by perseverant effort raises observers' beliefs in their own abilities" (p. 54).

Efficacy-Enhancing Opportunity

When thinking about providing support to one another, teachers can consider using social persuasion to enhance the team's efficacy. By focusing on the positive, helping teachers understand that they are capable of overcoming challenges, and helping them to see how their efforts are paying off, individual and collective efficacy will be enhanced.

Guiding Principle #3

Student learning and well-being are enhanced when students feel a sense of autonomy and responsibility fostered through student voice, self-regulation, and metacognition.

" A sense of autonomy has a powerful effect on individual performance and attitude." – Daniel Pink

When learners are given greater autonomy and choice and taught why, how, and when to utilize effective learning strategies, a shift occurs. Students become less dependent on their teachers and assume greater responsibility for their own learning.

WHY

When learners are given greater autonomy and choice and taught why, how, and when to utilize effective learning strategies, a shift occurs. Students become less dependent on their teachers and assume greater responsibility for their own learning. Pink (2009) noted that when people have autonomy over their task, their time, their technique, and their team, it results in more productive behaviour. When students are provided autonomy, they gain a sense of ownership and are more likely to persist in learning. A student's ability to guide and direct their own learning is important in a virtual environment because online learners often experience greater physical and social separation than what they are used to in a face-to-face situation. In a study that examined the benefits and challenges of online learning for at-risk high school students, Lewis, Whiteside, and Garrett Dikkers (2014) identified a number of strategies that supported student success, including autonomy in the learning experience. Self-directedness is an extremely desirable trait for successful online learners (Song & Hill, 2007).

HOW

Teachers can help students maximize their autonomy, self-regulate their learning, and increase their awareness of effective strategies for online learning. Teachers can help students develop the capacity to make choices for themselves by helping students to understand their learning interests and dispositions. Through the use of technology, teachers can help students understand where they are in relation to the learning intentions and success criteria. Furthermore, teachers can help students self-regulate their learning, reveal their thinking, and appreciate the utility of specific strategies for online learning.

With proper support structures in place, students can employ skills that expert online learners use, including planning, monitoring, and evaluating their own learning. With the

appropriate guidance and monitoring, teachers can gradually release the responsibility for learning and help students become their own best self-assessors. Developing students' assessment capability is about helping students know what to do when they don't know what to do. Hattie (2019) describes assessment capability as a student's ability to explain and understand progress—knowing where they are currently, where they need to be, and their next steps for getting there. Teachers can help students develop an understanding of the learning strategies and metacognitive processes that will serve them well in a virtual classroom.

WHAT

Fostering student autonomy and increasing students' responsibility for their own learning requires purposeful planning and intentional facilitation on the part of teachers. Below are specific practices that teachers can consider.

1. Provide Students with Voice and Choice

> It is important for students to take responsibility for their own learning in a developmentally appropriate way.

It is important for students to take responsibility for their own learning in a developmentally appropriate way. In an online environment, students assuming greater ownership for their learning is one of the essential ingredients to their success. Interestingly, however, McCombs (2010) noted that "the phenomenon of students taking less and less responsibility for their own learning is related to the fact that, in many school systems, students have progressively fewer opportunities to make choices as they proceed from elementary through secondary school". McCombs (2010) recommended that the key to motivating students is to help them recognize that they can take greater responsibility for their learning and suggested that teachers can do this by tying learning to students' personal interests and giving them voice in their own learning. Student voice is a "metaphor for student engagement and participation in issues that matter to learning" (Ontario Ministry of Education, 2013, p. 2). Students express their voices in many ways, including through writing, role-play, gestures, incomplete work, conversations with their peers, and silence (Ontario Ministry of Education, 2013).

Teachers can provide students with voice and choice in an online environment by

■ broadening their understandings of how students express their voice online, listening and attending to students as they express voice

- seeking and acting upon feedback* (Any type of feedback is an opportunity for teachers to connect with their students, honour their voices, and let students know that teachers are listening.)

- employing virtual exit slips (e.g., polls or chats where students identify something they learned that was new and offer a suggestion for the following week)

- challenging students to be helpers (Online learning provides a ready-made format for students to collaborate and support each other. Whether providing feedback to one other or posting a how-to video, students have opportunities to use their voices and take responsibility for supporting the learning of their peers.)

