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Well-Being and Challenges faced by students during COVID-19

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Introduction

In 2019 COVID-19 greatly affected the world in terms of the economy, education, and personal well-being. The sudden outbreak of the virus significantly impacted education systems globally, forcing them to switch their method of teaching and shut down schools and campuses to protect the lives of students and teachers. According to the United Nations Educational, Scientific, and Cultural Organization (UNESCO,2021, p.6) report, by the end of March 2020, school and university closures were enforced in 165 countries around the globe; this affected over 1.5 billion learners. Because of that, colleges and universities switched to remote online learning to provide educational continuity to their students (Alhazbi, 2021, p.1). As a result of drastic measures taken by education systems, students were involuntary asked to shift how they learn, which in turn affected their well-being inside and outside of the classroom (UNESCO,2021). In this thesis, it will be analyzed how students' well-being has been affected during COVID-19 and the ongoing challenges they have faced psychologically, educationally, and physically.

In chapter one, I will be providing an in-depth look at COVID-19 influence on teaching methods globally. I will be delving deeper into the topic by using research based on UNICEF's report on student's remote learning experience. I will be looking at the shift from in-person traditional methods to distance learning and the role technology has played in the classroom during 2019. Common challenges faced by receiving a digital education will be analyzed.

Chapter two explores the psychological needs of students during COVID-19 by specifically observing two distinct theories: Self Determination Theory and Self-Regulated Learning Theory. The chapter begins with background information on Self Determination theory and its three components: autonomy, competence, and relatedness. After providing this information, I then move on to Self-Regulated Learning Theory, and its importance in understanding the psychological aspect of students. Finally in Chapter two, I will be discussing the importance of social interaction for students and its effect on their mental well-being.

In chapter three, I will be presenting a survey which will be conducted through various online platforms to measure students' overall well-being during their educational experience over the last two years. The survey will be taken from university students ranging from 18-25. In addition to the survey, I will be showcasing specific student scenarios to get a broader view on their overall well-being. Both the survey and student scenarios will provide some data to assess students' well-being and common challenges faced during COVID-19. Finally, a conclusion will be drawn from the analysis of the survey, student scenarios, as well as basic psychological needs of students during the pandemic.

Chapter I COVID-19 Influence on Teaching Methods

By March 2020, school closures in response to the COVID-19 pandemic left more than 90 per cent of the world's enrolled children out of school (UNICEF,2021, p.6). Global school closures caused great concern on how administrators would approach education. To mitigate the impact of school closures, countries around the world invested rapidly in remote learning solutions delivered through different channels, including online platforms, broadcast media (TV, radio), and paper take-home packages. The shift in teaching methods have had significant effects on students as well as teachers as the methods used were mandatory globally (UNICEF, 2021, p.6).

Chapter one explores the integration of technology outside of the classroom to execute lessons as well as the shift from traditional learning methods to distance learning. Although technology has become a crucial part of our daily lives the past few years, it has also brought significant challenges to students in many different countries. These challenges range from not being able to access the internet, not having the proper tools (computer, zoom) to follow lessons, as well as having a disruptive learning environment at home (UNICEF,2021). Thus, the chapter will be focusing on how COVID-19 has negatively or positively influenced teaching methods.

1.1 Shift from In-Person to Distance Learning

Before the COVID-19 pandemic, the way students accessed educational lessons was entirely up to the student at hand. For example, certain universities offered in-person as well as distance learning courses to meet each student's needs. In an attempt to contain the spread of COVID-19, in the large majority of countries around the world educational institutions have decided to temporarily suspend in-person instruction and move to a remote learning model of delivery. According to UNESCO, at the end of April 2020, educational institutions shut down in 186 countries, affecting approximately 74% of total enrolled learners on the planet . In many countries, schools have been closed since the beginning of March 2020, while in others (e.g. most of China and South Korea) in-person classes had been already cancelled since January 2020 (DiPietro,2020, p.7). The suspension of in-person instruction has led many educators to observe the advantages and disadvantages to both methods of learning.

In-person learning is any form of instructional interaction that occurs "in person" and in real time between teachers and students or among colleagues and peers. Before the

advent of audio, video, and internet technologies that allowed people to interact from different locations and at different times, all instructional interactions occurred, by necessity, in the same place and at the same time.

In-person learning provides students with a distraction-free environment that is controlled by academic instructors. Classrooms are structured to provide a safe place for students to interact with one another and learn. Educational systems are compelled to have strict regulations to maintain a safe space for students. For example, it is forbidden to yell in most classrooms, use your telephone during class etc. These regulations allow the environment to be a controlled setting, and if a student feels that they have an issue with their educational space/peers/instructor they can freely speak to administration. Administration in in-person learning is readily available to assist students with issues faced in the classroom so that they can have a distraction-free lesson.

As well as providing a safe space for students, in-person learning is a hands-on experience for students where projects must be done on-site. For example, certain subjects like science require students to participate in experiments and build models. In-person learning gives students the opportunity to collaborate. An article written by KIPP Public Schools Texas "Four Benefits of In-person learning" stated when students are in the same physical setting, making connections feels natural and it is unquestionably easier to reach out to classmates and teachers alike. In-person classes lead to organic discussions where students can bounce ideas off one another (KIPP, 2021).

On the other hand, distance learning has become a topic of discussion in the late 1990s, only now, during the 2020 pandemic, it seems that the world has focused almost entirely on e-learning for a longer or shorter period, adapting and re-adapting to the new reality (Gherhes, 2021, p.2). Distance learning enables students to learn from the comfort of their home or a library with the use of technology to access lessons in real time or pre-recordings. Thus, allowing students to feel safe and distanced from peers and teachers without the spread of COVID-19.

Students' experience of quality learning is not only related to the teachers' skills and abilities to capture attention during the e-learning process but also to their own training, characteristics, and digital skills. In e-learning, physical space should foster involvement in interpersonal relationships, thus encouraging didactic communication (Gherhes,2021, p.2). Distance learning is supposed to allow students equal access to all educational material

online, so that students can feel that they are learning in a fair way. For university students who are working while studying, it allows them flexibility to follow lessons without a strict weekly schedule. Digital education offers important advantages for independent learners. Older students will be able to personalize their learning (Herold 2017). To some extent, they will have the possibility to take control over their learning, understand what they want to learn, what they like and what kind of support they need. Online educational platforms also enable these students to learn at their own pace and this gives them more flexibility during the day (DiPietro, 2020, p.10).

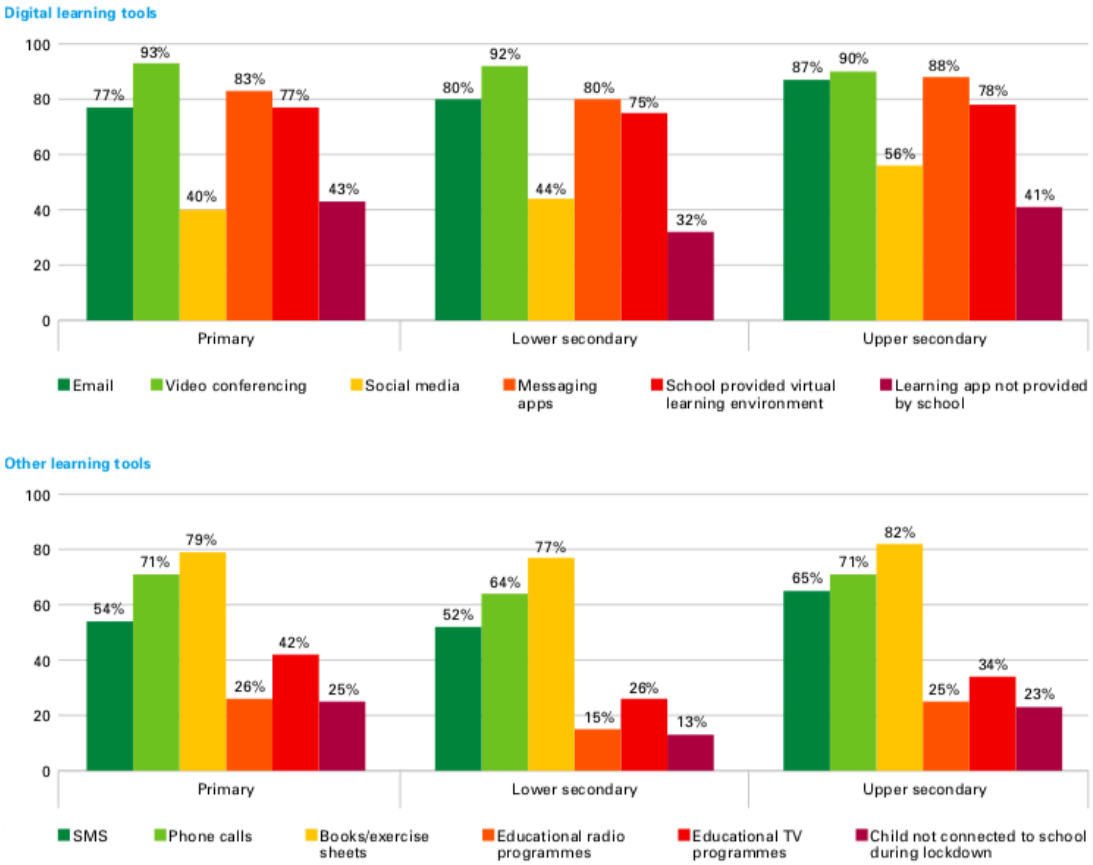
1.2 Integration of Technology during the pandemic

The shift from in-person to distance learning has encouraged students to integrate technology into their daily lives. For all students to benefit equally from digital remote learning, several conditions must be met. There must be affordable and stable access to the internet, as well as high-quality digital devices that support video conferencing and digital educational platforms. Children need time to grow accustomed to new digital tools and teaching modalities to ensure they remain engaged and motivated learners (UNICEF,2021, p.8).

Technology was integrated outside of the classroom with various tools which students had to gain access to. A survey taken from The KiDiCoTi project coordinated by the European Commission Joint Research Center recorded digital and non-digital teaching modalities used by students in Europe during the pandemic depending on school level (UNICEF,2021, p.13). Figure 4 below shows the results found:

Figure N.4: Chart showcasing the use of Digital and Non-digital teaching modalities during the COVID-19 lockdown, by school level

Figure 4: Use of digital and non-digital teaching modalities during the COVID-19 lockdown, by school level



Recent analysis from 118 countries using the first round of the UNESCO-UNICEF-World Bank survey on national education responses to school closures found that, on average, 70 per cent of countries used a combination of digital and non-digital approaches to reach children at all school levels (UNICEF,2021, p.14). As seen in Figure 1, video conferencing such as zoom and skype was the most used technological tool during COVID-19 where an average of 90 percent of students stated they used it in primary, lower secondary and upper secondary school. Thus following, messaging apps at an 80 percent average. Although, different tools were used to integrate technology outside of the classroom, there is lack of evidence on if they were effective for achieving learning outcomes.

Smart phones and computers which were both widely used tools during COVID-19 pandemic, have varied responses in whether they were effective in completing educational courses. The virtual COVID-19 classroom: surveying outcomes, individual differences, and technology use in college students, observes the various responses to the use of technology

during the pandemic. Kim (2019) reported that phones distract students from their classwork every 3–4 min. Tossel (2015) studied smartphone use in college students without prior smartphone experience. Although students had viewed phones positively relative to education prior to the study, they viewed phones as more of a distraction by the end. Like other research, students did label the devices as useful for retrieving course materials and communicating with others. And though Sage (2021) found the positive characteristics of smartphones, they also reported that students saw more educational value in laptops over smartphones and believed laptops were superior for interactive activities, research, accessing some course materials, and note-taking. They complimented laptops for their ability to login to class meetings and complete assignments (Sage,2021, p.5).

The study by The European Commission (2021) listed elements that must be considered to ensure successful strategies to integrate online and offline learning activities:

- Guarantee access to internet and availability of computers, laptops, or tablets: access to the internet at a decent speed and to proper ICT tools are basic prerequisites for any online teaching and learning strategy.
- Adopt proper Virtual Learning Environments (VLE): VLE can give learners access to educational resources, connect students with teachers and facilitate remote lessons.
- Rethink the role of broadcasting education: educational broadcasting can be a useful complement to online programmes as it delivers teaching to those who do not have access to the internet and equalizes teaching methods and material across schools within a country or region.
- Improve availability of learning technology for students with Special Educational Needs and /or Disabilities (SEND): digital technologies can provide useful support to SEND students, especially if they are part of a coherent and overarching process.
- Support teachers: teachers should learn how to adapt their role to a situation in which they can communicate only online and in which even students typically performing well at school may lose motivation when shifting to online learning. It is crucial to improve teachers' digital competences across all ages, as well as to ensure that they are well trained in the pedagogical approaches best suited for online learning and blended models.

- Support parents to help their children: parents are an essential element of the picture, and more so for younger students who cannot be left alone facing the challenges of online learning. Parents should be involved in the design of the strategy and in its implementation as they need to fully understand what is taught and why. Regular and detailed communication between parents, teachers, and the school is a fundamental element of a successful online learning strategy.

1.3 Challenges of digital education

The use of technology as a tool to safely teach students without spreading COVID-19 is an innovative way to combat a global pandemic. While many of the practices that are used in face-to-face contact modes can be adapted and utilized in the online context, it is not simply the case of applying a "one size fits all approach" which is what teaching staff relatively unfamiliar with the online environment tend to do. This is where either the content or delivery used in other, usually face-to-face contexts, is adapted to a seemingly compatible online format, and therefore deemed suitable for all learners and cohorts across each mode. Instead, scales of adaptation and differentiation within the approach should be used to better differentiate between different learners as well as different contexts of teaching via online and live modes (Gillet-Swan,2017, p.21).

Learning Styles

When examining the common challenges faced by students around the world, it is essential to understand how learning style plays an important role in education, specifically digital education. The VARK model designed by Fleming in 1987, categorizes students learning styles to help students better understand their strengths and weaknesses in the classroom. This model can be applied to distance learning as well as traditional learning methods. Different Perspectives of Learning Styles from Vark Model stated the four core main learning styles (Othman,2010, p.656):

Visual: Students predisposing with this style are likely to be provided with demonstration and can learn through description. These students prefer to use list to

maintain their advance rate in learning as well as arranging their ideas and mind. Apart from that, visual students are easy to be disturbed or change in focus by movements or actions, whereas, noise, usually do not bother them (Drago, 2004). Moreover, visual students like to use figures, pictures, and symbolic tools such as graph, flowcharts, hierarchies, models, and arrows which represent printed information. They also can explain a concept to others by drawing a figure or picture (Murphy, 2004).

Aural: Aural students learn something by listening (Drago, 2004). These students give more attention to the words delivered by teachers. They prefer to listen than writing lecture notes. After lectures end, they choose to discuss topics which were taught with classmates, as a way to clarify their understanding. To aid with their learning style, aural students discuss on answers or by listening to recording over the examination topics (Murphy, 2004). Students who learn with this mode are easily interrupted noise (Drago, 2004). Aural students usually read easily, narrate cleverly, write story or poetry effortlessly, learn foreign language fast, have good vocabulary, spell smoothly, like to write letters, and own strong ability in remembering names or facts (Armstrong, 2004).

Reading: Students with the tendency of reading prefer printed word and text as a method to gain information. They like list, glossary, textbooks, lecture notes, or circulation. These students like to arrange lecture notes into sketch form, paraphrase classroom notes, and study multiple choice exam questions (Murphy, 2004). Besides that, according to Drago and Wagner (2004), these students are note takers. They study better through note taken from lecture or from difficult reading materials.

Kinesthetic: Drago and Wagner (2004) describe the characteristics of predisposing kinaesthetic students as those who emphasize more in experience in learning something and usually, they have high energy and prefer to apply touch, movement, and interaction to their environment. Apart from that, these students dislike learning merely by listening and visual skills, and, typically, kinesthetic students are passive in class (Wagner, 2004). According to Armstrong (2004), students that possess this type of intelligence are fond to move and are active, quick in learning physical skills, fond to think while moving, perform well in certain athletic field, more likely to use movements as an aid for remembering various cases, have good coordination and awareness on tempo, and are easy to relax.

