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SLEEP QUALITY, LEARNER-INTERNAL VARIABLES AND FOREIGN LANGUAGE ENJOYMENT IN BRAZILIAN PREADOLESCENTS AND ADOLESCENTS

PORTO ALEGRE
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“There is no separation of mind and emotions; emotions, thinking, and learning are all linked.”

Eric Jensen

RESUMO

O presente estudo investigou a relação entre qualidade de sono, variáveis internas do aprendiz (idade, sexo, proficiência, frequência de uso do inglês e autopercepção de proficiência em comparação aos colegas) e *Foreign Language Enjoyment* (FLE), de 122 alunos, pré-adolescentes e adolescentes, que estudam Inglês como língua adicional em uma escola privada no sul do Brasil. Os participantes responderam um formulário online contendo a *Adolescent Sleep-Wake Scale* (LEBOURGEOIS *et al.,* 2005), um questionário de contexto de linguagem, e a *Foreign Language Enjoyment Scale* (DEWAELE; MACINTYRE, 2014). A análise de dados não revelou associação entre qualidade de sono e FLE, mas mostrou que pré-adolescentes e adolescentes demonstraram níveis similares de qualidade de sono. Participantes pré-adolescentes do sexo feminino pontuaram mais na escala FLE, resultado similar a estudos anteriores (DEWAELE; MACINTYRE, 2014; DEWAELE *et al*., 2016), no entanto, a diferença diminuiu quando se analisou o grupo de adolescentes. Proficiência, frequência de uso do inglês e autopercepção em comparação aos colegas também foram associadas a níveis mais altos de FLE. O presente estudo é uma tentativa de enfatizar a importância de investigar como outras variáveis, como qualidade de sono, idade, sexo, proficiência, frequência de uso do inglês e autopercepção de proficiência interagem com FLE.

Palavras-chave: Qualidade de sono. Variáveis Internas do Aprendiz. Foreign Language Enjoyment. Adolescentes.

ABSTRACT

The present study investigated the relationship between sleep quality, learner-internal variables (age, sex, proficiency, frequency of English use, and relative standing), and Foreign Language Enjoyment (FLE) in 122 students, preadolescents and adolescents, who study English as an Additional Language (EAL) at a private school in the south of Brazil. Participants answered an online form containing the Adolescent Sleep-Wake Scale (LEBOURGEOIS *et al.,* 2005), a language background questionnaire, and the Foreign Language Enjoyment Scale (DEWAELE; MACINTYRE, 2014). The analysis did not reveal an association between sleep quality and FLE, but it showed that preadolescents and adolescents scored similar levels of Sleep Quality. In addition, female pre-adolescent participants scored higher on FLE, similarly to previous studies (DEWAELE; MACINTYRE, 2014; DEWAELE *et al*., 2016). However, the difference decreases when the analysis focused on adolescents. Proficiency, frequency of English use and relative standing among peers were also associated with FLE scores. The present research is an attempt to highlight the importance of investigating how other variables, such as sleep quality, age, sex, proficiency, frequency of English use and relative standing interact with FLE.

Keywords*:* Sleep Quality. Learner-Internal Variables. Foreign Language Enjoyment. Adolescents.

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LIST OF ABBREVIATIONS

APA	American Psychological Association
CASEL	Collaborative for Academic, Social, and Emotional Learning
FLA	Foreign Language Anxiety
FLE	Foreign Language Enjoyment
EAL	English as an Additional Language
NIMH	National Institute of Mental Health
PP	Positive Psychology
SEL	Social Emotional Learning

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1 INTRODUCTION AND JUSTIFICATION

Even though emotions are usually neglected in classrooms (ISMAIL, 2015), they play a key role in the learning process. According to Goetz *et al*. (2003), investigating emotions in the educational setting is key for three reasons: (a) they influence the quality of learning, (b) they are associated to well-being, and (c) they are relevant to learning because of its intrinsic relationship with interpersonal communication. The emotion we chose to investigate in the present study is enjoyment[1] because it is "critically important for students' motivation, learning, performance, identity development, and health." (PEKRUN *et al*., 2011, p. 36). We have also decided to investigate whether sleep quality can be associated with enjoyment in the English language lessons for two reasons. First, to the best of our knowledge, there have not been studies that investigate whether sleep quality can interfere with Foreign Language Enjoyment (FLE). From what is known, this is the first study in Brazil that aims at investigating the relationship between sleep quality and enjoyment. Secondly, because nowadays sleep is an aspect that should be addressed in schools too.

> The school of the future will fully embrace the physiological aspects of learning, and strive to optimize sleep, nutrition, and exercise for children and adults of all ages, so as to improve intrapersonal and interpersonal relationships. (RIBEIRO *et al*., 2020, p. 247).

From our point of view, the future has already arrived, and it demands from schools an integral education that encompasses not only content, but also the students' psychological needs. According to Schonert-Reichl *et al*. (2017), we need an educational vision that educates 'the whole child', contemplating social and emotional skills. Moreover, introducing emotional intelligence in the school curriculum is one of the recommendations proposed by the BNCC[2].

It seems obvious to say the world is in an ongoing transformation. Education, however, seems to be facing even more demanding challenges when it comes to preparing students for a life characterized by such dynamics. According to Trilling and

[1] We will be using the terms "enjoyment" and "Foreign Language Enjoyment" (FLE) as synonyms.
[2] The BNCC (Base Nacional Comum Curricular) is a normative document that defines the organic and progressive set of essential learning.

Fadel (2009), education is not playing the role of educating citizens to make them able to apply the abilities needed in the 21st century[3]. Recent developments in technology and in other segments of our lives amaze us day after day, but education seems to be adapting to this scenario at a quite slow pace (TRILLING; FADEL, 2009). This issue has been highlighted during the Covid-19 pandemic, when schools are being forced to adapt to remote learning. Teachers and school staff have been challenged to reconsider their teaching goals and teaching methodology because it is no longer acceptable to expect that learners nowadays have the same needs or learn the same way as past generations. Within this context, one of the areas that require more attention from school boards is how to deal with social emotional skills, since schools have for a long time focused more on worrying about conveying content rather than developing fully functional citizens. With the rise of studies on Positive Psychology and Social Emotional Learning (SEL) (MACINTYRE; MERCER, 2014; DURLAK *et al*., 2014), however, one can notice education has to go beyond the cognitive dimension, since dealing with students' emotions in the 21st century seems to be more and more the schools' responsibility rather than the families'. Language teachers could take advantage of this demand and see language learning as an opportunity to teach learners how to deal with their own emotions. In order to do so, however, it is necessary to equip teachers with knowledge about emotions and education. Unfortunately, while language teaching methodologies include various techniques and approaches, teacher training programs hardly ever cover the role of emotions in the classroom (SCHONERT-REICHL *et al*., 2017).

