Education During COVID-19
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Chapter 1:  
Introduction

The start of the new year 2020 took an unprecedented detour from what many individuals expected. In December 2019, a new virus outbreak started in Wuhan, China; this virus is now known to be a part of the coronavirus family and is referred to as COVID-19 (World Health Organization [WHO], 2020). Coronaviruses are a group of viruses that cause diseases in animals or humans (WHO, 2020). Infections from this disease can vary from mild to severe symptoms, with most cases being classified as mild or moderate (Jordan et al., 2020). The outbreak that started in Wuhan, China quickly escalated into a global pandemic, affecting many countries around the world. (WHO, 2020) The World Health Organization (WHO) announced this outbreak as an international public health emergency as of January 30, 2020 (Zhong et al., 2020). The coronavirus is able to spread expeditiously from person-to-person through bodily fluids that are expelled from infected individuals (WHO, 2020). The ability of the virus to spread very quickly has resulted in many countries taking very strict precautions to prevent the spread of this disease. Despite all the strict measures taken, this virus still manages to affect many individuals around the world.

Many industries have been severely affected by COVID-19. Out of the many affected industries, the education industry has taken a considerable deviation from its usual procedures due to COVID-19. COVID-19 was an unforeseen event for many individuals and institutions. This pandemic has had a substantial impact on the education system, causing many institutions to make extensive modifications to their teaching, training, and evaluating methods.

Education is an essential component in every person’s life and everyone is entitled to receive a baseline education. Education allows individuals to develop, understand, and view different perspectives in society. Knowledge is necessary for survival and the only way knowledge can be gained is through education and experience.

To reduce the spread of the virus and in hopes to flatten the curve, many educational institutions ranging from elementary schools to universities have closed, causing a halt to education for many individuals. Closing schools was an important measure taken as previous outbreaks, such as influenza, have been demonstrated to be driven by children (Viner et al., 2020). As of now, it cannot be said whether the closure of schools has been effective for the coronavirus outbreak (Viner et al., 2020). However, previous stud-
ies have shown that school closures in the past have significantly reduced the peak of the outbreak; earlier school closures have been correlated to a greater reduction in the spread of the virus (Viner et al., 2020). However, the reopening of schools resulted in an escalation of virus transmission (Viner et al., 2020). Consequently, it is necessary to be extremely cautious before reopening schools as the progress done towards reducing the transmission of the virus could be reversed.

As this pandemic was an unprecedented circumstance, many educational institutions were unprepared for the consequent events to occur, causing a lot of confusion and chaos. Due to the pandemic, many institutional educators decided to adopt an entirely online education system. As such, teachers and professors were required to learn how to use telecommunication by means to teach students in their classes, while students were required to adapt to a fully online classroom. Further, students and educators were required to adjust promptly to the new measures being announced as well. As one can imagine, a great deal of stress was endured by many students, professors, and higher officials during this already difficult time. Although in today’s society, technology was highly relied upon for education prior to COVID-19, many individuals were not prepared to fully go onboard with e-learning.

Certainly, there were students that were at a disadvantage and other students that were at an advantage due to the sudden shift to online education. Challenges can arise due to a variety of different reasons ranging from lack of technical competency to a lack of technological resources available. These factors affect the performance of an individual skewing their outcomes from their normal performance. Skewed outcomes, especially for high school and post-secondary school students, are very concerning and stressful as their performance in school is highly valued for future education and careers. Many lectures, clerkships, and evaluations were either cancelled or shifted online due to this pandemic. This event resulted in students receiving education via alternative means differing from the traditional methods. A lot of trial and error has been occurring to determine the best possible way to provide education. Some may argue that the alternative teaching and evaluating methods put students at a disadvantage and lower their educational learning (Fain, 2019), but unfortunately not much can be done in a global pandemic situation.

Faculty, academic leaders, employers, and the public deem obtaining a degree online as less favourable compared to a traditional degree. (Fain, 2019) This issue alone causes the public to question the validity of the online education system as they are still paying the same cost for their education, with lower benefits (Fain, 2019).
In contrast, an advantage that arose due to fully online classes is the flexibility in scheduling. Having pre-recorded lectures and learning at home allows students to have full control of their schedule and allows them to customize their itineraries for the day as they please. It is also important to note that with a system like this, immense self-regulation is necessary in order to attain a prosperous outcome.

Assessments were also an important issue that arose due to the closure of schools. Not only were internal university exams cancelled, but main public qualification exams, such as the GCSEs and A levels, were also cancelled (Burgess & Sievertsen, 2020). These examinations are extremely important assessments that determine the further education of many individuals. Alternatives that were considered in replacement of these exams were using ‘predicted grades’ in place of these standardized exams (Burgess & Sievertsen, 2020). As one can imagine, predicted grades can be biased as some individuals are from a disadvantaged background compared to others who are from a more advantageous background (Burgess & Sievertsen, 2020).

As the pandemic situation evolves, many institutions are rigorously searching for online assessment tools to replace traditional in-person exams. The effects caused by the pandemic on assessments are expected to have a toll on new graduates entering the labour market (Burgess & Sievertsen, 2020). It is expected that new graduates will experience lower matching efficiency to jobs and may experience lower incomes and higher job separation rates (Burgess & Sievertsen, 2020). These consequences are expected to affect both new graduates as well as the society.

Likewise, parents, especially those with young children, have also been greatly affected by the closures of schools. Education becoming fully online affected parents as their children are now required to live and learn from home. To reduce the spread of the virus and for the safety of all individuals, many people were advised to stay home if they could. This includes both adults and children. These immediate changes placed barriers on many parents, such as those who work full time because they must now watch over their child(ren) while working their regular full-time job. This circumstance causes a great deal of pressure on parents as they are now required to help their children with their schoolwork as well as work from home and perform all their other routine tasks. Some parents simply are unable to help their child with learning because they do not understand the content themselves, putting the child at a disadvantage (Burgess & Sievertsen, 2020). Even if a parent has the knowledge and intellectual capacity to teach their child, conflicts occur when the parent is unable to devote as much time to teaching, resulting in the child having a lower education than they would have if they attended school (Burgess & Sievertsen, 2020). The amount of time a parent can dedicate towards their child’s education is now what determines the
level of education many young children receive. Due to this, children will be at different educational levels when they return to school once the pandemic has concluded.

Due to the closure of many public spaces such as libraries and restaurants, many students have had to adapt to new learning styles to suit their circumstances. Keeping safety as the number one priority, public spaces were restricted and as such, students were unable to study at these locations. Many students prefer to study in these locations compared to their home because they find themselves more productive and less distracted. The closure of these public spaces placed many students at a disadvantage as their circumstances at home were not as desirable to study for various reasons. One potential reason may be that the environmental conditions at home are not suitable to study for some individuals due to constant distractions. This may be because home is a very comfortable place with many activities and noise that can cause an individual to easily procrastinate and get off track. Although the sudden shift to a fully online education system has been difficult to cope with for many, there are strategies that can be implemented to enhance learning outcomes. Focusing on improving studying habits and maintaining balance is essential for both succeeding and maintaining a more positive mental wellbeing.

School has generally been a place where students interact with other individuals and build upon their noncognitive skills and their social awareness. (Burgess & Sievertsen, 2020) Resorting to a completely online education method for children prevents them from developing essential skills that are necessary for society. Online education prevents students from meeting and interacting with individuals of other ethnicities and ages, blocking them from learning different subjects/topics in society. Online education also consists of students learning subjects remotely without gaining full exposure and understanding of real societal issues. In order to combat these issues, it is essential that schools rebuild the education system to ensure that students are able to receive a high-quality education (Burgess & Sievertsen, 2020).

In general, long term social distancing measures are expected to have negative effects on overall mental health and well being (Addelman, n.d.). The longer individuals remain social distancing, the more unstable their mental health becomes (Brooks et al., 2020). A reduction in mental health correlates to lower performance and a lack of motivation to continue doing well in school. In addition to academic learning stress, students may be financially burdened due to the reduction of jobs available during the pandemic (Addelman, n.d.). Further, one study showed that individuals that have been placed in quarantine showed more symptoms of acute stress disorder (Brooks et al., 2020). Some of these symptoms include disengagement from others, anxiety, trouble interacting with others and lack of motivation. (Brooks et al.,
Moreover, long-term quarantine has been shown to cause increased levels of depressive symptoms in the later life of an individual as well (Brooks et al., 2020).

COVID-19 has placed a significant burden on many individuals, especially those involved in the education sector. Many advantages and disadvantages to education have arisen due to this event and many individuals have different perspectives on how the new online education system compares to the traditional education system.

Throughout this book, various aspects of education during COVID-19 will be presented. The modifications to the education system will be explored and the impacts, advantages, and disadvantages of the new education system will be analyzed. In addition, the psychological implications that may arise, such as social effects on learning, long-term effects on performance and discipline-specific effects will be brought to light. Although COVID-19 is an undesirable situation, it is in all of our best interests to abide by the newly presented conducts in order to safely return to the pre-pandemic lifestyle.
Chapter 2:  
Online vs. In-Class Education: What Are the Risks and Benefits?

In an attempt to stop the spread of the COVID-19 pandemic, schools across the world shut their classroom doors in the early months of 2020. As in-person learning dissipated, students found themselves stepping into what was a new world of academia for most: the virtual classroom. The option for online learning is not a new concept. However, the idea of it being the only option for learning certainly is. While some students found comfort in the idea of learning in their pyjamas, others have found technical difficulties, limited access to resources, and a lack of in-person connection to be problematic. As a continued precaution, some schools – including some post-secondary institutes – have stated they will continue to host the majority of their classes online until further notice, with the exception of some classes such as labs and practicums. On the contrary, some school systems have declared students will be going back to in-person learning come September 2020, with additional safety measures put in place.

With so much room for ambiguity, there is an increasingly large grey area between which method is the most beneficial for students, educators, and parents, as the perceived pros and cons vary per individual.

For some, online learning poses a unique opportunity for financial benefit, particularly those in post-secondary. For example: at the University of Alberta, the daily maximum parking rate for most of the university’s parking lots averages around $15.00 per day. For students who must visit campus daily, that adds up to around $75.00 per week or $300.00 per month (University of Alberta, n.d.). For students who do not have access to public transportation, parking on campus may have been their only option prior to online learning. Online learning offers a unique opportunity to reduce travel-related expenses and time spent on transportation, offering the possibility to spend more time at home with loved ones.

[I] absolutely loved online learning. It made [education] so much more accessible and affordable.... Online learning was perfect for me and my family.” (S. Anderton, personal communication, July 13, 2020)

Saving money on childcare is a large benefit to online learning, as childcare centres continue to be unaffordable for many Canadians. A report that was released on March 12, 2020, by the Canadian Centre for Policy Alternatives reveals that infant child care and toddler child care are the most expensive
in Toronto, with a monthly median cost of $1,774 per month and $1,456 per month, respectively (Macdonald & Friendly, 2019, p.4). In addition, the same report reveals Calgary to have the highest rate outside of Ontario for infant childcare at $1,300 per month, and Edmonton not far behind at $1,075 per month (Macdonald & Friendly, 2019, p.12).

Online learning also offers more flexibility and increased student access for some individuals. While some institutions adhere to a fixed online schedule (with designated dates and times for virtual lectures), others allow students to complete modules and assignments at their own pace, so long as they are completed by a specified date.

According to research found in the National Survey of Online and Digital Learning 2019 National Report, “the three most cited reasons why institutions considered online learning to be strategically important were: to grow continuing and/or professional education, to increase student access, and to attract students from outside the traditional service area. (Johnson, et. al, 2019, p.37)

It is noted that this report was conducted prior to the COVID-19 pandemic, and these findings illustrate the key benefits of online learning outside of safety concerns related to COVID-19.

However, the same survey revealed that “faculty training and support for teaching online continues to be an identified barrier to the expansion of online” (Johnson, et al., 2019, p.1).

While notably beneficial in some areas, online learning may cultivate a lack of engagement between educators and students. A lack of engagement between students and instructors may be deemed as problematic for the success of some students, particularly those who require more one-on-one support. Without the opportunity to actively participate in class, ask questions during lectures, or meet directly with teachers, students may feel as though they have less opportunity to gain clarity on the subject material. While some institutions have enabled live video-call lectures, this option may not be available for all students as some educators prefer a note-based teaching method.

Further, students who rely heavily on a classroom-based structure to keep on-task and complete assignments may find it difficult to become self-disciplined through online education, as “a majority of institutions also reported that...the perception that students need more discipline to succeed in online [is a] barrier[] to online education” (Johnson, et al., 2019, p.1).

“[I] took a couple of classes in the spring and it was not a great experience...None of my classes had online lectures which was very upsetting for me personally because I can not teach myself” (A. Chilivnic, personal communication, July 14, 2020).
Online learning may pose as troublesome for educators, as well as students. The National Survey of Online and Digital Learning 2019 National Report further reveals that “the most significant barrier to the adoption of online learning was the additional faculty effort required. Following that, inadequate training for faculty was the second most significant barrier” (Johnson, et al., 2019, p.37).

In the same sense that not all students are trained to learn online, we must note that not all educators are trained to teach online. The proper development of effective learning materials delivered virtually may be a foreign concept to some teachers, resulting in an unprecedented learning curve. As noted in the report above, teachers may also face an increased workload with online education, as the opportunity for simple speaking points and dialogue may need to be replaced with fully developed notes and guidelines for proper student understanding.

Furthermore, it is noted that in order to actively participate in online learning, students must have access to costly technology such as a computer, tablet, smartphone, and properly functioning WIFI. As some students and/or their families may not have the financial means to afford such expenses, students with less financial gain may be at an educational disadvantage with online learning. While borrowing technology is typically an option at many institutions, the COVID-19 pandemic may have limited or removed this option for some students, as well.

While limited access to technology may be a significant hindrance for some students, a lack of online opportunities may be an obstacle for students who do not have an easily accessible means of transportation to in-person classroom learning. In direct contrast with the benefits associated with online learning, decreased flexibility and student access may be a risk to consider when evaluating classroom learning. By removing virtual education options, some students may be confined to strict classroom schedules. Additional classroom options may be reduced or removed as educational institutions attempt to lessen the spread of COVID-19. Students who may have had the option to select classes at times that worked best for their lifestyle may now be forced to attend classes at a time that conflict with another aspect of their life.

For students who must work to support themselves and/or their families, the rigid classroom structure often associated with classroom learning may hinder the flexibility in their work schedules. This may potentially result in a loss of work opportunity and loss in wages. Moreover, commute time, transportation costs, and childcare costs are also considerable factors with classroom-based learning.

However, the most obvious concern associated with the return of classroom-based learning is the opportunity for COVID-19 to spread. Should
proper protocols and safety measures not be following adequately, large gatherings of faculty and students may easily spread the virus.

The Centers for Disease Control and Prevention (2020b, para. 2) reveals that virtual interactions between students and teachers pose the lowest risk of spreading the virus, small in-person classes that stay with the same group and teacher, do not share objects, and are six feet apart pose more of a risk, and full-sized in-person classes that mix between classes and share objects pose the highest risk.

While faculty may help students adhere to social distancing requirements and designated groups during classroom hours, breaks such as lunch, recess, and switching between classes may pose an additional challenge. Post-secondary institutions may find this obstacle to be particularly challenging, given each student’s variance of required courses and the large student and faculty population.

However, some have stated that the benefits of classroom learning highly outweigh the potential risks. Students who rely heavily on structure and routine may benefit greatly from the outlined schedules and assignment completion dates associated with classroom-based learning. In-person schooling provides concrete timeframes where students must focus their attention on a particular subject. For those who struggle with time management and procrastination, classroom-based learning allows for a greater chance of academic success.

For many students, particularly those in primary school, the abrupt isolation caused by COVID-19 was disruptive to integral aspects of life.

Members from the United Kingdom’s Royal College of Paediatrics and Child Health (RCPCH) made an open plea for the return of in-class learning, stating the importance of classroom learning and their concern with ongoing isolation.

The open letter, signed by 1,500 members of the RCPCH, reads, “this interruption is without precedent and risks scarring the life chances of a generation of young people.” (Royal College of Paediatrics and Child Health, June 17, 2020)

The interruption, of course, refers to the physical closure of schools as a result of the COVID-19 pandemic.
The letter further states that the benefits of traditional school range far greater than just on an educational level, outlining its essential role in “... access to mental health support, vaccinations, special therapies, free school meals, physical activity and early years services that help children get the best start in life.” (Royal College of Paediatrics and Child Health, June 17, 2020)

Through in-class schooling, students are provided with the means to reach essential services that may not otherwise be accessible. For some students and their families, meal services provided by schools may be the only means to ensure children are properly fed throughout the day. In addition, classroom-based learning provides students with the opportunity to form and nurture meaningful relationships with their peers, providing integral support for their mental and emotional wellbeing. The opportunity to identify and support learning disabilities and/or abusive situations within the home is also more accessible when students are physically present in the classroom.

The American Academy of Pediatrics (June 25, 2020) strongly encourages the return of classroom-based learning, stating:

The importance of in-person learning is well-documented, and there is already evidence of the negative impacts on children because of school closures in the spring of 2020. Lengthy time away from school and associated interruption of supportive services often results in social isolation, making it difficult for schools to identify and address important learning deficits as well as child and adolescent physical or sexual abuse, substance use, depression, and suicidal ideation.” (para.2)

In-class learning presents a wide array of beneficial factors to consider, many of which extend past educational impact.