Figure N.1: Diagram displaying Learning Styles based off the VARK Model

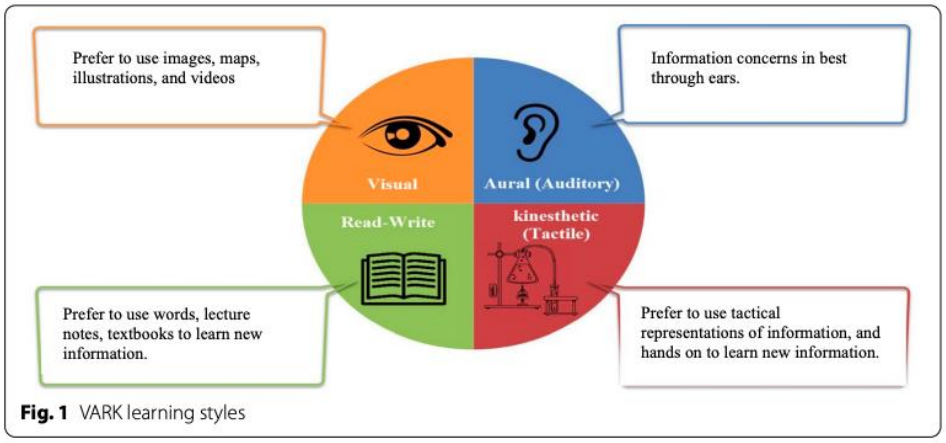


Fig. 1 VARK learning styles

By observing the different learning styles and the personality traits that each style encompasses, it is evident that not every learner can adapt to a digital education. For example, a kinesthetic learner that prefers to physically interact with their environment might show immense difficulty in an online setting. Thus, if all their learning style needs are not met, they will feel that they are not motivated during class and may perform poorly. Previous research has emphasized that student participation is a key factor in overcoming academic problems such as poor academic performance, isolation, and high dropout rates (Fredricks, 2004). Student participation is vital to student learning, especially in an online environment where students may feel isolated and disconnected (Dixson, 2015). Student engagement is the degree to which students consciously engage with a course's materials, other students, and the instructor. Student engagement is significant for keeping students engaged in the course and, as a result, in their learning (El-Sabagh,2021, p.6). Customizing online learning in order to fit every students needs is one alternative to successfully implement distance learning during COVID -19. If education systems can work with every student need, they are more likely to keep them engaged regardless of if the lessons are online or in-person.

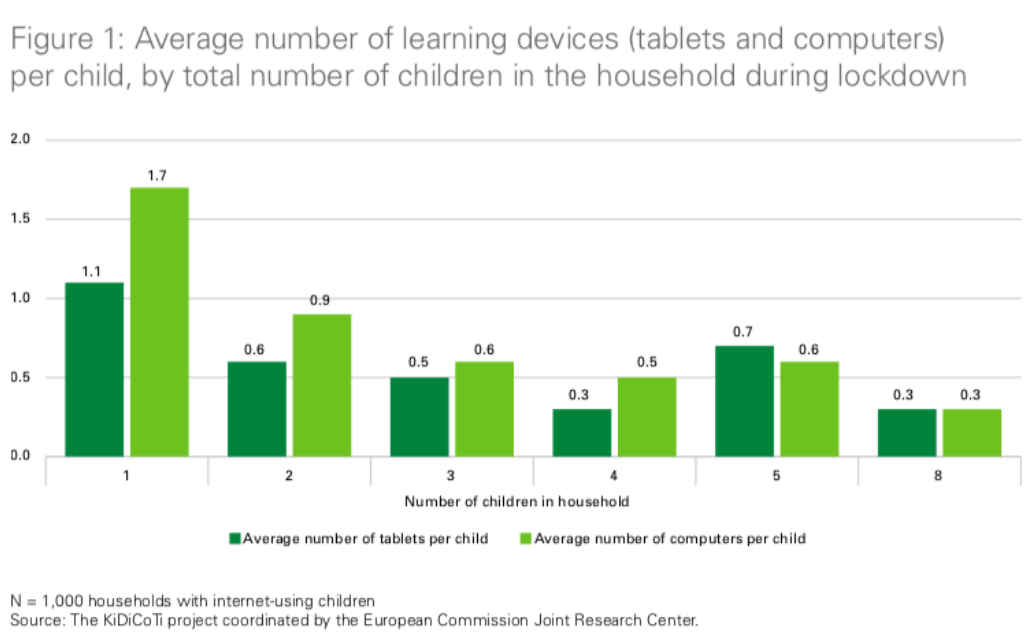
Lack of Digital Resources

As stated in 1.2 to successfully implement a distance learning students will need to have access to technology. A functioning computer, smart phone and high-speed internet connection is crucial to make sure students can effortlessly communicate with the teacher as well as classmates. However, depending on students' location, socio-economic background, and distance learning environment being able to access digital resources has not been simple for every student (DiPietro,2020, p.4).

There are considerable socio-economic inequalities in students' access to digital technologies at home. Students from higher socio-economic status are significantly more likely to have a laptop or a computer at home thanthose fromlower socio-economic status. For instance, data from Teacher Tapp — an app that asks daily questions to more than 6,000 UK teachers — show that at the end of the first week of lockdown following COVID19, about 10% of students did not have access to either a device or the internet16. In the US, according to a 2019 analysis by the Associated Press,the percentage of students who do not have a computer at home and those who lack broadband internet access is 17% and 18%, respectively (DiPietro,2020, p.14).

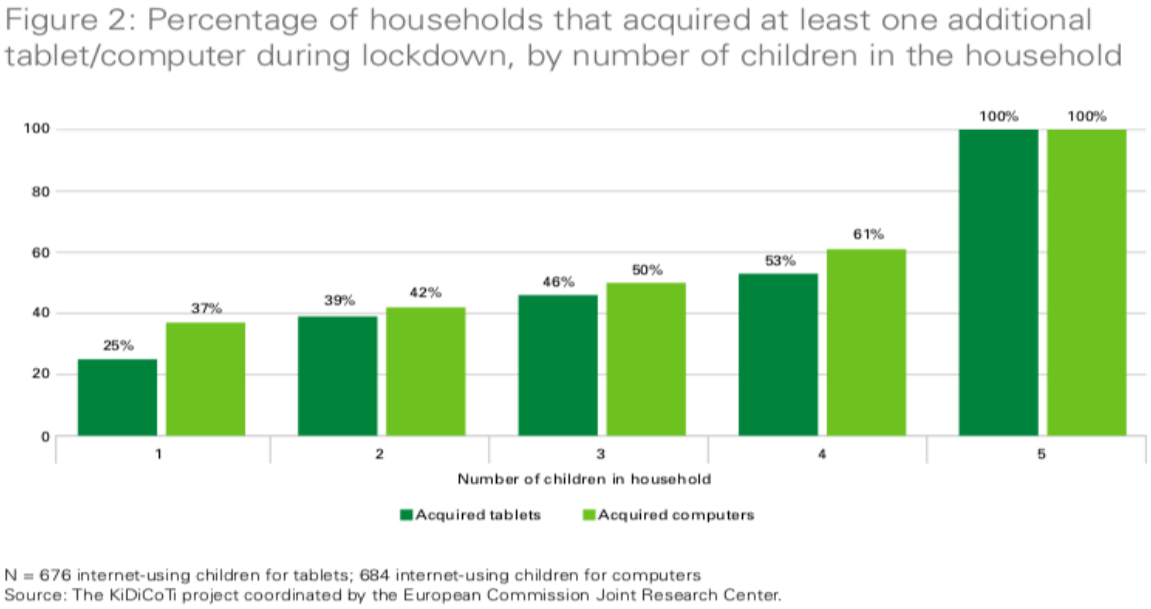
Households that had more children in their family had much greater difficulty supplying each child a digital device to access their lessons. This was most likely to occur due to the financial cost of each device. Figure 1 from UNICEF conducted data on the Average number of learning devices (tablets and computers) per child, by total number of children in the household during lockdown in Europe.

Figure N.1 : UNICEF chart showcasing the average number of learning devices per child, by total number of children in the household during lockdown



If students do not have access to internet or a computer, it is very difficult to upload assignments and join live or pre-recorded lessons thus affecting their overall engagement in the course which can result in frustrations as well as a decrease in their final grade (UNICEF,2021, p.9). As stated previously, in certain circumstances households that were not able to provide all students with a technological device were forced to acquire more or not attend classes at all. Figure two which was provided by UNICEF, demonstrates the percentage of households that had to acquire another laptop/tablet to ensure all students were met with the technology needed to successfully attend their courses.

Figure N.2: UNICEF graph displaying the percentage of households that acquired at least one additional computer/tablet during lockdown, by number of children in the household



As shown in Figure two, the more children living in each household, the greater chance that families would need to provide an extra tablet or computer.

Another considerable difficulty faced by students during distance learning is internet connection. Access to high-speed internet is not only a luxury but it is a necessity to successfully complete online lessons. An article written by Government Technology “9 million Students Lack Home Internet for Remote Learning” highlights students struggle of nine million students during distance learning. Schools have scrambled to offer workaround Internet solutions to students — portable take-home Wi-Fi hot spots, extending school Wi-Fi into surrounding parking lots, parking Wi-Fi-enabled school buses in neighborhoods, and promoting reduced-rate high-speed Internet plans through local Internet service providers (ISPs). But some of these solutions are less-than-adequate for remote learning, and others may be unsustainable for schools to provide in the long term (Bentley,2020). Rural and tribal areas globally have suffered the most in terms of inability to access the internet. Thus, there is a gap in the education system. Students who were privileged and had access to a wide range of services close to their home, are more likely to have faster internet service. Globally, when we observe third world countries where internet access is limited outside of public spaces, distance learning becomes problematic for a higher number of students.

Environmental factors affecting digital education

Throughout the years, researchers have studied the most effective learning environment for students which enables them to think clearly in a distraction-free zone enhance creativity and brain development. School infrastructure plays an important role on children's development and collaboration and administrators have meticulously designed educational buildings to benefit student's educational experience (Ng, 2021, p.6). Every classroom is a constructed environment. Steele (1973) defines the environment as the surrounding context of human or subject of interest that includes the physical, social perspective and economic forces. Classroom environment serves as a medium for teaching and learning too. It can be divided into two parts, which are social environment, and physical environment. Social environment refers to students' and teachers' performance, satisfaction and enjoyment, sense of security and interaction between teachers and students. Physical environment consists of the facilities that are provided in the classroom. Classroom physical environment includes the classroom design, color, lighting, acoustic and air quality, classroom decoration, seating arrangement and others that make the whole classroom (Ramli, 2014, p.267).

Although students are not in a physical classroom, their homes or libraries have become their physical space. These spaces can also be divided into two parts, social and physical. Researchers have been studying how students distance learning space has supported or constrained their educational journey. The physical environment is considered an essential component in conceptual models of telework and mobile work. For example, Standen et al.'s (1999) model of teleworking from home emphasizes how variables in the family or personal domain (dwelling size, household size and composition, activity pattern, and social support) and the work domain (social and physical work environment, job characteristics, and organizational characteristics) interact to affect job satisfaction, performance, and wellbeing.

Certain environmental factors such as physical aspects, spatial requirements and social aspects can negatively or positively affect learners distance learning environment.

Physical aspects mean the need for comfortable space to learn productively and efficiently. Comfortable space can be affected by noise, lighting, and ergonomic furniture (Ng, 2021, p.5). Noise can impair an individual's concentration and performance of complex tasks. Meaningful background conversations and intermittent, unpredictable, or uncontrollable noise are particularly detrimental (Ng, 2021, p.5). Throughout COVID-19 most students were accessing education from their home where noise is a factor that could not be controlled. In households where there are many people, especially during lockdown when parents and other children are forced to work from home as well, noise is inevitable.

According to the article "The Physical Learning Environment of Online Distance Learners in Higher Education" adequate lighting is another factor that affects your study environment. When asked to read certain tasks or use the computer for 7 hours or more per day, it is crucial that students have access to well-lit rooms (Ng, 2021, p.5). Improper lighting, visual display position, and viewing distance contribute to "the computer vision syndrome" (eye strain, dryness, and neck and shoulder pain). The increased use of hand-held devices (e.g., e-readers and smart phones) under varying lighting conditions and closer viewing distances than desktop displays can present additional visual challenges. Good display quality of computer tablets has been shown to cause less visual fatigue than poor display quality ones during long periods of viewing (Ng, 2021, p.5).

Spatial Requirements were another topic of consideration when observing online education. As stated previously, students that share a household with other people whether it be family members or roommates, needed to have a designated area in the house to complete their lessons. Men were more likely to have their own office, but women tended to study elsewhere within the home. With the use of portable and mobile devices, online learners should have the flexibility to move across locations within the home to complete learning activities, if they wanted (Ng, 2021, p.6). However, this can create immense difficulty if the space is too small for everyone to have a designated quiet area. For example, a college dorm room where the students have only one shared space it would be very difficult for both students to be on a video conference at the same time. Another example is a household where a parent is working from home, a secondary school child is accessing their classes

online as well as a university student. The need for not only space, but proper noise control would make it immensely difficult for students to stay focused (Ng, 2021, p.6).

The need to establish spatial boundaries in your workspace, directly relates to social aspects. Adult distance learners reported having difficulty not interacting socially with their family members, especially children, when at home. Similarly, home teleworkers and mobile workers reported the need to negotiate rules regarding interruptions by people within and outside their home and in public places or transport (Ng, 2021, p.6). To concentrate fully on individual cognitive work, online learners need to be free from interruptions and distractions when in a behavior setting. Interruptions can increase perceived workload and impair a learner's performance of cognitive tasks (e.g., slowing the task down immediately after the interruption, forgetting to carry out a task,) It is harder for people to resume their original task when the interruption is long or there is little opportunity to rehearse the task goal during the interruption (Ng, 2021, p.6).

For distance education to provide the proper environment for students to excel academically the environments would need to be strategically controlled. Similarly, to in-person learning, where environments are designed based on lighting, seating, furniture, and social settings.

Chapter II Psychological Needs of Students During COVID-19

In this chapter, the different psychological needs of students during COVID-19 will be analyzed. It is evident that all students learn differently, depending on learning style, background, emotional stressors, and lifestyle changes. The result of lockdown and distance learning has led to a significant increase in mental health challenges among students in 2019 (Teuber,2021, p.1). Findings indicate that online learning methods which are forced due to the spread of COVID-19 are linked to a higher prevalence of isolation, depression, stress reactions, post-traumatic stress symptoms, negative emotions (e.g., anger, fear, and confusion), and insomnia. It is vital that educators observe the psychological needs of students during COVID-19 to have a better understanding of how mental health has had a role in students' ability to learn throughout COVID-19 (Teuber,2021, p.1).

2.1 Well-being

According to The Oxford English Dictionary, 'Well-being' is defined as the condition of being comfortable, healthy, and happy. It is important to note that well-being is sometimes linked to mental or psychological conditions of a specific person. One approach of well-being that psychologist and scholars have studied is called Eudaimonic well-being. I will be primarily focusing on this category of well-being and the importance it plays in educational success for students globally.

The article Well-being Concepts and components, primarily focuses on the different types of well-being in society. Eudaimonic Well-being has certain needs or qualities that are essential for one's psychological growth and development; the fulfillment of these needs enables a person to reach their full potential (Tov, 2018, p.2). The concept of psychological well-being (Ryff, 1989) is an example of the EWB tradition. Drawing on the theories of Erikson, Jung, Maslow, and Rogers (among others), Ryff posited six key features of people who are functioning well in life. Such people should have the maturity to be guided by internal standards (autonomy), be capable of trusting and loving others (positive relations), be able to manage external stressors and leverage on opportunities (environmental mastery), have a positive attitude toward themselves (self-acceptance), have important aims and goals (purpose in life), and accept new challenges in life as furthering their development (personal

growth). Other EWB approaches emphasize living up to one's personal potential--in line with Aristotle's view of eudaimonia as living in accord with one's true nature (or daimon). From this perspective, EWB is rooted in the pursuit of goals and activities that are consistent with one's values and identity (Tov, 2018, p. 2).

