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Students' perceptions of their experiences with online assessments during the Covid-19
pandemic

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Assessment is an essential element in teaching and learning, and the outbreak of the Covid-19 pandemic forced teachers and students to adapt this practice to the online modality. Yet, the existence of resources regarding online assessments is still limited. This study aims to explore how students perceived their experiences with online assessment during the pandemic, with a focus on their relationship with feedback, their emotions, and motivation. Qualitative semi-structured interviews were conducted with 10 participants who were within their last four years of basic education in the year 2020, with subsequent content analysis being applied. The results of this study indicate that students did not perceive major changes in the assessment methods applied by teachers. They did, however, perceive new challenges for their learning to emerge, and consequently made adaptations to their studying habits. Moreover, it was revealed that students received less feedback in the online modality, which had an impact on their emotional states and learning practices. Additionally, it was found that the pandemic and online learning contexts imposed new difficulties for students, whose emotions were negatively impacted, and whose motivation toward assessment tasks was significantly decreased. These factors led students to behaviors such as avoiding studying and engaging in dishonest academic practices. In conclusion, this study sheds light on topics relevant to online learning, online assessments, and students' emotions and motivation regarding assessment, specifically in the context of emergency online learning.

Keywords: online assessments, online learning, assessment feedback, academic emotions, student motivation

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1. Introduction

Assessment is an essential part of and a key component of teaching and learning, providing support to teachers and students to develop the learning process through feedback that can be used to modify or enhance teaching and learning practices. Student assessment can be conducted through a variety of different forms and methods (Black et al., 2004), and can have an impact not only on students' academic achievement, but also on motivation, self-esteem, and self-efficacy (Black et al., 2004; Harlen, 2005). Moreover, by providing feedback to learners, assessment can work as a key factor for the process of Self-Regulated Learning, due to the presence of self-reflection and later adjustment of learning strategies in the cycle. (Zimmerman, 2000).

The outbreak of Covid-19, which happened between late 2019 and early 2020, led to a pandemic that impacted people around the world's daily lives. With the need for social distancing to contain the spread of the virus, schools were among the institutions that were closed and, to attend to that new reality, classroom learning was quickly changed to online learning. This guided student assessment practices to be modified - sometimes, overnight - in order to adapt to the new context. This was a significant change for both teachers and students, whose only possibility was to adapt to the new context (Pokhrel & Chhetri, 2021).

High school students are psychologically vulnerable due to academic requirements (Alfhouka et al., 2019, as cited in AlAzzam et al., 2021) and are still in the process of brain development, and therefore discovering how to deal with socially and emotionally challenging situations (Crone & Dahl, 2021). During their teenage years, students get closer to the completion of school, and consequently have to make choices about their future career and life paths, which will be impacted by their academic performances (Bandura, 1997; Pekrun et al., 2004). This leads this age group to an even more vulnerable emotional situation when it comes to their academic lives. The pandemic and the adaptation to it added a new dimension to their emotional experiences. New and unfamiliar forms of assessment adopted during the pandemic caused students to experience anxiety and uncertainty, which had an impact on their overall wellbeing (Burns et al., 2020).

Due to the change to online learning being so sudden, and considering how assessment has a large impact on learners' general wellbeing, as well as teenagers' emotional vulnerability, it is significant to find out more about how the fast-adopted practices of assessment in this

specific context have affected teenage students' experiences. Understanding their affinities or difficulties with online learning under these circumstances can be a good path to discovering how assessment in online learning has worked so far, and how it has influenced students' perceptions about their own learning experiences.

2. Theoretical Framework

1.1 Self-Regulated Learning

1.1.1 Self-Regulated Learning

Self-regulation of learning is a recently explored area in the Education field, and the number of studies concerning it has been growing significantly from the 1980s onwards. In the 1990s, the concept expanded, and different facets of self-regulation began to be explored, one of them being Self-Regulated Learning (SRL) (Boekaerts, Pintrich & Zeidner, 2005).

The cycle of self-regulated learning is represented in a number of different models that have different focuses, such as the ones proposed by Winne and Hadwin (1998), Pintrich (2000), and Zimmerman (2000). For this thesis, the chosen model that will be approached is the cyclical one proposed by Zimmerman (2000), which follows the social-cognitive theory - approached later on -, due to the fact that it covers the main processes a student goes through while learning, and also due to its consequential large acceptance and influence in academia (Puustinen & Pulkkinen, 2001; Panadero & Alonso-Tapia, 2014; Panadero, 2017).

SRL is “the self-directive process by which learners transform their mental abilities into academic skills” (Zimmerman, 2002, p. 65) and control cognitive, emotional, motivational, and behavioral aspects of their learning process (Panadero & Alonso-Tapia, 2014). It involves the application of different processes according to the needs of each learning task. These processes include goal-setting, the definition of strategies to achieve a particular goal, monitoring of the learning process, the adaptation of the exterior setting to align it with the defined goals, and self-evaluation, which can lead to the adaptation of future methods (Zimmerman, 2002). It, therefore, places the learner in a proactive role in their own learning process.

Zimmerman (2002) explores the self-regulated learning process from the perspective of social learning psychologists, establishing a three-phase cycle, divided into *forethought*, *performance*, and *self-reflection*.

Forethought

According to Zimmerman’s (2002) description, forethought is mainly divided into task analysis and self-motivation beliefs. Task analysis refers to a learner’s goal-setting and strate-

gic planning practices. Self-motivation beliefs are more closely connected to the affective aspect of learning and are formed by a learner's intrinsic interest in a task, goal orientation, and self-efficacy beliefs (Zimmerman, 2002). Students come into different phases of self-regulated learning with varying goals and self-efficacy beliefs (Schunk & Usher, 2011). According to Linnenbrink-Garcia and Patall (2016), academic self-efficacy is the combination of a learner's beliefs about their capacity to learn and develop certain skills.

“Self-efficacy refers to expectancies about personal capabilities to organize and execute courses of action” (Zimmerman, 2011, p. 53). According to Schunk and Usher (2011), students who have higher self-efficacy beliefs should engage in the self-regulated learning process and create environments that are proper for learning. Self-efficacy, then, will be influenced by the outcomes of the learners' behaviors and by external aid generated from the environment, such as teacher feedback. Bandura (1997) points out that self-efficacy beliefs are crucial for one's choice of action, the effort invested into one activity, and how one will overcome challenging situations that might appear along the way.

Performance

The performance phase is formed by two major processes: self-control and self-observation. Self-control refers to the application of methods and strategies selected previously, in the forethought phase. Self-observation is the process in which the learner is able to monitor their own learning habits and adapt them accordingly (Zimmerman, 2002). Self-monitoring is a concealed form of self-observation and describes it as “one's cognitive tracking of personal functioning” (Zimmerman, 2002, p. 68). Sobocinski, et al. (2017) state that the performance phase is guided by what was established during the forethought phase; the performance will then lead the learner into the next phase of the cycle, self-reflection. Choosing suitable learning strategies during the performance phase is crucial for the learner to maintain their motivation throughout the learning process and to provide the possibility to track their progress according to the previously set goals (Panadero & Alonso-Tapia, 2014).

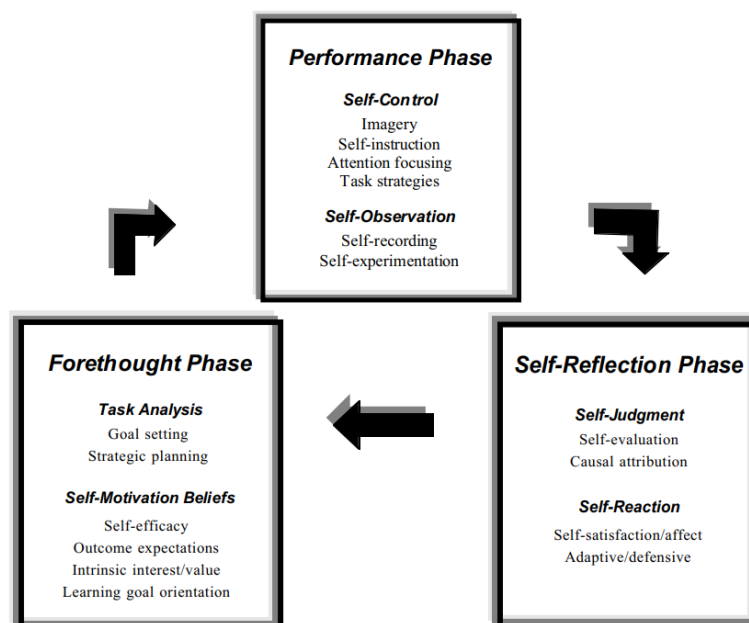
Self-reflection

The final phase listed in the Zimmerman SRL model (Zimmerman, 2002) is self-reflection. This phase is also composed of two main processes: self-judgment and self-reaction. Self-judgment is the process by which, for instance, a learner can observe and compare their performance to a certain standard. Also in this process, a learner can attribute the result of

their performance to a certain cause. If a student attributes, for example, a poor score on a test to external factors only or to their inability to learn a certain subject, their motivation to learn might be damaged, as any future effort will likely be perceived as not effective (Zimmerman, 2002). However, if the student creates a causal relationship between a controllable process and the outcome, there is a higher likelihood that their motivation will be sustained (Zimmerman, 2002). The other main process in the self-reflection phase, self-reaction, is highly connected to affect (Zimmerman, 2002). In this process, self-satisfaction plays a huge role in defining the learner's response to the outcome of their performance. High self-satisfaction will likely increase the motivation to learn, whereas low self-satisfaction will possibly decrease it. Also, the learner can present either defensive or adaptive reactions. In the first case, the learner avoids or gives up on their efforts to learn. In the latter, the efforts are directed at adjusting learning practices in order to improve the effectiveness of the learning process as a whole (Zimmerman, 2002). Below, the figure illustrates Zimmerman's (2002) cyclical model of SRL (see Figure 1).

Figure 1

Zimmerman's (2002) cyclical model



Phases and Subprocesses of Self-Regulation. From B.J. Zimmerman and M. Campillo (in press), "Motivating Self-Regulated Problem Solvers." In J.E. Davidson and Robert Sternberg (Eds.), *The Nature of Problem Solving*. New York: Cambridge University Press. Adapted with permission.

While the Self-Regulated Learning theory is of high importance to understand the learning process as a whole and the learners' roles in it, as the present study is linked to assessment

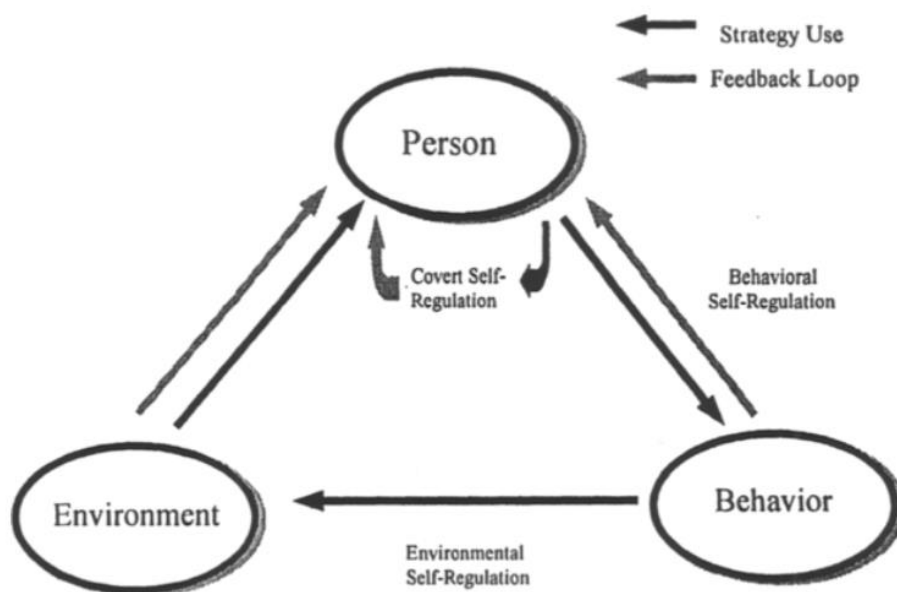
and feedback (an element that is external to the learner), a deeper focus is needed in a theory that looks into the impact of external factors in the learning process. Therefore, the Social-Cognitive view of SRL will be explored in the following section.