- considering the unique needs of all learners and working from an asset-based lens when offering supports

- partnering with families to build upon multilingual families' knowledge and experiences

- modelling the skills involved in making well-informed positive choices

- setting learning intentions (see #2 below) and helping students understand that the choices they make are within the context of the learning intentions

*Seeking Feedback

Teachers can be very purposeful when soliciting feedback from students. In addition to feedback about what students are learning, teachers can obtain feedback about the clarity of a lesson, what students may be struggling with, and online strategies they found helpful. Teachers can invite students to offer ideas for trying something new using online tools.

Vignette

"We begin every Kindergarten meeting with a Sharing Circle. It allows the students to have a voice and connect with other students in the classroom. They all have the choice of what to bring or say to the circle that day. We also take an inquiry approach to learning materials, which allows the students to become leaders in their learning. For example, one of their assignments was to find two different-coloured objects they could mix and bring to the meeting. The conversations—connections between students as they were sharing and presenting—were no different than being in a classroom."

Amanda Thiessen
Westman Remote Learning Consortia
Brandon School Division

Vignette

"Learning from home has created an opportunity for students to showcase their successes in a variety of different styles. In their home environment, students have access to concrete materials that reflect their personal passions. As a teacher, we must utilize these home interests, paralleling the expectations we would have for in-class learning at the school. For example, I had students who were creating patterns using their favourite toys, examining patterns on their bookshelf, and using siblings/guardians to aid them in creating vocal patterns. Giving students a flexible choice that incorporates their home materials allows them to thrive and demonstrate enthusiasm for the content being discovered, especially when they get to deliver their findings to their peers."

Shawn Falconer
Linden Meadows School
Pembina Trails School Division

2. Engage Students with Learning Intentions and Success Criteria in Meaningful Ways

Greater learner autonomy is also promoted when students know what is expected of them and when they have a clear understanding of what success looks like. Self-efficacy is also enhanced when students see themselves progress based on clearly articulated learning intentions and success criteria. Furthermore, learning intentions and success criteria are key components to students' abilities to self-regulate their learning.

> Greater learner autonomy is also promoted when students know what is expected of them and when they have a clear understanding of what success looks like.

Learning intentions are brief statements that describe what students should know, understand, and be able to do at the end of a learning session (Ontario Ministry of Education, 2010). They are based on the expectations outlined in Manitoba Education's curriculum documents. Long-term learning intentions represent the larger essential understanding of "the kind of learning outcome requiring a number of lessons for students to achieve" (Popham, 2008, p. 24). These learning intentions might be introduced as "By the end of this unit…." Short-term learning intentions help students to identify the step-by-step building blocks they need to achieve the long-term intentions. Popham referred to these clusters of short-term learning intentions as progressions, "a sequenced set of sub-skills and bodies of enabling knowledge that… students must master en route to mastering a more remote curricular aim" (Popham, 2008, p. 24). Learning intentions are written in

student-friendly language and provide students with information that helps to answer the question "Where am I going?" (Ontario Ministry of Education, 2010).

Success criteria help to answer the question "How am I doing?" and describe what successful attainment of the learning intention looks like (Ontario Ministry of Education, 2010). When students know what success is supposed to look like, they are more likely to accurately plan, monitor, and evaluate their learning. By helping students interact with success criteria in meaningful ways, teachers help students make meaning of challenging content.

Examples of learning intentions and success criteria are presented in Table 1 below.

Table 1: Learning Intentions and Success Criteria

Learning Intention	Success Criteria
We are learning how to make observations of the local environment so that we can explain how wind and water change rocks and soils.	I can find examples and explain how wind has changed rocks or soil.
	I can find examples and explain how water has changed rocks or soil.
We are learning how to tell time.	I can identify the parts of an analog clock, including the face, hour, and minute hands.
	I can tell time to the hour, minute, quarter-hour, half-hour, and nearest 5 minutes.
We are learning to establish the relative importance of ideas and details presented in an online text.	I can rate from low to high the ideas and details in terms of their importance.
	I can explain the importance of the ideas and details I selected.
We are learning to count to 20.	I can accurately count up to 20 objects.
	I can record my counting.
We are learning how to discover the product property of exponents by expanding and simplifying exponential expressions.	I can expand exponential expressions.
	I can simplify multiplication strings by using exponential notation.
	I can write a rule for multiplying two powers with the same base.
We are learning to describe positions on maps using a grid-reference system.	I can locate positions on a map using coordinates.
	I can describe the position of different points on a map using coordinates.
	I can use a compass to locate items on a map.
	I can compare the position of things located on a map.
	I can use a key/legend on a map.