The six key features of people who are functioning well in life also directly relates to students. Positive well-being is a critical not only in terms of mental health, but also in terms of academic achievement(Tov, 2018, p.2). There has been increasing attention to the psychological needs of students throughout the past few years, especially due to the pandemic. Educators hold an important role in promoting students' well-being. However there needs to be different approaches to ensure positive well-being for all students.

McCallum (2016), scholars who have studied well-being in educational contexts published an article "Nurturing Wellbeing Development in Education: From little things, big things grow". They suggest that there needs to be a positive and proactive approach to promoting wellbeing in educational settings, as it promotes wellbeing as a central focus and recognizes the influences of change and the complexity in the 21st century, rather than being reactive and deficit in thinking. McCallum (2016) likewise argue that this perspective also promotes a much more 'holist' view of wellbeing within a whole educational context. Additionally, Scoffham and Barnes (2011) argue that this approach also acknowledges the influence and interrelatedness between context, environment, life events, genetics and personality impactors and enablers on wellbeing such as:

- Context and physical environments: e.g., contextual processes and demographics, location, community, and specific events such as drought, floods, and cyclones.

- Social and cultural environments: e.g., culture, economics, politics, and broader social issues such as poverty, community breakdown or violence.

- Individual personal attributes: e.g., genetics (heritage), psychological disposition and behavioral patterns (Litchfield, Cooper, Hancock & Watt, 2016).

2.2 Self-Determination Theory

Human beings can be proactive and engaged or, alternatively, passive and alienated, largely as a function of the social conditions in which they develop and function. Accordingly, research guided by self-determination theory has focused on the social-contextual conditions that facilitate versus forestall the natural processes of self-motivation and healthy psychological development (Ryan,2000, p.68).

According to Ryan (2000), humanity can be described as curious, vital, and self-motivated. Humanity strives to learn, master new skills, and extend their talent. Yet, it is also clear that the human spirit can be diminished or crushed and that individuals sometimes reject growth and responsibility. Regardless of social strata or cultural origin, examples of both children and adults who are apathetic, alienated, and irresponsible are abundant (Ryan,2000, p.68). Self Determination Theory (SDT) studies the approach of human motivation and personality and uses traditional empirical methods that highlights the importance of humans evolved inner resources for personality development and behavioral self-regulation (Ryan, 2000, p.68). It investigates how peoples have inherited growth tendencies and innate psychological needs that are the basis for their self-motivation and personality integration (Ryan,2000, p.68).

Using the empirical process, Ryan (2000) identified three important needs: competence, relatedness, and autonomy. These needs are essential to facilitate optimal functioning of the natural propensities for growth and integration, as well as for constructive social development and personal well-being (Ryan,2000, p.68). SDT, also examines environmental contexts which can hinder or undermine self-motivation, social functioning, and personal well-being. By understanding and observing closely the three important needs of humanity, we can understand its relationship to motivation:

Autonomy: Autonomy donates the experience of volition and self-initiation. When satisfied, individuals perceive a sense of ownership of their own behavior and a sense of psychological liberty and freedom of internal will (Teuber,2021, p.2).

Competence: Competence refers to the experience of mastery and effectiveness. It can be satisfied if individuals capably engage in activities to utilize and extend their knowledge and skills (Teuber,2021, p.2).

Relatedness: The need for relatedness concerns the experience of warmth, bonding, care, or sense of belonging to groups. This need can be met if individuals feel connected to and appreciated by significant others (Teuber,2021, p.2).

Across Eastern and Western research communities, meeting students' basic psychological needs has been generally acknowledged as a relevant aspect in promoting students' emotion and motivation, academic success, psychological well-being, beneficial parenting style, and instructional quality (Teuber,2021, p.2). These psychological needs directly relate to humanities motivation for themselves. There are two important type of motivation that correlate with Self-Determination theory: Intrinsic Motivation and Extrinsic Motivation (Ryan,2000, p.69).

The construct of intrinsic motivation describes this natural inclination toward assimilation, mastery, spontaneous interest, and exploration that is so essential to cognitive and social development and that represents a principal source of enjoyment and vitality throughout life (Ryan,2000, p.70). For intrinsic motivation to be evident in a person, it needs to be maintained and enhanced, which requires supportive conditions (Ryan,2000, p.70). One sub theory of Self-Determination theory, which focuses on intrinsic motivation is Cognitive Evaluation Theory (CET). CET observed the factors that explain the variability of intrinsic motivation in humanity (Ryan,2000, p.70). The theory argues, first, that social-contextual events (e.g., feedback, communications, rewards) that conduce toward feelings of competence during action can enhance intrinsic motivation for that action. Accordingly, optimal challenges, effective-promoting feedback, and freedom from demeaning evaluations were all found to facilitate intrinsic motivation. For example, early studies showed that positive performance feedback enhanced intrinsic motivation, whereas negative performance feedback diminished it (Ryan,2000, p.70).

There are a substantial number of other factors that can diminish intrinsic motivation according to Ryan (2000). Research conducted by Ryan (2000), revealed that not only tangible rewards
but also threats, deadlines, directives, pressured evaluations, and imposed goals diminish intrinsic motivation because, like tangible rewards, they conduce toward an external perceived locus of causality. Directly relating to COVID-19, it was researched by Teuber

(2021) how self-determination theory correlates to distance learning and students' psychological needs. Prior to the COVID-19 outbreak, students had more opportunities to receive direct feedback from their lecturers (the need for competence), to discuss and learn with their peers within and after courses (the need for relatedness), to choose the way how and where they wanted to learn (e.g., the use of libraries, learning with friends at home; the need for autonomy), and to engage in university and social activities (the need for relatedness). Since the social restrictions were implemented, students have been taking online courses instead. In addition, students have very limited access to social and university activities (Teuber, 2021, p.2) Students taught with a more controlling approach not only lose initiative but learn less effectively, especially when learning requires conceptual, creative processing (Ryan,2000, p.71) Strong links between intrinsic motivation and satisfaction of the needs for autonomy and competence have been clearly demonstrated, and some work suggests that satisfaction of the need for relatedness, at least in a distal sense, may also be important for intrinsic motivation (Ryan, 2000, p.71).

On the other hand, extrinsic motivation is also a crucial type of motivation which was studied in relation to self-determination theory. The term extrinsic motivation refers to the performance of an activity in order to attain some separable outcome and, thus, contrasts with intrinsic motivation, which refers to doing an activity for the inherent satisfaction of the activity itself. Unlike some perspectives that view extrinsically motivated behavior as invariantly nonautonomous (Ryan, 2000, p.71). SDT proposes that extrinsic motivation can vary greatly in its relative autonomy. An example provided by Ryan (2000) states, students who do their homework because they personally grasp its value for their chosen career are extrinsically motivated, as are those who do the work only because they are adhering to their parents' control. Both examples involve instrumentalities rather than enjoyment of the work itself, yet the former case of extrinsic motivation entails personal endorsement and a feeling of choice, whereas the latter involves compliance with an external regulation (Ryan, 2000). Because extrinsically motivated behaviors are not typically interesting, the primary reason people initially perform such actions is because the behaviors are prompted, modeled, or valued by significant others to whom they feel (or want to feel) attached or related (Ryan, 2000, p.71). Thus, it was proposed by Ryan (2000) that the basic needs

for competence, autonomy, and relatedness must be satisfied across the life span for an individual to experience an ongoing sense of integrity and well-being or "eudaimonia" (Ryan, 2000, p. 72).

The following chart based on Ryan's Self-Determination theory, clearly shows the differences between intrinsic and extrinsic motivation (Ryan, 2000).

Figure N.1: The Self- Determination Continuum showcasing the different stages intrinsic and extrinsic motivation taken from BMC Medical Education

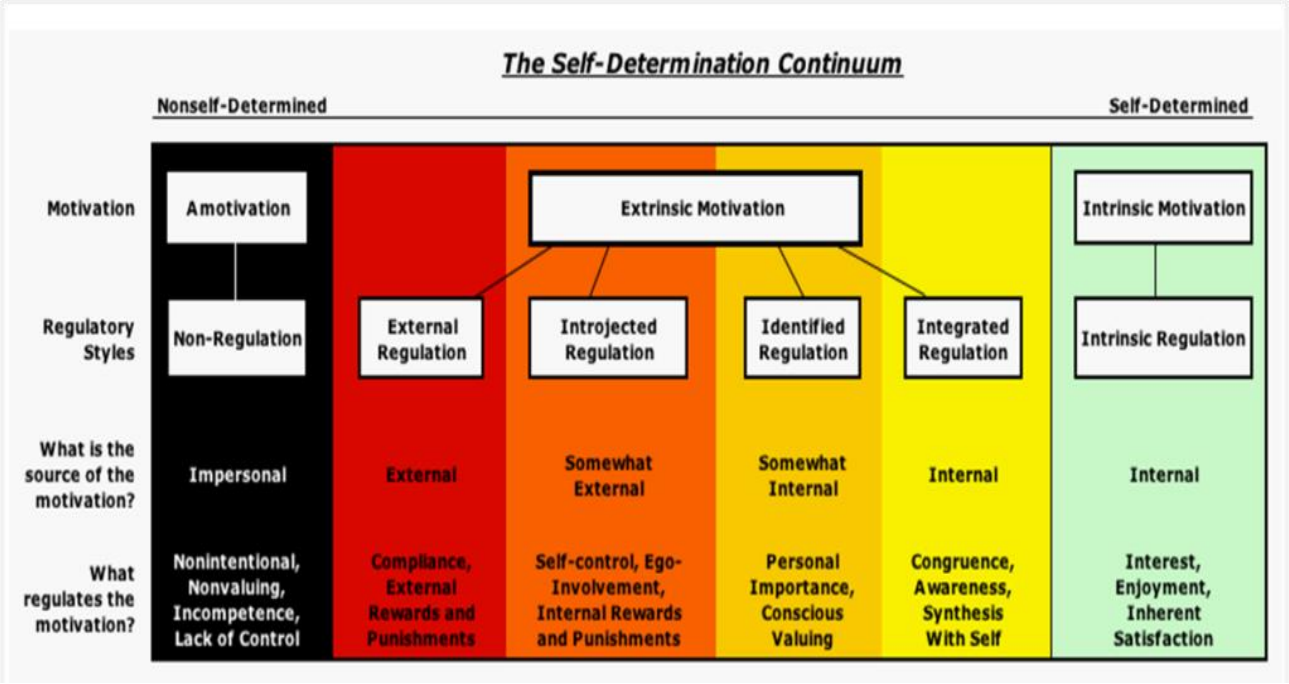
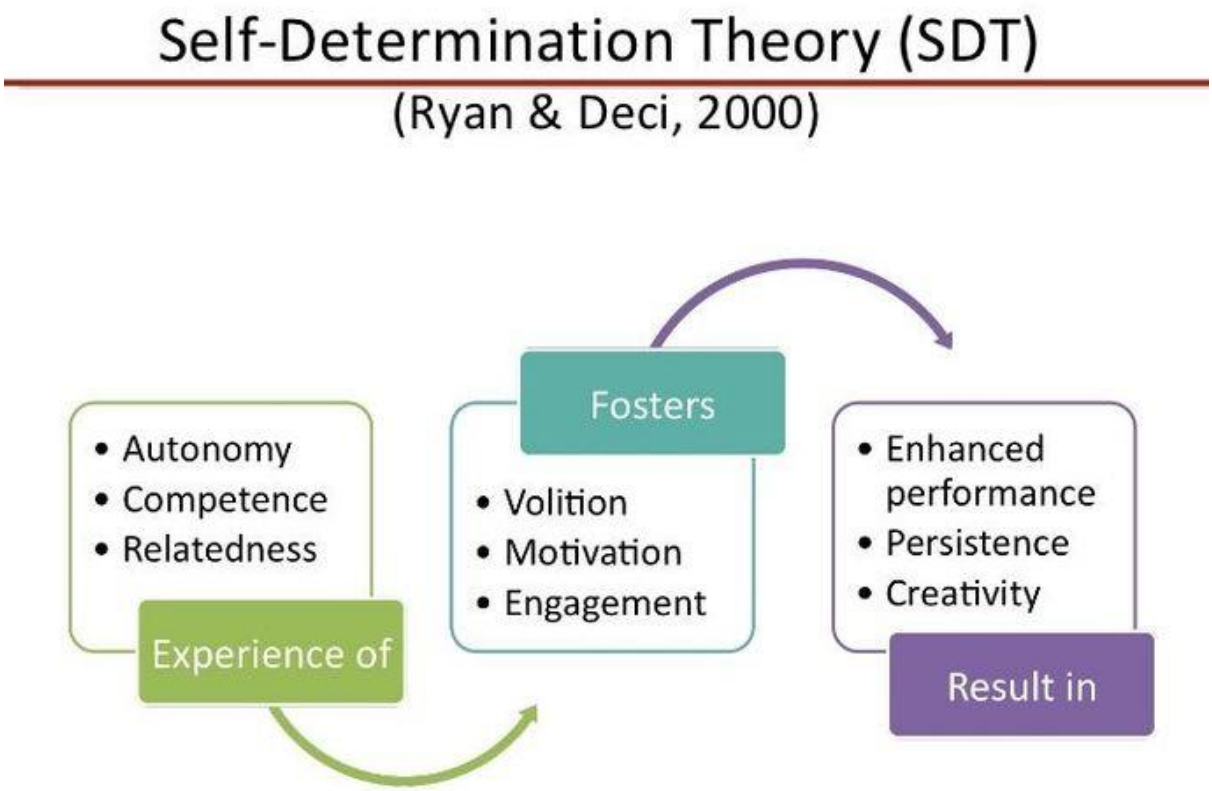


Figure N.2: Self- Determination Theory image showcasing the different aspects of SDT and their relationship to one another taken from Teaching and Learning with 21st Century Technology



As seen Figure 2, experiencing autonomy, competence and relatedness thus enhanced performance, creativity, and persistence. These findings go beyond goal importance per se. It was researched that whereas self-reported attainment of intrinsic aspirations was positively associated with wellbeing, attainment of extrinsic aspirations was not. Further, Sheldon and Kasser (1998) found in a longitudinal study that well-being was enhanced by attainment of intrinsic goals, 'whereas success at extrinsic goals provided little benefit (Teuber,2021, p.3).

2.3 Self-Regulated Learning Theory

Another essential social cognitive theory, which will be analyzed is Self-Regulation Theory. As cited in Alhazbi (2021), Zimmerman and Schunk defined SRL as “the process whereby learners personally activate and sustain cognitions, affects, and behaviors that are

systematically oriented toward the attainment of learning goals" (Zimmerman, 2020, as cited in Alhazbi, 2021, p.3). Self-regulated learning (SRL) includes the cognitive, metacognitive, behavioral, motivational, and emotional/affective aspects of learning (Panadero,2017, p.1). Self-regulated learning refers to one's ability to understand and control one's learning environment. One of the first authors to study Self-Regulated Learning Theory was Zimmerman (1986). Zimmerman developed three critical models which examine Self-Regulated Learning theory: Triadic Analysis of SRL, Cyclical Phases of SRL, Multi-Level model (Panadero,2017, p.2). In this chapter, Triadic Analysis of SRL, and Cyclical Phases of SRL will be analyzed.

Each model looks at the principal functions of self-monitoring one's behavior. The first model, figure 3, is the Triadic Analysis of SRL. It showcases the interactions of three forms of Self-Regulated learning (Panadero,2017, p.3).