1.1.2 The Social-Cognitive View of Self-Regulated Learning

As previously stated, Zimmerman’s (2000) model is based on the social-cognitive theory proposed by Bandura (1986). The social-cognitive theory is based on the premise that personal, behavioral, and environmental factors interact with and influence each other unceasingly (Bandura, 1986, cited by Zimmerman, 2000). The triadic model figure (see Figure 2) represented by Zimmerman (2000) explains how these factors act on each other, as seen below:

Figure 2

The triadic model of Self-Regulated Learning



The triadic model of self-regulation. In “A social cognitive view of self-regulated academic learning”, by B. J. Zimmerman, 1989, *Journal of Educational Psychology*, 81, p. 330. Reviewed in “Attaining Self-Regulation: A social cognitive perspective” by B. J. Zimmerman, 2000, *Handbook of Self-Regulation*, p. 15.

According to Zimmerman (2000), behavioral self-regulation refers to self-observing and controlling one’s performance. Environmental self-regulation is based on the observation and adjustment of elements of a certain environment. And covert self-regulation, finally, is related to observation, monitoring, and adjustments of a person’s own processes and beliefs - which involves adjusting affect, as well (Zimmerman, 2000).

During the three phases of self-regulated learning - forethought, performance, and self-reflection -, learners make adjustments in order to enhance their current learning efforts. Those adjustments happen because of the existing interaction between personal, environmental, and behavioral factors that change throughout the process (Zimmerman, 2000). For example, we can imagine that a learner received a low grade on a test (environmental cue). They will interpret this score as a result of their performance (behavioral aspect), which will influence their self-efficacy beliefs (person). From this, the learner can set a new goal (person) based on the previously mentioned environmental cue.

The choice for approaching the socio-cognitive theory in this study relies on the fact that it considers that a cyclical interaction happens between a person, their behavior, and the environment in which they learn. These factors will relate to each other based on a feedback loop - in this study, the feedback will be connected closely with feedback provided from assessment tasks. This study will also consider two types of learning environments - one being the traditional classroom setting before the pandemic, and the other being online learning installed during it.

According to Zimmerman (2000), the social cognitive theory differentiates from other theories of SRL due to its perception that self-regulation is not an innate trait, but a combination of cyclical processes that include self, social, and environmental aspects. Correspondingly, Schunk (2001) states that according to the social-cognitive theory's framework, self-regulation is not a natural trait, but context and situation dependent.

Considering the stated relevance of personal, environmental, and behavioral factors on the self-regulated learning process, as well as the significant role played by self-efficacy beliefs and emotions in learning, it is important to analyze the nature of motivational beliefs and emotions more in-depth.

1.1.3 Motivational Beliefs in Self-Regulated Learning

Motivation is an important aspect in all phases of Zimmerman's SRL model, explored priorly in this thesis. Motivational beliefs guide goal-setting in the forethought phase, indicate how much effort will be put into the performance phase, and also occur during the reflection phase, in which a person will react to their experiences in the learning process (Zimmerman, 2011). These reflections, in turn, will influence the forethought phase for other learning situations (Zimmerman, 2011). According to Zimmerman and Schunk (2008), motivation can have

different roles in the SRL process: a precursor, mediator, collateral outcomes of SRL, and primary outcomes of self-regulatory efforts.

Motivational beliefs are those that a self-regulated learner possesses of their own initiative, perseverance, and adaptiveness in a learning situation (Zimmerman, 2011). As noticed in Panadero (2017)'s review of different proposed models of SRL, motivation is a key component that is present in all of the analyzed models. According to Zimmerman (2011), high motivation is advantageous for students to self-regulate their learning for a variety of factors: it increases students' attention to their learning processes, as well as their choice of task, the effort to learn, and persistence.

Learning in a self-regulated context can be challenging for a learner for a variety of reasons. Among those reasons, Zimmerman and Moylan (2009) mention not having enough knowledge about how to proceed when learning, difficulty to evaluate the quality of the learning process, insufficient incentivizing factors, and the existence of more appealing activities - such as watching television or spending time on the internet instead of studying. These can undermine a learner's motivation to remain focused on the learning task.

On the other hand, there are factors that can determine and support a learner's motivation levels, such as self-efficacy, goal orientation, interest, and causal attributions (Zimmerman & Schunk, 2008). The source of motivational aspects can also be of intrinsic or extrinsic nature. Lens and Vanteenkiste (2008) state that a student who sets intrinsic goals instead of extrinsic ones is likely to enhance their learning. According to the authors, *intrinsic goals* are associated with one's satisfaction in its own rights (personal growth, for instance). *Extrinsic goals*, contrastingly, are oriented toward external satisfaction (e.g., receiving someone else's approval). Accordingly, Reeve et al. (2008) describe intrinsic motivation as "one source of students' autonomous self-regulation" (Reeve et al., 2008, p. 233). The authors state that intrinsic motivation nourishes students' engagement and learning. They also point out that external events in the classroom (such as a teacher giving feedback to students), when supporting learners' autonomy development, had positive outcomes on intrinsic motivation.

1.1.4 The Role of Emotions in Self-Regulated Learning

Rosenberg (1998) defines emotions as "psychophysiological changes that result from a response to a meaningful situation in one's environment" (Rosenberg, 1998, p. 250). According to Gross (2014), emotions have a cyclical aspect over the situation that originated them:

when a situation arises, it evokes a response. The emotional response, in turn, can change the initial situation.

Pekrun et al. (2002)'s defines academic emotions as those that relate to academic learning, classroom instruction, and academic achievement. Their research found that academic emotions are closely connected to aspects such as students' motivation, learning strategies, and self-regulation, and also predict academic achievement (Pekrun et al., 2002).

Emotions influence goals and actions once activated (Boekaerts, 2011). Emotions will have an impact on all cognitive processes, such as attention and decision-making (Frijda, 1988, as cited in Boekaerts, 2011). Positive or negative feelings towards a task will determine, along with cognitive information, how much effort will be put into a certain learning task (Boekaerts, 2011).

Positive emotions will likely align with a learner's good judgment of their performance, whereas negative emotions can coincide with bad judgment (Boekaerts, 2011). If a student encounters a learning situation that is perceived as a challenge and a threat to their wellbeing, they will experience negative emotions as a response (Boekaerts, 2011). It is also a possibility that a student may firstly feel engaged in a task, but later lose confidence or interest in the task, triggering negative emotions (Boekaerts, 2011). Boekaerts and Pekrun (2016) state that positive emotions are more favorable for self-regulation, whereas negative emotions can lead learners to rely on external assistance. Gross (1998) states that in order to influence their emotional experiences and the expression of emotions, individuals can engage in *emotion regulation*.

“emotion regulation refers to the capacity to *understand* one's own emotions and their expression, as well as to the capacity to bring order by modifying or tempering aspects of the emotional experience, when it interferes with the pursuit of important goals and with social interaction” (Boekaerts, 2011, p. 415).

According to Järvenoja et. al (2013), in a situation where the personal main goal is learning-oriented, the regulation of emotions occurs in order to monitor and maintain conditions that are favorable for motivation and engagement in the task. There are diverse strategies for learners to regulate emotions, and students implicitly hold theories about their emotion regulation and have the chance to put them to the test and figure out what outcomes a certain strategy may have (Boekaerts, 2011). Schunk and Usher (2017) state that although emotions are

more outstanding during the self-reflection phase of the SRL cycle, they are present and influence all phases of the learning process. According to Zimmerman and Schunk (2008), SRL strategies can work as means to decrease adverse emotional responses.

In a nutshell, emotional and motivational aspects are crucial for SRL throughout all its process. Considering that those can be affected by environmental aspects and that the Social-Cognitive view of SRL considers learning happens through constant feedback loops, it is relevant to explore the relationship between external feedback and self-regulated learning.

1.1.5 External Feedback and Self-Regulated Learning

Feedback is, in the words of Shermis and Di Vesta (2011), “a critical part of formative assessment” (p. 84), and works as a means to inform students about their performance, and the teachers about the effectiveness of teaching techniques. The authors define it as a way to understand reasons for successful learning experiences, as well as errors that might have been made along the way. In this thesis, the focus will rely on feedback provided to students specifically.

During the monitoring phase of the learning process, students can generate internal feedback. Butler and Winne (1995) describe internal feedback as the one related to the learners’ perceptions of task outcomes and the processes that lead to such outcomes. However, as pointed out by Butler and Winne (1995), studies related to feedback have focused mainly on external feedback, that is, feedback provided by a source other than the student themselves. The feedback from external sources can be incidental - through interactions with the environment, other students, or teachers -, or deliberately originated by teachers (Butler & Winne, 1995).

As stated by van der Kreij (2016), feedback allows students to narrow the gap between what they already know and what they aim to know. Butler and Winne (1995) mention that feedback can confirm or challenge a student’s perception of a task. The change in this understanding can then foster self-regulation. Moreover, Schunk (2001) highlights that feedback for effort in prior successful learning situations nurtures motivation and self-efficacy beliefs. Wolters, Benzon, and Arroyo-Giner (2011) point out that feedback can also positively impact students’ use of regulation strategies. Furthermore, by receiving feedback, learners can set more reasonable goals and monitor them adequately, as well as evaluate their progress or need to adopt different strategies (Shermis & Di Vesta, 2011).

Getting feedback can evoke different reactions from learners. van der Kreij (2016) mentions the possibilities of the student (a) accepting feedback and incorporating it into future learning, (b) ignoring the feedback, or (c) negotiating feedback, that is, only taking into consideration some part of the teacher's considerations (Stobart, 2008). Moylan (2013) notes that students with poor academic achievement can perceive feedback as punishment, and states that teachers can support students to learn how to see feedback as a positive and constructive experience.

Considering that external feedback can be deliberately provided by teachers (Butler & Winne, 1995), the next section of this study will be dedicated to describing assessment, considering that as a source of feedback given to students in the context of formal education.

1.2 Assessment

Shermis and Di Vesta (2011) define *classroom assessment* as a procedure to collect information about the learning outcomes of students, as well as to provide stakeholders with information about the learning process. Dunn et al. (2004) stress that assessment is integral to teaching and learning. Harlen (2005) emphasizes that assessment can be used to help students in their learning processes, providing them with information concerning their progress until a certain point and where to continue from there. Harlen (2005) also states that information regarding students' learning can be acquired through either self-assessment or external feedback.

1.2.1 Types of assessments

In order to understand the different assessment practices mentioned in the scope of this study, it is important to understand the nature of different types of assessment. Therefore, the following section is dedicated to exploring aspects of *summative assessment* - or *assessment of learning* -, and *formative assessment* - or *assessment for learning*.

2.2.1.1 Summative assessment

Summative assessments are the ones in which a student has their performance evaluated in a *sum* of their learning tasks. They are, therefore, a reflection of what students have learned in a designated amount of time (Shermis & Di Vesta, 2011). A task of summative nature can't be repeated (Dunn et al., 2004).

Mandinach & Lash (2016) point out that summative methods of assessment can serve as a way to identify students who haven't achieved a desirable amount of knowledge or skills, but these methods are not able to identify the reasons behind it. Siarova et al. (2017) state that summative methods are related to extrinsic motivation (e.g., obtaining good grades). There are different possible negative impacts summative assessment can have on learners' motivation, such as the development of test anxiety and the lowering of a student's self-esteem due to grading (Harlen, 2005).

Regardless of what was explored above, summative assessments can be used to fulfill diverse objectives. Harlen (2005) mentions a few examples, such as the use of internal tracking of students' performances at a school, and as a way to keep students, parents, and teachers informed of learning achievements. Shermis and Di Vesta (2011) state that all stakeholders hold a certain level of interest in results presented from summative forms of assessment. Shepard (2006) points out that studying for summative assessment can still provide the learner with an important learning experience, as the studying process can support the building of expertise.

2.2.1.2 Formative assessment

Shermis and Di Vesta (2011), when describing formative assessment, state that it is not based on being an "end" product, but works as construction over time to understand how the learning is proceeding and how instruction can be improved. Dunn et al. (2004) state that the main goal of formative assessment is to provide learners with the possibility to "identify their own strengths and weaknesses in terms of current knowledge and skills" (Dunn et al. 2004, p. 18). According to Black and Wiliam (2009), classroom practices are formative when the information about student achievement is used by teachers and learners to improve the next steps of a learning process. Correspondingly, Sadler (1989) had pointed out that formative assessment regards the way in which the quality of students' performances in different tasks can be utilized to enhance the students' learning. Therefore, formative assessment can be perceived as a way to support the learning process in different spheres (van der Kreij, 2016). Hence the proposed correspondence with the term assessment *for* learning.