According to Trilling and Fadel (2009), the power of technology has changed the goals for education. The authors explain there are four pillars in education that remain unaltered: contributing to society through work, exercising personal talents, exercising civil responsibilities, and keeping value and tradition. Though these pillars have not significantly changed throughout the decades, the way people achieve them drastically changes from generation to generation. The numerous new possibilities concerning the labor market, however, are not the only novel for this generation. Adolescents and

[3] The 21st century skills are a set of essential competencies for education, such as critical thinking, communication, collaboration, creativity and innovation (https://www.aeseducation.com/blog/what-are-21st-century-skills).

pre-adolescents have been facing two new recent problems: anxiety and sleep deprivation. Unfortunately, the youth could not escape the age of anxiety. Parents and school boards worry about the high number of students seeking medication and therapy at an earlier age, and their concern seems to be accurate. Data from The National Institute of Mental Health (NIMH)[4] demonstrate that adolescents have more psychological issues when compared to adults. Essentially the same data were found in surveys from The American Psychological Association (APA)[5]. Moreover, since 2013 adolescents have been demonstrating higher stress levels when compared to adults, and in 2018 anxiety levels and depression in adolescents were higher than all the other age groups (AMERICAN PSYCHOLOGICAL ASSOCIATION, 2018). The second problem adolescents have faced is decreasing sleep quality. Adolescents' sleep today is worse if compared to adolescents from past generations. According to research, technological advancements ended up fostering unprecedented usage of electronic devices by young people in the last decade, and the unreasonable time spent with these devices has also led to a decrease in hours of sleep and sleep quality as well (MATRICCIANI *et al*., 2017; TWENGE; KRIZAN; HISLER, 2017).

It may be possible to find a relationship between these two problems. Gariepy *et al*. (2020) argue that low quality alongside few hours of sleep in adolescents might be associated with emotional problems such as anxiety and depression. Ideally, school timetables should be adapted to adolescents' needs, who need more time to sleep in the morning (JENSEN; NUT, 2015; RIBEIRO *et al*., 2020). While alterations in school timetables are not feasible, an attainable solution to minimize the problems adolescents have been facing can be fostering enjoyment in the classroom. That is also the reason why we decided to investigate a possible relationship between these factors. The term 'enjoyment' comes from the field of Positive Psychology, more specifically, from the Flow Theory, developed by Csikszentmihalyi (1990). More recently, Dewaele and MacIntyre (2014) conducted a study in which they described the feeling of enjoyment[6] in the language learning process as a sign that psychological needs are being fulfilled.

[4] https://www.nimh.nih.gov/health/statistics/any-anxiety-disorder
[5] https://www.apa.org/news/press/releases/stress/2018/stress-gen-z.pdf
[6] The author uses the term Foreign Language Enjoyment (FLE). Because of the context, this study uses the term Additional Language, but both terms will be used as synonyms.

Fortunately, there has been an increase of interest in researching enjoyment and language learning.

Since this study advocates the importance of an education that encompasses students' emotional aspects, we will bring the guidelines from The Collaborative for Academic, Social, and Emotional Learning (CASEL)[7], which proposes using SEL as the underpinning for an education that encompasses socioemotional competencies. According to CASEL (2015), SEL is the process through which one learns and effectively exercises knowledge, attitude, and required abilities to understand how to deal with emotions, set positive goals, and show empathy. Among other things, we expect to contribute to a wider understanding about the effects of sleep quality and enjoyment in pre-adolescents and adolescents who are learners of EAL. Findings from this study may clarify ways to deal with emotions in the classroom through the adaptation of pedagogical practices, thus benefiting learners directly.

Considering the context in which this research will be conducted, we see this study as an opportunity to contribute to the knowledge we have regarding sleep, emotions, and learning in Brazil. With this research, we hope to help teachers reflect upon their roles when they teach these age groups, fostering ideas about how to approach adolescents in a way that fulfills their emotional and cognitive needs.

Finally, the structure of this dissertation begins with this introduction, where there is a justification about how relevant such research studies are. After, in the review of literature, the theoretical basis and previous studies regarding sleep, emotions, and Foreign Language Enjoyment will be presented. In the method section, the steps taken to conduct this research, the research questions we intended to answer, the materials used to collect data, and the procedures for obtaining the sample and analyzing the data will be detailed. Finally, the results will be discussed in light of previous research studies, followed by our final considerations and limitations, where we summarize the previous findings in comparison to the discoveries of the present research, and point to further directions in the research of emotions and language learning.

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[7] CASEL is an organization that aims at developing academic, social and emotional competence for all students. Their mission is to help make evidence-based social and emotional learning (SEL) an integral part of education from preschool through high school.

2 LITERATURE REVIEW

In this section, the theoretical basis and previous studies regarding sleep, emotions and Foreign Language Enjoyment will be presented. Initially, the function of sleep and how sleep problems may affect school performance of preadolescents and adolescents will be discussed. Secondly, we will discuss the role of emotions in learning, starting with the concept of emotion we chose to adopt for the study, enjoyment, following with an explanation of the Broaden-and-Build Theory of Positive Emotions (FREDRICKSON, 2004). After that, we will analyse how emotions are related to language learning, more specifically, second language learning. Finally, we will explain the origin of the concept of enjoyment and how it has been imported to the Second Language Acquisition field, showing what previous investigations on enjoyment and language learning have demonstrated so far.

2.1 SLEEP

Sleep can be defined “as a natural and reversible state of reduced responsiveness to external stimuli and relative inactivity.” (RASCH; BORN, 2013, p. 681). It can be divided into five phases. Patel *et al*. (2021) explain that our bodies go through stages of rapid-eye-movement (REM) and non-rapid eye movement (NREM) sleep, spending approximately 90 minutes in each stage from 4 to 6 times. According to the authors, our sleep is regulated by the circadian rhythm, which changes throughout our lives. In other words, not all age groups need the same amount of sleep. Newborns, for example, can sleep up to 18 hours, and then this period decreases for 10 hours when they become children. Adolescents, on the other hand, need 8 to 9 hours of sleep (which they are not getting as we are going to see later on), and adults need 7 to 8 hours. The features of each sleep phase can be seen in Table 1:

Table 1 – Phases of Sleep

Phase	Description
Wake	It is the first stage and depends on whether the eyes are open or closed. When one becomes drowsy and closes their eyes, beta waves decrease and alpha waves increase.
N1	It is the lightest stage of sleep. It lasts from 1 to 5 minutes and consists of only 5% of the total cycle.
N2	It represents deeper sleep. During N2, our heart rate and temperature drop. It lasts around 25 minutes.
N3	It is the deepest stage. During N3, it is very hard to wake up and even hear noises. If one wakes up during N3, mental performance can be hindered for up to 30 minutes. As we grow old, we tend to spend less time in this stage.
REM Sleep	It is when we dream. In this phase, our muscles are atonic and we are paralyzed. Only the eyes and the breathing muscles are active. The REM Sleep usually starts 90 minutes after you fall asleep.