Learning Intention	Success Criteria
We are learning the role that marketing and market research play in the activities of an organization.	I can describe and give examples of a market.
	I can explain the role and importance of marketing in an organization.
	I can describe methods of market research and give their advantages and disadvantages.
We are learning how to show dimension and how to use lines to create the illusion of movement.	I can create a sense of depth in a piece through the use of spatial effects (e.g., value, linear perspective, texture).
	I can imply movement using perspective repetition (repeating similar objects into a distance and making them smaller using perspective).
We are learning to make inferences.	I can use evidence from the text.
	I can use clues from illustrations.
	I can use my own schema.
	I can combine the evidence with my schema to make an inference.
We are learning to make choices.	I can point to a visual of a peer and invite them to join me in a game.
We are learning to write a recount of something that happened.	I can write a main idea.
	I can tell what happened in order.
	I can use sequence words (e.g., first, then, next, after, finally).
	I can share details about who, what, when, where, why, and how.
	I can tell how I felt and what I thought.
We are learning to compare fractions.	I can draw models to make fraction comparisons.
	I can use symbols to compare fractions.
	I can explain how the size of equal parts can be used to compare fractions.

Teachers can engage students with learning intentions in meaningful ways in an online environment by

- posting and clarifying the learning intentions
- using online highlighting tools to identify key words and asking students to discuss the meaning of those words
- asking students to express the learning intentions in their own words
- providing opportunities for students to discuss the learning intentions with each other
- helping students see how short-term learning intentions connect with the bigger ideas within the course or unit

- designing tasks* that match the learning intention
- providing students with choice regarding task, time, and team (e.g., do students prefer to work interdependently or independently?)

> ## *Designing Tasks that Match the Learning Intention
>
> Moss and Brookhart (2009) noted that the most important method for sharing the learning intentions is designing assignments that match the learning intentions. Through assignments that are well aligned with the learning goals, the teacher "translates the learning goal into action for the student" (p. 25).

According to the Ontario Ministry of Education (2010), teachers can engage students with success criteria in meaningful ways by

- posting and clarifying the success criteria
- encouraging students to ask clarifying questions about the criteria
- discussing the criteria with examples for the task
- modelling the application of the criteria to a sample and asking students to apply the criteria to a sample
- co-constructing the success criteria

They can also do so by

- providing multiple and varied opportunities for students to demonstrate success criteria
- providing choice as to how students wish to demonstrate their attainment of the success criteria

3. Provide Effective Feedback

Hattie's (2019) research synthesis demonstrated that **feedback** has an effect size of **0.66**

As noted earlier, learning intentions provide the answer to the question "Where am I going?", and success criteria provide the answer to the question "How am I doing?". Feedback answers the question "Where to next?" (Hattie, 2012). Teachers' ability to provide effective feedback is increased through the use of explicitly stated learning intentions and success criteria.

Teachers can provide effective feedback by

- providing clear and concise feedback related to the learning intentions and success criteria

- providing next steps/practical suggestions on how students can improve in relation to their current instructional level*
- ensuring students understand the feedback and providing time (along with the expectations) for students to act upon it
- following up with students about the feedback

*Note: Instructional Level

Hattie and Timperley (2007) identified four levels of feedback and indicated that "the level at which feedback is directed influences its effectiveness" (p. 90). The four levels include self, task, process, and self-regulation. Feedback targeted at the self level (e.g., "You're terrific. Fantastic!") provides students with little information about how they are progressing toward the learning intention. If students are novice learners or if the task is unfamiliar, they benefit most from task-level feedback (e.g., information about how well a task is accomplished). When students have some degree of proficiency, they need process-level feedback (e.g., information about what strategies are needed to perform the tasks and alternative strategies that could be used). Finally, when students have a high degree of proficiency, they benefit from feedback targeted at the self-regulation level (e.g., what are the strategies students need to plan, monitor, and evaluate their own learning?).