Mandinach and Lash (2016) argue that formative scenarios are supplied with different assessment methods and a learner-centered approach to feedback. Sadler (1989) describes feedback as essential to formative assessment, and the environment should have constant feedback

loops. The author also states that the teacher should indicate how the performances can be improved. Likewise, Harlen (2005) affirms that not only the students' performances should be present in reports, but also suggestions on how to strengthen their future performances.

Research conducted by the OECD's Centre for Educational Research and Innovation found that formative assessment is related to better academic achievement. It was also found that in formative settings, students are more actively involved in their learning process, and, supported by teachers, they can develop skills that enhance their learning (OECD, 2005). Assessment for learning can also help students to define what they intend to learn, how they can keep track of the learning, and how to proceed from there. Therefore, assessment can support students in self-regulated learning practices (Panadero et al., 2018).

2.2.1.3 The formative use of summative assessments

While there is a distinction between summative and formative assessment, they are not necessarily exclusive ways of assessing, but can actually coexist (Bennett, 2011; van der Kreij, 2016). van der Kreij (2016) explores the difference between the *function* of assessments - the way in which they take place - and the *purpose* of assessments - based on what goals they aim to fulfill. For example, if a student needs to write an essay in order to pass a course, that is a summative assessment, based on its function. But if the teacher provides feedback concerning how the student could improve their essay and thus support their learning, that is of formative purpose. The purpose can also present itself as both summative and formative, if, for example, the information collected through an assessment of formative function is used to measure the students' performances at a school. It will, however, not stop serving a formative purpose if it is also used to improve students' learning (van der Kreij, 2016).

Black et al. (2004) affirm that summative tests can be done in such a way that they can be turned into a positive part of the learning process. If students are actively involved in the assessment process, they can start perceiving themselves not as victims of testing, but as beneficiaries of it since summative tests can also assist them in becoming better learners (Black et al., 2004).

Considering that technology has been playing an increasing part in education over the past decades and that schools have been altering some practices due to their access to technology (Yates et al., 2020), the next section will be dedicated to exploring assessment in online learning environments.

1.2.2 Assessment in online environments

Technology has been playing an increasing part in education over time. Access to online learning environments, digital devices, and the internet have been reshaping education in schools (Selwyn et al., 2017, as cited in Yates et al., 2020). According to Dunn et al. (2004), online learning environments can provide learners with more possibilities for interaction and collaboration. They state that online learning has caused new forms of assessment to rise; however, not all teachers and learners will necessarily have a smooth transition to using online forms of assessment (Dunn et al., 2004).

Information and Communication Technologies have made not only communication and interaction easier but also assessment administration (Dunn et al., 2004). The authors mention that the use of technologies can assist formative assessment to provide constructive and consistent feedback to improve students' performance. Mandinach and Lash (2016) point out that new technologies also provide flexibility in the elaboration and delivery of assessment tasks, as well as collect high-quality information about students' knowledge. Similarly, Shermis and Di Vesta (2011) mention the use of technology as a way to gather reliable information concerning students' learning.

According to Vonderwell and Boboc (2013), in order to grasp the potential of technology and to effectively monitor how students are learning, teachers need to identify which assessment methods are effective in online environments. The authors also mention that a variety of methods is needed, and the teachers should be mindful that the duration of an assessment method can impact student motivation and engagement. According to Herron and Wright (2006), online learning environments can have teachers switching from traditional forms of assessment - as used in face-to-face classrooms - to non-traditional ways, such as analyzing participant engagement and interaction between students and instructors.

Among possible assessment methods that are suitable for online learning, Conrad and Openo (2018) mention E-portfolios, online journals, project-based learning, and group work as methods to make learners engage with the learning materials and assess them in a meaningful way. Likewise, Gaytan and McEwen (2007) found that students and teachers perceived portfolios and projects as effective assessment methods, as well as self-assessment, peer-assessment, assignments with immediate feedback, tests, and asynchronous discussions. Arend

(2007), by analyzing sixty online courses among different study fields offered by one university, found that online assessment methods can be of either summative or formative nature, the most common ones being online discussions, exams, and written assignments.

In 2020, the Covid-19 outbreak generated a pandemic (World Health Organization (WHO), 2020). As a response to the spread of the virus, educational institutions were closed in numerous countries (Viner et al., 2020), and in order to adapt to the new situation, schools resorted to online learning (Panadero et al., 2022). Considering that this study focuses on the context of assessment during the Covid-19 pandemic, it is pivotal to analyze how online assessment occurred during that time.

1.2.3 Assessment during the pandemic

On March 12th, 2020, the World Health Organization (WHO) proclaimed the Covid-19 outbreak to be a pandemic. In order to contain the spread of the virus, several countries instituted school closures by the end of March 2020 (Viner et al., 2020). Many institutions opted for online forms of teaching and learning, which were implemented in a short time (Panadero et al., 2022) and were a significant change for both teachers and students (Pokhrel & Chhetri, 2021).

In the context of the pandemic, González et al. (2020) suggest that dealing with a scenario that was never experienced before can work as a motivating factor for learners and that the fear of missing the academic year can bring students a sense of intrinsic responsibility to which they have to respond to. However, the authors also state that different learners can have a variety of responses to this situation - or a combination of responses -, and can find motivation in different aspects. (González et al., 2020).

Students' responses to emergency online learning can, however, be emotionally negative. Not being in school and having to spend most of their learning time online can be damaging to students since they miss out on social interaction (Pokhrel and Chhetri, 2021). Yates et al. (2020)'s research found that a majority of students preferred attending a school environment over online learning due to the familiarity with the space, as well as the interaction with teachers and fellow students. The research also found that a significant part of the students struggled with remaining motivated with online learning (Yates et al., 2020).

Assessment, in the quick switch to online learning during the pandemic, was carried out within a scenario of uncertainty and caused teachers and students to experience confusion

with the new situation (Pokhrel and Chhetri, 2021). The ways of conducting assessments in the sudden scenario of emergency online learning varied according to factors such as teachers' expertise, learners' compatibility, and convenience for educators and learners (Pokhrel & Chhetri, 2021). The change to online assessment is described by the authors as "trial and error". Aligned with that, Panadero et al. (2022) found that teachers often had negative views of the impact of the emergency online learning implementation on assessment. Teachers' lack of time to prepare affected their work and forced them to adjust their assessment practices and criteria (Panadero et al., 2022).

In terms of students' perceptions, Burns et al. (2020) state that the uncertainty involving assessment can cause anxiety in students. Moreover, they point out that unfamiliar forms of assessment may make students concerned about the new methods' capability of accurately capturing their learning. These factors have a negative impact on students' overall wellbeing (Burns, et al., 2020). When it comes to positive aspects, Gopal et al.'s (2021) study noted that instructor quality, content alignment with students' expectations, quality of course design, and delivery of feedback were the main factors that positively impacted student satisfaction with online learning and assessments during the pandemic.

In summary, the emergency online learning situation evoked diverse reactions from students regarding their motivation and emotions related to learning. The previous sections also explored that different forms of assessment can also impact those factors in the learning process. Therefore, it is pertinent to understand how assessment relates to students' motivation and emotions.

1.2.4 Assessment and Motivation

Harlen (2006) describes assessment as one of the main factors that impact motivation. According to the author, the learners' motivation can be increased if teachers make it clear that the purpose of an assessment is to promote learning. Brookhart (1997) highlights that different students face tasks with varied levels of self-efficacy, effort, and consequently achievement. Vaessen et al. (2016) state that assessment can have impacts - either good or bad - on students' motivation and self-efficacy beliefs.

According to Vaessen et al. (2016), graded assessments can make students see grades as a reward or punishment for their performance - and that will then control their engagement with a task. In that situation, students will be moved by the fact that they need to obtain a certain

reward or escape from a penalization, and will therefore engage in the task based on external factors instead of their own interest. Brookhart (1997) points out that assessment tasks that are meaningful to students - the ones that they see some utility in and, therefore, have interest in - influence the effort they put into said tasks and enhance their achievement. The author also states that by deeply involving students in assessment practices, teachers can make learners perceive more trust and responsibility being deposited on them, which can in turn make them more engaged.

Different learners can, however, be motivated by different aspects - in research conducted with children from 7 to 12 years old, Thorkildsen, Nolen, and Fournier (1994) found that while certain groups of kids valued meaningful activities and effort for further learning, other group favored external rewards. Pryor and Torrance (1998), by analyzing Dweck (1989)'s work, suggest that motivation is tied to goals of different natures. The authors divide them into *performance goals* and *learning goals*. Performance goals are connected to receiving good judgments - or avoiding bad judgments - from external sources. Learning goals are more closely connected to the ones that intend to enhance understanding of something new.

By analyzing Evans and Engelberg's (1988) work, Harlen and Crick (2010) found that students who were given a certain grade without fully understanding the grading system experienced feelings of hopelessness. It was also found that higher achieving students tend to perceive grades as fair more than low achieving students, who also tended to protect their self-esteem by connecting failure to external factors.

As stated previously, goal-setting, self-efficacy, and the construction of causal relationships between controllable processes and outcomes, as well as self-satisfaction, are key components in maintaining motivation levels during the SRL cycle (Zimmerman, 2002). Therefore, it is critical that those processes are supported for learners to be able to implement SRL. Harlen and Crick (2010) suggest that negative impacts on student motivation can be diminished by a few factors, such as using diverse forms of assessment that do not necessarily rely on testing, as well as emphasizing the building of learning goals instead of performance goals.

1.2.5 Assessment and Emotions

Bandura (1997) states that academic activities are often surrounded by elements that can be emotionally perturbing - such as the pressure that students feel coming from their families', teachers', peers', and their own expectations. As students get older, their academic performance can start to determine their future life path (Bandura, 1997; Pekrun et al., 2004). Spangler et al. (2002) state that the fact that exams can determine chances to access further education causes psychological stress in students, and likewise, Pekrun et al. (2004) point out that exams can provoke intense emotional experiences for the same reasons.

Describing the causes of test and exam anxiety, Zeidner (2014) recognizes that there are possible multiple causes that vary according to each student, such as the pressure from counterparts, parents, and teachers, as well as the possibility of learners being highly motivated not to fail, poor studying habits, perceived low ability, or perfectionism and desire to obtain perfect scores (Zeidner, 2014).

Spangler et al. (2002) describe tests and exams as critical stressful situations that students frequently experience. According to the authors, those forms of assessment activate different emotions and physiological reactions in learners, who in turn find different ways to cope with the arousal of emotions they are experiencing. Schutz et al. (2014) mention Pekrun et al. (2004)'s distinction between different emotional episodes associated with testing. They can be (a) positive activating, such as enjoyment of a task or hope to succeed; (b) positive deactivating, such as relief after finishing a test; (c) negative activating, like anxiety before a test or shame of failing; and (d) negative deactivating, such as hopelessness when a task seems difficult or sadness about the outcome. In their research, Spangler et al. (2002) found that different emotions emerge and play different roles during exams. Negative emotions were more prominent before the exam happened, and positive emotions started to rise during the exam-taking. It was found that certain coping mechanisms could help students to regulate their negative emotions and their stress levels.

Regarding online assessment specifically, Stowell et al. (2012) had students complete quizzes in online and classroom settings, along with an assessment of their emotions before and after taking the quizzes. They found that students who had higher levels of anxiety in the classroom also demonstrated high anxiety with the online modality. Meanwhile, students who experienced low levels of anxiety in the classroom setting presented higher levels of test anxiety online.

According to Riegel and Evans (2021), emotions are entangled with students' learning and achievement. Schutz et al. (2014) state that emotion and emotion regulation can emerge in any of the three phases that constitute Zimmerman's (2002) SRL model. During the self-reflection phase, the regulation of emotions is based on students' performance and on what they attribute their performance to (Weiner, 2007, as cited in Schutz et al., 2014). This attribution will then define the choice of strategies, as well as the amount of effort, that will be employed in future learning situations. If the performance is attributed to controllable causes, the SRL process may be facilitated (Schutz et al., 2014).