Source: https://www.ncbi.nlm.nih.gov/books/NBK526132/

People have been inquisitive about the function of sleep for thousands of years (DEAK; STICKGOLD, 2010; RIBEIRO *et al*., 2020). For a very long time, it was believed that our brains would simply shut down while we slept. However, we now know that sleeping is not a period of inactivity (DEHAENE, 2020). Even though one cycle of sleep that came to be known as REM was discovered in 1953, thus ruling out the previous idea that our brains simply cease activity when we fall asleep, it was only in 1994 that the importance of sleep for our general physiological, mental and cognitive state was fully recognized (STICKGOLD; ELLENBOGEN, 2008).

A key function of sleep is making us able to learn and remember (MANDER *et al*., 2011; RASCH, 2017; CROSS *et al*., 2018; RIBEIRO *et al*., 2020). When it comes to language learning, in particular to second language learning, which is one activity that clearly demands much effort from our memory, sleep plays an important role in the consolidation of new vocabulary, for example. According to Rasch (2017), various aspects, such as new words, pronunciation, and grammar rules, have to be integrated

into long-term memory when one starts learning a new language. Our brains then need an offline period to consolidate the information, and sleep is the perfect moment to do so:

> During sleep, the conscious processing of external and internal information is attenuated, reducing the ability of acquiring new information. Thus, sleep provides an ideal window of opportunity to reprocess, stabilize, and integrate already acquired information into long term memory networks. (RASCH, 2017, p. 1).

If sleep plays a key role in the retention of knowledge, it seems reasonable to expect that bad sleep hygiene and poor sleep quality hinders successful language learning. In the next section, we will see more about the role of sleep in learning.

2.1.1 Sleep and Learning

According to Stickgold and Ellenbogen (2008), all stages of sleep are essential for memory consolidation. The authors conducted a study in which all participants were supposed to memorize A-B patterns of words, but only some of the participants were allowed to sleep after the procedure. Later, all participants received new patterns that were actually supposed to interfere in their attempt to remember the first patterns. The interference was repeated, and the participants who had slept after the presentation of the first set of patterns could remember more items in comparison to the ones who had not slept. According to the authors, sleep has been found to be crucial for memory enhancing because it is only while we sleep that patterns of neural activity which have been activated during the awake periods are reactivated and consolidated.

On a similar note, Batterink *et al*. (2014) argue that high quality sleep helps enhance linguistic knowledge language learners acquired while awake. The authors conducted a study with 29 students who were supposed to learn an artificial system of articles while their slow-wave sleep and REM sleep were monitored. They had a 20-minute pre-nap lesson followed by an afternoon nap that could last up to 90 minutes. After the nap, they had another 20-minute post-nap lesson. The results showed participants with greater amounts of slow-wave and rapid-eye-movement sleep

performed better in the linguistic task. The authors then concluded that reactivation of linguistic information takes place during sleep. Therefore, the results from this study suggest how important it is for language learners to have a high sleep quality. One could ask, however, what happens with students who do not sleep well. After all, a great number of students have sleep problems, such as sleep deprivation.

Sleep deprivation is known to have deteriorating effects on school performance. According to Durmer and Dinges (2005), sleep deprivation may cause harmful effects in our cognitive functions, such as declining short-term and working memory performances and losing situational awareness. According to Ribeiro *et al*. (2020), sleep deprivation may hinder memory, creativity, and problem-solving skills. Therefore, poor school performance in students who do not sleep well should not be a surprise. After all, no individual can learn when physiological conditions are not adequate. School performance, however, is not the only aspect compromised by insufficient sleep. According to Jensen and Nut (2015), sleep deprivation in adolescents also affects synaptic pruning, which may result in physiological problems such as obesity, cardiovascular diseases, and acne. It may also trigger emotional problems, such as aggressiveness, mood swings, and low self-esteem.

2.1.2 Sleep and Adolescents

Sleep helps adolescents manage stress and even have healthier eating habits (JENSEN; NUT, 2015). The authors argue, however, that adolescents nowadays are not having the amount of sleep they need. While they need nine and a quarter hours of sleep, most American adolescents, for example, sleep less than six and a half hours because they go to bed late and get up early for school. According to Hagenauer *et al*. (2009), there is a peak in the production of melatonin, commonly known as the sleep hormone, in the early adolescence that causes a shift in adolescent's circadian rhythm. Also, because some teens get more autonomy as they age, therefore being able to decide their own bedtime, they tend to value more leisure activities than going to bed early. These, among other factors, end up making adolescents sleep less than their bodies require. In addition, sleeping earlier a few days of the week as a means of

compensation for sleep deprivation in others is not effective. According to Jensen and Nut (2015), the adolescent brain does not compensate for lack of sleep hours because it has a tendency to keep the circadian pattern steady. The authors explain this phenomenon occurs because melatonin is not only released two hours later in the adolescent brain in comparison to the adult brain, but also lasts longer. Since in some countries the school timetable anticipates the school starting hours as grades progress, students tend to sleep less and less as they grow towards adolescence (JENSEN; NUT, 2015). As a result, adolescents may have their sleep hours shortened (WOLFSON; CARSKADON, 2003; CARSKADON, 2011; GARIEPY *et al*., 2020). In Brazil, for instance, various schools commonly offer High School only in the morning. This is a very sudden change for students who had been taking elementary and middle school in the afternoon, which is the common schedule in regular schools in Brazil. According to Jensen and Nut (2015), American adolescents lose on average 2,75 hours of sleep every day. Besides that, adolescents' sleep hygiene has been more and more hindered nowadays due to the excessive use of electronic devices, such as smartphones, tablets, and computers near bedtime (RIBEIRO *et al*., 2020). In light of that, one could easily presume the best way to solve this issue is changing school hours, since school timetables do not usually contemplate the hours of sleep adolescents need (CARSKADON, 2011). We will go back to it later on.