4. Provide Opportunities for Students to Self- and Peer-Assess What They Do and Do Not Know

Self-assessment involves students assessing their own performance. When used in an online environment, it can help students develop the skills they need to become more independent, self-regulated learners. Self-assessment helps students assume greater control over their learning, giving them the opportunity to manage and take ownership over their learning and development.

Peer assessment provides students opportunities to critique and provide feedback to each other regarding attainment of the learning intentions and success criteria. When students have opportunities to engage with learning intentions and success criteria in meaningful ways, it not only improves their ability to accurately self-assess, it also improves their ability to provide rich assessment feedback to their peers.

It is important to establish norms of collaboration and safety prior to engaging in peer assessment. By helping to ensure that students know how to give and receive feedback, teachers can set students up for success.

Teachers can engage students in self-assessment by

- explaining the benefits of self-assessment
- explicitly teaching students how to self-assess
- asking students if they are making progress toward the learning intention, and asking how they know
- engaging students in using the success criteria to make judgments about the quality of their work
- allowing students to select assignments they want assessed using the success criteria

Teachers can engage students in peer-assessment by

- explaining the benefits of peer-assessment
- modelling what helpful feedback looks like (using the success criteria)
- having students practise critiquing their peers using the success criteria as a guide
- monitoring the feedback students receive

Note: Teachers can use peer feedback itself as a form of formative assessment. If students are struggling to articulate their ideas and/or what they see in their peers' work, then they likely have gaps in their own understanding.

5. Teach and Reinforce Effective Learning Dispositions

In addition to learning intentions, students also benefit when taught specific learning dispositions that they can employ in different contexts. Learning dispositions refer to the ways in which students engage with the content and their peers. Gaier's (2019) research found that students who were succeeding academically possessed certain dispositions toward learning, including curiosity, intentional effort, perseverance, and help-seeking strategies.

Claxton (2006) noted the importance of teachers "maintaining a dual focus on the content of the lesson and the learning dispositions that are in play" and referred to this as "split-screen thinking." Split-screen thinking involves teachers thinking about how to help students grasp the content while, at the same time, thinking about how to help students develop their learning capacity. Examples of split-screen thinking are provided in Table 2 below:

Table 2. Examples of Split-Screen Thinking

	Supporting Understanding of the Content	Supporting the Development of Effective Online Learning Dispositions
	Learning Intention: We are learning how to sort things by colour, shape, and size.	**Learning Dispositions:** We are learning to keep trying and to not give up.
Example of Split-Screen Thinking	What materials will we use to introduce students to sorting, and what practice can we provide for students?	How might we help students to encourage each other? How might we go about teaching students the meaning of perseverance?
	Learning Intention: We are learning to simplify algebraic equations.	**Learning Dispositions:** We are learning to be resilient and persist if the learning becomes challenging.
Example of Split-Screen Thinking	What scaffolding would students benefit from when learning how to simplify algebraic equations?	How will we teach students to be resilient and persist if the learning becomes challenging?
	Learning Intention: We are learning improvisation and how to act without a script.	**Learning Dispositions:** We are learning to collaborate and work interdependently.
Example of Split-Screen Thinking	What specific improvisation techniques will we introduce online?	How can we set up the conditions for students to collaborate and work interdependently online?
	Learning Intention: We are learning to evaluate scientific evidence and explanations.	**Learning Dispositions:** We are learning to be organized and manage our time well.
Example of Split-Screen Thinking	What prior knowledge do the students bring and how can we teach the skill of evaluation? What specific concepts and terms will we introduce first?	What self-management strategies will we focus on and how will we know that students are managing themselves productively?
	Learning Intention: We are learning to generate and share ideas for story writing.	**Learning Dispositions:** We are learning to be aware of our own feelings and to be sensitive to other people's feelings.
Example of Split-Screen Thinking	What are some good strategies for getting students to brainstorm and share?	How will we develop students' sensitivity?

In addition to engaging split-screen thinking, teachers can teach and reinforce effective online learning dispositions by

- assessing students' current dispositions
- modelling effective learning dispositions
- helping students to see the value of learning dispositions
- waiting before offering help (allow students time to find their own solutions or to engage in help-seeking strategies)
- providing encouragement

Welch, Hill, and Roumell (2014) studied virtual *teaching* dispositions of effective online instructors. Results from their study supported "the need for instructors to possess fundamental disposition attributes, such as empathy, timeliness, and passion" (p. 459).