While the role of emotions in learning is very relevant, most studies rely only on test anxiety (Boekaerts & Pekrun, 2016). Although there is research about emotions and assessment, they are limited to the extent in which they don't explore students' emotions in online assessment or a comparison between emotions triggered by different forms of assessment (Riegel & Evans, 2021). It is, therefore, notable that there is still a research gap regarding the link between diverse forms of assessment and students' emotions, as well as online assessments and emotions.

3. Aims and Research Questions

This study aims to explore how students who were in their last four years of school during the Covid-19 pandemic perceive their experience with assessment practices before and during the implementation of emergency online learning. The focus relies on understanding the perceived differences between assessment practices, students' reactions and emotional responses to them, and how these have differed from in-person and online assessments. In order to achieve these aims, a qualitative analysis was carried out in order to answer the following proposed research questions:

1. What kind of assessment practices do students describe when it comes to online learning?
2. What were students' studying habits toward assessment before and after the pandemic started?
3. What kind of effect did feedback in online learning have on students' experiences?
4. Did assessment in online learning impact students' emotions and motivation? If so, how?

4. Research Methods

3.1 Participants and context

For this study, the initial aim was to interview participants who were in secondary school during the year 2020, since this was the year when the pandemic outbreak took place and consequently led to schools' adoption of online learning (Viner et al., 2020). The choice for secondary school students relied on the fact that adolescents are more emotionally vulnerable to academic requirements (AlAzzam et al., 2021) and still learning how to cope with challenging emotional situations (Crone & Dahl, 2021). However, as secondary school can have different durations in different countries, it was decided that this study would consist of interviews with students who were in their last four years of basic education. Since students in these years are closer to completing basic education, they need to make decisions on their future life paths and comprehend that it will be influenced by their academic performances thus far (Bandura, 1997; Perkun et al., 2004).

While twenty-one people expressed interest in being interviewed, only ten agreed to provide their consent. Therefore, ten interviews were conducted for this study. Participants were found through personal contacts, social media, and snowball sampling. The sample consisted of students who were in different countries when the outbreak of the Covid-19 pandemic caused the closing of schools, and all of them experienced emergency online learning during the year 2020. The countries where students attended school in 2020 are as follows (Table 1):

Table 1.

Distribution of participants per country

Country	Number of participants
Brazil	6
Finland	2
Italy	1
China	1

3.2 Data collection procedure

The data collection for this study consisted of semi-structured in-depth interviews, due to the fact that they are a versatile and reliable method of data collection (Kallio, 2016). In-depth interviewing also allows the researcher to get an insight into interviewees' experiences and the meanings they took from them and therefore gives access not only to what behaviors interviewees had but also what is the meaning behind them (Seidman, 1991). Interviewing is a way to understand educational issues through the lens of those who compose it (Seidman, 1991). Semi-structured interviews are those in which the researcher can add questions as the interview progresses, according to participants' answers - this can supply the researcher with information about interviewees' perspectives and opinions as well as experiences (Peters & Halcomb, 2015).

Before the interviews, participants were asked to read the privacy and confidentiality note. The document stated that all the interviews would be pseudonymized and would not be transferred to third parties. After reading the note, participants signed a consent form allowing their voices to be recorded and, in the case of online interviews, their video to be recorded as well. The consent form also informed participants that they could retreat from the study at any point without suffering any kind of consequences. The interviews were conducted after participants provided consent and signed the form. To ensure pseudonymization, participants were given numbers to be cited in the results section of the study.

Three of the interviews were conducted in person, while the remaining seven were done via Microsoft Teams meetings. The initial questions were separated into two blocks: one asking about participants' experiences with assessments before the pandemic, and the other one asking about their experience with online assessments during the pandemic. Since the interviews were semi-structured, new questions emerged in each of the two blocks as the participants spoke. The average interview time was of 23 minutes.

3.3 Data analysis procedure

The present study's interviews were analyzed through qualitative content analysis, a commonly used approach for textual data (Hsieh & Shannon, 2005). Firstly, the interviews were transcribed, and the transcriptions were fully read several times. From that point, an inductive approach was used, with codes emerging from the data set, identifying the main points of interest in it. Then, they were organized into categories and later, into themes. In this process,

different codes are observed to verify how they can become an overarching theme (Braun & Clarke, 2006). Next, a coding scheme is created in order to guide the analysis of the content (Hsieh & Shannon, 2005).

Since different codes emerged and eventually generated different themes to be analyzed in order to answer to the research questions, four different coding schemes were developed in this study (see Appendices B, C, & D), along with their respective main categories:

1. Coding scheme 1: Assessment practices

Main categories: Exams and tests; Online assessment tools; Online exam rules; Other assessment practices.

2. Coding scheme 2: Learning strategies (see Appendix B)

Main categories for “Before the pandemic”: Learning strategies; Time management.

Main categories for “During the pandemic”: Learning strategies; Avoidance; Difficulties to study; Adaptation strategies.

3. Coding scheme 3: Feedback (see Appendix C)

Main categories: Type of feedback; Amount of feedback; Emotional responses to feedback; Practical responses to feedback; Perceptions on feedback.

4. Coding scheme 4: Students’ perceptions of assessment (see Appendix D)

Main categories: Expectations on online learning; Motivation levels and sources; Emotional responses; Difficulties.

Each of the coding schemes were divided into *main category*, *subcategory*, and *examples*, the latter being extracted from the interviews directly. As an example, the organization coding scheme 1 – Assessment practices (see Table 2) is as below:

Table 2.

Coding scheme 1. Assessment Practices

MAIN CATEGORY	SUBCATEGORY	EXAMPLE
EXAMS AND TESTS	Online exams/tests	"I guess interestingly enough, nothing changed in early. They kept on assessing us based on tests, but now they were done online, most of the time."
	Online multiple-choice tests	"They were all multiple choice, I think during the whole pandemic, I probably answered like one written out question. Or two. Like, I do not... remember actually answering written out questions, so they were mostly multiple choice, which is easier to cheat on."
	Summative assessments	"So, we kind of just received like a grade for that and there was really nothing said about it. It was just “alright, here is your number. Go do whatever”."

ONLINE ASSESSMENT TOOLS	Google Forms	"Well, Google Forms. Like, my last school used to do... I think all of our tests would be on Google Forms. Yeah, I can't... I can't really think of anything else."
	Microsoft Teams	"So, obviously you have assignments on Microsoft Teams and you do them and there's an amount of score that they give you, like 30 out of 40, something like that."
	Other assessment tools	"We would have to have the camera on and then they would send us the PDF for the exam. And if it was Physics, Math, and Chinese, we would have to write everything down and then take a picture at the end of like, I don't know, about like an hour. We had to take a picture and send them to the teacher. If it was English or Geography or History, we would have... they would send the PDF and we would have only have to type the answers and also just send the PDF after like an hour."
ONLINE EXAM RULES	Time frame	"In the beginning, we had two days to do it [the exam]. Like, two whole days, and then we had one day like... later by the end of the year, we had one day. But still, like, we could do it anytime of the day."
	Rules to avoid dishonest academic practices	"And the tests were like... we would all log into Zoom, right? And turn our cameras on and turn our microphones off. So, whatever we were doing outside... as long as we didn't move our mouths, or like, look out... They wouldn't really know we were doing anything."
OTHER ASSESSMENT PRACTICES	Presentations Graded assignments Essays	"And that... some classes went for presentations instead, so it was better, I guess. For presentations, you had time to prepare beforehand, and it was just not an interrogation. Hm... So, I guess that changed. It was more oral presentations, like, with PowerPoint, for instance."

Coding scheme 3 (Feedback) also counted with a deductive approach for analysis, through which codes are derived from a pre-existing theoretical framework (Fereday & Muir-Cochrane, 2006). This was the case for codes such as the ones listed under the theme “*practical responses to feedback*” (see Table 3), which were developed from previous theory concerning students’ possible reactions to feedback (Stobart, 2008; van der Kreij, 2016).

Table 3.

Use of deductive coding

MAIN CATEGORY	SUBCATEGORY	EXAMPLE
	Ignoring feedback	"Like... when teachers say something to me that I find is stupid, like, “that’s pointless. Why would you say that? You’re just making me feel bad”. I... I would get really sarcastic and kind of mock them, and I feel like that weakens my relationship with the teachers."

PRACTICAL RESPONSES TO FEEDBACK	Accepting and incorporating feedback	"Hm, my feedback was negative, so [I would feel] not so good, so I would overthink about it. Hm, but at least I had time to like, look at my errors and see, "oh, okay. I should not do it next time". Cause whenever we had that in class, we didn't always... they didn't give us enough time for that. And instead of... we weren't allowed to take it home, of course, cause it was an official document, so we just had a look at it for ten minutes and then like (claps hands), "okay, done with. Back". Yeah."
	Accepting, but not incorporating feedback	"I felt really bad because I knew that if I... I, you know, put effort in it, then I was going to have a good grade on that task. So like, good grade overall, and I would actually deserve those grades. But at the same time, I just didn't care because it was like... a year, and there was no way that I would get back on track. Yeah."

3.4 Validity, Reliability and Ethical Considerations

The present study was conducted in accordance with the Finnish Advisory Board on Research Integrity (TENK, 2019). Prior to the conduction of interviews, participants were asked to read information about the purpose of the study, as well as the privacy notice concerning confidentiality and anonymity. The participants were also asked to read, fill, and sign a consent form for data collection, which authorized the recording of their interviews. The form also reassured that all the data would be accordingly pseudonymized, the data would be handled confidentially, and that participants were able to withdraw from the study at any point without any consequences.

In qualitative research, using methods that ensure the accuracy of the recorded data and of the interpretations as logical and replicable is crucial for the increase of a study's reliability and validity (Franklin et al., 2010). In the present study, a series of steps were taken to ensure its reliability and validity. First of all, right after transcribing the interviews, the accuracy of the interviews' recordings and the transcription was checked thoroughly. In sequence, the interview transcriptions were fully read several times. Next, initial coding schemes were created. The coding of the data was done again a few times in order to assure the existence of stability in the analysis - the data was consistently re-coded and led to closely similar coding schemes. High stability is an indicator of high reliability, showing that results are possible of being repeated and replicable (Golafshani, 2003).

5. Results

4.1 RQ1. What kind of assessment practices do students describe when it comes to online learning?

All 10 interviewees reported taking online exams or tests during the pandemic. While some didn't get into details about the structure of such assessment methods, others reported on the tests and exams being constituted mostly by multiple choice questions. This can be seen in one participant's description:

"They were all multiple choice, I think during the whole pandemic, I probably answered like one written out question. Or two. Like, I do not... remember actually answering written out questions, so they were mostly multiple choice, which is easier to cheat on." (Participant 5)

While it wasn't conclusive if students experienced summative assessment, formative assessment, or the formative use of summative assessment, two participants' speeches expressed that their assessments were of summative nature. When referring to the feedback received from assessment tasks, participant 6 states that it consisted of *"Just my grades. And that's it, point. Blank. Period"*. Participant 7 describes a similar experience:

"So, we kind of just received like a grade for that and there was really nothing said about it. It was just "alright, here is your number. Go do whatever"." (Participant 7)

When it comes to the online assessment tools that were used, an expressive number of participants reported using Google Forms. One participant noted that their assessment was done in graded assignments via Microsoft Teams. Other situations were also reported, with one participant noting that different subjects used different tools.