Figure N.3: Triadic Analysis of SRL diagram taken from A Review of Self-regulated Learning: Six Models and Four Directions for Research

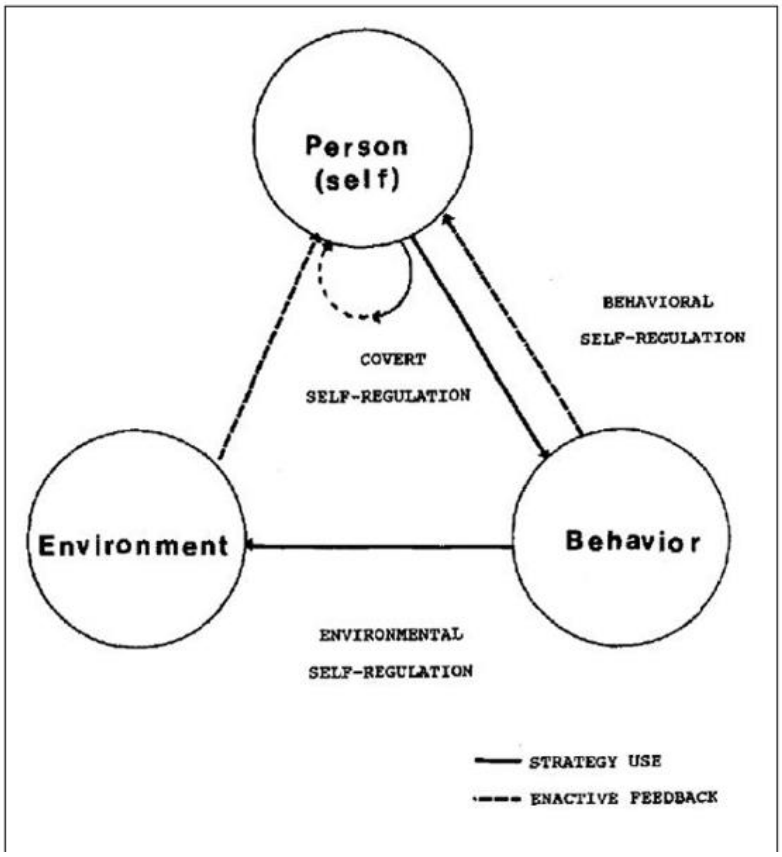
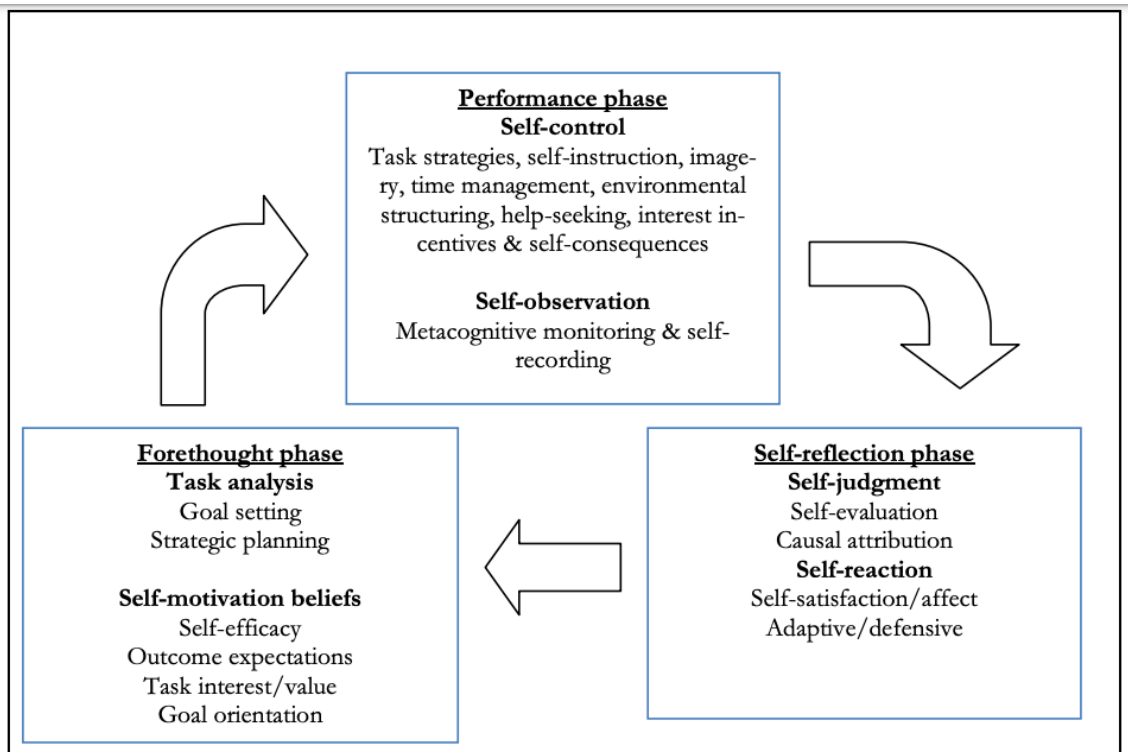


Figure 4 breaks down the Cyclical Phases of SRL which explains at the individual level the interrelation of metacognitive and motivational processes (Panadero,2017, p.3). The model is organized into three sections: forethought, performance, and self-reflection.

Figure N.4 : Cyclical Phases of SRL diagram



Forethought Phase: students approach the task analyzing it, assessing their capacity to perform it with success and establishing goals and plans regarding how to complete it. The task interest and the goal orientation play a crucial role to achieve adequate planning and performing the task appropriately. In this phase the students do two main activities. First, they analyze what the task characteristics are by creating a first representation of how it should be performed. Second, they analyze the value the task has for them, this conditions their motivation and effort, and therefore, the attention they will pay during the performance; in other words, their activation of self-regulatory strategies (Alhazbi, 2021).

Task Analysis: This is the phase in which the goals and strategic planning are established, which are key conditions for self-regulation to occur. Students consider two crucial variables when establishing their goals: the assessment criteria and the performance level they want to achieve. The assessment criteria are the standards against which the performance will be assessed (Alhazbi, 2021, p.3).

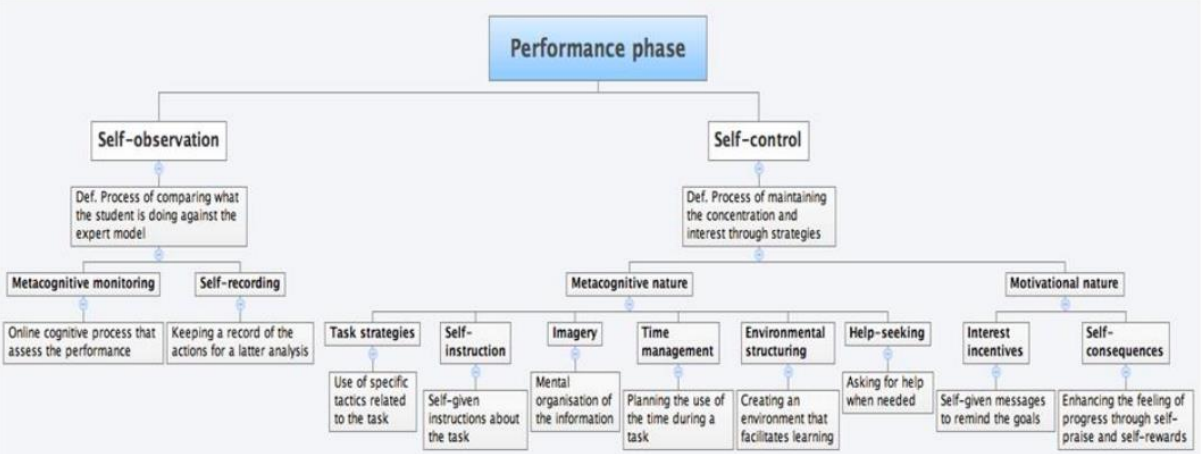
Self- Reflection Phase: Self-efficacy expectations are beliefs about the personal capability to perform a task. They are key for students' motivation, for example, if a student does not consider him or herself capable, his or her motivation will decrease, and he or she will not want to make any effort foreseeing his or her failure (Alhazbi, 2021). Outcome's expectations are beliefs about the success of a given task (Zimmerman, 2011). Similarly, to self-efficacy, if students have low outcome expectations, they will not make the effort needed to succeed (Alhazbi, 2021).

Performance Phase: According to Zimmerman and Moylan (2009), the two main processes during the performance are self-observation and self-control, and for them to successfully work several strategies can be followed (Alhazbi, 2021).

- Self-Observation: A prerequisite to control the task process is that students have a clear understanding of the adequacy and quality of what they are doing, so if it is correct, they can continue and if not, they can change it. For students to self-observe successfully, there are two types of actions they can perform: one of a cognitive nature and the other of external help. The first type of action is self-monitoring, also known as metacognitive monitoring or self-supervision. The second type of action that favors self-observation is self-recording, which is coding the actions that are being done during the performance (Alhazbi, 2021).
- Self-Control: Self-control consists of eight strategies that students can use to maintain concentration. The following strategies are task strategies, self-instruction, imagery, time management, environmental structuring, help seeking, interest incentives and self-consequences (Alhazbi, 2021).

Figure 5 shows the performance phase in detail outlining each step and sub steps that learners use.

Figure N.5: Diagram showcasing the breakdown of the Performance Phase in SRL



Additionally, whilst employing an integrative model approach to define SRL ,the components of SRL (which in turn overlap across the cyclical pre-during-post phases), allow for the following distinct SRL learning processes to be identified (Triquet,2017, p.13):

Metacognition:This component covers setting goals, planning, self-monitoring, organizing, and selfevaluation. These are skills that involve inherent knowledge as well as self-awareness towardsmonitoring understanding and regulating one's cognitive processes (Triquet,2017, p.13).

Motivation/Affect: Agreed to be a key factor towards academic success,this component covers intrinsic task interest and activation, high self-efficacy (belief and confidence in task success/accomplishment), and self-attributions (determination and attribution of consequent impacts of behaviour) (Triquet,2017, p.13).

Behavioural: This component covers dimensions that are aimed at strategies favourable to optimizing ones learning such as: help-seeking, self-observation, and time-management.(Triquet,2017, p.13).

Cognition: This component covers learning processes such as information strategies (searching, selecting, acquiring and processing content), problem-solving, memorisation (Triquet,2017, p.13).

Context (Social and Environmental): This component covers task evaluation, monitoring and restructuring, changing one's context conditions (Triquet,2017, p.14).

How does self-regulated learning relate to distance education and COVID-19? Previous studies showed that students in traditional learning settings who have self-regulatory abilities achieved better academic performance than that of others who lacked these competencies (Alhazbi, 2021). SRL skills are more important in online learning settings, as students are more responsible for their learning because of the autonomous nature of online learning and the physical absence of a teacher (Alhazbi, 2021). Learners in an online setting have more flexibility, and they need to determine when and how to study the course contents at their own pace. Online self-regulated learners understand their responsibilities to actively participate in the learning process by regularly accessing course materials, studying them, submitting assignments, self-evaluating, and asking questions when they need help. Previous studies found that one of the main reasons for the high dropout rate in online courses is students' self-regulation failure, as they fail to estimate the required time and efforts to complete learning tasks, and they lack time-management skills, which leads to academic procrastination (Alhazbi, 2021).

2.4 Importance of Social Interaction for Students

Social life represents a complex system of social interactions. They are present in all spheres of human activity in general and in the professional activity. People interact when they participate in joint activities. In a dynamically changing world professional knowledge and skills do not guarantee successful professional activity. Today it is extremely important for any professional to be able to build effective professional and social interactions and to collaborate in a team (Rodina, 2019, p.1).

Students specifically need to be readers, writers, speakers, listeners, and thinkers in the classroom through active engagement in social interaction with others (Hurst,2013, p.376). Social interaction as meaningful dialogue among learners. Socially interactive learners are engaged learners. Routman (2005) contends "students learn more when they are able to talk to one another and be actively involved" (p. 207). Social interaction is vital to the learning process (Hurst,2013, p.376).

For students studying in an online environment, social interaction with peers and educators can often be an exercise in frustration. If such frustration is to be minimized, much thought needs to be given to the methods of communication that will be utilized, so that the online environment fulfils the human desire for social interaction. (McInnerney, 2004, p.124)

Social Organization

According to Dillenbourg, Poirier and Carles (2003), it is fundamental to clearly distinguish three forms of social organization, often assimilated to one another (Jézégou, 2011):

Figure 1. Definition of a community in comparison to other forms of social organization according to Dillenbourg, Poirier and Carles (2003).

A community organizes itself around a common space of interactions and exchanges, mainly based on the logic of collaboration. As specified by Henri and Lundgren - Cayrol (2003), such logic is characterized by, among others, equality in the members' standing and their participation in the interactions, as well as the fact that they jointly carry out activities that they determined together (Jézégou, 2011). A learning community, whether virtual or not, has most of the general characteristics of a community in the wider sense. It constitutes "a group of people, who are voluntary members with varying experience of equal value, that are constantly learning together in order to solve problems" (Jézégou, 2011).

Social Interaction through Collaborative Learning

According to Laal (2012), collaboration is a promising mode of human engagement that has become a twenty-first-century trend. The need for think together and work together on critical issues has increased, causing to stress on from individual attempts to teamwork and

from autonomy to community (Laal,2012, p.487). The concept of Collaborative learning (CL), the grouping and pairing of learners for the purpose of achieving a learning goal, has been widely researched and advocated; the term CL refers to an instruction method in which learners at various performance levels work together in small groups toward a common goal (Laal,2012, p.487). The learners are responsible for one another's learning as well as their own.

For a CL effort to be more productive than competitive or individualistic methods, five conditions must be met:

- Clearly perceived positive interdependence;
- Considerable promotive interaction;
- Clearly perceived individual accountability and personal responsibility to achieve the group's goals;
- Frequent use of the relevant interpersonal and small-group skills
- Frequent and regular group processing of current functioning to improve the group's future effectiveness.

CL develops social interaction skills and can have many other benefits as well for students academically and psychologically. Scholars Johnson and Pantiz, collected 50 benefits of collaborative learning for students. Laal (2012), summarized a few of the main benefits which are listed below:

Social benefits:

- CL helps to develop a social support system for learners
- CL leads to build diversity understanding among students and staff
- CL establishes a positive atmosphere for modelling and practicing cooperation
- CL develops learning communities.

Psychological benefits:

- Student-centered instruction increases students' self esteem
- Cooperation reduces anxiety
- CL develops positive attitudes towards teachers.

Academic benefits:

- CL Promotes critical thinking skills
- Involves students actively in the learning process
- Classroom results are improved
- Models' appropriate student problem solving techniques
- Large lectures can be personalized
- CL is especially helpful in motivating students in specific curriculum

A significant benefit of CL is regarding to the groups operating together long enough during a course (Laal,2012, p.488). The people in teams will get to know each other and extend their activities outside of class. Students will contact each other to get help with questions or problems they are having, and they will often continue their communications in later terms (Laal,2012, p.488).

It is also evident that CL, has influenced students' motivation and interest in class. Since students are actively involved in the learning process, they are more likely to be interested in what they are learning (Laal,2012). When students are collaborating, cooperation in comparison to individualistic and competitive efforts can ultimately result in the following (Laal,2012, p.487):

- Higher achievement and greater productivity
- More caring, supportive, and committed relationships
- Greater psychological health, social competence, and self-esteem.

Community of Inquiry

The Community of Inquiry (CoI) framework, first advanced by Garrison, Anderson, and Archer (2000), is based on inquiry that is not only useful but allows the researcher to construct logical links between ideas through critical thinking. Garrison (2000) proposes that learning takes place through three types of interactions: social presence, cognitive presence, and teaching presence (Gudapati, 2021, p.22). These interactions happen in a community of inquiry that is comprised of both students and teachers.

The Community of Inquiry is highlighted through a three-fold model, which can be seen in Figure 6:

Figure N.6: Community of Inquiry diagram

The model showcases the framework in which students use to create an educational experience. Students take responsibility for their education and learning through social activities (Gudapati, 2021, p.23). The COI framework assumes that effective online learning, particularly higher order learning, is dependent on the development of a community (Fiock, 2020, p.136).

The first part of the model is teaching presence. Teaching presence is described by Anderson, Rourke, Archer, and Garrison (2001) as the planning, facilitation and directing of intellectual and social activities that lead to realizing learning that is not only educational but personally significant and enriching (Gudapati, 2021, p.23). The authors describe this presence as comprising three functions: the design and organization of instruction, the facilitation of discussion, and guiding instruction.