Vignette

"In my online classroom, I maintain an air of positivity to my classroom management. If I see students who are ready for class or using our technology properly, I commend them to encourage that behaviour to continue rather than criticizing those who may not be as prepared. In my opinion, effective online learning dispositions are really just modified in-person learning dispositions."

Tess Aminian
Teacher
Pembina Trails

6. In a Developmentally Appropriate Way, Provide Opportunities for Students to Show their Thinking

Helping students to show their thinking in an online environment will help teachers to understand students' thoughts and understandings regarding the learning intentions and success criteria. Teachers can provide opportunities for students to show their thinking by

- modelling their own cognition through a think-aloud
- asking/posting questions that draw out students' thinking (e.g., "What makes you say that?" "Could you explain your reasoning?")
- inviting students to explain their thinking in a discussion forum
- asking students to draw and post pictures that demonstrate their thought processes

> Hattie's (2019) research synthesis demonstrated that **self-verbalization** has an effect size of **0.59**

- using concept maps as a way to document thinking
- asking students to make notes that document what they are learning
- pausing frequently to check for understanding

Vignette

"There are many ways students show their thinking in my online class. As I'm delivering some of my lessons, I get my students to type their answers into the chat, but to not press send. When everyone's ready, we have a "first" race to see who's the fastest. This allows my students to think at different rates and to express their thinking without input from their classmates. In other scenarios, students have used a variety of apps to write their thinking and share it with each other and myself. Sometimes, we use pencil and paper and use our webcams to share the work. At other times, students will take a snapshot of their work and share it with us. We also use some programs where there is a spot for the student to show their ideas/work in the program. We use other programs that are interactive to help them learn and show their thinking. Lastly, we use the power of our voice to share ideas. This is extremely beneficial in the Middle Years as social consciousness starts to develop; students worry about their appearance and perception from their peers. When the class can only hear your voice, it encourages participation from students who would never want to participate with the rest of the class's eyes on them."

Katrina Mitchell
Westman Remote Learning Consortia
Mountain View School Division

> Hattie's (2019) research synthesis demonstrated that **self-regulatory strategies** has an effect size of **0.52**

Help Students to Self-Regulate as Developmentally Appropriate

Pintrich (1999) defined self-regulated learning as the strategies that students use to regulate their cognition (i.e., use of various cognitive and metacognitive strategies), as well as the use of resource management strategies that students use to control their learning. Research has demonstrated that the use of self-regulated learning strategies is a key element of online learning (Lock, Eaton, & Kessy, 2017). Research has also demonstrated that students' lack of ability to self-regulate was a significant reason for dropout rates in online courses (Lee & Choi, 2011).

Lock, Eaton, and Kessy (2017), who are researchers from the University of Calgary, examined implications for teaching self-regulation to Kindergarten to Grade 12 online learners and identified key strategies that supported self-regulated learning in online environments. They noted that "features of the online learning environment (e.g., discussion forums, checklists) can provide a forum in which self-regulation can be taught, modelled, and scaffolded in sustainable and personalized ways to meet the learning needs of all students. Through the intentionality of integrating and fostering self-regulation, teachers can provide students with the means to develop this capacity to enable them to have greater success in their learning" (Lock, Eaton, & Kessy, 2017, p. 10). There are four general domains that learners can work to self-regulate: their environment, their motivation, their behaviour, and their cognition. All of these are important to students' success in any learning environment. Strategies for assisting students in each of these domains are outlined below.

> "Through the intentionality of integrating and fostering self-regulation, teachers can provide students with the means to develop this capacity to enable them to have greater success in their learning" (Lock, Eaton, & Kessy, 2017, p. 10).

7. Help Students to Self-Regulate their Environment

When thinking about how to help students self-regulate their environment, teachers can consider both the virtual environment and the physical environment. There are many aspects that students are able to control—both physically and virtually. For example, students have control over how they deal with distractions. They can locate themselves physically in a space that is conducive to learning and they can try to reduce online distractions by limiting the number of windows they have open and limiting the number of devices or programs they are using at one time. Teachers can encourage students to restructure their physical and online learning environments by

- demonstrating how students can personalize online spaces (e.g., selecting appealing backgrounds/wallpaper)
- demonstrating how students can arrange their physical and virtual desktop in ways that minimize distractions

8. Help Students to Self-Regulate their Motivation

Addressed earlier in this framework were strategies for students to self-regulate their emotions. In teaching students how to control motivations, students benefit from similar strategies, as discussed earlier. But, in addition to self-regulating emotions, in order to self-regulate motivation, students require strategies that help to influence their interests and trigger intrinsic motivation.