When evaluating the benefits and risks associated with both online and classroom learning, it is important to consider the multitude of aspects that come into play. What may be a more beneficial method for one individual may cause significant adversity for another and vice versa. The risks and benefits of virtual and in-person education may be highly subjective at times and vary on a case-by-case basis. To provide the largest amount of benefits to the largest amount of individuals, it may be desirable to offer methods of both online and in-person education in a means that is safe, accessible, and affordable.
Chapter 3: 

The Use of Telecommunication Systems for Public and Academic Education During the COVID-19 Pandemic

Telecommunication systems are the means by which information is transmitted from a distance. These systems are what make most day-to-day communication possible in today’s society. They include both smaller forms of communication (e.g. instant messaging, video calls) and ones that broadcast information on a larger scale (e.g. television, radio, the internet). In today’s society, it is undeniable that the internet, particularly social media, has become one of the primary forms of communication, especially among youth. The COVID-19 pandemic, with its emphasis on social distancing, has certainly accentuated the popularity of social media as both a form of communication and a means of public education about the pandemic itself.

While other telecommunication systems such as television and the radio are prevalent sources of information, social media has an advantage in being able to offer diverse perspectives and personal experiences regarding COVID-19. It is common for survivors of the respiratory condition to publicly give an account of what their experience was like and inform their followers of their day-to-day life while living with the virus. In this way, social media is able to educate the public about any possible symptoms of the condition as well as the typical duration of these symptoms, spoken from the victims of COVID-19 themselves. As for more official sources of information, news outlets often take to Twitter and Snapchat to inform the public of the latest news about COVID-19, such as what new policies have been implemented or the progress of finding a potential vaccine. These tidbits of information are more readily seen by the public, particularly younger populations, as they are posted on platforms that are popularly used by this demographic.

Social media platforms have also taken their own efforts to deliver only the most accurate and reliable information about the pandemic. Facebook, for example, has focused many efforts on eradicating false information. One way this platform does so is by partnering with fact-checking organizations that review posted content to determine its reliability (Rosen, 2020, para. 4). When fact-checkers deem content unreliable, Facebook proceeds to show warning labels on these posts to inform other users that what they are reading is not truthful (Rosen, 2020, para. 6). This aims to prevent misinformation as readers are made aware of what is not entirely accurate and it pushes them towards sources that are more credible. Accordingly, Facebook and Instagram have implemented pop-ups that redirect users to more credible sources such as the World Health Organization (WHO) (Rosen, 2020, para. 6).
3). On these websites, readers can be assured that they are looking at the most trustworthy and relevant information regarding the COVID-19 pandemic. These efforts have proven successful as over 350 million people have clicked on these pop-ups for more information (Rosen, 2020, para. 3). This combined with warning labels and fact-checking is a great initiative from social media platforms to provide only the most accurate information about COVID-19 to keep users safe and informed. These platforms also personally remove pieces of misinformation that could potentially cause physical harm such as the notion that drinking bleach is a treatment and that social distancing is an unnecessary measure to prevent the spread of COVID-19 (Rosen, 2020, para. 6).

A noteworthy effort by the messaging platform WhatsApp is their implementation of the National Health Service (NHS) chatbot in the United Kingdom (Field, 2020, para. 1). As presented by Field (2020) for The Telegraph, Matt Idema, the chief operating officer of WhatsApp, says that the purpose of the chatbot is to offer “reliable, timely health advice, in order to keep people safe” (para. 6). When individuals are uneducated or receive false information, they tend to panic, something that can be extremely dangerous during a global pandemic as it causes people to act irrationally. By taking steps to properly educate people, the WhatsApp chatbot can avert chaos and, as Idema expressed, keep individuals safe during these unprecedented times (Field, 2020, para. 6). Though it is relatively easy to access information in this day and age, many people do not know where exactly to seek out these reliable facts. Therefore, it is beneficial to have these credible sources of information displayed at the forefront of widely used platforms such as WhatsApp. Ultimately, intervening at the level of social media to deliver information about COVID-19 is an effective and convenient way to keep the public updated with the latest news surrounding the pandemic.

Social media is a double-edged sword when it comes to publicly educating the world about COVID-19; it has become a diverse information resource with access to different sources and perspectives across the world yet, it also contributes heavily to spreading misinformation, given that it largely displays people’s opinions and other information with no evidentiary support. One of the biggest problems of the COVID-19 pandemic is the anxiety and confusion that stems from a lack of accurate, reliable information. Unmistakably, in a global crisis, it is important that essential information is properly communicated to everyone that could be affected. In the 1918 influenza pandemic, there were not enough resources to ensure that everyone was up to date with the latest and most accurate news (Lima et al., 2020, para. 1). Lima et al. (2020) refer to a study in Minneapolis that demonstrated that back then, the main spreaders of information were “postal workers, Boy Scouts, and teachers” (para. 1). Nowadays, there are many resources that can deliver information globally at the click of a button. Thus, it is society’s responsibility to best utilize these resources (e.g. social media) to commu-
nicate reliable information in times like these. Unfortunately, social media, with all its benefits, is greatly susceptible to presenting misinformation as users are able to express their opinions freely. The impersonal nature of social media also contributes to the notion that individuals can post anything they want without consequence because they are hidden behind a screen. Sometimes, false information can even be disguised as authoritative as it often features “a physician, nurse, surgeon, or other authority figure who shares advice,” prompting people to believe that it is, in fact, reliable information (Lima et al., 2020, para. 4).

The reason why misinformation is so hazardous is that it encourages people to act in ways that could be potentially dangerous. For example, at the beginning of the pandemic, it was falsely claimed that the virus could be efficiently transmitted through the air and through contact with surfaces (Kadam & Atre, 2020, para. 2). Unsurprisingly, this sparked panic and people started buying masks in bulk, particularly N95 masks that are required for healthcare workers on the frontlines of the pandemic rather than for a quick trip to the grocery store (Kadam & Atre, 2020, para. 2). Aside from causing a lack of resources for essential workers, this frantic buying of masks does not protect people from the virus if they are uneducated on how to properly use and dispose of them, which proved to be the case as masks were commonly disposed of on the roads (Kadam & Atre, 2020, para. 2). Evidently, misinformation only spreads fear amongst people and causes them to behave irrationally at the cost of many individuals including essential workers.

Another facet of education pertains to formal academic education with regards to the school system. The onset of the pandemic has forced classrooms (from kindergarten to post-secondary) to move online, affecting an estimated 1.2 billion students across the world (Li & Lalani, 2020, para. 1). This format will proceed for the remainder of the school year for most as measures continue to be taken to prevent the spread of COVID-19. Here, other telecommunication systems are taking the lead in facilitating online academic education such as the popular video-calling platforms Zoom and Microsoft Teams. These platforms do their best to bridge the gap between in-person and online classrooms, yet it is undeniable that online education is not the same as in the classroom.

That being said, there are still some benefits and features of online classes that can enhance learning, prompting some people to believe that the online format will successfully carry on into a post-COVID-19 world. Students typically have more flexible schedules with online classes. Normally, they are fixed to a daily schedule with set class times. With online school, students will be able to learn at their own pace, given that they have access to more educational materials and resources such as posted lecture slides and homework questions. As lectures are often pre-recorded, students can take
as long as they want to go through the material to understand important
corcepts versus being in the quicker-paced environment of a classroom. It
also may be easier for students to bring up questions and areas of confusion
during live lectures through the chat options on Zoom. Other platforms such
as Lark, a Singapore-based remote learning platform, also aim to add to the
learning experience (Li & Lalani, 2020, para. 6). In an interview with the
World Economic Forum, Dr. Amjad, a professor at the University of Jordan,
voiced his support of Lark as it “‘enables me to reach out to my students
more efficiently and effectively through chat groups, video meetings, voting
and also document sharing, especially during this pandemic’” (Li & Lalani,
2020, para. 11). Even educators can see the benefits of using software to car-
ry out remote education as it builds a better communication system between
students and teachers, where students are more likely to receive the guidance
they need.

Learning is undoubtedly a social experience. Though there are many
benefits of online learning, the digital format cannot replace the physical
interactions between teachers and students that make up the learning envi-
ronment. The social aspect of education is particularly important amongst
younger age groups as studies show that “children extensively use their
senses to learn”; much of this ability can be compromised in the shift to a
digital format (Li & Lalani, 2020, para. 16). Thus, efforts should be taken on
technological platforms to compensate for the lack of physical interaction in
order to help young students learn most effectively. Coincidingly, the differ-
ent learning styles of students must be considered when moving to an online
classroom as some students may be visual learners while others may be
kinesthetic, or hands-on learners. This can pose a challenge for educators in
ensuring that none of their students fall at a disadvantage by learning online.
This can partly be tackled by incorporating interactive games and activities
during class time to engage students more and to let them apply themselves
the ways in which they benefit most. These efforts can also tackle the major
issue of children being unable to focus during online classes where they are
not in a classroom setting but at home, where all kinds of distractions can
arise (Li & Lalani, 2020, para. 15).

Education is one of the most important necessities in life, equipping in-
dividuals with a sense of awareness of the world around them. Without
education, people would not be as intelligent, innovative and curious as they
are today. It is, understandably, a basic human right that everyone is entitled
to. Unfortunately, the COVID-19 pandemic and its push towards online ed-
ucation can compromise this right for many individuals who may be unable
to access the resources needed for online learning such as the internet or a
computer. This can be the result of economic disparities, which exist across
the globe and may put students at a disadvantage when it comes to accessing
education. As an example, in the United States, nearly all fifteen-year-olds
with privileged upbringings stated that they had access to a computer for on-
line school, while a quarter of fifteen-year-olds “from disadvantaged backgrounds” said they did not (Li & Lalani, 2020, para. 13). The pandemic’s reliance on online school further divides individuals based on their economic status and deprives those with unfortunate backgrounds of their right to an education. This is a matter that must be addressed because it affects students of all ages and ethnicities, and may stop them from becoming society’s future doctors, lawyers or accountants.

The COVID-19 pandemic necessitates the distribution of reliable, timely information to individuals across the globe. Social media plays an important role in this distribution by actively keeping people up-to-date with the latest news as well as directing people to credible resources that can deliver trustworthy information regarding COVID-19, such as its symptoms or how to most effectively prevent the spread. With regards to formal education within the school system, online video conferencing platforms (e.g. Zoom) aim to bridge the gap between in-person and online classrooms. To some, online classrooms are a blessing as they have allowed for better communication between students and teachers as well as provide a more comfortable and slower-paced learning environment. For others, the online format may be an obstacle given that it further divides those that are already economically disadvantaged. There is still much more to be done to ensure that these students are also receiving the education they are entitled to. Ultimately, the COVID-19 pandemic has caused society to become increasingly dependent on telecommunication systems for educational purposes, whether it be to spread public information about COVID-19 itself or to conduct formal education within the school system.
Chapter 4:  
Effects on Child Care, Parents, and Children

In April 2020, many educational institutions made the decision to discontinue in-person education due to the emerging threat of COVID-19 (Jessen & Waights, 2020). The closure of schools was an important measure taken to reduce the transmission of the coronavirus and to flatten the curve. As a result, individuals ranging from kindergarteners to graduate students were required to continue their education from home. One would anticipate this to be a very exasperating time for both educators and students, which it truly was, however, it was also a very stressful time for parents.

Children spend on average about eight hours a day at school, five days a week; this totals 40 hours spent at school per week. In these 40 hours, children are supervised primarily by teachers and other school staff members. Parents are relieved from the supervision of their children during this time and are able to perform other essential tasks. Examples of these tasks may include working a job in order to have a sufficient household income to provide for their family, and/or performing household chores.

A significant increase in stress and a decrease in psychological well-being is expected to forecast notably on parents with younger children. This is because the abrupt closure of schools results in a sudden increase in childcare responsibilities for parents. In the best interest of everyone, and in hopes to keep everyone safe from the virus, children that attended these facilities are now required to stay home with their parents/primary caregivers. Many parents may feel agitated and overwhelmed because of this situation and are now required to adjust their schedule accordingly to accommodate for their children (Jessen & Waights, 2020). Moreover, many childcare facilities, such as daycares, are also closed due to the pandemic, obligating parents to be the primary caretaker for their children (Jessen & Waights, 2020). This circumstance placed many parents at a disadvantage. Young children require a lot of attention and need to be supervised continually (Jessen & Waights, 2020); this results in parents having to dedicate more time towards their child than prior to the pandemic. Some may even argue that the closure of daycares has resulted in more parental distress compared to the closure of educational institutions (Jessen & Waights, 2020). As such, parents with young children are expected to endure a great deal of stress during the time in which schools and childcare facilities remain closed. Parents are expected to face difficulties regarding time allocation to tasks and are expected to be burdened with more work and less leisure time to relax. These consequences are expected to impact children’s education, household incomes, gender
equality, and the psychological well-being of the entire family (Jessen & Waights, 2020).

The closure of schools meant that children were expected to continue their education at home to prevent them from falling behind. The sudden closure of schools caused many parents to abruptly become the primary educator for their children (Burgess & Sievertsen, 2020). Prior to COVID-19, many parents supplemented their child’s learning by reinforcing topics taught at school but were never required to be the primary educator.

Homeschooling does have its advantages, but with that also comes disadvantages. Homeschooling is expected to be not as efficient as traditional schooling (Burgess & Sievertsen, 2020). The article written by Burgess and Sievertsen also suggests that discrepancies to children’s education arise because parents vary in their educational knowledge and their ability to teach and help their child understand the concepts. This is because it is difficult for one to teach concepts that they do not fully understand themselves. It would be disastrous if the parent understood the concept incorrectly and taught the concepts incorrectly to the child, as the child would be obtaining erroneous knowledge. In like manner, variations in financial resources also play a role in determining a child’s education. Some families are able to provide supplemental educational tools such as an online tutor, while other families simply cannot afford these additional expenses. Further, financial resources and parental dedication towards teaching now play a vital role in the child’s education. This is unfortunate because some parents simply are unable to dedicate as much time and money towards their child’s education because they need to fulfill other tasks in order to lead a stable lifestyle.

Not only were students’ education shifted online during the pandemic, but many parents’ jobs were shifted online as well. As a result, the differentiability between work and home have blended together. The merge of these two occasions, which prior to the pandemic had been separate, is expected to result in a higher level of psychological distress (Di Giorgio et al., 2020). Many adults, especially mothers, are expected to struggle to balance their occupation and family. (Di Giorgio et al., 2020) Studies have shown that mothers perform more childcare related tasks compared to fathers (Jessen & Waights, 2020). Without daycare, parents spend more time with their children, with the mother allocating more time towards the child than the father. Further analysis of parent-child interaction in a study showed that although the children that do not go to daycare spend more time on average with their parents, the extra time spent with their parents is not spent towards childcare activities. Conjointly, adverse side effects on child development have been correlated to diminished parental interactions during increased time with the child (Jessen & Waights, 2020). The impact of these effects is expected to occur in this pandemic situation due to parents pursuing multiple tasks while
also having to look after their child. As such, mothers will need to reduce their working hours in order to accommodate for their child’s needs. Challenges arise, such as gender inequality, when the mother has to reduce her leisure time in order to dedicate more time towards the child. These disputes can impact the overall mental well being of everyone in the household (Jessen & Waights, 2020).

Considering the amount of time spent in quarantine, adverse effects are expected to arise for both mothers and children. According to a recent study, mothers and children are expected to face a decline in sleep quality and difficulty with time management (Di Giorgio et al., 2020). Moreover, this study expects children to face an increase in emotional symptoms as well as self-regulation difficulties. These negative effects will place an expense towards the mental and physical well being of both mothers and children. Data from this study shows that mothers began to sleep later and wake up later during quarantine. In addition, their sleep quality was shown to be worse during quarantine, as well (Di Giorgio et al., 2020). Consequently, children also started sleeping later and waking up later during quarantine (Di Giorgio et al., 2020). The research indicates that changes in the mother’s sleep correlate with the changes in the child’s sleep. Although, it is important to note that even though the sleeping pattern of children shifted later into the night, their quality of sleep was not affected, whereas mothers faced both a shift in their sleep schedule as well as a lower quality of sleep (Di Giorgio et al., 2020). The study also shows that children struggled to follow a daily routine during this time, and a decrease in self-control was noticed. An increase in emotional distress, conduct problems, and hyperactivity/inattention issues were also noted amongst children in this study. The accumulation of these factors ultimately resulted in a decline in physical and psychological well-being of both mothers and children (Di Giorgio et al., 2020).

Following a schedule and having a daily routine have been shown to have positive effects on well-being in children (Di Giorgio et al., 2020). The research conducted by Di Giorgio and his fellow colleagues demonstrates that the closure of schools resulted in many young children losing self-discipline and self-control capacity. The researchers suggest that these displeasing behaviours emanated due to a lack of a daily routine, interruption to their peer social interaction, and confinement at home. As such, these behaviours further induce parents to feel increased emotional distress, exhaustion, and irritability. The mother’s quality of sleep was also shown to play a significant role in regulating and controlling the child’s behavior; the level of emotional distress on the mother affected the behaviour of the child (Di Giorgio et al., 2020). Mothers are known to have a crucial impact on the psychological development and well-being of a child, and so, emotional distress on the mother negatively impacts the psychological development of the young child. Overall, this study has shown the importance of young children going to school and maintaining a routine as it not only benefits their physical and psychological well-being but it also positively impacts the well-being of their parents, especially their mothers (Di Giorgio et al., 2020).
Vulnerability to child abuse is significantly greater during COVID-19; an increase in parental stress has been correlated with an increase in physical abuse and child neglect (Intimate Partner Violence and Child Abuse Considerations During COVID-19, n.d.). This paper showed that the stress endured by parents is likely to be conveyed through abusive ways towards the child, especially when the child misbehaves. Schools and daycares have been an essential system that parents relied on to ease their stress and to relieve themselves from their children, but unfortunately, the pandemic has resulted in the closure of these institutions and facilities. Similarly, extended family and friends have also played an important role in helping to raise a child, but it is not advisable to have in-person, close-contact visits from others during this time because of the pandemic. Regrettably, not all families are able to afford technological devices in order to stay connected with their loved ones, resulting in increased stress and the deterioration of mental well-being.