"We would have to have the camera on and then they would send us the PDF for the exam. And if it was Physics, Math, and Chinese, we would have to write everything down and then take a picture at the end of like, I don't know, about like an hour. We had to take a picture and send them to the teacher. If it was English or Geography or History, we would have... they would send the PDF and we would only have to type the answers and also just send the PDF after like an hour." (Participant 8)

Concerning rules on how online tests and exams worked, students pointed out mainly the time frames and the rules imposed in order to avoid engagement in dishonest academic practices. When it comes to the time frame, different rules were applied. The difference can be observed in participants 4 and 9's descriptions, respectively:

"In the beginning, we had two days to do it [the exam]. Like, two whole days, and then we had one day like... later by the end of the year, we had one day. But still, like, we could do it any time of the day." (Participant 4)

"I had a limit time. It was like, 8 in the morning, like, 8 AM, until like, 10 AM. So, I had like 2 hours to do the assessment." (Participant 9)

In terms of rules to avoid dishonest academic practices, students describe a few different practices. Some rules were related to confirming that a student did, in fact, try to achieve the answer, as noted:

"And we, you know, they were all multiple choice, and like there was no way to prove whether we did that or whether we googled it, you know? So they started... like, "oh, you need to write it on a piece of paper in like, blue ink..." like, it was very specific. And you had to write your name on top of it, and you had to do... you had to put, like, the calculation. And we had to take a picture of it and we had to send it to the forms. And we had to like, put it in the forms and it was... it was very complicated." (Participant 3)

Other rules implied on students being visible to teachers, that is, turning cameras on in online meetings while the test/exam was being carried out. This is also described by another participant:

"And the tests were like... we would all log into Zoom, right? And turn our cameras on and turn our microphones off. So, whatever we were doing outside... as long as we didn't move our mouths, or like, look out... They wouldn't really know we were doing anything." (Participant 6)

Apart from online tests and exams, three students reported experiencing other forms of assessment: participant 2 mentioned being assessed by doing presentations; participant 7 mentioned doing graded schoolwork apart from tests; and participant 8 indicated having assessed essays.

4.2 RQ2. What were students' studying habits toward assessment before and after the pandemic started?

4.2.1 Before the pandemic

When reflecting on studying before the pandemic, students described the use of different learning strategies used before assessment tasks. The most prevalent ones were reading and writing, doing practice exercises, watching YouTube videos, and verbalizing content. When it comes to reading/writing practices, participant 1, for example, describes using textbooks as their main form of studying due to finding that technology was distracting:

"I would take the class, and like, literally paper notes all the time. I like to bring textbooks with me to school. Because like, personally, for me, at least before, computers were really distracting. Like, I didn't like technology, 'cause I tend to like, goof off easily. That's why I only need pen, paper, and textbooks." (Participant 1)

Participant 3 has a similar description, but favors writing on top of reading due to their perception of the learning material:

"By the books that the school would give us, you know? And also by the notes that I took during class. The teachers would write on the board, and I would copy it. And I always preferred to study what they wrote instead of what was in the books, cause in the books there was too much information." (Participant 3)

A significant amount of participants noted that different subjects required different learning strategies. The use of practice exercises, for example, was reported in some specific subjects, as noticed in participants 5 and 8's speeches:

"I think like Math and Physics, I like to do exercises because it helps me fixate the subject in my head, but I think they're the ones that's just this." (Participant 5)

"I used to study doing the exercises that were on the book, because I think that for those subjects, we need to practice more. So usually doing exercises and practicing on paper too." (Participant 8)

Some participants also described the use of YouTube videos to study. Participant 7, for example, mentions using those videos as their main source of content to study for Mathematics:

"Well, in Math... at least I did this in later stages in secondary school. There was... everybody, all students in Finland know of this YouTube channel called Matikkamat-skut, it's this one guy named Ville and he basically just explains everything about any math course better than any teacher can. So that's about everyone's main resource for studying Math. Yeah, I don't think I even opened the books. I just listened to him."

(Participant 7)

As to verbalization of content, participants expressed speaking out loud and/or teaching the studied content to other students as a form of learning and studying. Participant 5 notes that this made their learning more effective:

"I also like to like, teach my friends. I learn something and I like to tell my friends about it. So, I feel like I'm learning more when I'm telling them." (Participant 5)

When describing their studying habits pre-pandemic, participants also mentioned their time management to prepare for assessment. Some of the participants tell of their different reserved preparation times for an assessment task. Participant 3 mentioned that *"the day before I would usually spend the whole day just studying and I would do a summary"*, while participant 10 pointed out that *"before the pandemic, I used to study for all my tests, study hard, like, 2 weeks before it started"*. Participant 2 noted that the amount of study content impacted the amount of preparation time they reserved for an assessment task:

"I would just study a bit in the night. I would try to study day by day, as we go through stuff, but it would just come up to be too much stuff to be learned during the afternoons after school. So most of the time, three days prior I would start preparing for the test." (Participant 2)

A few of the participants also described their use of time management strategies to study, with participant 1 mentioning making use of the Pomodoro Method. Participant 8 acknowledges that they managed their studying time based on their experiences with different subjects:

"Usually for Math and Physics, I knew that I needed to study in the beginning of the afternoon. For example, if I study and if I go to school in the morning, then I'm gonna be studying in the afternoon. They have to be the first subject, because if I'm already tired, I'm not gonna study for them." (Participant 8)

4.2.2 During the pandemic

When describing studying habits during the pandemic, some participants mentioned still making use of learning strategies such as reading and writing, as noted in participant 7's saying that "*not much really changed... like, the books were still with me. I studied by reading the books*". Participant 8 also points out that they made use of these strategies:

"I would try to pay attention, and after class I would write everything down that I learned. During class, I would type, and then after it I would write everything down to see what I learned and what I would like to get a little bit better in and study a little bit more." (Participant 8)

The other learning strategy that was common to pre-pandemic and during the pandemic was the use of YouTube videos, as noted by participant 5:

"It was mostly just Internet searching and watching videos. Yet watching videos I think was the thing that I did the most, like... And not even like school videos, like YouTube videos of a certain subject." (Participant 5).

While the use of practice exercises and verbalization of content were not pointed out by any participants when it comes to their studying habits during the pandemic, a new theme emerged in participants' speeches: the avoidance of studying for assessment tasks, as described by participants 4 and 10:

"I didn't really study for it (laughs). I tried to do in the beginning. I tried to, but it was really hard, because like, it was really hard for me to study knowing that it didn't matter what I do, like... it doesn't matter what I do, because I'm going to get the answers with someone else and then... my brain just turns off." (Participant 4)

"In the pandemic, I thought "oh I didn't have... I don't have to study that hard to get a good grade, so I will not study", and I was still getting a good grade." (Participant 10)

Some of the participants went on to explain why they would avoid studying for assessments, narrating their reliance on dishonest academic practices, explanation noted in participants 3 and 6's discourses:

"I remember I, like, tried to study because I, like... I remember I got a History book, because History was the first test, and it was like, kind of... I just couldn't like, care. Because I was like, "I'm just gonna cheat". " (Participant 3)

"I didn't [study]. We would all cheat collectively. So, my grades were the best ever. I would ace everything, cause all my knowledge came from Google." (Participant 6)

Being at home during emergency online learning also required students to make a few adaptations to their studying habits, such as noted by participants 4 and 8's reported attempts to find a suitable place to study:

"I mean, I have two sisters and my parents. Everyone was at home working or studying, so it was like, a mess. And I just had to find my little space that wasn't always quiet enough or calm enough to actually do what I had to do, so." (Participant 4)

"So even though we would have like, I would have my own room to study, and like, technically it was silent, but my parents were home. So I would hear them, I would get distracted really easily." (Participant 8)

Participants also acknowledged that emergency online learning caused new difficulties to study to emerge. Among these, participants described having difficulties with online content, difficulties focusing, and tiredness. These three elements can be found in participants 7 and 8's discourses:

"I generally just don't do well with studying, like, digitally. Like, I have digital books for some of my courses, and it's just a lot harder, like... I find it much easier to focus when I'm reading through a book in my hands rather than one that's on my monitor, especially when I can... any second I want to, I can click a new tab and go mess around because my attention span is not that good." (Participant 7)

"We would have to do everything online and I hate to read books and study through online books. So I would just like, open my notebook and write everything down. And it was also way more tiring than just studying in a normal day." (Participant 8)

Online studying also caused students to engage in new learning practices. Participant 1, for example, pointed out their adaptation to online studying content for some subjects:

"I still used pen and paper. For Mathematics, I used pen and paper, but for other subjects, like, you know, English, languages and stuff, that only required typing, you know, writing, I just used... I switched to computer." (Participant 1)

In terms of time management, participant 8 also reports on their need to make adaptations in order to study for online assessments:

"Because we were at home and it's like, the whole day, I would try to sit down and go at least for two hours and study, even though it was way too... it was way more tiring than it is now. I would try to do that every day, and also having a routine was really important. But sometimes I would just like, watch class in bed, because I didn't want to get up in the morning and that was like, really bad. But after a few months, I started having a routine, and like, doing that at the same time every day." (Participant 8)

Also related to studying habits during the pandemic, two of the participants pointed out that while they didn't study for assessment tasks, they engaged more in non-school learning practices:

"I tried to keep myself busy, but not exactly with traditional studying. You know, I usually... I read a lot and I continued to read a lot during the pandemic. So, it was a way for me to have contact with language, and Portuguese, and all of this... even History. But traditional studying, knowledge, just... I didn't really care." (Participant 4)

"Because not having to go to school just gave me so much more time to explore myself and my own interests in like, what I want to do and so. For example, whenever I would actually have to be logged in on Zoom and my mom wouldn't be hovering on me to make sure that I was watching it, I would just open up another tab and go on YouTube, and like, look up a bunch of stuff. And that's how I found out that I'm actually really interested in fashion, for example, and that's what I'm going to school for now." (Participant 6)

4.3 RQ3. What kind of effect did feedback in online learning have on students' experiences?

In order to understand the effect that feedback in online learning had on students, it is first relevant to know what was the type of feedback that students received. Participants mainly described two types: the use of grades as feedback, and feedback on their use of dishonest academic practices. The first can be noticed in participants 1 and 2's statements:

"To be honest, I think my grades dropped a little bit. Like, based on before. That was the only feedback." (Participant 1)

"Same thing as like, the normal in-person classes. Write down what you did wrong, and the grade. There you go. I mean, you could look at it and be like, "okay, sure",

but like, during online classes we had more time to look at it, cause it was sent by email, so we would have time to have a look at it and actually think about what I did wrong. So that was a plus, I guess." (Participant 2)

Receiving feedback on their use of dishonest academic practices was noted by participants 3 and 9:

"And I remember on the third period the teacher gave me a zero on all the three questions that we had to write due to cheating. You know? So it was like, I remember, it was worth like 40% of the overall grade, that test. And he gave me a zero and all of that. And I remember I was really mad, and then I didn't say anything. But I remember my friends were like, "oh, why did I get zero here? Like I know, like I said this, you know, correctly, you know, the answer is correct. I don't understand what I did wrong". And the teacher was like, "you cheated". And it was like... very humiliating because he said that, like, in front of the whole class, and yeah." (Participant 3)

"They usually were that we weren't doing our best, and we needed to do the homework, the assessments, like, right, without cheating or getting the answers in Google, those things." (Participant 9)

The amount of feedback received by participants was also changed when compared to before the pandemic. The majority of participants perceived feedback to be scarcer during online learning, as exemplified by participants 3 and 6:

"No, they didn't really give feedback at all. It's because... all my teachers are very old, so they didn't really know how to use technology, so I think they didn't really know how to give feedback like, online (laughs)." (Participant 3)

"It just didn't matter because none of the teachers knew us and we didn't know any of the teachers, so it was just like they couldn't really speak on our learning or on our behavior, because they didn't really see it." (Participant 6)

Meanwhile, two of the participants reported that they got more feedback in online learning than before:

"I think that because we were online, and most of the teachers were also home, they would try to give us like, more papers and more exercises to do than tests. So it's like they were more focused, you know, more focused on giving us feedback, and see what we would have to do... like, different types of assessments. So we could learn from a

different way. So, they were trying to innovate with more creativity, so that was like, they were actually trying to get us to learn something, because they knew that most of us weren't paying attention at all to the classes." (Participant 8)

"Yeah, a lot more than before, usually, like... They usually were that we weren't doing our best, and we needed to do the homework, the assessments, like, right, without cheating or getting the answers in Google, those things." (Participant 9)

The effect of feedback on students' online learning experiences can be mainly divided into two themes: emotional responses to feedback and practical responses to feedback. In regard to the first one, we can divide participants' experiences into negative feelings and positive feelings. In terms of negative feelings, those can be perceived among different participants' speeches, for instance in participant 1's description of their emotions:

"[Emotions gotten from feedback] definitely depressed (laughs). Something like that. It's like, depression... anxiousness... but also tired. It was like, not good emotionally." (Participant 1)

Participants 4 and 6 explained that their experience with feedback in online learning felt impersonal, which impacted their emotions related to it:

"I felt kind of lost, because we didn't actually know if we were doing the correct thing, you know, and we couldn't even see the teacher. And sometimes it felt like we were having a robot teaching us things, because... It was really weird and it's something, like... we've always been used to having personal contact to our professors, and then all of a sudden it just stops. So it was like, really bad, I guess, for everyone." (Participant 4)

"It was just again, very lonely and unmotivating, cause... I didn't... There wasn't really like, this pressure to be... Like, you know. It wasn't... It was just very impersonal. It just felt like I was like, a robot working in a factory and like, doing my job and nobody cared, you know?" (Participant 6)

When it comes to positive feelings, participant 8 reports having positive emotions related to the attention received by teachers and the increased amount of feedback during online learning:

"[I felt] Really good, because some of them... they would... like, I think that they were caring more for the assessments done online than when we were in class, because we were home. So, we needed a little bit more of attention. So, they would go through it and give us better feedback, because... And it's also like, way easier to read assessments when they're done online, and it's easier and quicker. So I think that's also like... when they would read and go "oh no, this paragraph is not that good, so you need to change this, and change that". So the feedback used to be a little bit better, if you know what I mean. So yeah, the thing is that the feedback was like, better than when we were in person, in school." (Participant 8)

In regard to practical responses to feedback in online learning, three behaviors were reported among participants: ignoring feedback, accepting and incorporating feedback, and accepting but not incorporating feedback. The practice of ignoring feedback was reported by participants 7 and 9:

"I feel like in online school, the communication was in almost all senses very one-sided. I'd do a task, they'd give me feedback, and I'd be like "yeah, ok, sure, whatever". I don't remember anything about any of the feedback I got from them. I don't think... like, it was not normal practice for me to respond to the feedback in the first place." (Participant 7)

"Honestly, I didn't care about it. Like, I didn't do anything to get another feedback. I was like, very... I wasn't caring that much. It was bad, but I... I didn't want to do anything to like, get better, you know? I tried... I stayed away from the work." (Participant 9)

Meanwhile, the response that consisted in accepting and incorporating feedback was found in participants 2, 6, and 8's speeches. As an example, participant 6 describes their experience:

"I think it helped me find a new way to study that was maybe like... more productive. Because the teachers, some teachers would tell me that I would waste a lot of time trying to gather information that wasn't the central aspect of what I had to learn, like, I was trying to focus on details that weren't really that important unless you actually learn the main things. So, the teachers told me that and I was like, "damn, you're right". So I started trying to like... find what the main thing is, focusing on that, and then going towards the details, you know?" (Participant 6)

Lastly, the response of accepting but not incorporating feedback was observed exclusively in participant 3's report:

"I felt really bad because I knew that if I... I, you know, put effort in it, then I was going to have a good grade on that task. So like, good grade overall, and I would actually deserve those grades. But at the same time, I just didn't care because it was like... a year, and there was no way that I would get back on track. Yeah." (Participant 3)

In terms of students' perceptions of feedback in online learning, two of the participants shared that they started to value receiving feedback on their learning more than they did previously:

"Yeah, I think I value it more now. Like, in-person school. I love when my teachers talk to me or like, tell me how "I didn't like this or like this" or try to help me. Because in the pandemic I missed a lot of that. So yeah, I think I value it more, like, nowadays." (Participant 5)

*"Because now I actually take it as like... They're [teachers] worried about me, like, they see me. And they're not just like, up my ***."* (Participant 6)

4.4 RQ4. Did assessment in online learning impact students' emotions and motivation? If so, how?

When describing their feelings toward assessment in online learning, eight out of the ten interviewees stated their expectations of online learning did not correspond to the reality of it. Those expectations and their breakage represent some of the first emotions experienced by participants, as described:

"I felt... I felt relieved for a second. I thought it would be a good thing, because you're just, like, in the comfort of your home. You have all the time in the world. But then I realized it's just so unmotivating, and it's just so lonely, and... It feels... not human." (Participant 6)

The emotional responses varied according to the participant. Positive emotions over online assessments were reported by two participants, as shown by participant 2:

"Online, hm. I guess I felt very relaxed, as in I didn't feel the pressure to memorize everything, cause I knew that just in case, like... Also, they were being more lenient on the grades during that time. So I didn't need to memorize everything to be able to get the, hm, the passing grade. Hm... and also having the spreadsheet made me feel safe, I guess. Hm, so... more relaxed, safer in general..." (Participant 2)

Meanwhile, most interviewees expressed that they had negative feelings when it comes to assessment during online learning.

"Okay, honestly, it was such... It was so bad (laughs). Like, when we switched, I thought that everything would be okay, cause there's more flexibility, but I just wasn't used to it. Like, I couldn't really concentrate, to be honest, cause I was, like, I studied in my room, and it's not like a working environment for me at school. So it was... yeah. I didn't feel comfortable." (Participant 1)

"I think... With the news, and the moment that we were having... I started feeling very anxious, and I wasn't motivated to do anything. I just wanted to stay in my house, you know, stay in my room and do nothing." (Participant 9)

When it comes to the participants' perception of their motivation, their discourses could be divided into two main areas: motivation levels and motivation sources. When it comes to motivation levels, it was observed that none of the participants reported having higher motivation during online learning, although some of them did report having high levels of motivation pre-pandemic or post-online learning. However, nine out of the ten participants reported having lower levels of motivation during online learning, as exemplified below:

"I didn't feel anything at all, like, I was like, "oh, we have 48 hours to do the test". You know, I remember I, like, tried to study because I, like... I remember I got a History book, cause History was the first test, and it was like, kind of... I just couldn't care. Because I was like, "I'm just gonna cheat". We have 48 hours for that test. 48 hours. It's, like, way more time than I had last year to study. Like, seriously, you know. So I was not motivated at all." (Participant 3)

"I felt... Like there was no point. I don't know, like, online assessments... just felt pointless at some point because I didn't know when school was coming back or if it was coming back. And they made it so like these multiple choices, and having two days to do it, and not having to write so much. I don't know, it just felt pointless." (Participant 5)

"In the beginning, it was weird, because I got out of bed, like, at 6:30 AM, and then seat at my chair, turn on my PC, and my teacher is on my screen. And I wasn't used to it... So like, I was lazy. Yeah. And I used to get lazy at school, sleep on the table, but this time I was literally at home. So I just turned my camera off and lay in bed. That was weird, because in the beginning, I would try hard. I tried hard. But I was getting lazier because they were not... getting the best out of me. Demanding the best out of me." (Participant 10)

In terms of their motivation sources for assessment in online learning, students' descriptions could be divided into performance goals and learning goals. Performance goals were observed more often, and are exemplified as follows:

"I just had to do it, cause I don't want to like, fail, or like, repeat an exam. So I just sucked it up and hit it." (Participant 1)

"I did try, and... I guess... hm, same for validation, I guess. And also because I was like, "oh, hm, I want to go to university and I might need to get a scholarship, and really high grades to be able to get a scholarship". So that was, I guess, you know, the fuel (laughs)." (Participant 2)

Learning goals, although less frequent, were still described by some of the participants, as shown:

"But yeah, I think maybe the YouTube videos helped a lot because some of the content creators were like... making good content and I was feeling like I was actually learning something, so maybe that made me a little more motivated, but I think that's just it." (Participant 5)

"Because, again, just interests... like I was very interested... I am very interested in like, Biology, and History, and Geography, especially with all that's going on in the world. I was really interested in Geography. I was like, "ok, I need to pay attention to this, cause like, politics and stuff". So I was like, listening to it..." (Participant 6)

When speaking about their motivation and emotions, participants often described the difficulties and obstacles they faced with assessment in online learning, and the impact they had on their motivation levels and emotions. The most commonly disclosed ones were isolation,

external concerns, tiredness, and concentration issues. When it comes to isolation, participants 1 and 6 describe it as follows:

"I guess I'm sensitive to human connection. Like, it's nice to have an actual space where you can see every... I don't know, you can see the professors, you can ask for help easily... online, it just feels like, superficial somehow." (Participant 1)

"I feel like at school, when you actually go to school, there's the motivation of, like, seeing your friends and seeing people and having that... That social aspect. It makes you want to go to school, but when you don't have that... It was just pointless. Another obligation that just felt literally so boring." (Participant 6)

External concerns were associated with concerns about the Covid-19 pandemic, and were expressed exclusively by participants who were studying in Brazil:

"We had so much going on with our families and, I mean, some friends who had sick relatives, and... We had so much to think about that studying was a little thing, not important." (Participant 4)

*"Like, there's a worldwide pandemic going on. It didn't feel important at that time to be learning about random stuff. Like a ball falling down a table and why the ****? What's the velocity of it? Like, we didn't care. There are more important things to care about at that point, and there was also like, no motivation." (Participant 6)*

Tiredness was also widely reported, and participants were able to trace how it affected their motivation:

"I think I... I felt really tired. Like, I tried to study and then I was just way too tired. So definitely like... it tired me way more than it used to. And even with subjects I enjoyed, it was, it wasn't really... It wasn't the same, you know, it wasn't as good as it used to be." (Participant 4)

"So, my motivation was like, very low. But I would try, because we were at home and it's like, the whole day I would try to sit down and go at least for two hours and study, even though it was way too... it was way more tiring than it is now. I would try to do that every day, and also having a routine was really important. But sometimes I would just like, watch class in bed, because I didn't want to get up in the morning and that was like, really bad." (Participant 8)

Lastly, concentration issues were also noted as a difficulty for motivation:

"We usually just got the answers from someone else. Which wasn't exactly good for our learning, but it was the way we could go through the year without having to do it again because everyone was having so much trouble in studying, like... concentrating. So maybe... I felt weird. It was a weird feeling." (Participant 4)

"So, I tried to watch the video lessons, I really did, but I just couldn't, cause every time that I wouldn't understand something, I would just pause it and then get distracted. Or try to go back and listen to it again, and I would just like... zone out." (Participant 6)

Another factor that participants noted as an obstacle to their motivation was the possibility to engage in dishonest academic practices. Participant 4 describes this connection:

"I didn't care enough to do it. If we're like in the middle... like, we're in the middle of a room where we're doing the exam and there is no one watching us. So, it doesn't matter. You can just Google the answer or you can ask your friends and no one will know. So it's like my brain acknowledges it and it doesn't care if I study or not because it knows I will do it. Like, it knows I can search, right? I can search during the exam. And so I literally don't have enough motivation to study, like, I can't. I try to and then... my brain just turns off. I can't." (Participant 4)

Another aspect that emerged from the interviews was the fact that, while several participants reported feeling confident about assessments before the pandemic, none of them reported feeling more confident in the online context. In fact, participant 7 noted that *"I did not feel much more confident. Like, I feel like even less than normal school"*.

A few of the participants also mentioned their experiences with learning and assessment post-online learning. Participants 3, 6, 8, 9, and 10 shared their necessity to catch up with their learning in order to perform well in school and/or enter university, as exemplified:

"I still had one more year of high school after the pandemic and it was completely in person. And I can... I definitely feel like there was a change. There was a switch in like, the way I studied and the way I paid attention, and the way I was trying to learn. Because I just put a lot less pressure on myself to memorize. And I was actually trying to learn. Because I knew that like... the teachers were doing it, they had a purpose in doing it, and I think before that I wasn't really mature enough to realize that." (Participant 6)

"So, I got used, overtime, again, like we used to do it before. So, after like, 2 weeks, I was writing, being myself again, and being motivated, and actually wanting to study so I could get somewhere in life, and so I could have a good future. And this is my last year. So, I actually need to see if I want to go to university. So, if I want to get in, then of course I need to study. So, I got motivated again. So I can move on." (Participant 8)

Participants 3 and 5 were also able to show their reflection on their experience with online assessments as a whole, as seen below:

"So, I think it was a horrible experience, but it was also like a learning experience this year. You know, it's very sad that I had to learn through such a horrible thing, but I'm grateful that I learned nonetheless." (Participant 3)

"So, if anything happens, I know what is going to happen, and I feel like I could handle it. So yeah, in terms of like, Google Forms, they changed a lot the way that I see assessments. And I think it could be really good, my school just didn't know how to do it. But I think it's not ... it's not bad, like, the Google Forms." (Participant 5)

6. Discussion

The aim of this study was to explore and understand how students who were in their last four years of school during the Covid-19 pandemic perceive their experiences with assessment practices before and during the implementation of emergency online learning. In this section, the results are discussed based on research questions, tying the findings to previously existing literature.