Teachers can help students self-regulate their motivation as developmentally appropriate by

- encouraging students to delay self-rewards (e.g., indulging in a gaming activity) until they have completed their work (Note: The concept of waiting is a skill that needs to be taught.)
- chunking material so that students do not feel overwhelmed and so that, with each section that is complete, they realize they are progressing toward completion
- helping students to minimize procrastination

9. Help Students to Self-Regulate their Behaviour

Self-regulating behaviour is closely related to the development of effective learning dispositions. For example, it could involve persisting on a task and knowing when to ask for help. Teachers can help students to self-regulate their behaviour by

Hattie's (2019) research synthesis demonstrated that **help seeking** has an effect size of **0.72**

- teaching them effective learning dispositions
- providing them strategies for seeking help
- providing encouragement

10. Help Students to Self-Regulate Their Cognition

There are two components to metacognition: knowledge of cognition and regulation of cognition. The regulation component involves planning, monitoring, and evaluating learning.

When students understand how particular strategies help improve their performance, they are more likely to utilize effective online learning strategies. This idea is related to the regulation aspect of metacognition. Teachers can help students control their cognition in ways that help them reach their goals by

Hattie's (2019) research synthesis demonstrated that **strategy monitoring** has an effect size of **0.58**

- introducing and providing practice using strategies that facilitate performance
- helping students to make a study plan
- providing checklists for students to monitor their work
- helping students to monitor strategies and to evaluate the effectiveness and efficiency of the strategies they use

Conclusion

" Technology is just a tool. In terms of getting the kids to work together and motivating them, the teacher is the most important." – Bill Gates

As Manitoba school divisions envision a profession of teaching for the future, it is recognized that investing in teachers and supporting their learning are critical to improving students' learning experiences. It is also recognized that investing in school leaders and developing their leadership capacity are critical to supporting the implementation of the strategies contained in this framework.

The guiding principles and strategies contained in the *Manitoba Remote Learning Framework* were designed to help build common understandings and increase the implementation of evidence-based practices for online learning and teaching. As noted earlier, teachers are encouraged to purposefully select strategies based on their student learning needs, try them in practice, and determine, along with their colleagues and with support from school leaders, how to achieve quality implementation.

Teachers are in the best positions to make such decisions. When working with colleagues and school leaders, teachers can determine the following:

- What student strengths can we build upon?
- What is our greatest and most urgent area of need?
- What should work in theory?
- How can we best leverage evidence-based approaches given our unique context and our unique students?
- What is our collective impact? Are we making progress toward our goals? How do we know?

As educators gain recognition that progress is being made toward their common goals, teams invest and put forth greater commitment to what *could be* (Hite & Donohoo, 2021). When teams realize that they can make a difference for students, it is easier to commit. When thinking about what could be, Beare's (2001) framework for thinking about "futures" can be very useful for educators (Earl & Katz, 2006).

Beare (2001) identified three kinds of futures:

- **Possible Futures:** Futures that could happen—some of which are likely, most of which are not.
- **Probable Futures:** Futures that will happen unless something happens to throw them off course.
- **Preferable Futures:** Futures that you prefer to happen and that you will plan to make happen.
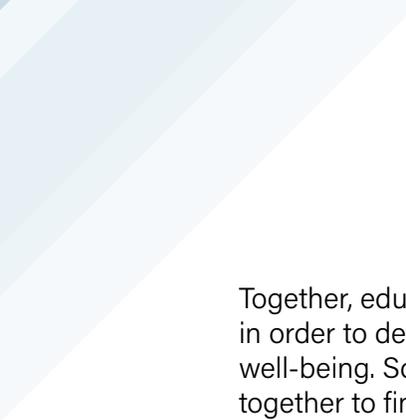
Together, educators can intentionally design a preferable future. Teachers can collaborate in order to determine the strategies that will best support their students' learning and well-being. School leaders can support teachers by learning alongside them and working together to find ways to implement evidence-based strategies for online learning and teaching. The collective belief that everyone in Manitoba school divisions has the capability to effect positive change will help in shaping and realizing a preferable future.