Additionally, child abuse cannot be effectively detected during the pandemic due to stay-at-home-orders. Prior to the pandemic, teachers and the general public were able to witness signs of abuse on a child, but now, such witnesses are not possible due to closure of schools (Intimate Partner Violence and Child Abuse Considerations During COVID-19, n.d). Also, child protection agencies are unable to do as many home visits due to the decreased amount of workers available. To combat these issues, virtual counselling and telephone check-ins would help identify and reduce abuse (Intimate Partner Violence and Child Abuse Considerations During COVID-19, n.d.).

The child’s overall experience during the pandemic is dependent on the parents. The attitude of the parents affects the overall mental wellbeing of the child during this difficult time. Some parents are more actively involved in the child’s life and have a more positive mindset in general, which allows the child to feel more content. In contrast, other parents may have a pessimistic attitude towards the pandemic situation, which would negatively impact the child. The overall psychological well being for children ultimately depends on the environment and people around them.

It is no doubt that the pandemic has significantly changed the lives of both parents and children. The extent to which the negative effects have occurred may depend on the age of the child, with younger children causing more distress on parents. Ultimately, the pandemic may result in an increased amount of stress or an increased amount of opportunity, depending on how one views their situation. Furthermore, the time in quarantine can be used to rebuild and develop relationships and get to know one another better.
Chapter 5:

Environmental Effects of Virtual Education

The environment that surrounds a student can influence how they interact with the world around them. As a consequence of the COVID-19 pandemic, there has been a sudden change in the environment, specifically the academic environment, that has forced students to engage differently. But how exactly has the COVID-19 pandemic shaped the academic environment? What are the resultant effects on learning? What are the long term effects of learning at home? These questions drive uncertainty with all levels of education around the world. On the other hand, this change of environment also serves as an opportunity for policies to be modified to shape education in ways that best suit technological advancements. Policy makers are reshaping the future of education, educators are faced with countless challenges, and students are desperate to acquire knowledge during these times. This pandemic has reshaped education and it has reshaped our future generations.

Social distancing is a practice used to prevent the spread of the highly transmissible COVID-19 virus (Pearce, 2020). This public health measure is highly recommended on a global scale to reduce the rate at which the virus is spreading (Pearce, 2020). This is often referred to as “flattening the curve” to prevent sudden surges that hospitals may not be prepared for (Pearce, 2020). This practice involves minimizing contact with others by avoiding social gatherings and keeping a recommended distance of at least 2 meters, or 6 feet (Pearce, 2020). This practice is especially difficult to enforce in the scope of education. From preschooler activities to packed lecture halls, social distancing simply cannot be implemented in dense packed spaces. This forces education to be implemented digitally at the “comfort” of the student’s home.

The word home often refers to a place of comfort, but this is not the case for everyone. The psychological environment of where the student might study is heavily impacted by a plethora of factors. Learning is heavily influenced by the attitude the task is faced with, including the student’s behaviour, positivity, motivation, and his/her situational settings. Behaviour is often influenced by the immediate people within the learning environment. Specifically, family and caretakers are among those who can largely influence our daily behaviours. Undoubtedly, these relationships become increasingly significant during quarantine. The people in close proximity to the student are those who can offer support and encouragement. On the contrary, these are also the people that can reflect negativity and anxiety, both of which can severely influence the result of academic achievements. Thus, the daunting challenge of learning needs to be approached with a state of positivity. The
active pursuit of positivity results in a high sense of self-efficacy, which allows oneself to become motivated. Learning needs to be attained by high levels of work ethics. Motivation is the driving force towards improvement. The established learning environment must support positive levels of motivation through active support from those in the same space during social isolation. Organized thinking is only established when the environment is permitting. The psychological learning environment has a massive impact on academic success by fostering a positive and motivating mindset for the leaner.

At-home learning is extremely different from learning in an academic setting due to the availability of resources in the physical environment. Elementary schools are equipped with the tools to deliver education, methods of teaching to allow for active engagement, and to support engagement with peers. Post-secondary programs involve engagement in lecture halls, group discussions, laboratory experiments to promote high level critical thinking needed for the workforce. All resources that institutions have relied on for delivering education are made impossible by social distancing guidelines. Students do not have access to necessary materials to conceptualize ideas. Accordingly, limited accessibility to resources leads to educational barriers. Virtual education only allows for the delivery of facts but is difficult to engage in cooperative learning. Hands-on learning is proven to increase the interest and positive experiences of students with education. Laboratories are often imagined to be a place with liquids, beakers, gas venting through a pipe, and explosions here and there. In the age of the pandemic, laboratories are placed in a computer screen with an animated depiction of a simplified microscope. Limited resources are one of the largest barriers to virtual learning; the emphasis is on the term “virtual”. The digital world is not one that is accessible to everyone. Unfortunately, education fails to account for different socioeconomic classes. Access to a computer, internet, web camera, application software is just the beginning of a list that inadvertently creates a gap in education while promoting an even larger divide between social classes. Additionally, the physical environment includes spatial arrangements to promote the act of learning. The colour and lighting of one’s physical space have significant influences on how education is stimulated and perceived by a student. Organization within the physical space is important for resources. Cleanliness also affects how a student might engage academic-wise. One’s physical environment greatly influences how the act of learning can be approached but also the attitude learning is faced with.

An environment that supports learning can be designed by referencing the practice theory, a responsive approach of learning, in order to enhance the experience between the learner and their physical environment (National Research Council, 2011). Indeed, the constructivist approach of learning is supported by recognizing the effects of the practice theory (National Research Council, 2011). In the 21st century, particularly amidst the current
pandemic, technological integration is crucial to the delivery of virtual education. It thus becomes more difficult to implement the practice theory in education. Engagement must be sustainable, yet the pandemic has promoted a reality of restricted physical contact. Active participation is implemented online through peer discussions, but this is nowhere near the real hands-on experience of building a marshmallow tower with classmates. Knowledge is something to be shared, discussed, and actively applied. Students are still expected to engage with the reality of a physical world after the pandemic and hands-on skills are still crucial to the education of future generations, thus demonstrating the importance of having hands-on experiences in the classroom.

Ergonomics is the study of the “science or law of work” with the goal of attaining optimized interactions between the subject and its environment. Students are often asked to “sit up straight” and not to slouch. This is in direct response to the studies of ergonomics with regards to the productivity of work. Ergonomics is often discussed in furniture and equipment to support the physical body. Sitting on a small, hard, bumpy, stool is comparatively uncomfortable to an ergonomic office chair. Levels of comfort can be reflected by the state and duration of focus the learner is able to exhibit. Visibility is one of the most important senses where learning is concerned as understanding knowledge comes from first perceiving information.

The environment of learning has been evidently shifted from an in-person classroom to a virtual “classroom” at home. Academic institutions are designed to deliver knowledge through encouraging cooperative learning, to have accessible tools to promote learning, and most importantly to allow students to connect with one another. Virtual learning does not have the same environment and resources, thus influencing how education is received by students of all ages.

Schools encompass and promote a social dynamic in the students’ environment; virtual learning no longer allows students to connect with their peers as one would before the pandemic. In-person school closures affect 90% of students, this drastically inhibits positive in-person interactions (Clemens et al., 2020). The restrictive environment at home influences individuals’ mental health due to the effort to try and cope with numerous challenges in the light of the pandemic. Upon the closure of many academic support environments, support groups are limited, extracurriculars are discontinued, and negative influences are emphasized. Strict closures are the result of a population’s decision, not an individual’s. The government cannot account for all the effects of social distancing, thus there are many individual struggles that are easily overlooked. Due to social isolation, disadvantaged individuals are disproportionately affected by these inequalities. Mental health is positively supported by “social connectedness” as human beings. The desire to com-
Communicate and interact with the world allows for an individual to succeed.

Social isolation allows for activities to happen behind closed doors. Parenting comes in all shapes and forms, some more beneficial than others. Students need to have an outlet to a world governed by the eyes of society. There needs to be programs to support students even during a time where everyone is told to stay inside. Friends, teachers, social workers need to be accessible during these unfamiliar times. Virtual education also comes with virtual support. Online calls through video platforms allow for students to still connect with the environment around them. Understanding that there is still a world that comes after the pandemic is important to the development and the education students receive. Students, especially in younger grades, need to have access to people during the years of critical development.

Educational environments often differ between inequalities in socio-economic status. Academic accessibility is essential to the growth of students. When socioeconomic status directly influences one’s access to education, inequalities are undoubtedly exaggerated. These challenges still remain to be addressed by policy makers, teachers, and all other levels in the education system. Support in a time like this is crucial to allow for equal access of material to promote academic growth. Students should not face being stripped away of education due to limited access to online resources. Support should not decrease just because the physical aspect is no longer available. Virtual learning should not be a burden but a time of growth. Students should not have to face inequalities created by society. Nothing in education has changed, books and knowledge remain the same, but the style of education will change. The change to allow for increased accessibility should remain in the post-pandemic world. Education must change to involve active engagement in learning to allow for online learning to have the same influences on a child’s academic career.

Virtual learning has allowed for the advancement of education to reach more people through the advancement of technology, but it also minimizes in-person experiences. Learning at home also allows for the flexibility in a student’s daily schedule. The development of technology in the 21st century has allowed for education to continue despite the mandatory social lockdown. The environment in which education takes place must be considered when transitioning learning to online platforms. A positive environment must be fostered and established through spatial considerations as well as engaging in social outlets. Resources should be provided to those facing inequalities to dismantle the barriers of virtual learning. Humans must adapt to a new style of learning in a different environment. Education through digital platforms is encouraged to continue even after the pandemic, but we must recognize how in-person interactions are still necessary for the growth of our nation.
Chapter 6:
What Happens When the Social Environment of Learning Is Disrupted?

At the onset of the current COVID-19 pandemic, classrooms of all ages were abruptly forced to move online and in doing so, this change greatly compromised the social environment of learning. To analyze the impact this has on students, it is important to first understand how critical the social aspect of education is to the overall experience of learning. As a supplement to the chapter exploring the pros and cons of online classrooms, this chapter will focus dominantly on the social aspect, or lack thereof, of such classrooms.

Interactions between students and teachers within the classroom can promote a child’s productivity and willingness to learn as they are less restricted and freer to express themselves. There are many benefits of being able to engage with peers in a classroom. In doing so, students can feel less anxious and reassured if they are not the only ones that do not understand something. Students can even explain concepts to those that may be confused about the material which can, in turn, enhance their own understanding of the content. Sometimes, in a fast-paced classroom environment, students can actually explain the material more concisely than teachers; this is favourable in a typical classroom where there is only one teacher for many students and not everyone can receive the attention they need. Social interaction between students can also alleviate the stress of the school environment and give students a break from learning all day. This is needed to prevent students from “burning out,” where they may feel drained from constantly having to be attentive during class.

Unsurprisingly, the ability to directly interact with teachers also serves as a helpful resource in classrooms. In student-teacher interactions, students can gain clarification on any areas of confusion and can ask questions that promote further understanding of the topics at hand. This is undoubtedly beneficial as it allows students to be curious and exhibit critical thinking skills that will be useful later in life. From a study investigating how students perceived their learning experience when more social interactions were incorporated, students indeed found that “social interaction improved their learning by enhancing their knowledge of literacy and teaching and their critical thinking and problem-solving skills” (Hurst, Wallace & Nixon, 2013, para. 1). Thus, it is not only logical but has also been supported through studies that social interaction is critical to the overall process of learning.
As important as social interactions within the classroom are, they tend to be more prevalent in younger age groups where many activities and games are incorporated into lessons. As students get older, it is common for classroom settings to shift from an interactive nature to a more impersonal one. Such classrooms depend on a “one-way” communication system where students passively listen as teachers project information at them for the majority of the class (Hurst, Wallace & Nixon, 2013, para. 2). This is particularly seen in post-secondary education where institutes like colleges and universities often conduct lectures with hundreds of students, making it difficult for any meaningful social interaction to occur between students and their educators. This ultimately goes against the “philosophy that learning is primarily a social activity” and the notion that the one who is learning should be putting in the most work in the classroom. By looking at modern classrooms today, it is clear that teachers are often putting in significantly more effort than students by creating lesson plans, reading from textbooks and summarizing information concisely to present to students (Hurst, Wallace, & Nixon, 2013, para. 3). One paper emphasizes that for students to reach their full potential in the classroom, they must become “the readers, writers, speakers, listeners, and thinkers in the classroom through active engagement in social interaction with others” (Hurst, Wallace, & Nixon, 2013, para. 4).

As mentioned, this can be compromised as a result of the COVID-19 pandemic, which has pushed classrooms to operate digitally and has consequently limited the ability of students to socially interact with one another and with teachers. Though it is uncertain how long classes will be conducted online, students will nevertheless be affected to some extent by the lack of physical engagement on online educational platforms like Zoom and Microsoft Teams.

It goes without saying that digital classrooms will never be able to fully replace physical ones. One reason for this is that online classrooms simply cannot compensate for much of the non-verbal communication that occurs in typical conversations. Non-verbal cues (e.g. gestures, tone of voice, facial expressions) are important in creating a more engaging and inviting environment; students are likely to be disengaged if a teacher is speaking in a monotone voice and exhibits no facial expressions. Platforms like Zoom can be used for videoconferencing but even with these features, it is still difficult to detect these cues online relative to being in a physical classroom. This can be problematic in live online lectures and class discussions as it not only makes students more likely to be inattentive but it can make teachers more frustrated if they are not receiving enough input from the students themselves.

Non-verbal cues (e.g. gestures, tone of voice, facial expressions) are also vital to understanding the meaning and context of a sentence and without
these cues, there is more room for error and misunderstanding. It is easy to understand how this can pose a challenge in online classrooms, primarily because it leads to more misinterpretation of information as well as confusion amongst students. This is especially pertinent to group projects. Group projects are helpful tools that allow students to collaborate and apply their knowledge but when online, these projects can be more challenging and frustrating for students as it becomes increasingly difficult to communicate effectively. In support of this, in 2016, the Contemporary Issues in Education Research journal explained the lack of group projects in online courses as “many instructors believe that it is difficult to properly implement group projects and teamwork when the participants are scattered geographically and unable to meet face-to-face” (Ekblaw, 2016, para. 3). By learning in online classrooms, students may find it harder to engage in lectures and collaborate effectively with their peers.

Schools are not only a source of academic enlightenment for students but also double as a social outlet for students to interact with their classmates and participate in extracurricular activities. When institutes suddenly moved online in March, many students lost their primary source of social interaction. They were no longer able to socialize with their friends in the hallways or at lunchtime; these periods of socializing can, as mentioned previously, help a student relax and relieve any stresses about schoolwork. For those involved in after-school activities like sports and clubs, the pandemic has disrupted their sense of structure and opportunity for social interaction. This can take a toll on students who depend on these activities for a sense of independence and belonging. For example, students on school sports teams are used to a routine of regular practices and games; student-athletes may also build a strong sense of community with each other. Now that schools and all extracurricular activities have been shut down, these students must socially isolate themselves at home and may have trouble adjusting to such a drastic change. Additionally, without hobbies to give students a break from schoolwork, they may become unmotivated and less productive which can ultimately cause them to struggle academically. In agreement with this is a dissertation from The University of Southern Mississippi that states that “students who participate in extracurricular activities have higher grade point averages, lower absenteeism, higher educational aspirations” (Craft, 2012, p. 26). It is clear that school is much more than a place where students come to learn; it is where they go on to make meaningful connections and develop important skills such as teamwork and self-initiative. Students also perform better academically when they are fully immersed in the social environment of schools. Keeping this in mind, the COVID-19 pandemic and its push for remote learning may pose serious consequences on a student’s social life and academic success.

Academic content aside, schools encourage students to learn many core life skills through interactions within the classroom. Thus, remote learning can
also set students back in terms of their social development. In the classroom, teachers are subjected to many “incidental teaching moments” whereby they can help a child develop his/her social skills; these skills are extremely important later in life and developing them at a younger age can better prepare students for the future (Waldron, Steer & Bhargava, n.d, para. 1). Such skills include understanding the meaning behind non-verbal communication and how gestures are appropriately used to accompany verbal communication. Detecting facial expressions and body language is an important skill to have and it is imperative that a child understands how their disposition can be inappropriate in certain situations. For example, when a teacher is speaking, it would be disrespectful to slouch in one’s seat and appear inattentive. These skills are harder to promote in students through an online medium and often times, working parents are too busy to work through these skills with their children at home. This can cause a child to have poorly developed communication skills which can negatively affect them in the long run.