A study from 2013 found results that seem to be a global phenomenon. Li *et al*. (2013) conducted a cohort study for five years with more than 20.000 school aged children in China. Through a national survey that included reports from parents and teachers and school-based interventions, the authors investigated the participants' sleep behaviors, school performance, and sociodemographic characteristics. The results demonstrated a significant association between daytime sleepiness and variables such as impaired attention, learning motivation, and academic achievement. At first, as an intervention to improve students' sleep, school start time was 30 minutes delayed, and later on there was a 60-minute delay. As a result, students were able to increase sleep hours (22.8 minutes) and decrease daytime sleepiness. The authors concluded that delaying school start time brought benefits for the students, who were able to better regulate sleep hours. Another study by Van Dyk *et al*. (2017) experimented lengthening

adolescents' sleep hours as well. The authors conducted a study where high school students who used to sleep for 5-7 hours a night went through an experimental sleep manipulation protocol for five weeks. Participants were monitored while they were supposed to have an increase of 1.5 hour in their habitual sleep. The results were extremely positive. Most adolescents had a decrease in their symptoms of anger and sleepiness, among other factors. The authors highlight how students could have positive emotional benefits from lengthening sleep hours. These results show how adjusting school timetables so that adolescents can sleep more can have beneficial impacts in their health and school performance.

Delaying school start times indeed seems the logical intervention to improve adolescents' sleep and, consequently, their school performance. By the same token, in 2017, through a position paper, the American Academy of Sleep Medicine proposed that middle school and high school start times should be at least 8:30 am in order to provide students with an adequate amount of sleep hours and improve learning conditions. However, delaying school start times is not the only option. In fact, such a sudden change in school hours would lead to a necessity of changing parents' schedules as well because many students depend on their parents to commute. In other words, adjusting school hours is not as simple and easy as it sounds. According to Sharman and Illingworth (2020), another intervention option would be implementing sleep education in schools:

> An alternative intervention is to improve adolescent sleep through sleep education, providing tools and knowledge to enable adolescents to engage in more sleep-friendly behaviour before sleep. (SHARMAN; ILLINGWORTH, 2020, p. 25).

Gruber *et al*. (2015) conducted a study with 192 elementary school students aged from 7 to 11 who received interactive lessons over a period of 6 weeks. Both students and their parents received instruction regarding better sleeping habits. Participants' night sleep were monitored by actigraphy. The authors compared the scores from the intervention group with the control group and found out that the participants who joined the sleep education program had significant improvements in sleep quality and school

performance. These findings suggest that sleep education may be a solution when changing school hours is not viable.

The decay in sleep quality in adolescence has been an increasing phenomenon in the past few decades. According to Kahn *et al*. (1989), fatigue and difficulty waking up were indicators of low school performance. Back then the authors were already calling for attention to sleep problems in preadolescents. They investigated the quantity and quality of sleep, school achievements, children's daytime behavior, and family background in 972 preadolescents. The participants were classified as poor and good sleepers after their parents answered a questionnaire, and school achievement problems were found significantly more frequent in the poor sleep group. Moreover, the authors found a link between preadolescents' poor sleep and divorced parents, lower educated parents, and more exposure to light and noise in the bedroom.

Another study by Link and Ancoli-Israel (1995) indicated that students who had worse school performance also reported having problems to stay awake during the day, whereas the ones who reported sleeping more hours performed better at school. Unfortunately, this tendency does not seem to have changed recently. Gariepy *et al*. (2020), for instance, confirmed the same findings from the previous research studies: adolescents' sleep quality is indeed inferior, which suggests a clear need for interventions that minimize the damage caused by low sleep quality. The authors investigated adolescents' sleeping patterns in 24 European and North American countries and found out that boys slept more than girls on school days in 15 out of the 24 countries and are more likely to reach sleep recommendations in 17 out of the 24 countries.

Adolescents who have shortened sleep time may have school performance compromised since it is during sleep that the brain revises and registers what was learned throughout the day. According to Ribeiro *et al*. (2020), because students are usually sleep deprived, schools should create opportunities for proper sleeping in the school environment. The authors claim schools should embrace the role sleep plays before and after the learning process. Therefore, unless school timetables are better adapted to adolescents' sleep patterns, sleep quality will remain an unsolved problem.

In a study conducted by Okano *et al*. (2019), 100 young college students were monitored by a device that tracked their active heart rate, resting heart rate, and sleep duration and quality. The participants had to wear the tracker device for the whole semester at least 80% of the time. The authors found out that longer sleep duration and better sleep quality were associated with better grades. One interesting finding from the study was that sleeping more hours the night before a test was not associated with better performance. In fact, maintaining longer hours of sleep and sleeping better in the month prior to the test was associated with better results, which highlights the importance of a good sleeping pattern throughout the learning process.

As we can see, adolescents seem to have been strongly affected by their increasing poor sleep quality. Because bad sleep can cause, among other things aforementioned, emotional problems (JENSEN; NUT, 2015), it is key for schools to find ways to cope with this reality. Fostering a positive emotion such as enjoyment in the classroom might be an effective way of compensating for those bad emotions caused by bad sleep. In the next section, we will see more about the role of emotions in learning.

2.2 EMOTIONS

As subjective as it may seem, for the sake of the research study, it is necessary to define what emotions are, so only then we can understand how it affects learning. We will adopt the definition proposed by John Marshall Reeve, Professor in the Institute of Positive Psychology and Education at the Australian Catholic University. In his book *Understanding Motivation and Emotion,* he explains four dimensions for the concept of emotion. They can be (1) subjective feelings, (2) social phenomena, (3) agents of purpose, and (4) biological reactions (REEVE, 2005). In the classrooms, we can find examples for all the dimensions. Let us imagine, for example, a situation in which one student received a poorly graded test, which made him feel a particular sensation (subjective feeling), his peers recognized something was happening to him because of his facial expression or posture (social phenomena), then this particular student might have decided to leave the classroom because his feelings made him take action (agents of purpose). Finally, he may have experienced physical sensations due to nervousness,

anxiety, or any other feeling (biological reaction). It is very likely we all faced similar situations when we were at school. So should not the school be a place for students to learn how to cope with emotions?

2.2.1 Emotions and Language Learning

According to Dewaele (2015), it is not possible to dissociate language learning from emotions. For the author, they are “at the heart of the foreign language learning process” (DEWAELE, 2015, p. 13). It is interesting to note that it was not long ago that the role of emotions in language learning started permeating the field of applied linguistics. The first studies on emotions and language learning, however, focused on negative emotions, especially anxiety (DÖRNYEI; RYAN, 2015; DEWAELE *et al*., 2019). Even though psychologists had already suggested a more positive approach in language teaching through positive affect, research studies that drew near Positive Psychology were not notable due to the strong dominance of cognitivism in Applied Linguistics (SHARWOOD SMITH, 2017). Studies on negative emotions indeed enabled a wider comprehension of how emotions affect language learning. However, since the emotion under investigation in this study is enjoyment, a positive one, we are not going deep into how negative emotions affect language learning. While negative emotions hinder learning potential (DEHAENE, 2020), positive emotions bring advantages we can better understand by looking at The Broaden-and-build Theory of Positive Emotions proposed by Barbara Fredrickson. In the next section, this theory will be explained in more detail.