The second part of the model is social presence. Social presence is described as how the student identifies with members of their learning community and has an awareness of his/her classmates and lecturers' presence (Gudapati, 2021, p.24). Students' ability to

identify with the community, interact intentionally and consciously in a trusted environment, and establish social relationships by way of sharing their individual selves is how social presence is established (Gudapati, 2021, p.24). Garrison (2000) determined three categories of social presence indicators. These categories are emotional (affective) expression, where learners share personal expressions and values; open communication, where learners develop aspects of mutual awareness and recognition; and group cohesion, where learners build and sustain a sense of group commitment (Fiock,2020, p.138).

The third part of the model is cognitive presence. Gudapati (2021) describes cognitive presence as the degree to which learners construct and build knowledge through active discussions or individual reflections. Eventually students are mentally stimulated and challenged when the intellectual elements are triggered. During this process, the lecturer acts as a facilitator and guide so that learners can succeed through meaningful learning experiences (Gudapati, 2021, p.24).

When analyzing the Community of inquiry model in relation to distance education, 'presence' is a point of concern for students. There has not been enough attention given to students in online learning environments in terms of their roles, participation, and experiences to understand students' self-regulation skills in online and blended modalities where students self-directed learning plays a crucial role (Gudapati, 2021, p.25). Social presence should be adjusted in the community of inquiry when discussing online education (Gudapati, 2021, p.25). A study conducted by Richardson and Swan (2003) found that social presence positively affects student and instructor course satisfaction. During the study, a relationship between social presence and perceived learning was identified; students who perceived high social presence learned more than those who perceived low social presence (Fiock, 2020, p.138).

To emphasize the importance of social presence and social interaction between student's course design elements need to specifically support social presence. This can be achieved by creating course rules, encouraging, or requiring participation in discussions, and allowing opportunities for both peer-to-peer and peer-to-instructor connections will allow for open lines of communication (Fiock, 2020, p.139). For group cohesion, activities

should include problem solving tasks, collaborative projects, and small group discussions that allow for the integration of community building (Fiock, 2020, p.139).

Sorensen and Baylen (2009) created the "Seven principles of good practice for undergraduate education" where they applied community of inquiry model to each of the seven principles (Fiock, 2020, p.140). After creating and conducting a study implementing the principles, they found that community collaboration was essential (Fiock, 2020, p.150). The seven principles are stated below:

1.Student-teacher contact, a principle focusing on the interaction between a student and instructor in an online environment

2.Cooperation among students, a principle for effective teaching focusing on cooperation among students

3.Active learning, a principle emphasizing the importance of students to engage in meaningful learning activities and reflection on the process

4.Prompt feedback, a principle focusing on giving guidance and feedback to ensure students are on the right track in terms of meeting course learning objectives

5.Time on task, a principle concentrating on giving students assistance and guidance for managing their time in an online environment

6.Communicate high expectations, a principle based on the theory that when instructors communicate to their students about high expectations for the course, students will aim to meet these expectations

7.Respect diverse ways of learning, a principle ensuring instructors are developing and implementing a wide variety of instructional strategies to meet the diverse population of students

Overall, the community of inquiry model is designed to build community in online environments (Fiock,2020, p.150). The cognitive, social, and teaching presences work

together in an overlapping, interdependent method to help students gain deep levels of community to support their individual learning (Fiock,2020, p.150).

Isolation

Isolation is an issue many students may feel when taking an online course (McInnerney, 2004, p.124). Isolation is 'an important criterion for student satisfaction' with the web-based online course. This feeling is often 'based on the physical separation between student and instructor' and is one that educators may be able to ameliorate but are unlikely to ever be able to successfully eradicate (McInnerney, 2004, p.125). Many issues are cited in the literature that may cause students, undertaking online education, to re-consider their enrolment – such as technical problems, computer illiteracy and cost (McInnerney, 2004, p.125). It would be reasonable to suppose that all such factors, compounded perhaps by a difficulty with mastering the course concepts, are likely to feed into feelings of isolation (McInnerney, 2004, p.125).

Isolation can be understood as being in terms of such dimensions as time (concurrent study), space (geographic dispersal), social (awareness of others), intellectual/experience (academic ability and life experiences), profession (subject related expertise); ICT knowledge; sensory (ability to see/feel/hear peers), cultural, and subject (Croft, 2010). Reassurance and peer contact as well as appropriate support is required to overcome this isolation, yet this is a challenge without face-to-face contact. Students' individual learning style and motivation for studying may affect their willingness and need to interact with others, and therefore their experiences of isolation (Croft, 2010).

To combat isolation, certain measures can be taken by administrators. The use of personal tutors, online/telephone assistance, work place mentors, peer learning, group induction sessions, study skills workshops and access to local libraries have been suggested by Talbot (2007) (Croft, 2010). By introducing a degree of personal contact between peers, work colleagues and between students and tutors' isolation can be improved slowly (Croft, 2010).

Chapter III Research

In this chapter, the discussion of the research purpose and question as well as the hypothesis will be discussed. The aim of this chapter is to understand how the research was organized and the research methods used as well as the participants.

3.1 Research Purpose and Question

This research aims to investigate the impact of COVID-19 on student's overall well-being, in relationship to distance learning, learning styles, challenges faced with distance learning etc. Therefore, the articulated research questions are as follows: the main research question is "Has COVID-19 had a negative or positive effect on students' overall well-being?". Accordingly, there are four sub research questions

1. What impact has distance learning had on students' overall well-being?
2. What challenges did students experience with distance learning?
3. What impact does COVID-19 have on students' academic motivation?
4. Is face to face communication a vital part of learning remotely?

3.2 Research Hypotheses

The research aims to verify the validity of the following hypothesis:

Hypothesis 1:

COVID-19 has had a negative impact on student's overall well-being affecting their mental health. Students have shown signs of depression, isolation, negative emotions, PTSD, isolation, and stress due to the pandemic. The scores of the control group factor in favor that it is COVID-19 has negatively impacted their well-being.

Hypothesis 2:

There is a statistically significant number of students who have had challenges faced by distance learning. Statistics from the survey conducted will show that students will have a more difficult time learning at home rather than in school.

Hypothesis 3:

There is a significant number of students who had motivational difficulties because of distance learning. The scores of the control group factor in favor of not being able to focus on classes which were held online.

Hypothesis 4:

There is a significant number of students who favor face to face communication instead of distance learning.

Hypothesis 5:

COVID-19 has had a negative impact on student's overall well-being affecting their mental health. Students have shown signs of depression, isolation, negative emotions, PTSD, isolation, and stress due to the pandemic. The scores of the control group factor in favor that it is COVID-19 has negatively impacted their well-being.

3.3 Research Design

The research was conducted through a survey to examine current attitudes, beliefs, and opinions of students in the United States during the COVID-19 pandemic. The survey was conducted in March 2022 for a span of two weeks. A structured web-based survey questionnaire was used to collect data on students' overall well-being. The purposive sampling technique was used to select the participants of the survey, specifically targeting students in the United States. Completed questionnaires were collected in a structured way to ensure confidentiality and to prevent any response bias. Participants were not aware of the study aim or outcomes to reduce the risk of any possible bias. Questionnaires with incomplete information or missing data were excluded from the analysis. The inclusion criterion was respondents participation in online learning during the COVID pandemic. Demographic information was also taken from each participant to analyze results.

3.4 Participants

The participants consisted of students between the age range of 18 to 60 (n=97). Most respondents, (52.58%, = n51) were in the age range 30-44. On the other hand, in the

age range above 60 the lowest number of respondents (6.19%, = n6), were in the age range above 60. When analyzing the region of participants, most participants (21.98%=n20) were in the Pacific, while the lowest number of participants were in the East South Central (6.59%=n6). There was a slight difference between male (48.45%, =n47) and female respondents (51.55%, =n50). Apart from age and region, household income was also collected. Most participants (25.77%, = n25) earned between $25,000-$49,9999 per year while the lowest number of participants (2.06%, =n2) earned over $200,000 per year. Most participants received a bachelor's degree as their highest level of education (39.18%, =n38), while the lowest number of participants (2.06%, =n2) received less than a high school degree.

Table 1: Distribution of study responses by Age

ANSWER CHOICES	RESPONSES	
< 18	0.00%	0
> 60	6.19%	6
18-29	19.59%	19
45-60	21.65%	21
30-44	52.58%	51
TOTAL		97

Table 2: Distribution of study responses by region

ANSWER CHOICES	RESPONSES	
East North Central	14.29%	13
East South Central	6.59%	6
Middle Atlantic	7.69%	7
Mountain	6.59%	6
New England	8.79%	8
Pacific	21.98%	20
South Atlantic	16.48%	15
West North Central	7.69%	7
West South Central	9.89%	9
TOTAL		91

Table 3: Distribution of study responses by Gender

ANSWER CHOICES	RESPONSES	
Male	48.45%	47
Female	51.55%	50
TOTAL		97

Table 4: Distribution of study responses by Household Income

ANSWER CHOICES	RESPONSES	
$0-$9,999	7.22%	7
$10,000-$24,999	11.34%	11
$25,000-$49,999	25.77%	25
$50,000-$74,999	15.46%	15
$75,000-$99,999	11.34%	11
$100,000-$124,999	7.22%	7
$125,000-$149,999	6.19%	6
$150,000-$174,999	5.15%	5
$175,000-$199,999	3.09%	3
$200,000+	2.06%	2
Prefer not to answer	5.15%	5
TOTAL		97

Table 5: Distribution of study responses by educational level

ANSWER CHOICES	RESPONSES	
Less than high school degree	2.06%	2
High school degree or equivalent (e.g., GED)	15.46%	15
Some college but no degree	17.53%	17
Associate degree	14.43%	14
Bachelor degree	39.18%	38
Graduate degree	11.34%	11
TOTAL		97

In table 1-5, percent of responses is given as well as number of participants. Thus, the sum of percent of response is 97.

3.3 Instruments used in data collection

In this section, information about the recording processes and data recording will be discussed. The survey was conducted using a web-based platform, Survey Monkey[1]. The software is useful in the analysis of data, collection of data as well as the organization and design of questionnaires. It consisted of 19 multiple choice questions which respondents were obligated to respond to, leaving no question left behind. Each of the questionnaire items were developed to support the literature review. On submission of each questionnaire, data is then collected by Survey Monkeys platform and analyzed accordingly. Survey Monkey retrieves numbers of each participant and calculates percentages based on the analysis. Data is then exported into a pdf file, where it is clearly organized for further review from the researcher. Data is then analyzed using graphs and charts which are color coordinated and have statistical percentages for the number of participants who selected each response.

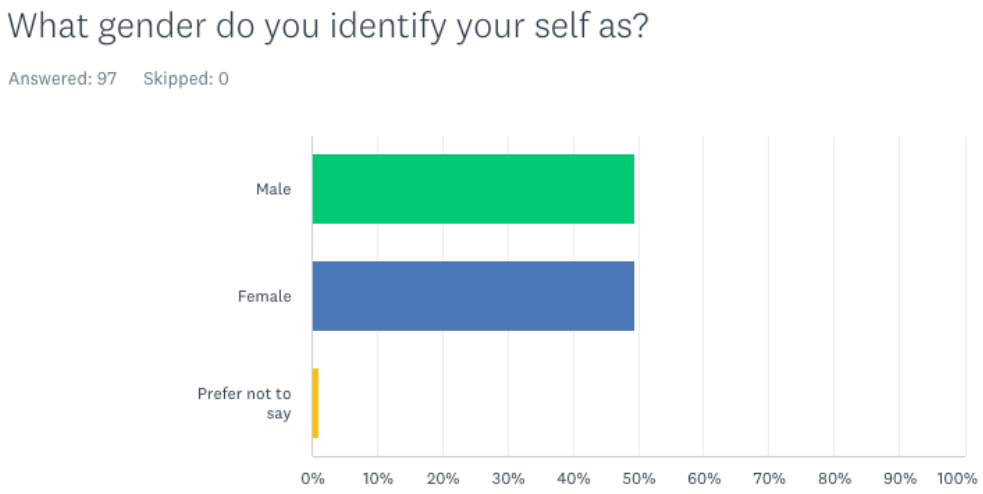
[1] https://www.surveymonkey.com/

Chapter IV Presentation of the Data

In chapter IV, the presentation of the data conducted on Survey Monkey will be presented. Each question will be shown and then the data will be analyzed. The section will include charts which are taken directly from the survey analysis.

Q1: Response from study respondents regarding gender

The first question (Q1) participants were obliged to respond to was directly related to gender identification, to have a better understanding of who are target audience is. In table one, percentage of responses are displayed.



Bars were color coded depending on the multiple-choice question. Green for males, blue for females and yellow for participants who prefered not to say. The vertical axis displays the multiple-choice response while the horizontal axis indicated the percentage of responses.

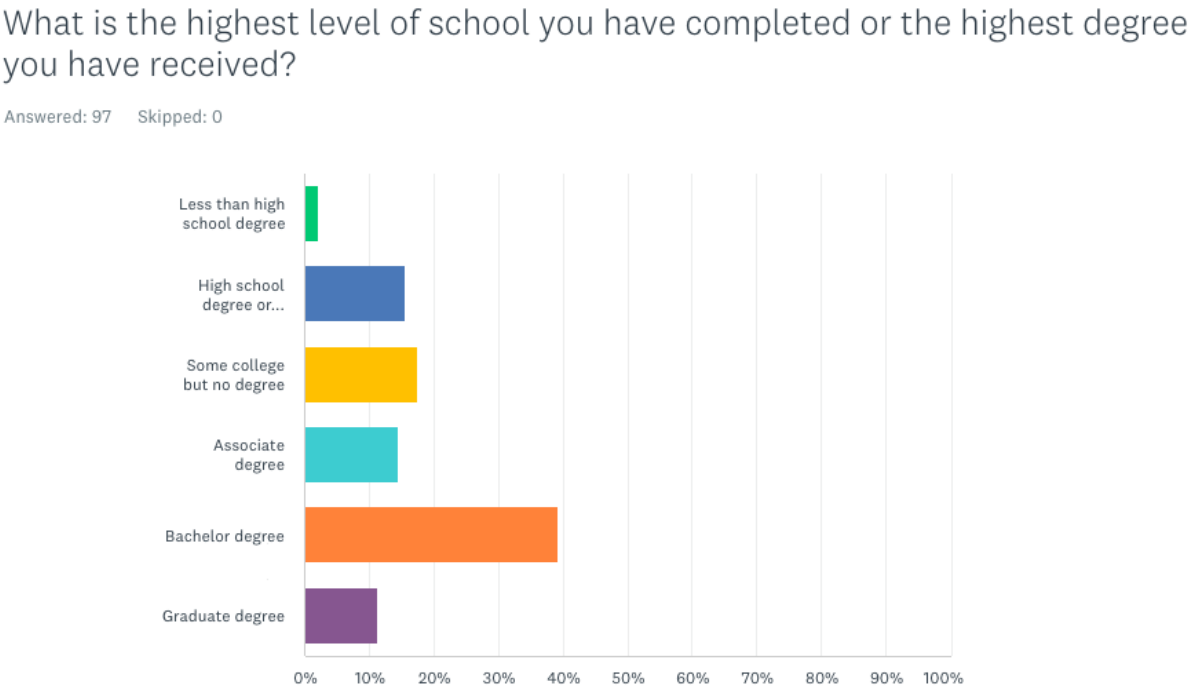
ANSWER CHOICES	RESPONSES	
Male	49.48%	48
Female	49.48%	48
Prefer not to say	1.03%	1
TOTAL		97

Data was then calculated by Survey monkey which displayed responses as well as number of participants. The data showed that there was a balanced scale of both male

(49.48%, =n48) and female (49.48%, =n48) participants. On the other hand, participants who selected 'prefer not to say' was significantly lower (1.03%, =n1).

Q2: Response from study respondents regarding educational background

The next demographic question (Q2) surveyed the educational level of each participant. Participants were asked 'What is the highest level of school you have completed or the highest degree you have received?' The chart displays responses color coded depending on each multiple-choice answer.