Physical classrooms are a good way for children to learn how to properly engage in conversation with their peers and authority figures. They can learn how to start conversations and develop new friendships, a vital part of childhood. Social interactions with teachers can teach students social etiquette, for example, saying “please” or “thank you” when asking to go to the washroom. Knowledge of social etiquette is extremely important for a child as they will interact with individuals of different statuses throughout their lifetime and must know how to be polite and respectful in all encounters. Social etiquette also helps students distinguish between a personal relationship and a professional one. For example, it is only socially acceptable to call teachers either “Mrs./Ms.” or “Mr.” rather than calling them by their first names, which would only be acceptable when talking to friends. Again, teachers are unable to teach these skills as effectively when they are not in the same room as their students.

Finally, one of the most important social skills a child should develop in the classroom is the ability to resolve conflict. For The New York Times, teacher Lauri Posner expresses that with regards to remote learning, she “laments the lost opportunities for preteens to develop social skills” (Chen, 2020, para. 32). She goes on to note that “so much about teaching is about helping them [the students] negotiate and reach consensus...you want kids to have these disagreements and uncomfortable situations and work through them, and you can’t do that at all online” (Chen, 2020, para. 33). Being able to physically be there with students to help them address conflict is needed for teachers to most effectively teach their students conflict resolution skills. A child should ultimately understand what situations can lead to a conflict, how to devise potential solutions for said conflicts, and how to prevent them from happening again (Waldron, Steer & Bhargava, n.d., Conflict Resolution Skills section). This is difficult to teach when separated by a physical barrier as emphasized by Posner. In summary, the classroom environment isn’t just
for teaching lesson plans; it is where children go on to adopt many of their early social skills in life. It is where they learn how to distinguish between a professional relationship and a nonprofessional one, how to behave in certain social situations and how to address problems in their lives most appropriately. As schools have moved online, many of these skills become difficult to promote through the digital format. This can hinder a student’s social development and put more pressure on parents to try to develop these skills at home.

As a result of the pandemic, students are deprived of a social learning environment and may struggle academically as they adjust to the online format and lack of social interaction. The pandemic may also decrease students’ productivity by removing all the aspects of school life that make learning for six hours a day bearable such as sports, clubs, and simple interactions with friends between classes. Their social development is also affected to some extent, particularly by the younger age groups, as the classroom is often where children learn most conventional social skills like conflict resolution.
Chapter 7:
Post-Secondary Education During COVID-19

Post-secondary institutions were faced with an additional set of unique challenges during the COVID-19 pandemic following in-person school closures. While some primary and secondary schools may have had the option to exempt additional course material for the remainder of the semester, the answer for how post-secondary institutions should proceed has been more convoluted. With considerations such as essential prerequisite requirements, practicums, lab-based learning, awards and scholarships based on grade-point averages, and costly tuition prices, many post-secondary institutions felt there was no all-encompassing option when responding to the COVID-19 pandemic. For many post-secondary students, the weight of academic disruption, remote learning, financial uncertainty, and the overall mental distress associated with the pandemic became a hindrance to academic performance. Among students and student representatives arose the concern that the unprecedented circumstances may cause some students to be unable to perform at their regular academic standards, resulting in an unfair grade representation and potential achievement-altering consequences. Post-secondary institutions differed on which solutions they believed would be in the best interest of the students. With no formal grading guidelines set in place by government officials during the pandemic, an appropriate answer was at the discretion of each institution. Many post-secondary schools in Canada cancelled all classes for several days in March 2020 as they discussed and deliberated the best way for the academic term to proceed.

Some institutions, such as the University of Alberta, responded to the situation by implementing a credit (CR) or no credit (NC) grading system for the latter half of the 2020 Winter semester, to temporarily replace their traditional letter grading system. A statement from the University of Alberta’s website reads:

All students will receive a credit (CR) or no credit (NC) grade for all Winter 2020 courses. No letter grades will be assigned. The only exceptions to this will be made by Deans of programs where grades are required for accreditation or licensure requirements. Students will be contacted directly, no later than March 27, 2020, if this exemption applies to them. (2020)

The University of Alberta furthered their statement by expressing that the reasoning behind temporarily removing the letter grade system was “meant to ensure equity among students, preserve academic integrity in these challenging circumstances, and to manage the issues presented by an uncertain
future including the impact on our students and human resources” (2020).

In addition to the new grading policy, an article by CBC that was written by Wallis Snowdon explains “the grades will carry no weight in calculating a student’s grade-point average. Exemptions to the grading scheme may be established by the deans. The deadline for students to withdraw from classes will also be extended” (Snowdon, 2020).

Further, the University of Alberta “‘strongly encouraged’ professors to cancel final exams [in the] spring in light of heightened concerns around the spread of COVID-19” (Snowdon, 2020).

The University of Alberta was one of many post-secondary institutions across Canada who made the previously unorthodox decision to alter their traditional grading system for the final months of the Winter 2020 semester. However, some post-secondary students argued that strictly mandating either a credit or no credit alternative or adhering to traditional grading systems may be counterproductive for some students, and urged for the consideration to let each student have a choice in their academic grading.

The University of Manitoba had “thousands of students...sign [] a petition asking the university to further alter its evaluation process. They wanted the right to choose whether they would be evaluated on a pass or fail basis, or to accept the letter grade they’re given” (Friesen, 2020a).

Todd Mondor, deputy provost at the University of Manitoba, told The Globe and Mail, “we were willing to work with our student union and give them options so that they don’t feel any negative academic consequences from the disruption we’ve all had to deal with” (as cited in Friesen, 2020a).

The article further reads, “the University of Manitoba is among many schools to adopt what’s being called a compassionate grading policy. Students at more than a dozen Canadian universities can now choose to be evaluated with a pass or fail rather than letter grades” (Friesen, 2020a).

Carleton University was also one of the many institutions to offer flexible and compassionate grading as temporary academic relief for students.

On March 30, 2020, Benoit-Antoine Bacon, the President and Vice-Chancellor of Carleton University, released a statement on the university’s website updating students of their grading options for the remainder of the academic term. Bacon’s statement reads:

All students now have the choice, at their discretion, to convert any or all of
their Winter 2020 term grades to the alternative notation SAT/UNS (satisfactory/unsatisfactory). This measure, in addition to other accommodations already in place, ensures that changes in performance due to the current disruption do not affect students’ permanent record as SAT/UNS grades are not used in the calculation of CGPA. (2020)

However, not all post-secondary institutions believed a compassionate or altered grading system was in the best interest of the students. An article written in The Griff, MacEwan University’s monthly student magazine, states, “[on March 23, 2020] an email [was] sent out to confirm MacEwan University’s commitment to providing letter grades for the Winter 2020 term” (Campbell, March 24, 2020).

The university furthered its statement through a Facebook post released on March 24, 2020, stating, “MacEwan University recently sent out an update regarding our commitment to providing letter grades for Winter 2020 and final exam formats” (MacEwan University, 2020b).

The grading decisions for post-secondary institutions in the Winter 2020 term varied greatly across the country. However, regardless of which grading method was chosen, each institution had to heavily debate the numerous benefits and risks associated with each option and made the choice believed would be in the best interest of its students. Without any formalized guidelines or a definite solution, each institution had to make an extraordinary choice during the unprecedented times that arose from the COVID-19 pandemic. Post-secondary institutions faced additional adversity during the COVID-19 pandemic when making challenging decisions regarding how to proceed with convocation ceremonies for Spring 2020 graduates. (It is noted that other levels of schooling, including elementary schools, junior high schools, and high schools, also had to make tough decisions regarding formal graduation/farewell ceremonies and events.)

With convocation for the class of Spring 2020 set right within the height of the COVID-19 pandemic, post-secondary institutions across the country were forced to make a difficult choice on how to celebrate student achievement without going against social distancing measures or putting anyone’s health and safety at risk. Many institutions felt a contrasting obligation to both celebrate and protect the graduating class of 2020. For many institutions, this meant cancelling in-person convocation ceremonies.

The University of Toronto was one educational institution that responded to the COVID-19 pandemic by offering a virtual convocation ceremony for the Spring 2020 graduating class. The University of Toronto released a state-
ment on its website regarding the online ceremony, stating:

In place of in-person ceremonies, the University is planning to host a virtual Convocation ceremony in which the Chancellor will officially confer degrees on members of the June 2020 graduating class. After the virtual ceremony, diplomas will be couriered to our graduates around the day of their originally scheduled ceremony. (2020)

The university’s virtual convocation was shared online where students, parents, and faculty could watch the entire ceremony through a link provided on the graduation and convocation page on the University of Toronto website. (2020)

The University of Saskatchewan took a similar approach, welcoming students to join a virtual convocation and encouraging graduates to virtually “show us how you are celebrating through social media and make sure to include #USaskClassOf2020 in your posts. We will share some of our favourite posts on the graduation celebration website on June 1” (University of Saskatchewan, 2020a).

The University of Saskatchewan furthered its commitment to its 2020 spring graduates, revealing its desire to celebrate in-person once it was safe to do so through an online statement. The statement reads:

Although we are prevented from honouring the achievements of our 2020 spring graduates in person this June, graduates will begin receiving their parchments in June and we will celebrate our graduates in other ways beginning later this month. At some point in the future, we do plan to invite all our Class of 2020 graduates back to campus to have the opportunity to cross the convocation stage in person, celebrating their accomplishments with family and friends. We know how important this is to many of our graduates. We will continue to update everyone as plans are finalized in the coming months. (2020b)

Institutions such as MacEwan University also took a virtual approach, replacing the traditional spring 2020 convocation ceremony with a celebratory method referred to as “Curbside Convocation” (MacEwan University, 2020a).

Graduating students were sent a Curbside Convocation box to celebrate their achievements from home, including their parchment, mortarboard and tassel, honour cord and Indigenous stole (if applicable), an alumni gift, and several additional graduation items. MacEwan University graduates
were encouraged to share their celebrations through social media using the hashtag #MacEwanCurbsideConvocation (MacEwan University, 2020a).

As the COVID-19 pandemic persists, post-secondary schools must continue to decide how education will be delivered to students. For many institutions, the decision to continue with online learning as much as possible remains to be the course of action as students prepare for the fall semester. However, there are some instances where students may face serious consequences in terms of graduating on time and receiving proper instruction, should all post-secondary classes remain virtual. For programs that require a more hands-on approach—such as nursing, education, trades, and sciences—some students face the dilemma of balancing the concern for their health with the concern with graduating. Some post-secondary institutions have proceeded to offer as many classes online as possible for the fall semester and will only welcome students back for in-person learning for a specific set of courses where virtual learning is not possible. Some institutions, who offer a majority of courses that largely focus on hands-on learning, have chosen to balance virtual and in-person education as much as possible for fall 2020.

The Northern Alberta Institute of Technology (NAIT), “will offer both online and on-campus portions of programming for almost all of its programs, with the exception of its business school” (Ohler, 2020).

However, in an effort to keep staff and students safe at NAIT, the number of students per learning area will be restricted, along with an increase in cleaning protocols for both faculty and students, and mandatory masks in public spaces where two-metre distancing is not possible (Ohler, 2020).

As the world continues to navigate through the novel coronavirus pandemic, no one is exempt from facing the unprecedented challenges and unforeseen circumstances that arise; post-secondary institutions are no exception. There is no handbook or guidelines for how post-secondary institutions should proceed during such an uncertain and unprecedented situation. However, institutions are continuing to make decisions that they believe are in the best interest of the students, taking a magnitude of considerations into account for each extraordinary measure. There is no single solution that is ideal for every student at every institution. As with the rest of the world during the COVID-19 pandemic, post-secondary institutions must take the everchanging information that is presented and make tough decisions that may hinder some individuals and aid others. They must ensure that proper resources and alternative solutions are offered whenever possible to limit the amount of negative impact felt by students and staff, so all may continue to move forward as strongly and as supported as possible.
Chapter 8:  
Post-Secondary by Field of Study: Program-Specific Impacts

The education system as a whole has faced a significant impact along with the rest of the world during the COVID-19 pandemic. Post-secondary institutions faced their own unique set of challenges, with even greater adversity for specific post-secondary programs that require in-person training. Students and educators from across the globe struggled to find suitable learning accommodations during the latter half of the Winter 2020 semester, with many schools only given a few days to prepare for the virtual switch. While students and faculty at all levels of education faced tremendous hurdles during this period, some post-secondary fields struggled with a nearly impossible task of arranging appropriate online learning material for hands-on programs.

It is to be noted that the information listed within this chapter does not encapsulate the entirety of program-specific adversity during the COVID-19 pandemic, but only a sample portion. Fields of study that are not listed within this chapter are not considered to have faced any less of a hindrance as those listed, as it is acknowledged that students and staff from all programs may have struggled with discipline-specific obstacles during the pandemic.

On May 12, 2020, Statistics Canada released the results from a crowdsourcing data collection that was completed by over 100,000 postsecondary students from April 19-May 1, 2020. The data reveals how various postsecondary disciplines were impacted by the COVID-19 pandemic. An article written on the Statistic Canada website states:

Results from this crowdsourcing indicate that more than one-quarter (26%) of participants had some of their courses postponed or cancelled as a result of the pandemic. This proportion was similar among those pursuing a college or CEGEP diploma (25%), an undergraduate degree (26%) or a master’s or professional degree (28%). It was lower among doctoral students (14%), where typically there is less coursework and more of a focus on research. (2020, para. 3)

The same Statistic Canada article further revealed the same type of disruption for various fields of study:

This type of academic disruption varied widely by the field of study and was highest for those studying in services (56%), trades (53%), or health
care (41%). These fields of study are more likely to include job placements or course work such as labs, applied learning and hands-on instruction that cannot be delivered online. (2020, para. 4)

Trades:

According to the results found by Statistics Canada, students studying in the field of trades were the second-highest postsecondary group impacted by cancelled or postponed classes as a result of the pandemic (2020, para. 4). With consideration for the hands-on approach typically associated with trades programs, these statistics may be unsurprising to most. However, the expectancy of cancelling hands-on classes did not remove the uncertainty felt by students.

In an article published on March 27, 2020, by Canada’s National Observer, Michael Bramadat-Willcock writes, “all apprenticeship and technical training in Saskatchewan is cancelled for the duration of the COVID-19 pandemic, according to the province’s Ministry of Advanced Education,” leaving many students in the trades unable to complete their program (Bramadat-Willcock, 2020).

However, as the pandemic persists, health ministers and institutional representatives are working to bring education back to all students. Many post-secondary trades programs are working to offer as many courses as safely and efficiently as possible, when available. Some institutions, such as Northlands College, are working to provide both online and safe in-person learning for various programs.

An update on June 9, 2020, from Guy Penney, the President and CEO of Northlands College

states, “[Northlands College] [is] planning for next year with both instructional formats on the table” (Penney, 2020).

The statement is furthered by assuring faculty and staff that the institution is “well positioned to meet the physical distancing recommendations of Saskatchewan’s Chief Medical Officer, while offering high quality program- ming” (Penney, 2020).

Other trade-focused institutions such as the Southern Alberta Institute of Technology (SAIT) are also working to deliver proper education to students safely. However, the pandemic may leave many students with ongoing strug-
gles and hardships in terms of their education and program completion. A statement on the SAIT website reads:

It is important for students to understand that, due to the reality of today’s situation, SAIT will be limited in the number of classes it can deliver safely on campus through in-person instruction. It will likely be necessary for SAIT to schedule classes at non-traditional times, including evenings and weekends. In-person classes which do continue will be subject to strict health and safety guidelines. (2020)

Nursing:

The faculty of nursing was also a field of study that faced notable challenges during the COVID-19 pandemic. Clinicals are an essential aspect of training for student nurses, as the real-world exposure under guided supervision is necessary to facilitate and practice their skills to provide proper patient care. For some nursing students, the harsh impact of online learning left the essential aspect of clinical learning to become an impossible task. As a result, many students in the clinical term of their program were forced to cancel or postpone their clinical, derailing many graduation plans.

Thai Cynthia Lu, a nursing student at MacEwan University, states:

Nursing students who were in their clinical semester had theirs cancelled. Some even have theirs postponed. Some people who were supposed to graduate soon are not able to because they weren’t able to complete their clinical. Some students with labs had their labs cancelled, mine was. Labs are super important because that’s where we practice our skills. Now in the fall, the majority of our classes will be online except for labs. However, with nursing, it’s more of an in-person program. We really need to know our stuff to be working with patients and some people learn best in person. (Personal communication, July 20, 2020)

Some nursing students in their practicum reported feelings of heartache and despair after receiving the news about school closures.

Hafsah Syed, a third-year nursing student at the University of Calgary, writes in an article on the University of Calgary website about the day she was informed about clinical changes because of the pandemic. The article reads, “I was having the most wonderful day at the unit, when I looked around and realized it would be my last” (Syed, 2020, para.6).
Syed further states in the article, “typically, every nursing student has a plan for their academic career but no one would even imagine their plans being disrupted by a pandemic” (Syed, 2020, para.4).

Similar feelings were felt by some fourth-year nursing students at the University of Alberta, as the uncertainty of final exam availability and practicum changes disrupted the plans of many nursing students. Many nursing students were eager to assist in hospitals during the pandemic. However, precautions to keep students safe, as well as an acknowledgement for limited resources, kept many nursing students at home. An article from the CBC written by Madeleine Cummings states:

In an emailed statement sent to CBC, the university’s faculty of nursing said that consistent with other health sciences programs across the country, nursing students are not permitted to work directly with individuals who exhibit symptoms of COVID-19 or other flu-like infections. (Cummings, 2020)

However, the article further reads, “an emailed statement from Alberta Health Services said staff are ‘looking at all possibilities to support nursing students’ and working with universities and regulators to support the continuation of clinical placements, ‘where appropriate and safe’” (Cummings, 2020).