5.1 Assessment practices

Firstly, as previously stated in the results of the present study, it wasn't possible to draw conclusions regarding summative or formative assessments being the most frequently used. While some participants did point out characteristics of summative assessment when describing their experiences, it is not possible to affirm that those assessments did not possess a formative purpose. However, considering that most participants described having scarcer feedback from their teachers, it is hinted that most of their experiences were of summative nature in both function and purpose, as described by van der Kreij (2016).

While Dunn et al. (2004) point out that new forms of assessment can rise in online learning, and Gaytan and McEwen (2007) and Conrad and Openo (2018) bring up different means of assessing students, such as E-portfolios and online journals, most of the participants in the present study described experiencing similar practices to what they did before switching to online learning. The use of online exams and graded online assignments, present in the results of this study, had, however, been a part of Arend's (2007) findings regarding the most common forms of assessment in online learning courses.

The use of assessment practices that were common to before the pandemic might be a reflection of teachers' necessity to adjust extremely quickly to the context of emergency online learning. Dunn et al. (2004) and Wonderwall and Boboc (2013) have already indicated that teachers' transition to assessing in online contexts could not be smooth and required the identification of effective methods in order to maintain students' motivation and engagement. Considering that, in 2020, teachers had to change their practices in a short time frame (Pokhrel & Chhetri, 2021; Panadero et al., 2022), the quick adjustment - or lack of time to adjust - could be a predictor that the practices would not change and adapt to online learning

needs immediately. In turn, most of the adaptations seem to have been done to avoid students' participation in dishonest academic practices.

5.2 Studying habits before and during the pandemic

While some of the participants' studying habits remained the same after the pandemic started, in the case of reading and writing, and watching YouTube videos, others were changed. The use of practice exercises, which were commonly reported as being used in subjects such as Mathematics or Physics, was no longer mentioned. The same happened to the verbalization of content.

When taking a closer look at studying habits before the pandemic, it is also possible to notice that students engaged in the processes of self-control and self-observation explained by Zimmerman (2002): they applied methods and strategies that were selected previously and monitored and adapted their habits according to their performance. This can be noticed by participants' descriptions of what their learning strategies were, as well as their time management strategies. When mentioning, for example, selecting the adequate time to study for a specific subject due to the amount of effort it will take, and choosing learning strategies that are most adequate for each subject, participant 8 is taking into consideration personal, environmental, and behavioral factors, as described by Zimmerman (2000). They are also taking a step considered crucial for motivation maintenance (Panadero & Alonso-Tapia, 2014).

When it comes to studying during the pandemic, the scenario suffers some differences. First of all, while the learning strategies of practice exercises and verbalization of content were no longer reported, new points emerged, such as difficulties that were particular to the context of emergency online learning. The need to adapt to online content, the new schedule, and being at home forced students to make some changes, such as starting to use online learning material or finding a place where they could study without interruptions or distractions. Other challenges mentioned, such as difficulties to focus and tiredness, also required students to adjust their learning strategies. In this case, it is noticeable that some of the students were still engaging in monitoring their learning, just in a new scenario.

On the other hand, a part of students started to avoid studying for assessment tasks. This reflects that learners had a defensive reaction instead of an adaptive one, that is, they gave up on efforts to learn instead of trying to improve their learning process' effectiveness (Zimmerman, 2002). This was due, mostly, to the fact that students lacked the motivation to study

since they could engage in dishonest academic practices. Motivation is a key element in navigating all phases of the SRL process (Zimmerman, 2011). In the case of participants' descriptions in the present study, it is noticeable that students did not have enough incentivizing factors, which were pointed out as a possible undermining factor for learners' motivation by Zimmerman and Moylan (2009). Students perceived assessment as a means to obtain a reward (e.g., a good grade) or escape from penalization (e.g., a bad grade), and their engagement in assessment tasks was, therefore, controlled by external factors instead of internal interest to learn, which meets what was previously stated in Vaessen et al. (2016).

It was also interesting to notice that a couple of participants mentioned that while they were not invested in studying for assessments, they were engaging in learning outside-of-school content out of personal interest. Zimmerman and Schunk (2008) pointed out that interest is a supporting factor for motivation, and Reeve et al. (2008) also indicated that intrinsic motivation fosters students' engagement. This could indicate that students are not averse to learning in general, but that they are being driven mostly by extrinsic factors when it comes to assessments.

5.3 The role of feedback in online learning experiences

The results of the present study indicate that most of the participants perceived their received feedback during the pandemic to be consisted of basically grades and information about the teachers being aware of dishonest academic practices students were involved in. The fact that most students perceived that they received less feedback in online learning than they did before goes against Sadler's (1989) suggestion that the learning environment should have constant feedback loops. Both Sadler (1989) and Harlen (2005) point out that feedback on students' performances should include not only a grade, but also suggestions on how to improve their future attempts, but this was rarely noticed by students.

Some of the participants pointed out that feedback in online learning evoked negative emotions, while one participant said they experienced positive emotions as a reaction to feedback. It is interesting to notice that while participants 4 and 6 described having negative emotions related to feedback due to it being impersonal and lacking, participant 8 describes experiencing positive emotions because their feedback was more directed and detailed. Participant

8's description aligns with the fact that Black et al. (2004) pointed out: when students feel involved in the assessment process, they tend to perceive themselves as beneficiaries of an assessment task, instead of a victim of it.

In terms of students' practical responses to feedback, the majority of participants' descriptions were aligned with the possible reactions described by van der Kreij (2016), when analyzing Stobart (2008)'s work: a part of the participants mentioned accepting and incorporating the feedback received, while others reported ignoring feedback, and only one participant described the practice of accepting, but not incorporating feedback. In this case, it is likely that participants who accepted and incorporated the feedback in future learning were able to set more reasonable goals and monitor them adequately, as suggested by Shermis and Di Vesta (2011).

In hindsight, participants also recognized the importance of feedback for their learning, with participants 5 and 6 stating that they value teacher feedback more nowadays. Some participants acknowledged that the context of emergency online learning brought new obstacles for teacher feedback, but still expressed feelings of dissatisfaction with the kind of feedback they got from their assessments – which indicates that they did care for and value receiving it.

5.4 The impact of online assessments on students' motivation and emotions

Many of the participants in this study described having expectations on how online learning would be for them, assuming it would give them more time to study or that they would feel motivated to study at home. This meets González et al. (2020)'s suggestion that the new, never-before-experienced scenario could be perceived as a motivating factor by learners. However, those expectations were broken for most of the participants. The learners did show, though, different responses to the situation, as was also pointed out by González et al. (2020).

Participants pointed out that different challenges for their learning emerged. While it had already been mentioned by Bandura (1997) that academic activities already tend to be surrounded by elements that impact students' emotions, assessment in emergency online learning brings a whole new set of challenges and difficulties particular to this context. Participants in this study commonly shared some of them and the impact that they had on their emotions while learning and/or engaging in assessment tasks, bringing out mostly negative emotions. This meets Boekaerts' (2011) idea that learning situations that are perceived as threats to a learner's wellbeing will evoke negative emotions as a response.

While the present study did not focus on test anxiety, it is interesting to observe that Zeidner (2014) recognized external pressure, motivation not to fail, and desire to obtain good grades as factors that cause said test anxiety, since these factors were brought up by students in the present study when they talked about what motivated them to study for assessments, and *anxiety* was also a feeling pointed out by some participants when describing their emotions with online assessment. However, in the present study, many of the participants pointed out that they relied on dishonest academic practices in order to perform well in exams and tests. Given the fact that obtaining a good grade by doing so could remove the motivation not to fail, or the external and internal pressure for good marks, feelings of test anxiety might have been diminished. This could be noticed in participant 2's interview, since they described experiencing test anxiety before the pandemic, but had positive emotions in the context of online assessments. The participant also links their feeling of relaxation to the fact that teachers were being lenient with grades, and to the fact that they had a spreadsheet with information that could be checked during a test or exam. Therefore, while findings such as Stowell et al. (2012) regarding test anxiety acting differently in the context of online exams are still relevant for the understanding of students' emotions regarding online assessment, they do not take into account the effects of the possibility of students using dishonest academic practices on tests/exams and the impacts these practices may have on test anxiety and/or other emotions.

In terms of motivation, the findings of this study align with the ones of Yates et al. (2020), which had found that students struggled to remain motivated with online learning during the pandemic. The fact that some participants described thinking that assessment felt "pointless" and that they did not put the effort into studying can relate to Brookhart's (1997) idea that assessment tasks that feel meaningful to students are the ones in which they will put more effort. However, as none of the participants reported having higher motivation with online assessments when compared to their previous experience, it is likely that students did not perceive their assessment tasks to be meaningful.

As González et al. (2020) noticed, students could find motivation in diverse aspects during emergency online learning. Both performance goals and learning goals (Dweck, 1989; Pryor & Torrance, 1998) were found in participants' descriptions, although performance goals - of extrinsic nature - were more widely reported. The existence of performance goals and learning goals, however, was not exclusive and could vary according to subject. As Lens and Vateenkiste (2008) observed that students with intrinsic goals are more likely to enhance their

learning, only a few of the participants are probable to have done so, and as observed, in specific subjects.

A finding that emerged and turned out to be interesting was the one related to students' confidence in their performance in assessment tasks. While some participants did report feeling confident before the pandemic started, none of them described gaining confidence with online assessments. This could also be a factor that influenced their engagement with said assessments since Bandura (1997) brought up that self-efficacy beliefs are a crucial factor for the effort that will be put into a task and how a student will face challenges that emerge along the task.

The participants who described their experiences with learning and assessment after emergency online learning was over were also able to explore what their goals were past that period. It was noticed that students presented both performance goals and learning goals. In terms of their performance goals, they commonly mentioned studying to catch up and obtain good grades, and also to enter university and move on with their academic lives. Considering these students have finished or were about to finish their basic education by the time this study was conducted, it is possible to observe a correspondence of their intense emotional experiences with the descriptions of Bandura (1997), Spangler et al. (2002), and Pekrun et al. (2004)'s studies that regarded that the possibility to access to further education and preoccupation with future life paths had a big impact on students' emotional experiences related to assessment. These students, however, were also affected by the experience of emergency online learning and had a bigger combination of challenges that impacted their wellbeing, emotions, and motivation, which in turn impacted their experiences with assessment in a wider context when compared to students who did not undergo the same circumstances.

7. Conclusions, Limitations, and Future Implications

This study attempted to explore the experiences of students who were in their last four years of basic education with online assessment implemented in the context of online learning during the Covid-19 pandemic through qualitative analysis. Firstly, I identified what were the most commonly used online assessment practices. Secondly, I examined a comparison between students' studying habits before and during the pandemic. In third place, I found what was the effect that feedback had on students' experiences with assessment. Finally, I explored what were the main impacts that assessment in online learning had on students' emotions and motivation.

Overall, participants perceived that they were mostly assessed by exams and tests, and that teachers did not make extensive adaptations to their assessment practices apart from adjusting to an online platform and adopting rules to avoid the use of dishonest academic practices. While students had different learning strategies to study for assessment before the pandemic - which could vary according to subject -, some of these strategies were not commonly reported as used during the pandemic. Instead, some students started to avoid studying, partly due to the possibility of relying on the use of dishonest academic practices during assessments. Some of the participants also perceived that they faced new challenges to study, and consequently, the need to make adaptations to their studying habits. In terms of feedback, participants mainly received grades, and most of them perceived receiving less feedback than they did before the pandemic. Students reacted differently to feedback, with most experiencing negative emotions related to it and seeing it as impersonal. Moreover, results showed that students perceived that some specific challenges that emerged during emergency online learning affected their emotions and motivation toward assessment. Participants reportedly held initial positive expectations on how their experiences with online learning would be, which were then broken. After that, negative emotions related to assessment were the most frequent ones. Students' motivation also became significantly lower, even if they perceived themselves as highly motivated before the pandemic. Participants were mainly driven by performance goals, with some presenting learning goals depending on the subject. After the online period was over, participants continued mostly driven by performance goals in terms of assessment, in order to improve their academic performances that were impacted by the online learning period.