2.2.2 The Broaden-and-Build Theory

Previous perspectives on emotions claimed positive emotions were simply signs of well-being and health (FREDRICKSON, 2004). According to the Broaden-and-Build Theory, however, positive emotions are not merely signs; they can actually produce well-being and health (FREDRICKSON, 2001). Moreover, positive emotions make individuals healthier, improve one’s social integration, knowledge, and resiliency

because they have everlasting effects (FREDRICKSON, 2004). The theory does not suggest negative emotions should disappear. It rather explains they have different roles in our lives. While negative emotions are related to a narrow mindset because they trigger less options for quick actions, such as running or attacking in face of danger, positive emotions are related to a broadened mindset, because they broaden one's attention, improve psychological resilience, help dealing with negative emotions, build personal resources, and help achieve well-being. Thus, from that perspective, it is not hard to notice how a positive environment can be a useful tool to make students benefit from positive emotions in learning.

A few studies focused on the role of positive emotions in the language classroom and how they affect teachers and learners. Dewaele and Mercer (2018), for instance, have argued the importance of teachers' positive orientation towards students. The authors investigated how teachers' emotional intelligence levels would affect their classroom management and advocated that teachers who know how to deal with their own emotions and students' emotions as well are more likely to teach effectively. According to the authors, on the other hand, if teachers fail to foster positive emotions in the classroom, the classroom is unlikely to be at its best. In their study, one of the research questions aimed at investigating whether teachers' emotional intelligence affects students. There were 513 teachers participating, and they answered an anonymous online questionnaire. Their analysis revealed that emotional intelligence[8] had a significant effect on teachers' motivation towards students. One interesting finding was that more experienced teachers demonstrated having more positive attitudes. For the authors, these findings suggest that teachers who have higher emotional intelligence are more capable of reading the emotional atmosphere in the classroom. Moreover, these teachers tend to be more sociable, so it becomes easier to develop a good rapport with students. Even though this study investigated teachers' emotions rather than students' emotions, the results clearly suggest that teachers who are better at dealing with their own emotions are more likely to establish a positive environment in the classroom, which directly benefits students.

[8] According to Salovey and Mayer (1990), emotional intelligence is the ability to monitor feelings and emotions and use this information to guide actions.

However, when students do not have a supportive teacher, one alternative could be finding emotional support among their peers. A study by Jin and Dewaele (2018) investigated the role of emotional support in 144 Chinese students who were studying English as a foreign language at University and found out emotional support by peers may be more effective than by teachers. The authors investigated the participants' levels of FLA, positive orientation, emotional intelligence, and perceived teacher/student emotional support. For that, participants answered The Foreign Language Classroom Anxiety Scale (HORWITZ *et al*., 1986), The Positivity Scale (CAPRARA *et al*., 2012), and The Teacher/Student Personal Support Scale (JOHNSON; JOHNSON, 1983). One interesting finding from this study was that those participants who scored higher on emotional intelligence also had lower levels of FLA. The authors concluded that learners with higher positive orientation experience more pleasant moments and feel less threatened by setbacks in learning. However, to the best of our knowledge, there has not been a research study that investigated these variables in preadolescents and adolescents. The fact that participants could find support among their peers and rely less on teacher support was seen by the authors as a sign that, perhaps, older students are more independent and mature. It is not known, however, whether younger students could share the same benefit. It might be possible that teacher support towards students plays a major role with younger learners.

According to Jin and Dewaele (2018), it is the teacher's responsibility to establish a positive classroom and nurture solidarity, friendship, and mutual tolerance, thus enabling students to practice the target language safely. Khajavy *et al*. (2017) hypothesized that classroom environment positively predicts enjoyment and willingness to communicate (WTC). The authors investigated how emotions, classroom environment, and willingness to communicate are related in a sample of 1528 school students, preadolescents and adolescents, in Iran. The results of their study supported their hypothesis: classroom environment seems to be positively correlated to enjoyment and WTC. Their analysis revealed that language learners who enjoy learning are more likely to attempt oral communication in the target language and the authors concluded that when students are in a supportive environment they tend to demonstrate lower levels of anxiety and higher levels of enjoyment. One interesting finding from this study

was that the correlation the authors found between enjoyment and WTC was stronger than the correlation between anxiety and WTC, which confirms previous research findings suggesting that teachers should focus more on establishing a positive environment instead of trying to fight students' anxiety, following Dewaele *et al*. (2017).

According to López and Aguilar (2013), students who start learning a foreign language usually come with previous negative and positive emotions and these emotions impact how they behave towards learning a new language. Within that context, if a language learner had negative experiences in previous language lessons, it is likely they will not be willing to engage in new learning opportunities:

> Emotional experiences play a significant role since behind the reasons for deciding to study a foreign language or keep up with the task, emotions and feelings are involved. Those feelings and emotions experienced during foreign language learning/instruction are then important to understand so language teachers can adjust their approach to one that can help them reduce the negative impact emotions can have on learners' motivational energy, and enhance the promotion of those emotions that can activate learners' motivation. (LÓPEZ; AGUILAR, 2013, p. 112).

Thus, previous negative emotions might hinder students' motivation to continue their foreign language learning lessons. In a qualitative study with 24 students from a public university, López and Aguilar (2013) investigated how emotional experiences affected motivation to learn English. The authors designed a semi-structured interview guide and later on transcribed the interviews for further analysis. They concluded that both positive and negative emotions played a significant role in the participants' motivation to learn English. One interesting finding from this study was that some of the students perceived negative emotions as something positive for the learning process. In other words, they perceived the feeling of negative emotions "as a way of understanding what they were doing wrong and how to improve on that particular skill" (LÓPEZ; AGUILAR, 2013, p. 118). The authors themselves considered this finding to be contradictory, and argue that one always needs to bear in mind that language learners from different cultures may experience different emotions and attribute different meanings to their feelings. Again, there has not been a study of the sort with school-aged learners.

According to Ismail (2015), even though emotions play an essential role in the learning process, researchers have traditionally been more focused on the investigation of cognitive aspect of learning. As a consequence, the affective domain of learning has been neglected:

> During the process of learning, students go back and forth between cognition and affect, at times experiencing both at the same time. It is important to remember that the students are not machines but also human beings, they have the emotions that can enhance as well as complicate their understanding of the course or achievement. (ISMAIL, 2015, p. 19).

Ismail (2015) investigated how emotions of anger, anxiety, enjoyment, hope, hopelessness, pride, boredom and shame affected the language achievement of 315 Saudi students who were learning English as a foreign language. The author used a questionnaire to assess both positive and negative class-related emotions, and students' final-term grades to assess their English achievement. The analysis revealed strong and significant correlations between emotions and English achievement, so the author concluded that both positive and negative emotions can predict students' English achievement. In the next section, we will see in more detail why it is important to approach students' emotional skills.