Social Work:

Students studying in the field of social work experienced similar challenges. As social work students also gain much of their experience through practicums, many students felt as though their experience was cut short due to the pandemic. Many social work students find fulfillment in their profession by providing a meaningful change in the lives of those they work with. However, the pandemic prevented many social work students from completing their practicum to its fullest extent. With the ongoing uncertainty of the pandemic, many social work students feel as though they may be ill-prepared to deal with real-world scenarios once they complete their program.

In an open letter to social work students during COVID-19, Laura Burney Nissen writes about the importance of the work current social work students are committing to, particularly during such unprecedented times. In the New Social Worker—a social work careers magazine—Nissen offers words of encouragement to current social work students, stating, “you have chosen to commit to a profession at a powerful time of change and challenge in our
world...The learning you are doing now, at this time in history, is learning you will never forget” (Nissen, 2020).

It is without a doubt that Nissen’s words come with power and strength for many post-secondary students. However, many students continue to feel the adversity of the pandemic during their education, especially during the practicum portion of their learning. For a field that focuses strongly on relationship building, the sudden removal of in-person interaction was disheartening for many.

“...I was informed that we will not be doing a field practicum and the hours will all be online. This means that I will not be able to participate in the full experiential learning I was hoping for” (N. Maheden, personal communication, July 29, 2020).

Arts and Cultural Management:

Arts and Cultural Management programs focus on numerous elements that rely heavily on in-person experiences and connections, including, “leadership, management and human resources, branding and marketing,...funding and audience development, [and] project and event management...” (A. Ofstedahl, personal communication, July 20, 2020).

A large portion of the program’s projects are based in real-world settings, working in professional environments to enhance arts and culture organizations. Alynne Ofstedahl will be graduating from the Arts and Cultural Management program from MacEwan University in November 2020. At MacEwan University, “the final requirement to graduate from [the Arts and Cultural Management] program is an eight-week spring practicum with a local arts organization or non-profit” (A. Ofstedahl, personal communication, July 20, 2020).

However, as with other students who relied on practicum fulfillment to complete program requirements, many students in the Arts and Cultural Management program have been “unable to complete [their] placements as desired. Some of our organizations have been closed altogether, while others have had to scramble to adjust their activities and operations to comply with Covid-19 protocols” (A. Ofstedahl, personal communication, July 20, 2020).

Ofstedahl further notes that those who were able to complete their practi-
cum in an adjusted manner became well-aware that the arts and culture industry was heavily devastated by the pandemic, and notes that many program graduates remain uncertain about the industry’s future (Personal communication, July 20, 2020).

Education:

Education is another field of study that was significantly impacted by the pandemic. Similarly to other fields of study that were previously mentioned, education students are required to complete a teaching practicum in order to properly integrate their learning into a work-based setting. Practicums are also a graduation requirement for students studying to be educators. Without in-class education during the latter half of the Winter 2020 semester, many student teachers felt an immense impact on their placement-based learning.

As the uncertainty of the pandemic persists, many future educators remain uncertain as to what will be expected during the practicum portion of their degree. As well, those who are offered the opportunity for an in-person practicum may be hesitant at the possibility of putting their health and safety at risk, as with those in other fields of study undergoing similar circumstances.

It is strongly noted that other programs such as sciences, fine arts/music, journalism, and various other programs felt extreme hardship during the COVID-19 pandemic. The removal of labs, practicums, in-person classrooms, and the chance to experience group-based and real-world scenarios left many students feeling at an educational disadvantage. In addition, the uncertainty of the pandemic has left many students wondering about the stability of their chosen profession.

It is apparent that despite the field of study, post-secondary students from across the globe felt, and continue to feel, a tremendous impact from the novel coronavirus. Institutions across the nation focused heavily on providing effective academia while keeping students and staff safe. However, many programs continue to face immense adversity, resulting in uncertainty for many post-secondary students.
Chapter 9:
Long Term Effects of Academic Performance: Education After COVID-19

The COVID-19 pandemic has disrupted the structure of how the world once used to run. A world with order, guidelines, rules, and regulations is left to piece itself together with a new system. Policies need to adapt rapidly to account for social distancing measures. The first reflections of a new form of society were global government shutdowns. Without being able to interact as social beings used to, we need to compromise and determine methods that work to overcome the newly established barriers. These immediate changes will lead to a ripple effect throughout the entire social system. Due to the long duration of the lock down, these effects will leave their mark in our education system. Considerations of global pandemics are brought into light forcing the society to adapt to a new world where interactions are limited. This pandemic is definitely not the last pandemic or social disturbance we will face, actions need to be taken to establish a functional society no matter the chaos.

Education is needed no matter the age of the student, status, or race. Education needs to be accessible to allow for the advancement we have seen in human civilization. Education needs to reach standards to support the growth of students. The immediate task that must be established is to make use of the available resources to make education remote. Remote education consists of virtual learning, online testing, limited classroom engagement. On the other hand, remote learning increases accessibility to students around the world.

The greatest shift of the style of education can be observed in lower levels of education which account for those who are in preschool, kindergarten, elementary, and high school (K-12). Younger grades are where physical interactions are beyond important to develop interpersonal skills, hand on skills, and to make connections with one another. A typical day in elementary school consists of gym class, group discussions, field trips, and most importantly the interaction with classmates. The growth of the mind is often a reflection of the interactions one has throughout their lives. As much as remote learning can teach math, science, and English, it can never deliver the valuable interactions between friends. Physical activity also significantly increases at home, especially in the age of technology. Watching television promotes interpersonal skills to a certain extent but it can never replace the value to physical connections. It also leads to physical inactivity, binge eating, and decreased sense of self. This leads to severe cases of physical and mental health problems.
The immediate adjustment of virtual engagement in classrooms in post-secondary students may not have as much of an effect. It allows for the convenience of international education, especially seen in post-secondary education. Through virtual communications, ideas are still shared within the research community. In academic institutions, ideas are meant to be shared in a large community of individuals. Research conferences are more easily accessible through an online platform that connects people from different towns, provinces, and countries. The more information can be shared, the more diverse research becomes.

Students in higher education face uncertainty during the immediate disruptions due to pandemic restrictions. The first year of any post-secondary education is one of the most challenging barriers a student will face (Clinciu, 2013). It is difficult to make social connections with those who are in the same program but has become so much more challenging to develop a connection. During the first year, dropout rates can be seen the highest. Support systems need to be set in place to account for challenges one may face during these times of separation. The anticipated “welcome week” at the beginning of the school year is hosted virtually, there becomes a disconnection between students. Programs and support groups need to be put into place to relect these immediate changes. Those a part of the institution’s student body must come together to recognize challenges that are unanimously faced.

“A good first-year transition encompasses independent functioning including the ability to negotiate with a new and complex world, to develop internal motivation for learning, to have a good time and money management, to attend classes and keep up assignments” (Clinciu, 2013)

Post-secondary education is created by a global environment of individuals. International students account for a significant portion of university education. As post-secondary education adjusts into a virtual program, the increased accessibility allows for education to be accessed anywhere in the world. With the increased accessibility, uncertainty arises surrounding their status in Canada when travel restrictions are lifted as the pandemic develops. The Department of Immigration needs to plan for long term policies in response to the immediate decision to transition to virtual learning. In 2019 there were 650,000 international students enrolled in Canadian college and university programs (Aiello, 2020). Of these students, 58,000 became permanent residents while working in Canada (Aiello, 2020). International students are apart of the Canadian work force and this is acknowledged by a statement by the Immigration Minister, Marco Mendicino stating
“We value the contribution of young people seeking a high-quality education in Canada, and we’re making every effort to minimize how current challenges affect their plans and dreams for the future.” (Aiello, 2020).

With higher education, financial costs become another consideration to pursue education. With online education, the academic resources an institution provides are no longer accessible. Financial considerations provide a different dynamic to how the pandemic has shaped the future. Some Canadian universities are increasing tuition despite the closure due to the pandemic. Dalhousie University, University of Calgary, University of Manitoba, University of Alberta, and the list goes on of those increasing tuition 3-7% (Friesen, 2020b). As international student enrolment plummets, government support for university drops, and increasing fees for institutions upkeeps, the raise in tuition can be seen as justified. Many students disagree with this adjustment as professor interactions are limited, facilities are not accessible, and the overall on-campus experience is taken away. Students are concerned for the value of education which they are paying for (Friesen, 2020b).

“No amount of online offerings, marketing, or campus life amenities will be able to cover the overdependence on international student tuition, said Mat Frenz, a partner at Entangled, a company focused on building online education ecosystems. “With help from state governments being unlikely at best, institutions will be forced to reconsider their business model and make very difficult decisions about who they are and what they do.” (Horn, 2020).

Immediate challenges that are in question for the next couple of years concerns the procedures of standardized testing in the process of higher education admission. Due to the COVID-19 shut down, testing is harder to conduct in a room filled with hundreds of students tightly packed into a small arena. Standardized tests include the MCAT, LSAT, DAT, and the list goes on. These tests allow the performance of individuals to be relative to one another to determine a student’s academic standings. Without testing systems the admissions committee are altering their admission schemes influencing present admission as well as the years that follow.

Students are not the only group facing long term effects of limitations due to the COVID-19 pandemic. Companies will lose out on opportunities of recruitment often hosted on the grounds of high education’s institutions. Education should translate into employment and the integration into the working body. Thus, financial models must be improved to engage students into positions of work. Education does not stop after the classroom, it is a continuing process into the work field. Volunteer positions should promote education, not cause more financial stress. Enrolling in job training opportunities without tuition benefits are high risk for the student and employer.
Structural education is only a steppingstone into the working force, it should not be a barrier students must face during their prime education period. Technology needs to have advancements in education and work. Virtual co-op positions must be established to allow students to have opportunities to continue to learn despite a new world which the pandemic has created in the 21st technologically advanced society.

Students clearly face uncertainty as education becomes virtual, but the teachers available in classrooms also reflect the influences of the COVID-19 pandemic. As current students in the education sector are pursuing their degrees to one day teach future generations, they face countless barriers. As co-op positions come to a stop during the lockdown due to social restrictions, education students are unable to fulfill their co-op practicum requirements. This would lead to teacher shortages in the upcoming years as the demand for teachers are increasing. Online teaching provides limitations to truly evaluate a student without proper testing regulations. An elementary school teacher not only has the obligations of teaching the facts in the textbook but also the person to person skills needed in a child’s life. Without trained teachers in the next few years, education needs to be heavily focused on through education programs.

As exemplified by the students in education programs, education is a countercyclical to the economic market. The demands for educational services increase intakes of economic downturn. Although the COVID-19 pandemic has left many people unemployed, it is not the first event in history that has resulted in the same effects. The 1918 flu pandemic is often compared to the pandemic we are facing now in 2020. Although social disruptions are expected from a pandemic, humans adapt to new systems of operations. As the economy opens, students are more determined to achieve the education needed to rebuild the society.

Investments in educational programs are essential to ensure education is accessible to students everywhere. Educational programs need to be supported by the government, educational workers, policy makers, and institutional heads. Students of all backgrounds need the knowledge to reestablish our society after the COVID-19 pandemic. The world seems to have stopped during the pandemic, but the world has not ended. Thus, education can not stop, it needs to be strengthened. Systems need to be adjusted to adapt to the different limitations we face during the pandemic. Normal classrooms are changed temporarily to account for the immediate challenges, but the future remains the same. Education will always be an essential business, the challenges facing now only prepares educational material to better accommodate the changing world around us. Education is not only the knowledge that comes from textbooks and lectures. Education develops perspectives, builds opinions, and expands one’s views through interpreting the chaotic
world which we live in.
Chapter 10:
Masking and Social Distancing: How Will These Policies Change the Dynamic of Education When Students Go Back to School?

The COVID-19 pandemic has posed many challenges for the educational system as it has shut schools and other extracurricular activities down, and pushed for remote learning instead. As discussed previously, remote learning has its own benefits and consequences. It can both help students with time-management skills yet also severely impact a young learner’s social development and academic performance due to the difficult online classroom environment. This is how the pandemic itself has left a mark on education, but what about the policies that have been implemented during this time? Will they carry on into the school systems? How will the mandatory policies of masks in indoor settings and social distancing affect education? Though cases will decrease in some parts of the world, these policies will remain to counteract further spread of COVID-19, meaning masking and social distancing will likely be present for a large part of the next school year. When students eventually return to school, they will not be “back to normal,” they will wear masks and ensure that they are six feet away from their peers. This will undoubtedly impact the quality of education and academic performance as students and educators learn to adjust to these new rules in the classroom.

Before delving into the projected effects of these policies on education, it is important to understand which ones will specifically be implemented in school systems and why some countries are enforcing ones like masking and social distancing in schools while others are not.

Though any large group setting may cause the spread of COVID-19, current research suggests that young children may not pose as great a concern in this. The CDC claims that children are less likely to contract COVID-19 and when they do, they either have no symptoms or experience ones similar to the common cold such as a runny nose, sore throat, fever and headache (Centers for Disease Control and Prevention [CDC], 2020a, What We Know About COVID-19 and Children section). In terms of numbers, in the United States, roughly 6% of all COVID-19 cases have been reported in children under 18 years of age; these cases also comprise less than 0.1% of virus-related deaths (CDC, 2020, What We Know About COVID-19 and Children section). Out of the cases in Canada, the Canadian Pediatric Society says only 1% was attributed to children under 19 and as of June 21st, no deaths were reported in this age group (MacLeod, 2020, para. 9). Clearly, the risk to children is not as major as it is to adults but however small it is, it is still there.
Information about the spread of COVID-19 among children is limited yet so far, it has been reported that this spread occurs primarily in the household as many children get it from a family member (CDC, 2020, What We Know About COVID-19 and Children section). Another thing to consider about COVID-19 in children is that, like in all age groups, there will be some children at greater risk of contracting the virus. This pertains to children that have “intellectual and developmental disabilities” (CDC, 2020, Children at Increased Risk of Severe Illness from COVID-19 section). These individuals, in addition to contracting the virus more often, also possess a greater chance of developing a more severe case, meaning they are more likely to be hospitalized or put on a ventilator if they contract COVID-19 than children without disabilities. (CDC, 2020, Children at Increased Risk of Severe Illness from COVID-19 section)

As acknowledged by the CDC, there is a great influence of economic, social and health disparities on deciding which children can go back to school safely. In the “Decision-Making Tool for Parents and Guardians” provided by the CDC, one of the deciding factors is how the child’s institute is planning to combat the back-to-school spread of COVID-19 (CDC, 2020, Decision-Making Considerations section). This includes whether the school will encourage social distancing, hand hygiene and face coverings, as well as whether they will implement strategies to limit the number of students in contact with each other. As mentioned previously, not every country is implementing these strategies in their school systems. Some parents may resultantly feel uneasy sending their children back to school due to the lack of mandatory policies put in place to practice social distancing; if they choose to keep their children at home, this can continue to severely hinder a child’s social skills and academic success as explored in previous chapters.

In an article by MacLeod (2020) for CTV News, it is stated that many pediatricians are strongly supporting the decision for schools to reopen (para. 1). Organizations are also suggesting ways for these schools to reopen in the safest manner possible. For example, the American Academy of Pediatrics (AAP) recommends that children should be in outdoor settings whenever possible to do so, seating should be arranged in classrooms in a way that ensures 1-2 metre distancing between students, and children should be thoroughly taught to practice hand hygiene as often as possible (MacLeod, 2020, para. 3). The AAP also gives strategies for non-classroom settings, for example, children should be allowed to go on the playground (but in smaller groups) and should be encouraged to wear cloth masks and retain only a 1-metre distance from others even though the generally accepted distance is 2 metres. (MacLeod, 2020, para. 4)

As for higher-risk students, the AAP strongly recommends that these children remain at home for remote learning (MacLeod, 2020, para. 13). Unfor-
tunately, this can be detrimental to these children as they are tasked with the difficult choice of putting their immunocompromised selves at risk in school or remaining at home to suffer the consequences of social isolation.

Canadian healthcare leaders are strongly against remote learning because it is one of the many ways children are being deprived of their human rights during this pandemic—these rights include the right to a “quality education, highest standards of health, protection from violence and access to recreation” (MacLeod, 2020, para. 14). In particular, a group of healthcare professionals from the Hospital of Sick Children (also known as SickKids) expresses their support of schools reopening in September as the negative effects of remote learning on children are too significant to continue with the online format (MacLeod, 2020, para. 18). But in order for these schools to safely reopen, professionals say that schools should be “screening students for symptoms, teaching proper hand hygiene, implementing some physical distancing but allowing children to play together, and [having] smaller class sizes with spaced out furniture and cohorted groups” (MacLeod, 2020, para. 19). One thing this advisory group argued against is the mandatory enforcement of wearing masks. This appears to be contradictory, given the reported success of masks in limiting the spread of COVID-19.

In light of this, some officials actually want to mandate masks in the classroom to ensure the utmost protection for students and teachers. In particular, a group of individuals in Alberta is requesting their government’s inclusion of required masks as part of the back-to-school plan for the province (Black, 2020, para. 1). Among these individuals is Dr. Amy Tan, a family physician and advocate for Masks4Canada, a group that (according to their website) aims to “promote and educate the use of effective, re-usable, non-medical face coverings in addition to physical distancing and hand hygiene” (Masks4Canada, n.d.). Within this group are not just healthcare professionals (such as Dr. Tan) but also parents, scientists and business owners, all concerned for the safety of individuals in the school system come September. Alberta’s current school re-entry plan indicates that the province is only prioritizing “practices such as physical distancing, cohorting, frequent handwashing, staying home when sick and increased cleaning of surfaces” (Black, 2020, para. 11). Thus, many individuals are challenging the province’s neglect of such an effective method as mask-wearing as a priority.