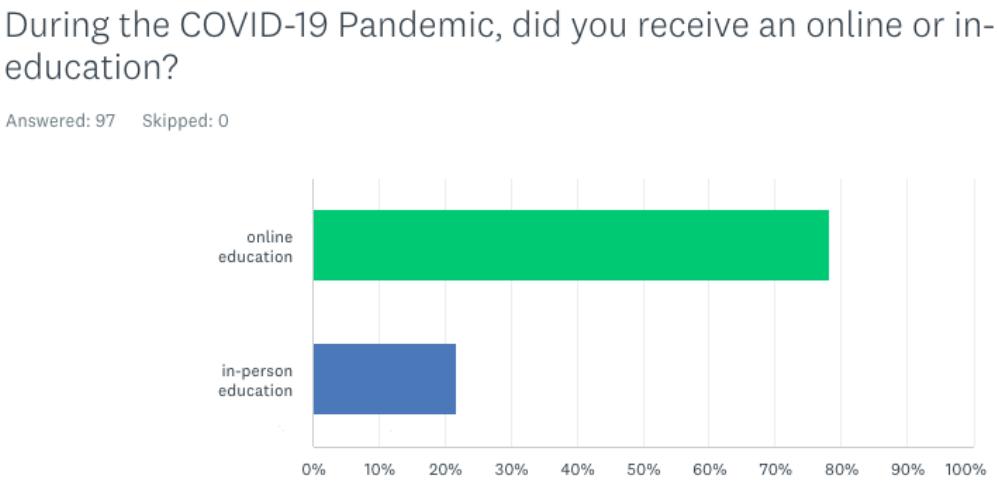
All responses were considered when analyzing data because participants all received some sort of education.

ANSWER CHOICES	RESPONSES	
Less than high school degree	2.06%	2
High school degree or equivalent (e.g., GED)	15.46%	15
Some college but no degree	17.53%	17
Associate degree	14.43%	14
Bachelor degree	39.18%	38
Graduate degree	11.34%	11
TOTAL		97

Majority of participants (39.18%, = n39) received a bachelor's degree, followed by (17.53%, =n17) responded 'some college but no degree'. Third highest percentage was 'High school degree or equivalent' (15.46%, = n15), subsequently 'associate degree' (14.43%= n14), 'graduate degree' (11.34%= n11). The lowest number of participants (2.06%= n2) received 'less than high school degree'.

Q3: Response from study respondents regarding mode in which educational lessons were presented during COVID -19

The third question (Q3) then delves into subject of the survey by recording if participants received an online or in-person education during COVID-19. Participants were given only two multiple choice options: online or in-person. The question was proposed as 'During the COVID-19 pandemic, did you receive an online or in-person education?'



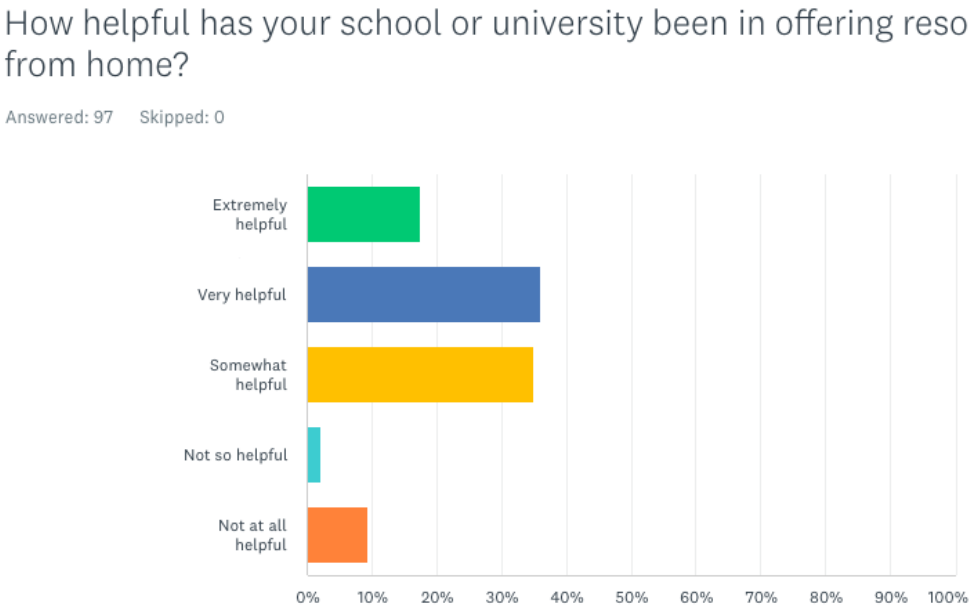
As seen in the chart (Q3), there is a considerable number of participants who received an online education in comparison to an in-person education.

ANSWER CHOICES	RESPONSES	
online education	78.35%	76
in-person education	21.65%	21
TOTAL		97

The green bar, online education, is statistically higher (78.35%, =n76) in comparison to the blue bar, in-person education (21.65%, =n21). The number of participants who responded with online education is nearly three times higher than in-person education.

Q4: Response from study respondents regarding resources provided by schools or university to learn from home

Question four was constructed using a Likert scale. Respondents were asked to choose from different options such as: extremely helpful, very helpful, somewhat helpful, not so helpful, and not helpful at all.



As show in the chart, there is a slight difference between very helpful and somewhat helpful. Statistics showed that majority of participants found their school or university to be helpful.

ANSWER CHOICES	RESPONSES	
Extremely helpful	17.53%	17
Very helpful	36.08%	35
Somewhat helpful	35.05%	34
Not so helpful	2.06%	2
Not at all helpful	9.28%	9
TOTAL		97

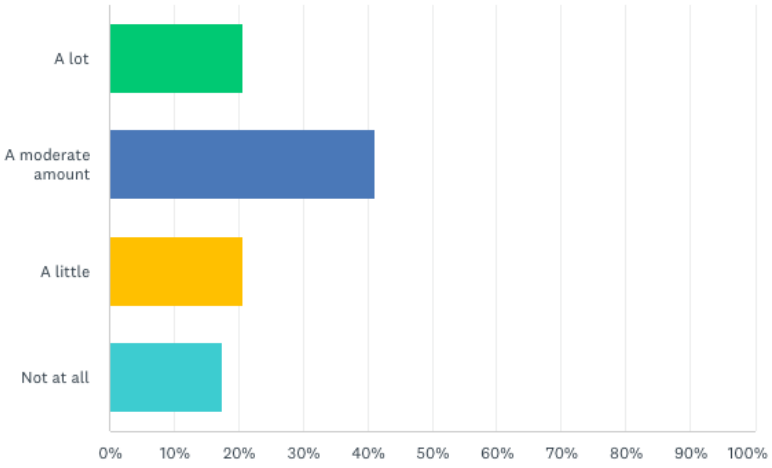
Majority of participants (36.08%, =n35) found university services to be 'very helpful' during the pandemic in offering resources to learn from home, while the lowest number of participants (2.06%, =n2) found university services to be 'not so helpful'. Following the majority, the second highest number of participants (35.05%, = n34) found services to be 'somewhat helpful'. While (17.53%, =n17) found services to be 'extremely helpful'. Lastly participants (9.28%, =n9) who responded, 'not at all helpful'.

Q5: Response from study respondents regarding stress during distance learning throughout the COVID-19 pandemic

Question five was constructed using a similar Likert scale as question four, except respondents were asked to select multiple-choice answers: a lot, a moderate amount, a little, not at all.

How stressful was distance learning for you during the COVID-19 pandemic?

Answered: 97 Skipped: 0

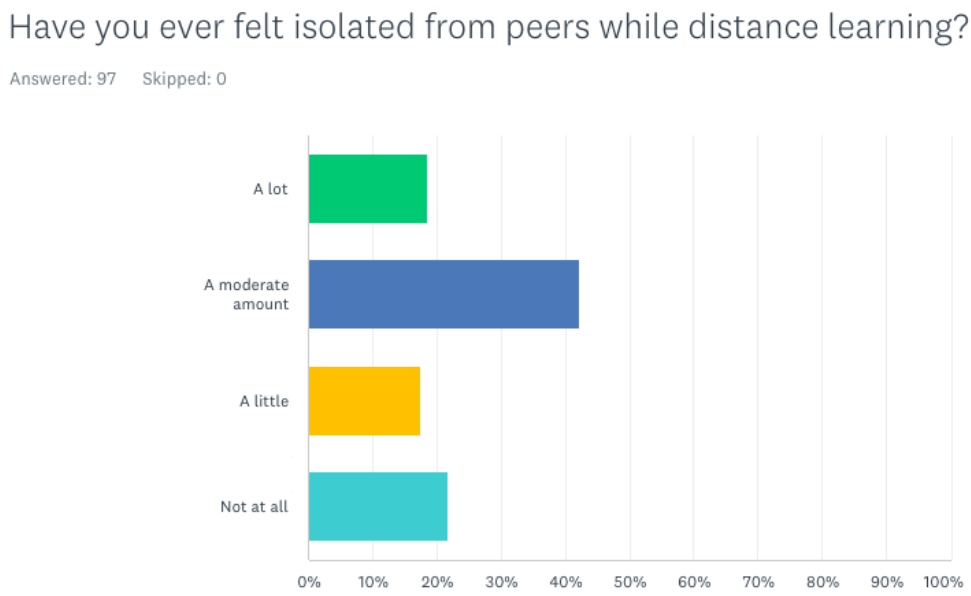


ANSWER CHOICES	RESPONSES	
A lot	20.62%	20
A moderate amount	41.24%	40
A little	20.62%	20
Not at all	17.53%	17
TOTAL		97

As shown in the chart and table provided for question five, majority of respondents (41.24%, =n40) selected 'a moderate amount'. While the lesser, (17.53%, =n17) responded 'not at all'. The next highest response averaged (20.62%, =n20) responded both 'a lot' and 'a little.

Q6: Response from study respondents regarding feelings of isolation from peers during distance learning

Respondents were asked to select from the Likert scale: a lot, a moderate, a little, not at all.



Out of 97 participants, the majority roughly over 40% as seen from the chart selected 'a moderate amount'. As seen in the table below for question six, the rest of the responses varied.

ANSWER CHOICES	RESPONSES	
A lot	18.56%	18
A moderate amount	42.27%	41
A little	17.53%	17
Not at all	21.65%	21
TOTAL		97

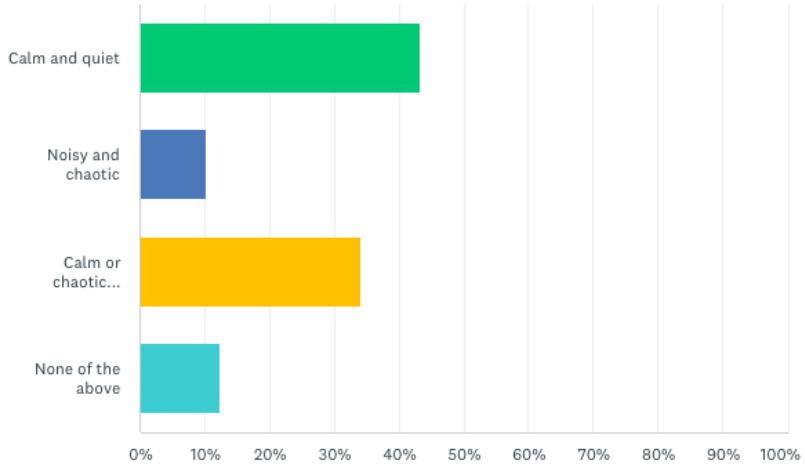
'A moderate amount' was the highest chosen response from participants (42.27%, =n41), following 'not at all' (21.65%, =21). The response 'a lot' averaged (18.56%, = n18), and finally 'a little' (17.53%, =17).

Q7: Response from study respondents regarding participants learning environment while attending online courses

The questions were developed to understand if students learning environment was calm or chaotic during online learning. Students were given multiple choice questions where they were advised to select which description over their learning environment fits best. Multiple choice options ranged from the following: calm and quiet, noisy, and chaotic, calm, or chaotic depending on the day and none of the above.

How would you describe your learning environment while attending online courses?

Answered: 97 Skipped: 0

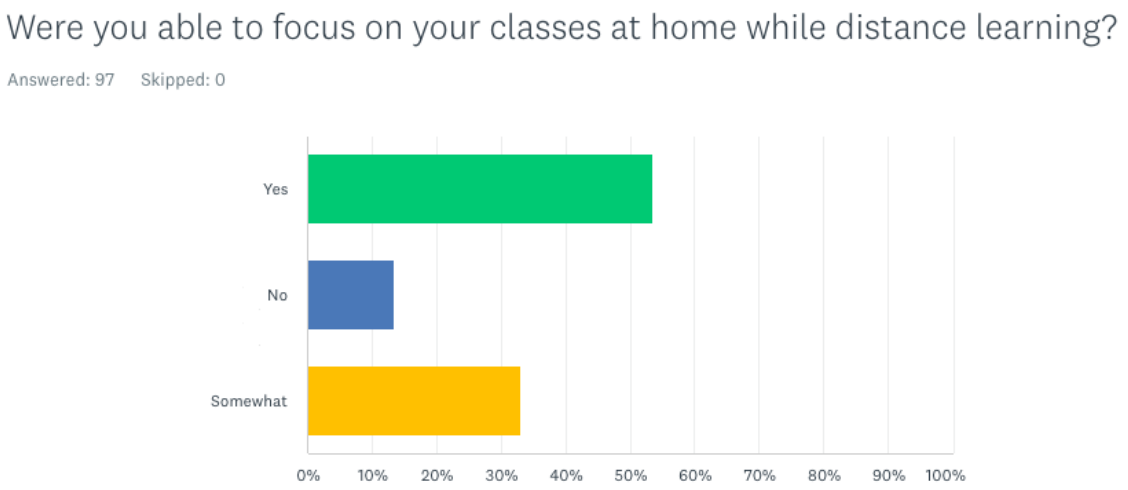


ANSWER CHOICES	RESPONSES	
Calm and quiet	43.30%	42
Noisy and chaotic	10.31%	10
Calm or chaotic depending on the day	34.02%	33
None of the above	12.37%	12
TOTAL		97

The greater number of participant (43.30%, =n42) selected 'calm and quiet'. Following (34.02%, =n33) chose 'calm or chaotic depending on the day'. On the other hand, the lower average of participants (12.37%, =n12) chose 'none of the above', and the lowest (10.31%, =n10) selected 'noisy and chaotic'.

Q8: Response from study respondents regarding participants concertation during online classes

Participants were asked to select 'yes', 'no' or 'somewhat' regarding being able to focus during online lessons.



As shown in the graph, the highest number of participants responded yes which is labeled by a green bar, following somewhat which was an average response labelled yellow and no as the lowest response labelled blue.

ANSWER CHOICES	RESPONSES	
Yes	53.61%	52
No	13.40%	13
Somewhat	32.99%	32
TOTAL		97

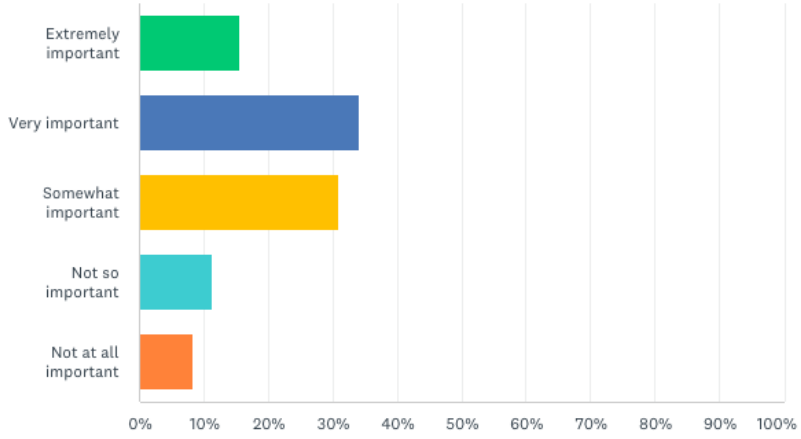
Statistically the highest number of responses (53.61%, =n52) responded 'yes' regarding being able to focus during online lessons. 'Somewhat' was the second highest response (32.99%, =n32). While the lowest number responses (13.40%, =n13) selected 'no'.