2.2.3 Social Emotional Learning

Previous research findings highlight the importance of considering the extent to which emotions affect what happens in the classroom (LÓPEZ; AGUILAR, 2013; DEWAELE *et al*., 2017; KHAJAVY *et al*., 2017; DEWAELE; MERCER, 2018; JIN; DEWAELE, 2018). In that context, one might wonder whether teachers and school boards have been trained to do so. Unfortunately, the lack of knowledge on the matter seems to be indeed overwhelming. According to Schonert-Reichl (2017), many institutions that provide teacher training do not teach how teachers can enhance students' social and emotional skills. There is, however, a way to mitigate this problem. Ideally, teachers and schools could follow the five core learning competencies proposed by CASEL. CASEL (2015) proposes five core learning competencies for SEL: (1)

Self-awareness, (2) Self-management, (3) Social awareness, (4) Relationship skills, and (5) Responsible decision-making. The definitions for each competency will be presented in Table 2:

Table 2 – Social and Emotional Learning Competencies according to CASEL (2015)

Competency	Description
Self-awareness	The ability to accurately recognize one's emotions and thoughts and their influence on behavior. This includes accurately assessing one's strengths and limitations and possessing a well-grounded sense of confidence and optimism.
Self-management	The ability to regulate one's emotions, thoughts, and behaviors effectively in different situations. This includes managing stress, controlling impulses, motivating oneself,and setting and working toward achieving personal and academic goals.
Social awareness	The ability to take the perspective of and empathize with others from diverse backgrounds and cultures, to understand social and ethical norms for behavior, and to recognize family, school, and community resources.
Relationship skills	The ability to establish and maintain healthy and rewarding relationships with diverse individuals and groups. This includes communicating clearly, listening actively, cooperating, resisting inappropriate social pressure, negotiating conflict constructively, and seeking and offering help when needed.
Responsible decision-making	The ability to make constructive and respectful choices about personal behavior and social interactions based on consideration of ethical standards, safety concerns, social norms, the realistic evaluation of consequences of various actions, and the well-being of self and others.

Source: CASEL (2015)

According to CASEL (2015), having social and emotional skills is key for students to become full citizens. Moreover, these skills reduce the probability of risky behavior, such as drug use, violence, and bullying. They support the value of an education that encompasses both academic and personal development, and perceive SEL as a process where students learn how to apply their knowledge and abilities on behalf of managing their emotions since the beginning of their school lives:

> SEL programming is based on the understanding that the best learning emerges in the context of supportive relationships that make learning challenging, engaging, and meaningful. Effective SEL programming begins in preschool and continues through high school. (SCHONERT-REICHL, 2017, p. 139).

Implementing SEL programs may be beneficial for adolescents. According to Durlak *et al*. (2011), emotions can either facilitate or hinder school success. The authors conducted a meta-analysis of 213 studies about school-based SEL programs and found out that these programs not only had positive effects on social-emotional competencies, but also improved students' performance and grades. Their meta-analysis included 270,034 from different backgrounds and ethnic groups and, in comparison to control groups, participants who received SEL instructions significantly improved their academic performances.

> Current findings document that SEL programs yielded significant positive effects on targeted social-emotional competencies and attitudes about self, others, and school. They also enhanced students' behavioral adjustment in the form of increased prosocial behaviors and reduced conduct and internalizing problems, and improved academic performance on achievement tests and grades. (DURLAK *et al*., 2011, p. 405).

Adolescence is a period in life that can be quite turbulent at times. For Phillips (2007), adolescence can be defined as the period in life when one individual experiences the transition between childhood and adulthood, biologically marked by puberty. For the psychologist Walsh (2004), adolescence is an in-between stage that can be more easily defined by what is not rather than what it is. It is not being an adult, and it is not being a child. According to the author, this in-between stage is what adolescence is considered to be. For Blakemore and Mills (2014), adolescence is "the period between the onset of puberty and the achievement of relative self-sufficiency" (BLAKEMORE; MILLS, 2004, p. 2). Finally, Phillips (2007) argues that only few adolescents perceive their experience with this phase in their lives as normal because the age onset of puberty varies a lot.

During adolescence "the brain's method of processing emotions undergoes a dramatic transformation" (YEAGER, 2017, p. 2). According to Yeager (2017), while it is a period when adolescents have the opportunity for exploration and learning, individuals can also have problems such as troubled behavior, aggressiveness, depression, and bullying. Moreover, while adolescents feel like they are on their own, they need to learn how to deal with intense emotions and new demands in their private and school lives. Such problems may cause severe consequences when individuals reach adulthood.

Many tough situations adolescents face take place at school. Therefore, schools should be a safe place where students can learn how to cope with all the emotions pertaining to this phase in their lives. Yeager (2017) proposes that SEL can be a useful tool for teaching adolescents:

> Social and emotional learning (SEL) programs for adolescents are appealing in part because they might prevent such problems. SEL programs try to help adolescents cope with their difficulties more successfully by improving skills and mindsets, and they try to create respectful school environments that young people want to be a part of by changing the school's climate. (YEAGER, 2017, p. 2).

Yeager (2017) argues SEL can help adolescents cope with these difficulties. According to the author, SEL may improve peoples' lives because they may help them to avoid undesired outcomes such as violence or early/unwanted pregnancy and, in the case of adolescents, such skills may contribute to reduce stress, improve health quality and foster love for learning. Moreover, the author claims that SEL programs for adolescents should not be simply a poor adaptation of a child's program; they must embrace adolescents' needs.

According to the Institute of Medicine and National Research Council (2011), there are four key psychosocial tasks adolescents must accomplish: (1) they need to develop identity and autonomy, (2) they need to find acceptance among their peers, (2) they need to develop competence, and (4) need to be committed to their goals and beliefs. For Yeager (2017), SEL programs can succeed at capturing adolescents' motivation when they take into account what adolescents want to be and respect their desire to achieve these psychosocial tasks:

> (...) when SEL programs offer adolescents a route to feelings of status and respect, it's likely that they'll internalize acquired skills and apply them in the real world. (YEAGER, 2017, p. 15).

Unfortunately, programs and school projects that truly encompass adolescents' needs contextualized in their reality and interests seem to be still rare. At times, adolescents may behave in a rebellious way, and at the same time that teachers treat them as children, they normally are expected to behave as adults. Teachers must take into account that even though adolescents' problems might sound small, they can have

everlasting negative effects that will emerge later on in their lives. According to Blakemore and Mills (2014), there is a neural change in adolescents' prefrontal cortex that makes them more sensitive to stress. In addition, Sebastian *et al*. (2009) claim that adolescents are more affected by emotional contexts because the prefrontal cortex develops later than the limbic system, which explains why adolescents have higher emotional sensitivity. Unfortunately, however, there is very little knowledge about the biological changes in adolescents' that might affect their school lives.