The idea of wearing a mask all day may seem daunting and serve as a challenge for younger students or students that have “developmental and cognitive concerns”, as acknowledged by Dr. Tan (Black, 2020, para. 19). But this is a measure she, among many others, feels should still be implemented in schools. At Sheehan Elementary School in Westwood, the school board has dictated that masks must be worn by students throughout the day (with some breaks in between) (Rex, 2020, para. 2). In interviews with CBS
Boston, many of the school’s students expressed their opinions with student Erin Gannon acknowledging the difficulty of wearing a mask all day while Sydney McGovern says that “it won’t be bad because you get to learn and say hi to your friends and teachers” (Rex, 2020, para. 4). Though masks can be difficult to wear for long periods of time, there are some trade-offs, one being that they will enable children to somewhat get back to their idea of normal learning. As emphasized in earlier chapters, learning is an experience that is done best face-to-face and so, masks will allow children to safely participate in in-person classrooms and engage with their peers and teachers in ways that are not possible online. As a result, students may perform better academically and have improved mental states as compared to remote learning for the last part of the school year. In some cases, masks may also be an easier alternative to maintain throughout the school day in comparison to social distancing and sanitation measures.

In spite of persistent efforts by concerned community members, a large portion of schools will not be requiring masks for students due to the sheer difficulty and potential social consequences of implementing this practice. The challenge of masks in schools pertains primarily to the younger grades, given the active and playful nature of children. For example, when children are out on the playground for recess, they may take their masks off if they are feeling out of breath or are simply tired of wearing one. Additionally, they are more likely to touch their faces, defeating the purpose of the masks if they cannot be used safely. In fact, the risk of transmission can increase when wearing masks if the wearers are uneducated on how to properly use and dispose of them.

Alongside simply being difficult to enforce, mask-wearing (and social distancing) among children can bear consequences on their social lives. As “playing and socializing” are pivotal in a child’s development, wearing masks and socially distancing can make it difficult for these activities to occur (Zweig, 2020, para. 11). Whether in the classroom or on the playground, children learn a variety of skills from social interactions such as how to make friends and how to properly communicate with people. This includes being able to detect non-verbal cues (such as facial expressions) to understand how someone else is feeling; this is important in understanding what topics are socially acceptable to discuss with someone else. As masks cover half of a person’s face, it is harder for children to both express themselves as well as understand someone else’s emotions, which can be frustrating in both cases. Mask-wearing has an even greater negative impact when considering children with disabilities, specifically hearing impairments. These children may depend on lip-reading and a clear voice to understand a conversation. Unfortunately, masks affect the quality of sound as well as cover the speaker’s lips. Therefore, with masks, it is more difficult for these children to understand other people and this can cause them to feel frustrated and further isolated from those with normal hearing. So even though
students will physically attend schools come September, the employment of masking and social distancing policies can inadvertently promote feelings of isolation and frustration amongst students in the classroom. Instead, because of the low transmission risks in children, perhaps these policies should be geared towards the adults in schools (teachers and staff) as it is far easier and less detrimental for them to uphold these policies.

Overall, there are many different strategies being employed in different parts of the world to help ensure students’ and teachers’ safety when they return to the classroom. Some countries in Europe have already gone back to school with no social distancing or masking requirements and have proven successful (Zweig, 2020, para. 1). Others such as France have reported rises in infections, yet these were “both small and expected” (Zweig, 2020, para. 4). While it is plausible that the success of these countries is because of their strategies, it is equally plausible that these countries were not overwhelmed with cases of COVID-19 to begin with. As for places that have clearly been plagued with cases such as the United States, there remains further debate on what the best strategies are for returning to school. Ultimately, masks and social distancing may work to protect students and teachers in schools but according to certain sources, they may also be unnecessary measures that could end up psychologically harming students, particularly younger ones (Zweig, 2020, para. 11).
Chapter 11:
Effects on Educators and How Educators Can Help Students

Educators are arguably the most important figures in an individual’s life. They provide knowledge and resources in order to set students up in a suitable path to success. Educators inspire, influence, and mould students into future leaders. Eminently, teachers that teach children have a significant impact on society, as teachers can influence and have a noteworthy influence on the lives of young children. Teachers not only teach academic content but also teach a wide variety of skills needed to succeed in life. A study by Darling-Hammond conducted in 2019 stated that “investments in instruction, especially high-quality teachers, appear to leverage the largest marginal gains in performance.” To such a degree, teachers have the ability to construct an affirmative society and invigorate many generations.

Nearly all in person educational instructions have been shifted online due to the pandemic. A common worry is shared amongst many educators: online learning will yield lower educational knowledge in students (Soland et al., 2020). Educators expect online learning to increase the gap between high- and low- achieving students as learning during COVID-19 is akin to missing a large portion of school (Soland et al., 2020). Due to the expected difference in knowledge from online learning, educators may need to tailor their lectures on a per student basis to account for the differences in knowledge (Soland et al., 2020). A greater range of learning assistance needed for students creates an additional challenge for educators. Educators now need to design courses of instructions based on the educational level of each student in order to get all students up to speed. In order to determine the educational level at which a student stands, it would be beneficial to assess students’ former knowledge using an assessment prior to beginning in person education again (Soland et al., 2020). This way educators will be more informed about where a student’s knowledge stands in terms of academia. The article written by Soland and team suggests that COVID-19 is expected to cause greater education deficiencies than the education lost during the summer. Thus, educators will need to ensure that all students are caught up to speed with prerequisite knowledge and set learning goals in order to make the most out of the post COVID-19 learning experience.

Returning back to school may cause a surge of various emotions such as anxiety and depression amongst students. As educators it will be necessary to support and validate students’ concerns and express an understanding as students have gone through quite a bit during the time in quarantine. Encouragement and reassurance will definitely go a long way in terms of motivating students to continue their education. Although students may
prefer to avoid certain topics due to fear and anxiety, educators have the responsibility to encourage students to face daunting tasks and goals in order to prepare their students for the future. One way to help reassure students is to use a gradual approach to challenging tasks. This will allow the student to approach the situation with ease.

During these unprecedented times there are many things that professors can do to aid students because professors play a vital role in students’ lives. The impact an educator has is not only restricted to teaching academia but also helps to foster students’ well-being. Test scores “capture only a fraction” of the teacher’s influence on students (Terada, 2019). Further, boosting students’ well-being would result in higher academic performance and a better teaching environment. An economic professor at Northwestern University states that “good teachers may affect students much more broadly than through their impact on achievement test scores.” (Terada, 2019) Moreover, a study showed that teachers who improved their students’ noncognitive skills (such as motivation and self regulation) increased the likelihood of their students attending classes, as well as noted an increase in grades and an increase in tendency to graduate compared to their peers (Terada, 2019). It is also mentioned in the study that teachers who improve their students’ noncognitive skills yield a better long term outcome for the student as they have improved their behaviour. Although improving test scores are highly valued and higher test scores are what teachers are praised for, improving noncognitive skills is what has the most significant positive impact on students. In addition, research has shown that most students dropout of high school due to lack of discipline (Terada, 2019). Therefore, the most effective way to ensure that students stay in school and get an education is to improve their noncognitive skills.

Professors are often the first to notice declining performance and signs that a student is struggling; they also have a significant role in encouraging the student to grow and succeed (Banerjee, 2020). During difficult times like this pandemic, students may resort to academic officials in order to seek academic accommodations. The support and understanding of educators will be necessary to support student resilience (Banerjee, 2020).

Hosting virtual office hours can benefit students both academically and psychologically as students will be more willing to ask for help and advice related to both academic and personal matters (Banerjee, 2020). Having open, honest, and non-judgemental communication between educators and students will reassure students and ensure that they have been heard (Banerjee, 2020). This is important as many students are going through a very difficult time right now during this pandemic and having educators tell them that they recognize their struggles can go a long way for students. That being said, it is important that educators are ready and comfortable to conversate
about sensitive topics (Banerjee, 2020). Such topics may include personal problems the student is facing/has faced and difficulties in their academic life due to their circumstances. Also, understanding the reasons as to why a student is unable to meet academic deadlines is extremely important in this unprecedented time (Banerjee, 2020).

Educators should have fairly good knowledge of campus resources that they can refer students to. Many academic institutions provide a wide variety of mental health resources that students can use. Providing students with these resources, accessibility services, learning strategies and health and wellness programs will have a significant positive impact on students’ overall mental well-being. Providing educators with mental health first aid training will help them better recognize and understand students’ mental health problems, when students seek them for help (Banerjee, 2020). Educators often have positive relationships with their fellow students and these relationships should be utilized in order to help improve student’s mental health during this unprecedented time (Banerjee, 2020). Moreover, professional judgment should be used by educators when students speak to them about their hardships and challenges (Banerjee, 2020).

Equivalently, students are not the only ones facing severe anxiety, so are educators. The sudden shift to online schooling has forced educators to provide education online. Some educators found this transition quite a burden due to their lack of technical competency and inability to navigate application softwares (Allen et al., 2020). The impact faced by educators vary based on their prior course delivery methods. For example, some universities already had blended courses in which parts of the course were online while the other half were in person. Correspondingly, other courses were fully online, making the transition of those courses negligible. However, many schools faced many difficulties as teachers attempted to adapt to the “new normal”: the fully online education system (Allen et al., 2020).

In the past there has been resistance to online education but the pandemic has left educators with no choice but to educate via online platforms. Many courses are expected to be “poor substitutes” compared to the traditional in person courses, says Michael Horn, head of strategy at Entangled Group and author of Choosing College. To conduct effective lectures and to enhance online teaching methods, it will be necessary to obtain student feedback. Kelvin Bentley, vice president of learning strategy Six Red Marbles says, “When faculty can put their teaching egos aside and use negative student feedback to improve their remote teaching practices, students will benefit and hopefully faculty will, too, because they will learn how best to meet the learning needs of their students.” Faculties need to be willing to adjust their styles of teaching and be willing to create diverse plans in order to accommodate for the students’ needs (Lederman, 2020). Kelvin Bentley further says that educators must ensure that all students have access to online services such as advising, proctoring, and tutoring in order to help students
succeed. Nonetheless, providing such services can be a difficult task as having these services online require a significant portion of the schools budget (Lederman, 2020).

Aside from the academic perspective of adjustments to education, economic downturn as well as increased costs for health care and increased unemployment will result in a lower education revenue available for the years to come (Griffith, 2020). An article written by Griffith in 2020 shows that a 15% reduction in state contributions to education funding results in a decrease of 318,882 teaching occupations. Further details in the study have concluded that low-wealth districts are expected to lose a greater proportion of teaching position in comparison to wealthier districts.

In addition to a reduction in teaching positions available, educators also worry that as the number of COVID-19 cases rise, the return of students to the classrooms will increase the spread of the coronavirus. This is because schools lack funding and protocols to reduce transmission of the virus in the classroom (Herring, 2020). Although the government is implementing stricter measures to ensure a safe environment, such as frequent sanitization and cleaning, many teachers believe these measures are not enough (Herring, 2020). A Grade 5 teacher from a southwest Calgary school stated that “we figure that distancing will only last three or four days. We’re talking about 9 to 15 year olds. By the very nature of children, they’re social and they interact. How do you regulate that?” (Herring, 2020) As such, many teachers that are required to return to school are extremely worried about their safety and the spread of the virus. One teacher from Alberta says “masks need to be mandatory in schools, period. We don’t want to be (the province’s) science experiment. We’ve got too many staff members who are older or who have compromised immune systems, or asthma, or diabetes.” (Herring, 2020) These statements made by teachers in Alberta demonstrate their earnest concerns for their health and safety.

In this chapter, the effect on educators has been discussed as well as what educators can do in order to help ease students back into learning. It is important to acknowledge that both educators and students have been greatly affected by this pandemic and resources should be provided in order to help get schooling back on track.
Chapter 12:
Effects on Practicums and Co-op/Internships: A Virtual Office

The world has stepped into a new era of sustaining societal needs, a shift in focus of the labour market in response to the COVID-19 pandemic. Uncontrolled influenza leads to pandemics due to the nature of the highly contagious virus which leads to respiratory complications (Rebmann, 2008). Without proper isolation guidelines, outbreaks lead to the increase of morbidity and mortality rates (Rebmann, 2008). In order to address the devastating impacts of this pandemic, the world has been placed under an unanimous lockdown. Normal societal functions were put on pause and the days went silent. Daily routines were disrupted, company doors closed, lights went out, and so the economic shutdown began. Companies began filling for bankruptcy, small businesses ripped down, the work force was left scrambling in search of a new light amongst the dimming lights of the once so lively economy (Akkermans & Richardson & Kraimer, 2020).

Internships shine light on to the large array of occupations interwoven to support societal necessities. Participation in internships and co-op positions become more evidently significant in an individual’s career. It is often viewed to benefit both employers as well as those searching for their place for contribution in the community. As the economy slows down in the age of the pandemic, internship opportunities become limited. Limitation of internships directs the work force in new directions and highlights the importance of “essential businesses”. This forces those facing the journey toward self-development to reevaluate the world around them under a new light.

As of the 2020 COVID-19 pandemic, Millennials makes up the majority of those entering the workforce of tomorrow. Millennials’ makes one of the largest workforce of current generations. This is a generation brought up on a perspective of success, and increasing pressures to become high achieving individuals (Hershatter & Epstein, 2010).

The work field shifted from offices, booming streets, rising stock markets into a sudden stop. This pandemic has hit the brakes on development into a focus of those services to support necessary survival. Those professions classified as essential businesses include the sectors of energy and utilities, information and communication technology, finance, health, food, water, transportation, safety, government, and manufacturing as defined by the Government of Canada (Government of Canada, 2010). Public safety became of utmost importance, putting a halt on self-growth and development.
Placement in society through internships is a representation of individual accomplishment. Students are vigorously applying for entry internships throughout the school year, especially for summer positions. The summer in between school is a time for growth and discovery. There is no better way to do either, than to step foot into the real world of development. The aspiration for success comes from the great imagination of what the self-perceived world might be. Receiving the phone call, email, or a letter of acceptance into the desired internship is one of the greatest moments in anyone’s career. Having it stripped away from you due to something that is unpredicted, is a casualty none could have prepared for.

Cancellation of paid internships affects individuals seeking work differently. Students come from a multitude of different backgrounds, one of which being socioeconomic status. Internships are not only an opportunity for growth and development, but a position which allows one to make an income. Although there are new volunteering positions in relation to the pandemic, especially in the health sector, it is not an option for a vast amount of students. Lower income students need a paid position to support their bare necessities. This would mean that those individuals face less experience, making it more challenging to compete in the society around them towards their aspirations. This forces low income students to seek paying jobs, which includes working in a grocery store, agriculture sectors, and manufactures. These fields may not align with their goals. The result of diminished paid internship positions due to the pandemic has emphasized the gap between the higher income students in comparison to those facing the pressure to provide an income.

The influences of internship cancellation due to the pandemic goes beyond the consideration of income and experience. The state of uncertainty one may face leads to increased levels of stress, negatively influencing the overall mental health of an individual. There is an amplification of one’s identity crisis when one is no longer in control of what was one considered basic day to day activities. The initial confusion of self-belonging amongst the society is often noted as the quarter life crisis. This stage of crisis is used to adjust among different sectors of development which includes identity development, future time perspective, social support, coping, depression, anxiety, job, and life satisfaction (Rossi & Mebert, 2011). Without having access to work and opportunities increases stress and anxiety. Without access to support during conflicted times of development is an entire public health concern on its own.

Internships allow students to mature through recognizing their zone of proximal development, a concept defined by Vygotsky, a well known psychologist (Chaiklin). Through observation and placement positions, the
optimal intellectual capabilities can be achieved. The concept of the zone of proximal development identifies the relationship between what the learner can achieve by themselves and the optimal growth that can be achieved by observations of a skilled person (Chaiklin). The phenomenon is best stated by Vygotsky himself:

“the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers...what the child is able to do in collaboration today he will be able to do independently tomorrow” (Chaiklin)

In the current scope of the pandemic, there is a clear disruption in styles of education. This is reflected in policies which the Government of Canada has proposed. There is a shift towards agriculture, and other essential service placements for students. More needs to be done to recognize the long term impacts of delayed development due to the lack of societal exposure.

Internships are recognized for their importance in education, and are implemented in many school programs. Academic internships are a way to strengthen connections, apply learned skills, and provide levels of support for the student. Due to the parameters set in place of the pandemic, internships lowered in availability. This causes stress between institutions and graduation guidelines. As an institution, there are external ways to account for internship credit but the invaluable experience provided by an internship can never be replaced. The pandemic has driven career experience into new directions of digital learning to guided online programs.

The impacts of the pandemic have long lasting impacts on one’s career development. Firstly, there is a shift towards essential businesses. Children are forced to recognize the importance of job sustainability, reliability, and accountability. The alternative methods of jobs are implemented as the new normal. Online resources, video conference calls, online interviews, are all a part of the new normal. Recognizing the increased difficulty of in person socializing events has been put on hold. This makes networking increasing difficult, which limits the opportunities one might be presented with. Young people are stuck in a society run by elders with ill equipped young individuals with a passionate desire to make grand contributions in the world around them.