Glossary of Terms

Asynchronous Learning

Asynchronous learning is learning that does not require interaction in real time. Content is posted for students to access at their convenience, and due dates are made clear for various assignments.

Autonomy

When students have autonomy in their learning, it means that they are provided with choices and opportunities to share their perspectives and ideas. They are encouraged to exercise self-initiative.

Blended Learning

Blended learning is a combination of traditional face-to-face classroom learning and online learning.

Collective Teacher Efficacy

Collective teacher efficacy is the belief that "teachers in a given school make an educational difference to their students over and above the educational impact of their homes and communities" (Tschannen-Moran & Barr, 2004).

Cooperative Learning

Cooperative learning is the process of grouping students together so they can discover a new concept together and help each other learn.

Developmentally Appropriate

Developmentally appropriate refers to a teaching approach that respects both the age and individual needs of each student.

Distance Learning

Distance learning is a method of accessing courses of study even though learners and their teachers, instructors, or tutor/markers may be in different physical locations.

Effect Size

An effect size is a statistical measure that emphasizes the difference in magnitude of given approaches for the purpose of comparison. The larger the effect size, the more powerful the influence.

Golden Circle

The Golden Circle refers to Sinek's (2009) theory that explains how leaders can inspire cooperation, trust, and change based on research into how successful organizations think, act, and communicate.

Goldilocks Principle

In education, the Goldilocks Principle states that when designing tasks for students, teachers should focus on material that is not too easy or too hard, but "just right."

High Expectations

High expectations refer to what teachers expect from their students. High expectations refer to the beliefs that teachers communicate about their students' abilities to perform at a high level while engaging in critical thinking, problem solving, and metacognition.

Inclusion

Inclusion is a way of thinking and acting that allows every individual to feel accepted, valued, and safe. An inclusive community consciously evolves to meet the changing needs of its members. Through recognition and support, an inclusive community provides meaningful involvement and equal access to the benefits of citizenship (Manitoba Education, 2020a).

Learning Disposition

Learning dispositions refer to the ways in which students engage with the content and their peers. Effective learning dispositions include effort, help-seeking, curiosity, perseverance, and initiative, to name a few.

Learning Intentions

Learning intentions are brief statements that describe what students should know, understand, and be able to do at the end of a learning session (Ontario Ministry of Education, 2010). They identify the knowledge, understanding, and skills based on the competencies and elements described within each grade band in Manitoba Education's curriculum documents.

Metacognition

Metacognition involves knowing about different strategies, knowing procedures to execute strategies, and knowing under what conditions to utilize strategies. It also involves regulating that information accordingly (planning, monitoring, and evaluating).

Proximal Goals

Proximal goals are goals that can be achieved in a short amount of time.

Remote Learning

Remote learning takes place off-site and includes synchronous and/or asynchronous online delivery.

Self-Regulation

Pintrich (1999) defined self-regulation as the strategies that students use to regulate their cognition (i.e., use of various cognitive and metacognitive strategies) as well as the use of resource management strategies that students use to control their learning.

Split-Screen Thinking

Split-screen thinking involves teachers thinking about how to help students grasp the content while, at the same time, thinking about how to help students develop their learning capacity (Claxton, 2006).

Student Self-Efficacy

Student self-efficacy is the judgments students make about their own capability to successfully accomplish the tasks that they are assigned in schools.

Student Voice

Student voice is a metaphor for student engagement and participation in issues that matter to learning (Ontario Ministry of Education, 2013).

Success Criteria

Success criteria describe what successful attainment of the learning intention looks like (Ontario Ministry of Education, 2010).

Synchronous Learning

Synchronous learning is learning that happens online or from a distance in real time. There is usually a set schedule in which the students log in and interact in real time with their teacher and each other.

Think-Aloud

Think-aloud is self-verbalization. It happens when an individual verbalizes what is going on in their head as they learn and make sense of new material.

Universal Design

The concept of universal design means that school communities, including teachers, develop plans for the full diversity of their student population. Universally designed schools, classrooms, curricula, and materials provide all students with access to the resources they require, regardless of their diverse abilities and needs (Manitoba Education, 2020b).

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