Q9: Response from study respondents regarding the importance of face-to-face communication while learning remotely

Respondents were asked to select how important face-to-face communication is to them while learning remotely. They were asked to select the appropriate choice, using a Likert scale: extremely important, very important, somewhat important, not so important, and not at all important.

How important is face-to-face communication for you while learning remotely?

Answered: 97 Skipped: 0

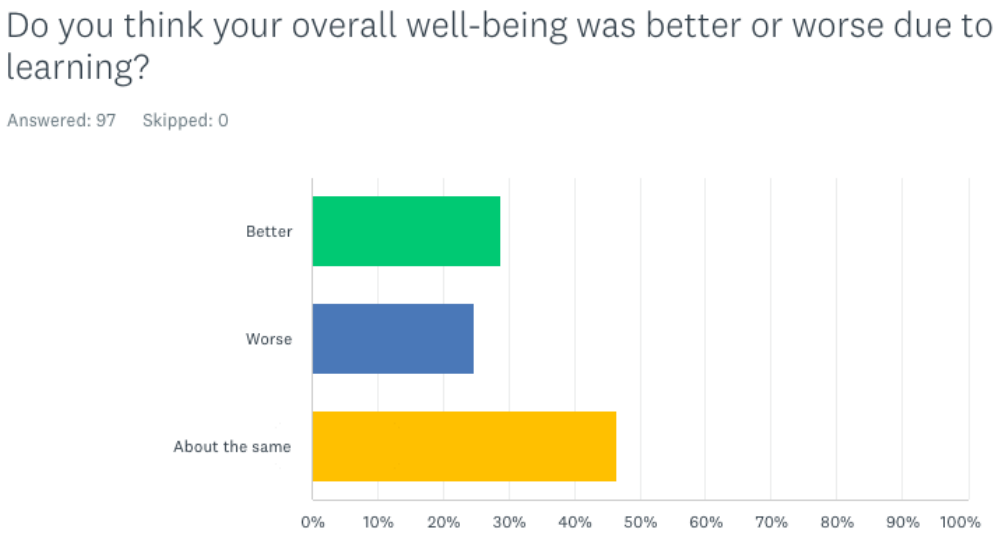


ANSWER CHOICES	RESPONSES	
Extremely important	15.46%	15
Very important	34.02%	33
Somewhat important	30.93%	30
Not so important	11.34%	11
Not at all important	8.25%	8
TOTAL		97

According to the data in the table, the highest percentage of participants (34.02%, =n33) selected 'very important'. Followed by the second highest (30.93%, =n30) voting 'somewhat important'. The lowest percentage of participants selected 'not at all important' (8.25%, =n8).

Q10: Response from study respondents regarding if students' overall well-being was better or worse due to distance learning

Question ten observes students' overall well-being in relationship to distance learning and was created using a simple multiple-choice question where responses were categorized as 'better', 'worse' and 'about the same'.



As seen in the chart, the highest selected answer was 'about the same' which is labelled in yellow, while the lowest percentage labelled in blue was 'worse'.

ANSWER CHOICES	RESPONSES	
Better	28.87%	28
Worse	24.74%	24
About the same	46.39%	45
TOTAL		97

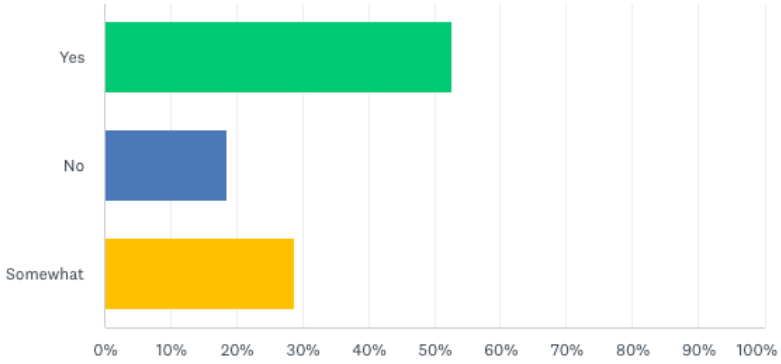
The table indicates that more than half of participants (46.39%, =n45) selected 'about the same' while the number of participants who selected 'better' was significantly less (28.87%, =n28). On the other hand, the lowest percentage of participants (24.74%, =n24) chose 'worse'.

Q11: Response from study respondents regarding motivation and working autonomously during distance learning

The question was constructed to understand if students were able to stay motivated during distance learning and work autonomously. Participants were asked to select 'yes', 'no' or 'somewhat' regarding their own personal experience during distance learning.

Were you able to stay motivated and work autonomously during distance learning?

Answered: 97 Skipped: 0

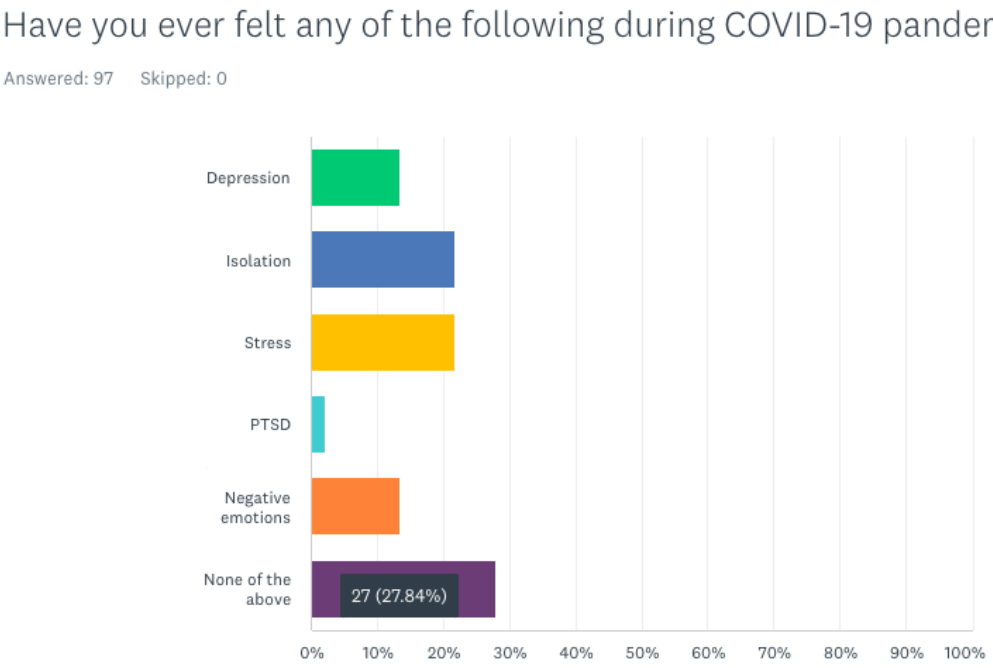


ANSWER CHOICES	RESPONSES	
Yes	52.58%	51
No	18.56%	18
Somewhat	28.87%	28
TOTAL		97

According to the chart and the table above referencing Q11, the greatest percentage of participants (52.58%, =n51) selected 'yes' regarding motivation and autonomous work, while the average percentage of participants (28.87%, =n28) selected 'somewhat'. The lowest number of participants out of 97 (18.56%, =n18) responded 'no'.

Q12: Response from study respondents regarding psychological feelings during COVID-19

Question 12 aims to address if participants had certain psychological feeling during COVID-19. Participants were given the following multiple-choice answers to select Depression, Isolation, Stress, PTSD, Negative emotions, and none of above.



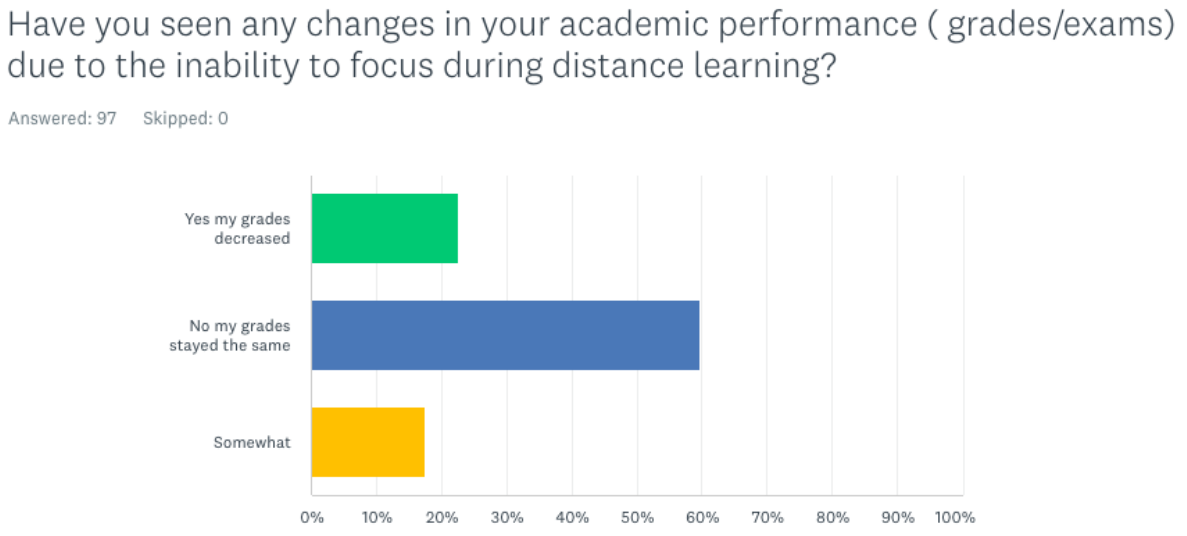
According to the chart, color coded in purple the highest number of participants selected 'none of the above' while the lowest selected 'PTSD'.

ANSWER CHOICES	RESPONSES	
Depression	13.40%	13
Isolation	21.65%	21
Stress	21.65%	21
PTSD	2.06%	2
Negative emotions	13.40%	13
None of the above	27.84%	27
TOTAL		97

The highest percentage (27.84%, =n27) of participants stated, 'none of the above', following an average number of participants (21.65%, =n21) selected 'isolation' and 'stress'. The second lowest percentage of participants (13.40%, =n13) states 'negative emotions and 'depression'. While the lowest percentage out of 97 (2.06%, =n2) stated they felt 'negative emotions.

Q13: Response from study respondents regarding changes in academic performance due to the inability to focus during distance learning

Question 13 was aimed to understand if participants academic performance (grades/exams) have changed due to the inability to concentrate during distance learning. Participants were given multiple choice question where they were asked to select from the following responses: 'yes my grades decreased', 'not my grades stayed the same' and 'somewhat'.

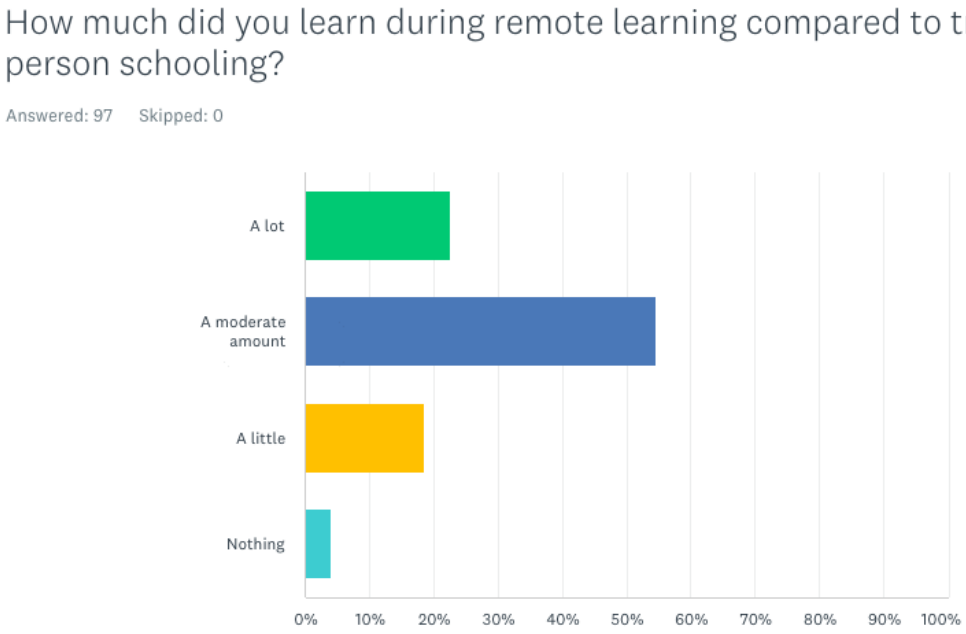


ANSWER CHOICES	RESPONSES	
Yes my grades decreased	22.68%	22
No my grades stayed the same	59.79%	58
Somewhat	17.53%	17
TOTAL		97

As stated in the table, the data shows that the highest percentage of participants (59.79%, =n58) recorded that their grades stayed the same, while the lowest percentage (17.53%, =n17) stated 'somewhat'. The average response of participants (22.68%, =n22) recorded that their grades decreased in response to distance learning.

Q14: Response from study respondents regarding the amount in which participants learned during remote learning in comparison to traditional in-person schooling

Participants were given a multiple-choice question to determine how much they are learning during remote learning. The responses which could be selected were as followed: ‘a lot’, ‘a moderate amount’, ‘a little’, ‘nothing’.

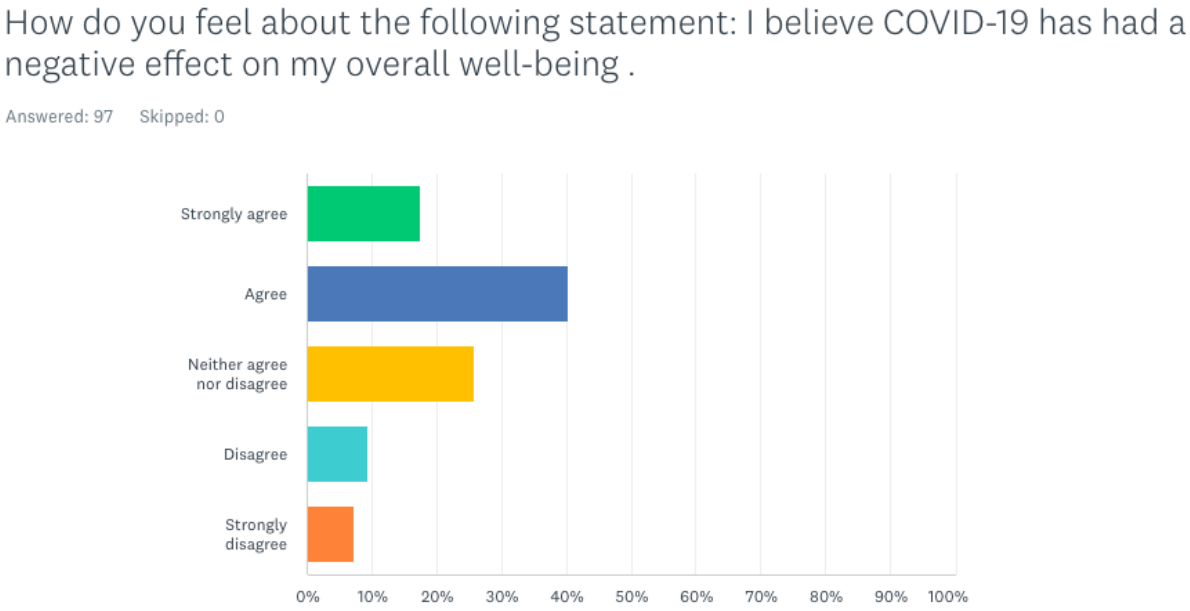


ANSWER CHOICES	RESPONSES	
A lot	22.68%	22
A moderate amount	54.64%	53
A little	18.56%	18
Nothing	4.12%	4
TOTAL		97

In accordance with the table, the data shows that, out of 97 participants, the majority (54.64%, =n53) stated they learned ' a moderate amount’. On the other hand, the lowest percentage of participants (4.12%, =n4) stated they learned ‘nothing’. The second highest average of participants (22.68%=n22) chose the response ‘a lot’, while ‘a little’ was the third highest response (18.56%, =*n18*).