The consideration of societal needs is at its peak, the world shift in focus of necessities is noted by the challenges of the pandemic. The shift in global businesses accounts for the impacts of the pandemic. As businesses
close, new businesses are created by the incoming generations. The world is entering into a new era of digital business to account for events like the COVID-19 pandemic. Research has headed into a direction of making future advancements. Agriculture has a renewed interest. The economy has a new set of demands for the services to account for while there is a shift in everyday ideals.

The economic impacts are reflected in available positions which leads to a different perspective on job searching as a whole. The Government of Canada has proposed support targeted to combat the economic challenges during the pandemic, such as the Canada Emergency Response Benefits (CERB) (Larue, 2020). This includes relief funds for those who have lost jobs, students, and others to claim. These impacts will continue to be reflected in the perseverance in job availability. Internships in certain fields have seemed to rise but do not meet the demands of the new generation. (Larue, 2020) Basic agriculture accounts for 3% of developed countries in comparison to 78% in lower income countries. Although the agriculture placements began to open up there is not enough interest to pursue this field, especially as there is no pressure to work due to relief funds supported by the government (Larue, 2020).

Foreign workers in Canada also account for a portion of the entire workforce, which also accounts for entry internship positions meant for growth and learning. The Temporary Foreign Worker program (TFWp) was established in Canada in 1973 in response to the high demand in the labor market (Larue, 2020). Although there has been an increased number of positions in work and internship placements many still face challenges due to pandemic guidelines. Due to travel restrictions, many TFW cannot travel to places where agriculture work is located which includes, Ontario, Quebec, and British Columbia (Larue, 2020). Due to countless health and safety restrictions, unemployment rates continue to rise accounting for 30.9% in urban areas (Larue, 2020).

Due to the shortage in staff, despite opportunities increasing in agricultural fields, labor costs will be increased in Canadian produce. Canada is a major of fresh fruits and vegetables, as in 2019, it has been recorded that agriculture trades accounted for $6.6 billion (Larue, 2020). This is an industry that needs focus from working generations.

Internships are notably an experience significant to the development of an individual. In the new light of the pandemic, internships are put to a halt. Students are faced with truly uncertain times of economic stress, in the midst of businesses disappearing. The job everyone has a place during the COVID-19 pandemic is the responsibility to keep the world safe, to prevent
further casualties. Social experiences improve and prepare an individual to face problems in the world of constant development. When the world has gone silent due to the pandemic, new innovations are to arise. Stepping into an era of development accounting of global crisis, it will improve operations of future establishments. This global lockdown has influenced the present and the future of global markets. As restrictions are lifted, new generations need to be recognized for their potential in global development from small businesses to multi-billion corporations. Internships have closed due to the pandemic, but it has also awakened businesses to recognize the necessity and potential of younger generations to step into the foot of a different society the world faces after the COVID-19 pandemic.
Chapter 13:
Strategies for Enhancing Learning Outcomes of Online and In-Person Education

Remote learning has surged in popularity over the last several months due to the emergence of the infectious COVID-19 pandemic. In March, schools all over the world shut down and moved online in order to ensure the safety of students and teachers. But with this “safer” method of learning, there still remains the concern that the educational experience in online classrooms is not quite of the same quality as in-person classrooms. Accordingly, remote learning can be ineffective and unaccommodating for many students as, in addition to requiring access to a computer, it makes it harder for any meaningful social interaction to occur. As emphasized previously, social interaction is critical to learning whether through student-teacher interactions or even student-student interactions. Emily Barkley, a student from New Jersey, told The New York Times how the lack of social engagement in remote learning has affected her personally:

Peer-to-peer interaction is a really pivotal part of education at my school, and it feels like it falls so short in our distance learning. We use Zoom and can see one another and our teacher, but everyone is always muted so as not to interfere with background noise...I feel like my education is not being fulfilled. I have a significant lack of motivation and I miss the thought-provoking discussions I used to have with my classmates during physical school. I am really anxious to get back to school and really foster my love of learning through my peers. (The Learning Network, 2020, para. 9)

A lack of motivation is a major concern but so is a common consequence of remote learning given that the home environment can be much more distracting than the school environment. Additionally, because learning at home has a more flexible schedule, students may exhibit poorer time management skills which can affect them academically. Considering this and all the other challenges of remote learning, it is important that efforts are put towards utilizing online features as efficiently as possible in an attempt to restore the quality of education in online classrooms. Therefore, the focus of this chapter will be to suggest strategies to enhance the learning outcomes of remote learning and to comment on ones that have previously been documented.

An important question that needs to be addressed in online instruction is whether content will be distributed to students in a synchronous or asynchronous manner. After their international shutdown due to the COVID-19 pandemic, many schools and post-secondary institutions predominantly
operated through asynchronous online learning because this style is more convenient and requires a smaller time commitment compared to synchronous learning. Essentially, educators can release pre-recorded lectures and lecture notes among other resources for students to look at independently without the need for live lectures during a scheduled class time. This schedule can be seen as favourable as it undoubtedly gives students more flexibility with their time at home, something that may be seen as a good thing for those that prefer self-paced learning. As for other students, this form of online instruction can pose significant consequences. One such consequence is the feeling of “student apathy and isolation” as there is no live component where students can interact with their peers and teachers (Gardiner, 2020, Best Practices for Asynchronous Learning section). Without personal interactions, students can feel isolated and see school as more of a chore than an exciting opportunity to expand their knowledge. Mentioned earlier, this is how online learning can cause a lack of motivation in students, where something that was once enjoyable and engaging becomes something that now requires a great deal of effort. Asynchronous learning even contributes to students having poorer time management skills because now they are solely responsible for their own learning and must stay up to date with their work. Interestingly, many students actually prefer to have a more rigid routine because it teaches them responsibility, as expressed by Owen Midgette, a student from Virginia:

School also taught us responsibility. I had a schedule when going to classes and when to wake up and go to bed. Now that I have no reason to have a schedule, I have been going to bed and waking up much later than I used to. There also seems to be a lack of motivation for me now to accomplish tasks because at school, we were given an hour and a half each day to get work done in class but now I keep pushing assignments back until the last second. (The Learning Network, 2020, para. 7)

Therefore, a strategy to combat procrastination and a lack of motivation is to switch to predominantly synchronous learning. As “effective remote teaching requires a combination of both synchronous and asynchronous learning”, having both live classes and posting resources for students can accommodate those who prefer social interaction and those who like to have a more flexible schedule (Gardiner, 2020, It’s Not Either Or section). Contrary to the beginning of the shutdown, where many educators and students were unfamiliar with digital platforms such as the video-conferencing platform Zoom, there has now been sufficient time to get used to the online format so it will be much easier to conduct live lectures more frequently and allow students to get somewhat back to a regular schedule. Synchronous learning is a more personal form of online instruction that is similar to in-person learning. In this way, this shift can be used to restore some of the features of in-person education such as being able to verbally communicate with peers or ask questions to the teacher to clarify any areas of confusion about the content.
being taught. Additionally, class discussions can be held over video-conferencing platforms to help students apply their knowledge and actually be able to directly engage with each other. Even just being able to see the teacher and other students’ faces can make the learning process more enjoyable and less stressful for students when learning from home.

In line with this, one source suggests that to improve the quality of online education, “day-to-day routines [that] were used in the classroom before should be adapted and modified to replicate the same feelings and personal experiences during online instruction” (Hoffmann, 2020, Recognize existing expectations section). Some of these routines could be regular class discussions or fun and engaging trivia games, both of which should carry on into the online classroom to preserve some of the in-person experience for students. This strategy can curb a lack of motivation and help students (and teachers) adjust better to the online classroom.

Hoffmann (2020) offers another suggestion on how to restore student motivation, accomplished by incorporating more project-based assessments in remote learning to compensate for the lack of creativity on online platforms; these assessments can be used to demonstrate to students how the material being taught relates to the real world (Evaluate course design section). It is imperative that students are continually reminded of why the information they are being taught is important because it helps them stay motivated in their educational journey. In remote learning, many students are learning primarily through self-study. Without having examples to relate course material to the real world, it is easier for students to become disinterested and unmotivated. In the implementation of project-based assessments, students could be put into groups to investigate a certain topic with regards to everyday situations. For example, Hoffmann (2020) says that when learning about statistics, students could be encouraged to look at the COVID-19 pandemic and the “graph statistics related to flattening the curve” (Evaluate course design section). With regards to social studies, perhaps students can apply the knowledge of different social groups in how they are disproportionately affected by the pandemic as well (Hoffmann, 2020, Evaluate course design section). Ultimately, these assessments can prompt students to exhibit critical thinking skills and apply their knowledge to real-life situations, helping them to stay engaged and retain information more efficiently.

According to the nonprofit organization HundrED (2020), another focus in improving the quality of online education is to fortify the connections between students and teachers to create a more welcoming environment (35:30). This could be fostered by having competitions through video-conferencing platforms to spark camaraderie among students. As a result, this can alleviate some school-related stress and build close relationships among classmates to ensure that students have an overall more positive learning experience. Some specific examples outlined by HundrED (2020) include hosting Kahoot competitions related to course content and awarding prizes
to the winning students, giving rewards for students with the most Khan Academy points, or even just hosting fun activities during designated break times during classes for students to freely engage in (36:25). Schools that are currently operating through online instruction are strongly encouraged to consider these adjustments to make the online experience more enjoyable for students and more similar to that of in-person education.

Ultimately, these are strategies that aim to enhance the quality of education in remote learning. Even with the reopening of schools in September, these strategies are still important to keep in mind as some students may continue with the online format. This includes disadvantaged children (those with intellectual disabilities), immunocompromised children, or children whose parents do not want to send them back to school.

As for the return of students to physical classrooms, the decision to reopen schools around the world is one that has raised both feelings of relief and worry within the communities. The effects of social isolation in remote learning are too significant, especially on the younger demographic, as students are deprived of social interaction and may lose motivation to perform well academically. Remote learning can additionally hinder younger children’s social development in terms of learning how to communicate properly and be respectful to others. Because of this, it is clear that many students, parents and teachers want to get back to the classroom and a sense of normalcy in these unprecedented times.

On the other hand, some parents may not have a choice in sending their children back to school in September. As the director of advocacy group People For Education, Annie Kidder told CBC News that “‘online learning, especially for younger kids, really does involve parents and not all parents have the same capacity to support their kids in doing that’”, revealing the influence of socioeconomic status on which form of instruction (online or in-person) children will be proceeding with in September (Crawley, 2020, para. 8).

In physical classrooms, the risk of COVID-19 transmission increases significantly due to the closer proximity between students and teachers. To reassure worried parents, many schools will be reopening with restrictions such as social distancing and the encouragement of mask-wearing. However, these restrictions can inadvertently impact the quality of in-person education, thus there is also a need to try to restore the physical learning experience as much as possible whilst still maintaining the safety of students and teachers.

As described in an earlier chapter, mask-wearing can be intimidating to young children as it prevents them from fully expressing themselves
(through facial expressions) and from reading other people’s emotional states. In the classroom where children frequently interact with their friends, not being able to do either of these things can instead make the classroom environment seem more impersonal and threatening to children. To prevent this and provide a more welcoming environment for students, masking policies could be more strongly enforced amongst teachers and staff rather than students. This would be mainly applicable to younger students as there is evidence that young children do not contract nor spread the virus as easily as adults. By imposing masking policies on adults instead, children can express themselves more freely and engage in meaningful interactions with other students within the classroom, contributing to a more positive learning experience.

Finally, just like the above strategy suggested for remote learning, it can be useful to apply course content in the physical classroom to real-world situations such as the current COVID-19 pandemic. Additionally, classes could have designated breaks every day where students can open up about how they are feeling. These strategies can both enhance students’ knowledge of course material as well as allow them to express how the pandemic has affected them personally. In this way, school can serve as an outlet for children who may have experienced significant struggles over the last several months in remote learning.

Ultimately, the face of education has changed greatly during the COVID-19 pandemic through the switch to online learning as well as the many restrictions being put in place for when students return to physical classrooms. Therefore, the aforementioned strategies can be used to enhance the learning experience for children in both online and in-person classrooms to help them stay motivated in their educational journeys and ensure that the pandemic does not disrupt the education sector any further than it already has.
January 2020 presented a world none was familiar to, none was prepared for, but everyone has to face. No matter the magnitude of a warning, humans could not have created an immediate society in place of the one we are so connected to. A world with busy traffic, people travelling here and there, chatters from every direction all came to an abrupt stop. This created inertia of a socially based society, wanting to connect and engage with the world around them. The tension is felt through the now empty streets, with the faint sounds of street lighting humming. The society is no longer the same, the tension creates generalized details to address fairness, justice, and equity for students. Students are on their paths to integrate with the working society consisting of established rules, laws, and procedures. The society is built on the foundation of different ways of being as described by John Rawl’s basis of the political theory of modus vivendi (Jones, 2017). Conflict arises when there are differences in interest, belief, value, ideology, culture, identity, faith or ethnicity (Jones, 2017). When conflicts are not resolved, injustice is often the result. This concept is strongly highlighted in the motion of the coronavirus pandemic. Students need the support, tools, and most importantly a justice system to be established to reflect the immediate changes in society.

Higher education is incorporated in the capitalist society of the Western world as an economic market. Policy making in a democratic government represents the reproduction of dominant ideas. With the documented majority of the population reflecting the same constructs, these ideas become institutionalized. It is important to note the ideas change in response to the changes society experiences. The pandemic created chaos the world is experiencing for the first time in the 21st century. The last global pandemic took place in the 1918 pandemic, with an estimated death of 50 million worldwide (Centers for Disease Control and Prevention, 2018). The 2020 pandemic has emphasized the flaws of a capitalist society. The GDP is expected to fall 3% to 15% in certain countries as a result of the global lockdown (Fernades, 2020). The stock market is an immediate indicator of the severity of an economic crash as it falls 30% to 50% (Fernades, 2020). These impacts are further noted by the implied volatility represented by the VIX index, otherwise known as the “fear index”, based on the S&P 500 index (Fernades, 2020). This index reflects the uncertainty of the economic society due to the instability of the social environment (Fernades, 2020). The average VIX index averages around 20% as observed from 1991 to 2008 (Fernades, 2020). During the 2008/9 economic crisis this index was reflected to reach 80% (Fernades, 2020). In the 21st century pandemic, this index
has reached 80% and is still climbing as of August 2020 (Fernades, 2020). Due to the unprecedented economic trend, effective policies are difficult to establish in a competitive capitalist society.

The advancement of technology in the 21st century allows higher education to be integrated through online and virtual education. Through cancelation of labs, institutional events, restriction to facilities, and discontinuation of all activities associated with higher education. The quality of education is under questioning with consideration of tuition. Structural inequalities are projected in times of economic disruption reflected in legal problems reflected in the cost of higher education. Other factors exacerbating economic fallouts include student employment, housing, and educational debts. As institutions facing crisis during unprecedented times forces innovation. Injustice must be questioned and challenged to deliver justice and incorporate digital transformation. This is a time to reflect the advancements of technology in the present to restructure the justice system to better the future.

As socioeconomic inequalities are projected during economic instability, restricting access to resources for maintaining physical and mental health. Many resources were accessible through social institutions from government support programs. Due to the closure of social facilities, these programs can no longer reach their intended audience. As the society faces injustice due to the conflict between public health and socioeconomic status (SES), demand for change is projected through worldwide movements to establish social equality and social justice.

Low-income children experience lack of nutrition due to decreased accessibility to nutritious food options. During the COVID-19 pandemic, low-income students no longer have access to national funded programs in schools (Dunn et al, 2020). Schools and childcare institutions work with federal and provincial programs to provide programs for those relying on the federal safety net. A study has reported that programs, which include the U.S. Department of Agriculture (USDA) National School Lunch Program, School Breakfast Program, and Child and Adult Care Food Program, serve nearly 35 million children daily (Dunn et al, 2020). This allowed for the delivery of nutritional health to the families who needed assistance. These programs allowed students to attain two thirds of children’s recommended nutritional needs (Dunn et al, 2020). Providing nutritious meals are essential to a child’s growth during critical times of development (Dunn et al, 2020). Without attaining essential nutrients and energy children will become fatigued, reduced immune systems, increasing risk of contracting communicable diseases (Dunn et al, 2020). Long term effects limit a child’s psychological, physical, and emotional health (Dunn et al, 2020). Since schools are shut down due to the pandemic, it becomes harder to feed vital nutrition to children from low-income families (Dunn et al, 2020). Solutions need to be established to
Mental health is another area of individual health that must be addressed during the pandemic. The pandemic has projected another area of social stress that has not been presented before. The present health of a nation influences the long-term impacts of the COVID-19 crisis (Laura, 2020). The present social system is not functional during the restrictions presented during a pandemic. A new, updated, and improved social contract must be established to strengthen the health of the nation (Laura, 2020). Students are heavily influenced by the situations caused by the pandemic (Laura, 2020). Students are no longer allowed to physically interact with one another, increasing strain in a child’s development. This pandemic has exposed the unjust of our social system through the lack of fairness, injustice, and inequities (Laura, 2020). Those students who are in a lower SES family face limited access to technology (Laura, 2020). The pandemic forced the world to rely on technology as a form of communication (Laura, 2020). Without access, students are no longer allowed to engage with the world around them (Laura, 2020). There has been a concerning rise of deaths due to overdoses, alcohol, and suicides. This is often referred to as such “deaths of despair” as it reflects the studied relationship between low SES and social wellbeing (Laura, 2020).