Schools and teachers should be equipped with this knowledge in order to make students learn how to cope with their own emotions and struggles; after all, school is preparing them for life, not only for work or university. Applying SEL can be a powerful tool to help adolescents' cope with such difficulties. For Schonert-Reichl (2017), however, SEL is only effective when students are provided with a safe, caring, and supportive environment that makes them comfortable to practice their skills. The author claims that "teachers are the engine that drives social and emotional learning (SEL) programs and practices in schools and classrooms" (SCHONERT-REICHL, 2017, p. 137), reinforcing the role of the teacher as a supportive figure that must provide the adequate conditions for developing emotional skills.

In conclusion, teachers would be better able to foster enjoyment and develop SEL if they received proper training. In the next section, we will see more about enjoyment and how it benefits language learning.

2.2.4 Enjoyment in Language Learning

As previously stated, the second language acquisition literature shows two major shifts in the research of emotions. The first was the change from a strictly cognitivist perspective to an increasing interest in how emotions affect learning and teaching, particularly foreign languages (DEWAELE *et al*., 2019). The second one was a change of focus from negative emotions to positive emotions that underlie language learning (MACINTYRE; MERCER, 2014) triggered by the introduction of Positive Psychology (PP) (DEWAELE *et al*., 2019). One of the positive emotions that became more investigated within PP is enjoyment.

The concept of enjoyment comes from the Theory of Flow developed by Csikszentmihalyi (1990). Flow is a state in which one gets involved in a particular task in such a pleasurable way that nothing else seems to matter. When in a state of flow, the individual is deeply focused on the activity, no matter how hard the task may be, since experiencing the process is more significant than the outcomes (CSIKSZENTMIHALYI, 1990). In other words, it is having pleasure solely for the sake of the task itself. When one individual reaches this stage, enjoyment is achieved.

One might easily confuse the concepts of pleasure and enjoyment. Csikszentmihalyi (1990), however, argues that one of the core differences between pleasure and enjoyment is that only the latter provides psychological growth. Moreover, unlike the feeling of momentary pleasure that might occur without one's effort simply when certain areas of the brain are activated, enjoyment occurs only as a result of conscious effort and attention. The SLA literature has basically imported the concept of enjoyment without changing what was proposed in the Theory of Flow (CSIKSZENTMIHALYI, 1990). In this essay, we will adopt the concept of Foreign Language Enjoyment proposed by Boudreau *et al*. (2018), according to which, it "takes on additional dimensions such as an intellectual focus, heightened attention, and optimal challenge." (BOUDREAU; MACINTYRE; DEWAELE; 2018, p. 153). Some research studies that brought the concept of enjoyment to Applied Linguistics and SLA to investigate how they can relate to other variables will be hereinafter presented.

2.2.5 Previous Research on FLE

According to Dewaele *et al*. (2016), female learners have higher FLE compared to male learners. The authors investigated how gender was related to levels of enjoyment and Foreign Language Anxiety (FLA) in a sample consisting of 1736 foreign language learners around the world who answered both the Foreign Language Enjoyment Scale (DEWAELE; MACINTYRE, 2014) and the Foreign Language Classroom Anxiety Scale (HORWITZ *et al*., 1986). Besides the quantitative data, the authors qualitatively analyzed the open-ended question from the Foreign Language Enjoyment Scale, where participants were asked to report an event in language lessons

they had enjoyed. A series of independent *t*-tests to assess the gender differences was run, and the analysis revealed that not only female participants are prouder of their achievements, but also demonstrate having more fun and tend to feel less bored in comparison to male participants. One interesting finding was that even though girls scored significantly higher on enjoyment levels, they also demonstrated worrying more about mistakes and feeling less confident, more nervous and confused in foreign language lessons in comparison to boys. They also scored higher on foreign language anxiety levels. Based on these results, the authors concluded that, overall, girls experience more emotions in the classroom.

Another study carried out by Dewaele and MacIntyre (2016) found out two new dimensions for the concept of enjoyment: private enjoyment and social enjoyment. The first one relates to the individual's self-contentment, thoughts and sensations towards language learning, whereas the latter one regards the way individuals benefit from the learning environment. A total of 1742 participants answered a questionnaire containing a sociodemographic section followed by the enjoyment and anxiety scales. Similarly to the study aforementioned, both quantitative and qualitative data were analyzed. The authors opted for a mixed method research to compare the participants' reports to the quantitative data:

> One of the advantages of a mixed methods study such as this one is that the quantitative results can be reflected in learners' descriptions of experience, each enriching the interpretation of the other. (DEWAELE; MACINTYRE, 2016, p. 23).

According to the authors, such an approach enables using excerpts from learners' reports to clarify how enjoyment is related to other aspects learners have experienced. Their analysis revealed a moderate negative relationship between anxiety and enjoyment, and a sense that the language teacher is an agent capable of boosting enjoyment in class among some of the participants. Even though previous research has confirmed that anxiety and enjoyment are not different ends of a same spectrum (DEWAELE; MACINTYRE, 2014), the findings from Dewaele and MacIntyre (2016) reinforce the role of the language teacher as an important figure in the classroom, who is capable of easing learners' negative emotions. More about the relation between the

teacher and the arousal of emotions in the classroom will be presented in the study below.

In a study that also investigated the relationship between enjoyment and anxiety, Dewaele *et al*. (2017) found out that the teachers' role is more related to levels of enjoyment and less related to FLA levels, a fact which suggests teachers should work towards fostering enjoyment instead of trying to soothe anxiety levels. The authors investigated how enjoyment and anxiety were related to learners' and teachers' variables in a sample of 198 British high school students. Their analysis revealed that learners' attitudes towards their teacher had a significant effect on enjoyment. One interesting finding from the study was that the frequency with which teachers use the target language had a significant positive effect on enjoyment. In some contexts, students feel more worried when teachers use the target language most of the time during class, but the analysis showed otherwise. Their analysis also revealed that more experienced language learners experience more enjoyment and less anxiety. The authors attributed this finding to the motivation learners have to use the language in class:

> One possible explanation is that the activities that these learners engage in become intrinsically more motivating, as their newly acquired skills allow them to take on more challenging tasks including more autonomy. (DEWAELE *et al*., 2017, p. 16).