Q15: Response from study respondents regarding participants feelings towards the following statement ‘I believe COVID-19 has had a negative effect on my overall well-being’

Respondents were given a Likert scale to determine their feelings on the given statement in the question. The criteria for the Likert scale included: ‘strongly agree’, ‘agree’, ‘neither agree nor disagree’, ‘disagree’ and ‘strongly disagree’.



ANSWER CHOICES	RESPONSES	
Strongly agree	17.53%	17
Agree	40.21%	39
Neither agree nor disagree	25.77%	25
Disagree	9.28%	9
Strongly disagree	7.22%	7
TOTAL		97

As shown in the table and chart, most participants (40.21%, =n39) selected ‘agree’. The second highest selection was ‘neither agree nor disagree’ (25.77%, =n25). On the other hand, ‘strongly agree’ (17.53%, =n17) was the third highest selection by participants. The second lowest percentage of participants (9.28%, =n9) selected ‘disagree’ while the lowest percentage of respondents (7.22%, =n7) chose ‘strongly disagree’.

Chapter V: Discussion

All the analysis conducted thus far permit us to define how well-being has affected students during the COVID-19 Pandemic. With the use of the survey developed using Survey Monkey, many aspects of how students felt during the COVID-19 pandemic and whether distance learning had a positive or negative affect on their overall mental health and well-being can be discovered.

Starting from the data collected, we are able to answer the research question about negative or positive effect of COVID 19 on students' overall well-being.

The first aspect that is discovered from the use of the survey Q3 'During the COVID-19 Pandemic did you receive an online or in-person education?' was most of the participants received an online education during the COVID-19 pandemic (78.35%,=N76). In terms of the use and accessibility of technology during distance learning, it can be observed through the data in Q4 'How helpful has your school or university been in offering resources to learn from home?' majority of the participants stated that their school or university was either somewhat helpful, very helpful or extremely helpful. According to the research conducted in Chapter one (pg.9) The study by the European Commission listed elements that must be considered to ensure successful strategies to integrate online and offline learning. One of the strategies listed was "Guarantee access to internet and availability of computers, laptops, or tablets: access to the internet at a decent speed and to proper ICT tools are basic prerequisites for any online teaching and learning strategy (Sage, 2021, p.5)." Through the data conducted hypothesis one was a failed hypothesis: *There is a statistically significant number of students who have had challenges faced by distance learning. Statistics show that students will have a more difficult time learning at home rather than in school*. It is evident through the data that majority of participants felt adequately prepared in order to enroll in distance learning and that there were educational resources readily available to them. Participants did not face a lack of digital resources and did not face challenges regarding relying on the school system to provide resources.

For what concerns participants learning environment, Q7 and Q8 directly determine that majority of students found that their learning environment was calm and quiet (43.30%,=n42) and that they were able to focus during distance learning (53.61%,=n52). As stated in the literature review in Chapter one (p.16) environmental factors can directly relate

to students' ability to learn. In a noisy environment, concentration can be impaired. However, majority participants reported their environment to be fairly calm and quiet thus overall affecting their concentration. Since majority of participants were able to have a calm and quiet space to learn, it is evident that the data for Q8 showcases that they were able to stay focused.

On the other hand, the second most common response to Q7 'How would you describe your learning environment while attending online courses' was 'calm or chaotic depending on the day' (34.02%,=n32). There is a high chance that participants who selected this response, had a learning environment which was affected by either noise, lighting, and special requirements. Thus, when observing the data in Q8 'Were you able to focus on your classes at home while distance learning' the second highest response by participants was 'somewhat' (32.99%,=n32). We can recall in this response, that participants who selected somewhat were most likely in the category of 'calm or chaotic depending on the day ' in Q7. The literature that we have previously consulted in chapter one which relates to learning environments reminds us to consider that learning environments can fluctuate depending on household situations which would make it evident that on some days participants are able to concentrate if their learning environment is stable and controlled, while on other days participants are unable to stay motivated due to a change in household environments. As seen in the data of Q7 and Q8 learning environment plays a key role in determining participants ability to focus.

Survey question 11 also relates directly to Q8. When asked 'Were you able to stay motivated and work autonomy during distance learning' data presented that a majority of participants (52.58%,=n51) stated yes. As stated in the literature review in Chapter 2, when discussing Self Determination Theory, "Strong links between intrinsic motivation and satisfaction of the needs for autonomy and competence have been clearly demonstrated, and some work suggests that satisfaction of the need for relatedness, at least in a distal sense, may also be important for intrinsic motivation (Ryan, 2000, p.71)." Although we do not have the data to confirm this theory, participants who answered 'yes' to Q11 were probably more likely to have answered 'yes' to Q8.

The second highest response to question 11 was 'somewhat'(28.87%, =n28). There is a high probability that participants who answered 'somewhat' stated this in relationship to their learning environment (Q8). It is difficult to work autonomously and stay motivated

when your environment is disruptive depending on the day. As stated on page 29 of the literature review, online self-regulated learners understand their responsibilities to actively participate in the learning process by regularly accessing course materials, studying them, submitting assignments, self-evaluating, and asking questions when they need help. Previous studies found that one of the main reasons for the high dropout rate in online courses is students' self-regulation failure, as they fail to estimate the required time and efforts to complete learning tasks, and they lack time-management skills, which leads to academic procrastination (Alhazbi, 2021). Respondents who answered 'somewhat' most likely had a lack in motivation and fluctuating learning environment which thus led to procrastination.

Question 11 also observes if there is a significant number of students who had motivational difficulties because of distance learning. When asked 'Have you seen any changes in your academic performance (grades/exams) due to the inability to focus during distance learning?' the largest portion of respondents (59.79%,=n58) stated 'no my grades stayed the same'. Most participants (54.64%,=n53) even reported in Question 14 that they learned 'a moderate amount' during remote learning in comparison to traditional learning environments.

The data in survey question 7,8, 11, 13 and 14 showcases that motivation, autonomous work, and learning environments are all linked and can vary depending on many factors for students. If students feel comfortable in their environments and have resources from their school or university, they are more likely to be able to focus and work autonomously. Thus, hypothesis two was untrue: *There is a significant number of students who had motivational difficulties because of distance learning. The scores of the control group factor in favor of not being able to focus on classes which were held online .* Data determined that there was not a significant number of students who had motivational difficulties because of distance learning. In fact, students were able to stay motivated and work autonomously and were even able to learn a moderate amount in comparison to traditional learning environments.

The next hypothesis which as analyzed based off the data in the survey was hypothesis three: *There is a significant number of students who favor face to face communication instead of distance learning.* Question 9 which asked participants 'How important is face to face communication to you while learning remotely' observed that majority of participants (34.02%,=n33) stated ' very important'. Which in turn, makes the

hypothesis true. There was a significant number of participants who favored face to face communication instead of distance learning. Relating to the literature review in Chapter 3, Community of Inquiry is definitely an important factor for participants. Face to face communication gives students the ability to identify with the community, interact intentionally and consciously in a trusted environment, and establish social relationships by way of sharing their individual selves. As stated on pg.34 "When analyzing the Community of inquiry model and relation to distance education, 'presence' is point of concern for students. There has not been enough attention given to students in online learning environments in terms of their roles, participation, and experiences to understand students' self-regulation skills in online and blended modalities where students self-directed learning plays a crucial role (Gudapati, 2021, p.25)." It is clear in our data collection that social presence is an important aspect for participants.

The next set of answers are extremely significant in determining if COVID-19 has had a negative impact on students' overall well-being. Hypothesis four stated: *COVID-19 has had a negative impact on student's overall well-being affecting their mental health. Students have shown signs of depression, isolation, negative emotions, PTSD, isolation, and stress due to the pandemic. The scores of the control group factor in favor that COVID-19 has negatively impacted their well-being.* Data in questions 5,6,10,12 and 15 support that hypothesis one is null. The hypothesis is null due to the fact that responses have fluctuated. In Question 5, 'How stressful was distance learning for you during the COVID-19 pandemic' majority of respondents (41.24%,=n40) answered 'a moderate amount'. When asked if participants have ever felt isolated from peers while distance learning in Q6, a majority of students (42.27%,=n41) responded 'a moderate amount'. According to the hypothesis, students have shown signs of isolation and stress due to the pandemic and distance learning, however it has not affected their overall well-being which we will be determined in question 10 and 12.

In Question 10 'Do you think your overall well-being was better or worse due to distance learning?' a majority of respondents (46.39%,=n45) stated 'about the same'. Thus, affecting the hypothesis and in turn making it null. When asked in Question 12 ' Have you ever felt any of the following during COVID-19' majority of respondents (27.84%,=n27) responded 'none of the above'. Even though, majority of participants responded 'none of the above' to question 12, the two top responses which followed were isolation (21.65%,=n21) and isolation (21.65%,=n21). Although it can be concluded that participants overall well-being

has stayed the same during the COVID-19 pandemic and was not negatively affected, there are major signs of stress and isolation felt throughout participants. It is likely although not given in the data, that students felt that their school or university provided resources to ensure positive well-being amongst students (Q4), which in turn directly affected the results of Q10. At this point we can determine that results of COVID-19 affecting students well-being is subjective in terms of learning environment and resources offered by education systems.

Lastly, in question 15 respondents were asked 'How do you feel about the following statement: I believe COVID-19 has had a negative impact on my overall well-being'. Majority of respondents (40.21%,=n39) responded 'agree' while the second highest response was 'neither agree or disagree' (25.77%,=n25). In turn, the data in question 14 leads us to assume that overall well-being can be affected by many different factors and is not a one size fits all response.

3.2 Research Question and Sub-questions

Having in mind all of the data conducted in the survey, we are able to answer the research question and sub-questions. The main research question which was stated in chapter three was "Has COVID-19 had a negative or positive effect on students' overall well-being?" Followed by the sub-questions which will be analyzed in this section. The sub-questions are the following: a) "What impact has distance learning had on students' overall well-being?" b) "What challenges did students experience with distance learning?" c) "What impact does COVID-19 have on students' academic motivation?" d) Is face to face communication a vital part of learning remotely?

By analyzing the data conducted in the survey as well as the literature review, it is evident that the effects of COVID-19 are subjective in terms of affecting students' overall well-being. Although, majority of students responded 'agree' to question 14, Question 10 makes us believe that it is subjective. It is evident that participants felt isolation from peers as well as stress inducing situations during distance learning, but not all participants agree to this. We can presume that if certain environmental factors, learning requirements and educational requirements were met for each participant than their overall well-being would be higher. It can also be presumed that majority of participants feel that COVID-19, apart from distance learning has had a negative effect on their well-being. Thus, it is not directly related to distance learning itself, but the emotions felt from isolation during the pandemic

that have affected their mental health. When referencing back to Chapter two of the literature review, eudaimonic well-being has certain needs or qualities that are essential for one's psychological growth. As stated previously in Chapter two, autonomy, positive relations, environmental mastery, self-acceptance, purpose in life and personal growth are all features of people who are functioning well in life. By observing the data, it is noticeable that everyone is different. While some participants might have one or two of these eudemonic well-being features, the rest may have more which will affect how they view their own well-being. Well-being is personal, and although a global pandemic could cause stress and isolation it does not mean that has affected everyone's mental health in the same way.

The second question proposed in this thesis was, have students had a significant number of challenges with distance learning? Through the data collected it is evident that participants in the study did not face many challenges with distance learning. Participants were able to rely on their school or university in order to assist them with challenges faced with distance learning and felt a sense of support. This in turn, greatly affected their experience with distance learning as they were able to reach out to the school system in case of doubts or concerns. In the literature review, it was researched that the school system plays a large role in ensuring students academic success especially during distance learning and COVID-19. By the educators readily being available during a time of significant change, it greatly impacts students. The Community of inquiry can be applied to this theory, as we can see through the data collaboration is essential. When looking at the 'Seven Principles of Good practice for undergraduate education' student-teacher contact is principle one it can be presumed that participants felt that they had a successful relationship to their instructors during online learning. It can also be noted the age range of participants could have greatly affected their ability to successfully complete online courses without challenges. Due to most participants fell in the age range of 30-44, although not shown in the data we can presume that using technological devices was not an issue, unlike younger children for example.

The next question that was constructed based on the literature review was, what impact does COVID-19 have on students' academic motivation? Percentages from the data taken from Survey Monkey showcases that COVID-19 did not have a negative impact on students academic motivation. Participants in the study claimed that they were able to stay motivated and work autonomously and even felt that they learned a moderate amount with

distance learning. This is likely due to a few factors which were discussed in the literature review.

The first factor is learning environments. As stated in the literature review, learning environments plays an immense role in students' ability to stay focused and motivated. Data proves that majority of respondents felt that their learning environments was calm thus when asked question 8 on whether or not they were able to focus while attending lessons from home majority of respondents answered yes. We can conclude that learning environment is one contributing factor in how well a student is able to stay focused. This is demonstrated by also looking at the second highest response. Participants who answered that their learning environment was calm or chaotic depending on the day were most likely to respond to the following question 8 as 'somewhat'. When asked about being able to work autonomously during distance learning and stay motivated, the second highest response was somewhat as well. It can be concluded that motivation is not only intrinsic but also dependent on situational environments and their role on students.

It can also be concluded in the data that overall participants felt that their academic performance stayed the same throughout the COVID-19 pandemic and majority of students felt that they learned a lot. When referencing the literature review, (Chapter 2,p.25) a prime example of how the data relates to motivation is Zimmerman's Self-Regulated Learning theory: The Triadic Analysis of SRL. In Figure one (p.25) the diagram consists of three distinct categories: person, behavior, and environments. These three categories are all linked together and ultimately make up a self-regulated learner. Participants who reported having a stable and calm learning environments already had one crucial aspect of SRL. It can also be noted the behavior section of the diagram. As stated in the research in chapter 2 (pg.28), the behavioral component covers dimensions that are aimed at strategies favourable to optimizing ones learning such as: help-seeking, self-observation, and time-management. (Triquet,2017, p.13). It can be presumed due to question 4, when participants were asked *"How helpful has your school or university been in offering resources to learn from home?",* that their behavioral needs of SRL were met due to the resources from their education system.

Finally, the study has showed that participants believe that face-to-face communication is in fact a vital part of learning remotely. Data has proven in question 9, that face-to-face communication is in fact a vital part of learning remotely. By observing the

participants feelings of isolation and stress it is clear that participants lacked a social community between their peers . Referencing the Community of inquiry model, discussed in Chapter 3, social presence is described as how the student identifies with members of their learning community and has awareness of his/her classmates and lecturers presence (Gudapati, 2021, p.24). It can be proposed from the data that in reference to the Community of inquiry model, teaching presence was met and not social presence. Given the data in the survey, it can be assumed that majority of participants felt they were able to stay motivated , reach out to instructors for help and rely on their educational system. However, they felt remoteness in terms of being able to build a social environment while distance learning. Which in turn, increases the rate of isolation and stress in participants.

Conclusion

This work had the aim of identifying whether COVID-19 negatively or positively affected students' well-being. Through thorough research and data, it is evident that well-being is personal and subjective depending on many different factors. These factors include having supportive educational instructors who guide and are readily available to assist during times in need, a sense of community between peers, as well as positive and stable learning environment. If all requirements are not met, it is difficult to conclude that every student's overall well-being will be positive. Maintaining positive well-being requires continuous effort and can fluctuate depending on certain environmental and behavioral situations, thus making positive well-being not 'one size fits all'. It is up to everyone to create their own positive well-being by reaching out to their instructors, finding a quiet workspace and trying their best to open up the lines of communication between teachers and students, which can be immensely difficult. It can also be taken from the data presented in this paper, that isolation and stress are key factors in why face to face communication is a vital part of learning is online. Being able to socialize, is a crucial part of life regardless of if participants are students are not. In light of all that was collected in this research, the most important take away is

students need to be able to have a sense of community and social presence amongst peers which can ultimately make their learning atmosphere positive thus affecting their well-being.

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