This study does, however, include limitations. Firstly, although there were attempts to conduct several other interviews, only ten participants agreed to conduct the interviews. Therefore, the sample size is very limited, and thus results cannot be generalized. The fact that most of the participants were studying in the same country during the pandemic limited the diversity of the study; considering some countries had to rely on online learning for longer than others, the length of it could also have an impact on participants' experiences. Lastly, the data analysis was conducted by one single coder. To avoid bias, the coding was repeatedly conducted and reviewed. For future studies, the sample size could be extended and diversified.

In spite of the limitations, this study was able to elucidate how students in their last four years of basic education were impacted by online assessments in the context of online learning during the Covid-19 pandemic. It provides insight into what were the most commonly experienced assessment practices and their impact on participants' studying habits. It also sheds light on how online assessment practices and feedback received during the pandemic affected students' emotions and motivation. While there is no prediction on whether emergency online learning will be implemented again, the results can give teachers and instructors insight into the effectiveness of online assessments for learning and their impact on student wellbeing.

To better understand and expand the implications of this study, future research could address the long-term impact of students' experiences with online assessment during the pandemic on their further learning experiences. While this study can contribute to addressing a gap in research related to both online assessment and students' emotions related to assessment other than test anxiety, considering there is still a gap in research concerning those elements, further research could also contribute to the enlargement and deepening of the scope of the topic of assessment.

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Appendices

Appendix A. Interview structure

- *Block 1. Before the pandemic*

1. What were the most common forms of assessment you experienced before the pandemic?
2. How did you study for assessment before moving to online learning?
3. How did you feel when studying for an assessment?
4. Did you get any feedback from your teachers? And how did that make you feel?
 - 4.1. And how did that make you feel?
5. Did you feel motivated to study?
 - 5.1. If so, how did you maintain that motivation?

- *Block 2. During the pandemic*

6. What were the most common forms of assessment you experienced during the pandemic?
7. How did you study for online assessments?
8. How did you feel when studying for online assessments?
9. Did you get any feedback from your teachers?
 - 9.1. And how did that make you feel?
10. Did you feel motivated to study online?
 - 10.1. If so, how did you maintain that motivation?
11. Do you think your experience with online studying has changed the way you feel about studying in general?
 - 11.1. If so, how?

Appendix B. Coding scheme 2. Learning strategies

Before the pandemic

<i>Main category</i>	<i>Subcategory</i>	<i>Examples</i>
Learning strategies	Reading/Writing	<i>"I would take the class, and like, literally paper notes all the time. I like to bring textbooks with me to school. Because like, personally, for me, at least before, computers were really distracting. Like, I didn't like technology, 'cause I tend to like, goof off easily. That's why I only need pen, paper, and textbooks."</i>
	Practice exercises	<i>"I think like Math and Physics, I like to do exercises because it helps me fixate the subject in my head, but I think they're the ones that's just this."</i>
	YouTube videos	<i>"Well, in Math... at least I did this in later stages in secondary school. There was ... everybody, all students in Finland know of this YouTube channel called Matikkamatskut, it's this one guy named Ville and he basically just explains everything about any math course better than any teacher can. So that's about everyone's main resource for studying Math. Yeah, I don't think I even opened the books. I just listened to him."</i>
	Verbalization of content	<i>"I also like to like, teach my friends. I learn something and I like to tell my friends about it. So, I feel like I'm learning more when I'm telling them."</i>
Time management	Exam/test preparation time	<i>"I would just study a bit in the night. I would try to study day by day, as we go through stuff, but it would just come up to be too much stuff to be learned during the afternoons after school. So most of the time, three days prior I would start preparing for the test."</i>
	Time management strategies	<i>"Usually for Math and Physics, I knew that I needed to study in the beginning of the afternoon. For example, if I study and if I go to school in the morning, then I'm gonna be studying in the afternoon. They have to be the first subject, because if I'm already tired, I'm not gonna study for them."</i>

During the pandemic

<i>Main category</i>	<i>Subcategory</i>	<i>Examples</i>
<i>Learning strategies</i>	Reading/writing	"I mean, not much really changed... like, the books were still with me. I studied by reading the books."
	YouTube videos	"It was mostly just Internet searching and watching videos. Yet watching videos I think was the thing that I did the most like... And not even like school videos, like YouTube videos of a certain subject."
<i>Avoidance</i>	Avoiding studying	"I didn't really study for it (laughs). I tried to do in the beginning. I tried to, but it was really hard, because like, it was really hard for me to study knowing that it didn't matter what I do, like... it doesn't matter what I do, because I'm going to get the answers with someone else and then... my brain just turns off."
	Reliance on dishonest academic practices	"I didn't [study]. We would all cheat collectively. So, my grades were the best ever. I would ace everything, cause all my knowledge came from Google."
<i>Difficulties to study</i>	Online content Difficulties to focus Tiredness	"In general, teaching and studying online is harder than it is doing on normal school. I generally just don't do well with studying, like, digitally. Like, I have digital books for some of my courses, and it's just a lot harder, like... I find it much easier to focus when I'm reading through a book in my hands rather than one that's on my monitor, especially when I can... any second I want to, I can click a new tab and go mess around because my attention span is not that good. " "We would have to do everything online and I hate to read books and study through online books. So I would just like, open my notebook and write everything down. And it was also way more tiring than just studying in a normal day."
<i>Adaptation strategies</i>	Study place selection	"I mean, I have two sisters and my parents. Everyone was at home working or studying, so it was like a mess. And I just had to find my little space that wasn't always quiet enough or calm enough to actually do what I had to do, so."
	Time management strategies	"But I would try, because we were at home and it's like, the whole day I would try to sit down and go at least for two hours and study, even though it was way too... it was way more tiring than it is now. I would try to do that every day, and also having a routine was really important. But sometimes I would just like, watch class in bed, because I didn't want to get up in the morning and that was like, really bad. But after a few months, I started having a routine, and like, doing that at the same time every day. "

Use of online content	<i>"I still used pen and paper. For Mathematics, I used pen and paper, but for other subjects, like, you know, English, languages and stuff, that only required typing, you know, writing, I just used... I switched to computer."</i>
Non-school learning	<i>"I tried to keep myself busy, but not exactly with traditional studying. You know, I usually... I read a lot and I continued to read a lot during the pandemic. So, it was a way for me to have contact with language, and Portuguese, and all of this... even History. But traditional studying, knowledge, just... I didn't really care."</i>

Appendix C. Coding scheme 3. Feedback

<i>Main category</i>	<i>Subcategory</i>	<i>Examples</i>
<i>Type of feedback</i>	Grades as feedback	<i>"Just my grades. And that's it, point. Blank. Period."</i>
	Feedback about dishonest academic practices	<i>"They usually were that we weren't doing our best, and we needed to do the homework, the assessments, like, right, without cheating or getting the answers in Google, those things."</i>
<i>Amount of feedback</i>	Scarce feedback	<i>"No, they didn't really give feedback at all. It's because... all my teachers are very old, so they didn't really know how to use technology, so I think they didn't really know how to give feedback like, online (laughs)."</i>
	More feedback than before	<i>"I think that because we were online, and most of the teachers were also home, they would try to give us like, more papers and more exercises to do than tests. So it's like they were more focused, you know, more focused on giving us feedback, and see what we would have to do... like, different types of assessments. So we could learn from a different way. So, they were trying to innovate with more creativity, so that was like, they were actually trying to get us to learn something, because they knew that most of us weren't paying attention at all to the classes."</i>
<i>Emotional responses to feedback</i>	Negative emotions	<i>"[Emotions gotten by the feedback] definitely depressed (laughs). Something like that. It's like, depression... anxiousness... but also tired. It was like, not good emotionally."</i>
	Positive emotions	<i>"[I felt] Really good, because some of them... they would... like, I think that they were caring more for the assessments done online then when we were in class, because we were home. So, we needed a little bit more of attention. So, they would go through it and give us better feedback, because... And it's also like, way easier to read assessments when they're done online, and it's easier and quicker. So I think that's also like... when they would read and go "oh no, this paragraph is not that good, so you need to change this, and change that". So the feedback used to be a little bit better, if you know what I mean. So yeah, the thing is that the feedback was like, better than when we were in person, in school."</i>
	Ignoring feedback	<i>"Like... when teachers say something to me that I find is stupid, like, "that's pointless. Why would you say that? You're just making me feel bad". I... I would get really sarcastic and kind of mock them, and I feel like that weakens my relationship with the teachers."</i>

<i>Practical responses to feedback</i>	Accepting and incorporating feedback	<i>"I think it helped me find a new way to study that was maybe like... more productive. Because the teachers, some teachers would tell me that I would waste a lot of time trying to gather information that wasn't the central aspect of what I had to learn, like, I was trying to focus on details that weren't really that important unless you actually learn the main things. So, the teachers told me that and I was like, "damn, you're right". So I started trying to like... find what the main thing is, focusing on that, and then going towards the details, you know?"</i>
	Accepting, but not incorporating feedback	<i>"I felt really bad because I knew that if I... I, you know, put effort in it, then I was going to have a good grade on that task. So like, good grade overall, and I would actually deserve those grades. But at the same time, I just didn't care because it was like... a year, and there was no way that I would get back on track. Yeah."</i>
<i>Perceptions on feedback</i>	Valorization of feedback	<i>"[Feelings about the lack of feedback] Terrible. I love... I love getting feedback and like I said, feeling like people are seeing what I'm doing and what I'm learning, so that was terrible. And made me feel really bad."</i>
	Distance from teachers	<i>"It just made me feel like it was very impersonal and like I really, really, really didn't matter. Like, it didn't even matter who I was, what I was doing, what I did, what I learned, what I didn't like. It just didn't matter because none of the teachers knew us and we didn't know any of the teachers, so it was just like they couldn't really speak on our learning or on our behavior, because they didn't really see it."</i>

Appendix D. Coding scheme 4. Students' perceptions of assessment

<i>Main category</i>	<i>Subcategory</i>	<i>Examples</i>
<i>Expectations on online learning</i>	Broken expectations	"I was actually really excited initially when I found out that like, everything was online, like, "yeah, I can finally have time to...", like, "I can save up the traveling time to go to school, and in that break time, I can manage my own schedule". So, yeah, I was excited. I thought that I could get a lot of work done, but it was the complete opposite."
<i>Motivation levels and sources</i>	Lower motivation	"I felt... Like there was no point. I don't know, like online assessments... just felt pointless at some point because I didn't know when school was coming back or if it was coming back. And they made it so like these multiple choices, and having two days to do it, and not having to write so much. I don't know, it just felt pointless."
	Performance goals	"I just had to do it, cause I don't want to like, fail, or like, repeat an exam. So I just sucked it up and hit it."
	Learning goals	"Because, again, just interests... like I was very interested... I am very interested in like, Biology, and History, and Geography, especially with all that's going on in the world. I was really interested in Geography. I was like, "ok, I need to pay attention to this, cause like, politics and stuff". So I was like, listening to it..."
<i>Emotional responses</i>	Positive	"Online, hm. I guess I felt very relaxed, as in I didn't feel the pressure to memorize everything, cause I knew that just in case, like... Also, they were being more lenient on the grades during that time. So I didn't need to memorize everything to be able to get the, hm, the passing grade. Hm... and also having the spreadsheet made me feel safe, I guess. Hm, so... more relaxed, safer in general..."
	Negative	"I think... With the news, and the moment that we were having... I started feeling very anxious, and I wasn't motivated to do anything. I just wanted to stay in my house, you know, stay in my room and do nothing."
<i>Difficulties</i>	Isolation	"I feel like at school, when you actually go to school, there's the motivation of, like, seeing your friends and seeing people and having that... That social aspect. It makes you want to go to school, but when you don't have that... It was just pointless. Another obligation that just felt literally so boring."
	External concerns	"We had so much going on with our families and, I mean, some friends who had sick relatives, and... We had so much to think about that studying was a little thing, not important."
	Tiredness	"I think I... I felt really tired. Like, I tried to study and then I was just way too tired. So definitely like... it tired me way more than it used to. And even with subjects I enjoyed, it was, it wasn't really... It wasn't the same, you know, it wasn't as good as it used to be."

Concentration issues	<i>"So, I tried to watch the video lessons, I really did, but I just couldn't, cause every time that I wouldn't understand something, I would just pause it and then get distracted. Or try to go back and listen to it again, and I would just like... zone out."</i>
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