The education system is one of the most diverse institutional establishments present in the 21st century. As education continues to forms of higher education the diversity is projected and reinforced. The pandemic has not ignored social injustice during a time which people are forced in doors, but has led to worldwide movements.

The racial gap stems from education received during the development of children. Education is essential to close the gap of racial inequalities (Weir, 2016). In the United States, black students have lagged behind white students in graduation rate, acceptance rate, and grade percentile (Weir, 2016). Education involves a multitude of influential factors determining educational performance. A notable factor is how children are received and treated by education staff, including teachers and administrative staff (Weir, 2016). Disparities need to be addressed to initiate change to inequalities experienced at school.

University of Maryland psychologist Melanie Killen, PhD notes that “everyone holds biases of one kind or another...Maybe we can’t eliminate them, but we can do all we can to avoid acting on them.” (Weir, 2016)

Child development should not be discriminated against, especially in
educational institutions. Policies are put in place to limit social injustice, but change needs to stem from a societal body. Change needs to be a global movement, voices need to be heard. Society is composed of a diverse community, it should never be oppressed but empowered.

These unprecedented times have exposed issues surrounding fairness, justice and equity for students. The pandemic has allowed society to analyze present establishments and challenge ideologies of the past. The society is always changing, it is not stationary, nor should be societal regulations. Social change must reflect human interactions to transform social culture and institutions. Changes take place over time, having significant long term consequences. Social justice needs to be established for a future promoting fair regulations and accessibility of benefits for all individuals and groups constituting a society.
Chapter 15:
Changes in Education Post-COVID

As we look towards the future of a post-COVID world, the question remains as to how the pandemic will continue to reshape our lives even after a vaccine has been found. The struggles associated with the novel coronavirus have forced us to take a hard look at the fragility of so many prominent areas of society, and address the need for proper refocusing and reshaping to better protect these vulnerable sectors in the future. As students across the globe had their academic experience significantly altered and/or hindered during the pandemic, the evident need for change within the education system was exposed. COVID-19 impacted both students and faculty at every grade level, hampering the academic experience from elementary schools all the way to post-secondary institutions. It is apparent that the education system cannot return to its pre-COVID normality. Rather, we must work to implement an improved version of normality within the educational realm to further enhance each student’s learning experience in a safe and efficient manner. As with all aspects of the COVID-19 pandemic, there is no definite, clear-cut answer as to what may constitute a proper solution for the future of education. However, through collective discussion and evaluation of the current crisis, various organizations have proposed actionable changes that may strengthen the state of education for generations to come.

The World Economic Forum states that the novel coronavirus pandemic may lead to strong innovations for the educational world, stating, “COVID-19 has become a catalyst for educational institutions worldwide to search for innovative solutions in a relatively short period of time” (World Economic Forum, 2020). Certainly, this statement has proven to be true for a wide range of schools across the globe. The statement further reveals how various schools in numerous countries altered their education delivery process during the midst of the pandemic, as “students in Hong Kong started [] learning at home, in February, via interactive apps. In China, 120 million Chinese got access to learning material through live television broadcasts” (World Economic Forum, 2020).

Less technologically advanced—but still highly impactful—methods were created by other countries, as, “in one Nigerian school, standard asynchronous online learning tools (such as reading material via Google Classroom), were augmented with synchronous face-to-face video instruction, to help preempt school closures (World Economic Forum, 2020).

The pandemic forced traditional schooling methods to shift and evolve
in creative ways in order to deliver education safely to students. As these adaptive measures have broadened the range of access to learning materials for many students, as well as provided new methods of learning, it can be interpreted that many of these innovations that were designed during a time of crisis will remain and continue to enhance the learning of students post-COVID.

Further, “public-private educational partnerships could grow in importance” (World Economic Forum, 2020), in light of the COVID-19 pandemic. Learning-based alliances have begun to take form in supporting digital learning during the pandemic, with diverse contributors such as governments, publishers, education professionals, technology providers, and telecom network operators - coming together to utilize digital platforms as a temporary solution to the crisis” (World Economic Forum, 2020).

For countries that have solely depended on the government to provide education, this merger “could become a prevalent and consequential trend to future education” (World Economic Forum, 2020).

However, it is noted that as technological innovation continues to grow in the educational sector, the digital gap may increase for students in less-developed countries and/or families with less financial gain, as “the less affluent and digitally savvy individual families are, the further their students are left behind. When classes transition online, these children lose out because of the cost of digital devices and data plans” (World Economic Forum, 2020).

Moreover, as “only around 60% of the globe’s population is online” (World Economic Forum, 2020), it is crucial that meaningful solutions are implemented to bridge the technological divide, ensuring that proper education is not dependent on a student’s financial means and is equally accessible to all.

The United Nations Educational, Scientific and Cultural Organization (UNESCO) released a report identifying nine key ideas for public action during and after the pandemic, stating “more than 1.5 billion students[... learning has been hampered due to school closures” (UNESCO, 2020, p.3).

The UNESCO report, also signed off by Her Excellency, Sahle-Work Zewde, further emphasizes the importance of supporting developing countries as we navigate through the world of education during and after the pandemic, stating:
It is particularly important that the world supports developing countries with investment in 21st-Century education infrastructures; this will require the mobilization of resources and support from developed countries, in particular with debt cancellation, restructuring, and new financing. The magnitude of this challenge is clearly evident with regard to the digital divide in Africa. For example, only 11% of learners in sub-Saharan Africa have a household computer and only 18% have household internet, as compared to the 50% of learners globally who have computers in the home and the 57% who have access to internet. Already we see that the disruptions brought on by the pandemic are exacerbating inequalities both within and across countries. We urgently need investment and structural change so that short-term setbacks do not grow into larger, long-lasting problems. (2020, p. 3)

The report illustrates nine effective measures in which education can be enhanced, calling for the commitment to strengthen education as a common good, expand the definition of the right to education, place a higher value on the teaching profession, promoting student, youth and children’s rights and participation, protecting social spaces provided by schools, supporting available technology for students and teachers, ensuring the learning curriculum supports scientific literacy, protecting the financing of public education (both domestic and international), and ending the current levels of inequality on a global scale for education (UNESCO, 2020, pp. 5-6).

It is crucial that the choices made now regarding education are thoroughly developed with the utmost thought and care for all students and staff, as “decisions made today in the context of Covid-19 will have long-term consequences for the futures of education” (UNESCO, 2020, p.5).

When evaluating the harsh reality of COVID-19 within the education system, it is crucial to consider the additional strife and inequalities placed on vulnerable populations across the globe, such as impoverished children and youth, refugees, migrant children and youth, and children with disabilities (GCE Secretariat Global Campaign for Education, 2020, para. 7-8).

Moreover, we must also take into account the magnitude of increased gender inequality that COVID-19 has inflicted on students throughout various parts of the world, noting “increased incidents of child abuse, gender-based violence, forced child marriages, teenage pregnancies and female genital mutilation” (GCE Secretariat Global Campaign for Education, 2020, para.7 ).

The COVID-19 pandemic has negatively impacted students throughout the world. It is not to be taken lightly that students faced immense hardship in
regard to their mental wellbeing and quality of education when navigating through the depths of academia amidst the pandemic. While the struggle of every student is strongly validated, we must acknowledge the additional turmoil placed on disadvantaged students, both within Canada and past our borders. If a stronger education system is to be developed in a post-COVID world, it is essential that various stakeholders collaborate to identify and address meaningful solutions for all students, including those who are placed at a disadvantage. It is imperative that education systems throughout the world do not attempt to fall back on pre-COVID practices, but rather, use the pandemic as an opportunity to improve and equalize education for all students in all parts of the world. The COVID-19 pandemic was—and still is—a disastrous situation. It continues to present immense adversity and turmoil for people in unique ways throughout the world. However, it simultaneously opened the opportunity for innovation, growth, and change to arise in areas we may not have otherwise sought to improve. The pandemic allowed for a bright, undeniable light to shine where the education system had failed specific students by allowing them to be significantly disadvantaged in their academia. It signalled the imperative need to equalize education on a variety of fronts. It revealed the importance of innovation in the education system and amplified the need to branch outside the traditional realm of academic delivery to adjust to the unique situations of various students. It also showed the world that through collaboration, forward-thinking, and a goal for the common good, advancements are possible. Of course, it is to be noted that there is not a one-size-fits-all solution when it comes to improving the education system post-COVID. What may be the right course of action for one institution, or one particular classroom, or one particular student, may not be right for another. The solutions we will see in the education system will be determined on a case-by-case basis, relying heavily on those who know and understand each unique situation and have the means to produce meaningful change. In the same sense that the world has had to continuously re-evaluate and readjust when finding solutions to stop the spread of the novel coronavirus, it may be reasonable to assume that the same will be true for finding solutions to enhance and equalize education, even after the pandemic has ended.

Commonwealth of Learning writes a blog post on their website on what the future of education may hold in a post-COVID world. The blog post reads:

As the multitude of solutions are implemented, mostly dictated by local circumstances, a different world of education will slowly unfold. Some experiments will undoubtedly fail, while others will be immensely successful. When the dust settles, we are bound to see a brand-new educational landscape, impacted and reshaped at all levels. Schools for younger children will have smaller classes with a high level of attention being paid to hygiene and the introduction of innovative approaches to keeping naturally social children at safe distances. High schools and universities will undoubtedly
see a huge move towards the induction of technology in every aspect of the teaching-learning experience. We can expect to see an immense improvement in the quality of materials available at all class levels as the move away from face-to-face classes gains momentum. (2020, par. 5)

Certainly, the world has fought extremely hard to navigate through and find solutions during the pandemic. It is the hope of many that the same innovation and collectiveness will continue to be utilized long after the pandemic has ended and the year 2020 has become a page in our history books. Without a doubt, the COVID-19 pandemic has forever changed the world as we once knew it. What was once the collective norm in various parts of the world has been altered in ways that may have been inconceivable to some prior to the era of COVID-19. Our current time period will be known as a major historic event that will be spoken about at length and taught to students for years to come. With that being said, while we are teaching future generations about the ways in which the world came together, solved unprecedented challenges, and formed meaningful solutions to an ever-changing problem during COVID-19, we can only hope that we will be doing so through an education system that represents our innovation and resilience as such. Education in a post-COVID world must be a pillar in demonstrating the world’s strong commitment to change for inequality, a desire to be better, and a need for continuous forward-thinking. We are in a unique situation where, as previously stated, “decisions made today in the context of Covid-19 will have long-term consequences for the futures of education” (UNESCO, 2020, p.5). We must use this opportunity to enhance our education systems globally and put forth a stronger, more inclusive, and more impactful means of academia for all students. If so, a better world may be on the horizon for everyone post-COVID.
Chapter 16:
Conclusion

The year 2020 has been a world-changing year to say the least. In December 2019, a cluster of cases of pneumonia was discovered in Wuhan, China; this virus was later identified to be the coronavirus (World Health Organization [WHO], 2020). Many individuals entered the new year, 2020, unaware of what the year had in store for them. On March 11, 2020, the World Health Organization (WHO) declared COVID-19 as a global pandemic (WHO, 2020). Since then, many people’s lives have changed drastically.

As with many world changing events that have occurred in the past, this pandemic is expected to leave evidence of its presence in society. Predictions have been made that the pandemic “will change the way we live” and “change us as a species.” (Harris, 2020) It is expected that “things will never be the same” suggesting that lives will not return back to the way they were prior to the pandemic (Harris, 2020).

In April 2020, strict restrictions and measures were put into place to reduce the spread of this virus (Willingham, 2020). Many Americans were not impressed by these rules and resorted to protesting, in hopes that they would be able to return to their “normal” lives (Willingham, 2020). Although these restrictions were despised by many, research has shown that social distancing restrictions and shutdown orders have prevented about 60 million novel coronavirus cases in the United States alone, along with 285 million cases in China (Achenbach & Meckler, 2020). The shutdowns were demonstrated to be powerful in exponentially reducing the spread of the novel coronavirus (Achenbach & Meckler, 2020). The director of the Global Policy Laboratory at the University of California at Berkeley says that, “without these policies employed, we would have lived through a very different April and May” (Achenbach & Meckler, 2020). Further, he went on to say that “the disease was spreading at a really extraordinary rate that is rare even among very infectious diseases” and that the response to the pandemic resulted in “saving more lives in a shorter period of time than ever before.” (Achenbach & Meckler, 2020) Even though the restrictions of the pandemic were undesirable for many, its aftermath yielded a positive outcome as the number of deaths due to the novel coronavirus was significantly reduced.

Educational institutions played a major role in helping to reduce the spread of the virus. In fact, the education industry is among countless severely impacted industries. To lower the transmission of the virus, many educational institutions terminated in person gatherings and resorted to a fully online
education system. This abrupt change impacted many people including educators, students, and parents.

The virtual classroom, a new experience for many, presents both advantages and disadvantages. Some advantages of online learning include a more flexible schedule and an increased opportunity to spend time with loved ones. In contrast, some disadvantages of online learning are increased distractions at home and lack of academic support and resources available amidst the pandemic. In addition, not all educators are technically competent, making it more difficult for them to conduct lectures via telecommunication means. This lack of technical competency poses an issue as students are not receiving the same level of education they would be receiving had they been in a traditional classroom setting. Further, some students are simply unable to afford costly technological devices in order to meet the needs of their online education, putting them at a disadvantage. UN Secretary-General Anotonia Guterres says “the novel coronavirus is the largest disrupter of education ever seen.” (Bogart, 2020) As such, the chapters in this book provided an overlooking perspective on multiple aspects of online and traditional learning and the benefits and advantages to both.

Educators, students, and parents are left facing the reality that schooling may not go back to the way it was before the pandemic. COVID-19 has caused schools to swiftly change their teaching methods to accommodate for a fully online classroom. Due to this, parents are forced to become the primary educators for their children and teachers are forced to adapt to virtual learning tools. As months go by individuals are adapting and getting comfortable with this new education system; due to this, there is a possibility that people may not choose to resort back to the traditional method of education once the pandemic is over. Although it may be stressful for families and students to adapt to this new method of education, they are getting more accustomed to the new reality (Harris, 2020). The pandemic has resulted in implications of new teaching resources via online tools. Many educators are trying various different online learning tools to see which is most effective and yields better academic outcomes overall. As a result, students are being exposed to new tools which had the pandemic not occurred, would not have been used. As such, students may begin to have a liking for certain online tools, and once the pandemic is over, they would still want to use these online tools as they feel that it benefits them. This is one way in which the education system will start to deviate from the traditional education system once the pandemic has concluded. Contrary to the benefit of online tools, research has consistently shown that fully online education systems yield lower learning than the traditional in-person schooling methods (Harris, 2020).

The effects on learning are deeply analyzed throughout this book. This book discusses the social effects on learning, environmental effects at home,
To reduce the negative outcomes of a fully online education system people believe that innovative teaching methods need to be in place for reopening of schools and students who are harder to reach should be targeted (Bogart, 2020). UN Secretary-General Anotonia Guterres says “now we face a generational catastrophe that could waste untold human potential, undermine decades of progress, and exacerbate entrenched inequalities.” His statements demonstrate the severity of the negative outcomes that could arise due to the fully online education system amidst this pandemic. Guaterres believes that students with disabilities, minorities and disadvantaged communities are at highest risk of being left behind. Further, he states that students at a disadvantage “are going to lose” and these gaps in education are expected to lead to disparities later in life (Bogart, 2020). Such disparities include “[losing] as much as a year of their education, and that will have an impact on their lives in terms of their earnings and their capacity to thrive in the world.” (Bogart, 2020) Moreover, an article written by Hillary Hoffower for the Business Insider states that “the pandemic is exaggerating socioeconomic differences in many areas, but the chasm in education is particularly deep.” Divisions in equality were obstructed by in person schooling (Hoffower, 2020), but now the divisions are being magnified. Anyhow, regardless of a student’s socioeconomic status, every student is at the risk of falling behind academically, therefore it is necessary to get students back into schools.

Although it is important to get students back to school as soon as possible, this process should be done safely and effectively and should not be rushed, says Annie Kidder, executive director of People for Education. School has always begun at the beginning of September in Canada and thus everyone anticipates school starting then. However, it should be noted that “it would probably be more effective to have a kind of slow on-ramp into school.” (Bogart, 2020) Even though every province has released a plan to allow students back into school in the Fall, the lack of knowledge and unpredictability of the number of coronavirus cases that will be present at that time makes it difficult to plan accordingly (Bogart, 2020). Kidder says that “the return to the classroom shouldn’t be treated as business as usual, noting that children of all ages have been impacted mentally by the pandemic and resulting
shutdowns.” Further, she goes on to state that “our children have been living through this crisis, so there needs to be quite a bit of time taken to deal with that.” A “gentle return” to traditional schooling should be implemented and conversations about emotion and feelings should be carried out (Bogart, 2020).

It is no doubt that the education industry has undergone and will undergo significant changes because of the pandemic. It is in the best interest of everyone, to continue the majority of schooling virtually, to reduce the spread of the virus. As of right now, it is too early to predict and to know for sure the exact changes that the education industry will face once the pandemic is over. However, it is clear that there will be changes.

Throughout this book, various aspects of the traditional education system compared to the new fully online education system have been discussed. Only time can tell where the path and evolution of education will lead. For the time being, it is important that learning continues and students are consistently being exposed to education whether it may be through traditional teaching methods or virtual teaching methods.
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