The authors already expected to find a link between positive attitudes towards the teacher and enjoyment, but were surprised to find that this variable was not related to anxiety:

> (...) students were equally anxious with much-loved and less-loved teachers, which suggests that well-loved teachers can create anxiety, but not necessarily more or less anxiety than other teachers, as indicated by a lack of significant differences. (DEWAELE *et al*., 2017, p. 17).

Thus, the authors concluded that "effective teachers fuel learners' enthusiasm and enjoyment and do not spend too much time worrying about their FLCA." (DEWAELE *et al*., 2017, p. 10). This finding has important pedagogical implications since it confirms that what teachers do in class has more effect on enjoyment than on anxiety. Dewaele *et*

al. (2017) argue that these findings suggest that language teachers need to worry about making enjoyable lessons rather than worrying about anxiety because they do not seem to be the source of it. For Dewaele (2015), it is imperative that teachers avoid activities that do not demand emotional investment and learners' potential and focus on creating unexpected and challenging activities to boost enjoyment in the classroom.

Moskowitz and Dewaele (2020) investigated possible links between intellectual humility (IH), enjoyment, and anxiety in Spanish learners and found out that one subscale of IH, lack of intellectual overconfidence, was significantly negatively correlated to enjoyment. The authors conducted an online survey with a sample of 163 participants who were enrolled in a foreign language course. The participants answered the Comprehensive Intellectual Humility Scale (CIHS) (KRUMREI-MANCUSO; ROUSE, 2016) and the short version of the FLES (BOTES *et al*., 2020). FLA was assessed through an open-ended question where participants were supposed to give a detailed report of an episode in English classes that made them feel anxious. The analysis revealed no significant relationship between total IH and total FLE, but when they analyzed how one subscale from IH, lack of intellectual overconfidence, was related to levels of enjoyment, they found a significant negative relationship. The authors concluded that students who lack confidence enjoy less the lessons:

> This might suggest that those who are not overconfident about their ideas and intellectual abilities might experience slightly less enjoyment in the FL classroom than those who are overconfident. (MOSKOWITZ; DEWAELE, 2020, p. 535).

The authors, however, concluded that IH has only a modest effect on learners' emotions in the classroom. Still, this research study serves to highlight the importance of investigating how other variables might interact with FLE.

According to Botes *et al*. (2020), self-perceived proficiency boosts learners' FLE and reduces FLA. The authors conducted a study on the role of multilingualism and self-perceived proficiency in an international sample of 1622 participants who had their levels of FLE assessed through self-report questionnaires. Multilingualism and self-perceived proficiency were in the demographics section of the questionnaire. Their analysis revealed that as self-perceived proficiency increases, levels of FLA decrease. Also, knowing more languages increased FLE and decreased FLA. The findings from

this study confirm the relevance of learner-internal variables such as self-perceived proficiency and how they may impact learners' emotions and performance.

Another study by Jiang and Dewaele (2019) also investigated the role of learner-internal variables. The authors conducted a study with a sample of 564 Chinese learners of English. Participants had their FLE, FLA, learner-internal variables, and teacher-related variables assessed and the authors also used a mixed-method approach where quantitative data and qualitative data were analyzed. One interesting finding from this study was that, differently from previous studies, there were no differences in FLE and FLE regarding sex, which can be taken to demonstrate how different contexts can have different impacts on students' emotions. Their analysis revealed a significant positive correlation between learner-internal and teacher-related variables (proficiency level, relative standing among peers, attitudes towards English, attitudes towards the teacher, friendliness of teacher, and teacher's joking) and FLE and the same variables were significantly negatively correlated with FLA. One interesting finding from their study was that attitudes towards the teacher was the most significant predictor of FLE. In addition, the quantitative and qualitative analysis showed that FLE was more related to the teacher and FLA more related to the learners, similarly to previous research findings (DEWAELE *et al*., 2017).

Dewaele and MacIntyre (2019) investigated, among other research questions, how the geographical area affects learners' FLE. In a study with 750 participants from different countries who had their levels of FLE, FLA, learner-internal variables, and personality tests assessed, they found out a significant effect of geographical area on FLE. Participants from Australia and North America scored higher than participants from other areas, such as South America, Africa, Europe, and Asia. The analysis also confirmed previous findings that claimed that FLE depends more on the teacher while FLA depends more on learner-internal variables (DEWAELE; DEWAELE, 2017; DEWAELE *et al*., 2017), which emphasizes that teachers need to worry less about trying to control anxiety in class. Instead, they must work towards building a safe place where students feel comfortable among their peers because this will provide what students need to ease their anxiety:

> The social context with teacher and peers affect participants' emotions in unique ways. Overall, social context seems to have a stronger effect on FLE, as positive classroom environments can boost a sense of community, of common purpose and of flow. (DEWAELE; MACINTYRE, 2019, p. 26).

Another research study also demonstrated the importance of peer cohesion was conducted by Jin and Zhang (2018). The authors investigated the dimensions of FLE in a group of Chinese learners of English as a Foreign Language and found out that enjoying the learning process positively influences the achievement of the target language. They recruited 320 high school students and assessed their English proficiency and levels of enjoyment. Three factors underlying enjoyment were analyzed to identify how they affect English achievement: (1) enjoyment of teacher support, (2) enjoyment of student support, and (3) enjoyment of English learning. The analysis revealed a significantly positive association between the three factors and English achievement. However, the link between student support and enjoyment of English learning was stronger than with enjoyment of teacher support. For the authors, this finding suggests that cohesion between peers is more determinant than their relationship with the teacher.

According to Zhang, Dai and Wang. (2020), FLE plays an important role in learners' motivation to achieve proficiency in a foreign language. The author argues that teachers should use FLE as a mediating tool:

> [...] since FLE plays a mediating role in the relationship between motivation and second foreign language proficiency, teachers should try to improve students' curriculum experience by improving the classroom atmosphere and integrating teaching with pleasure. (ZHANG; DAI; WANG, 2020, p. 9).

In his study, Zhang, Dai and Wang. (2020) investigated the role of motivation in second foreign language proficiency in a sample of 335 university students in China. Participants had their motivation and proficiency assessed through questionnaires and interviews, and FLE was assessed through the statement "I enjoy learning the second foreign language", to which participants could choose on a 5-point Likert scale how much they agreed or disagreed with the statement. The analyses revealed FLE works as a mediator between proficiency and motivation. One interesting finding from the research was that learners' self-perception of their proficiency is positively influenced by

FLE. The author concluded that “FLE is an affective path between motivational orientations and second foreign language proficiency.” (ZHANG; DAI; WANG, 2020, p. 9).

As presented so far, research studies have demonstrated that learner-internal variables and context affect FLE. Moreover, they have demonstrated that teachers can and should do more about FLE instead of trying to beat anxiety in class. Still, despite the fact that the investigation of how FLE improves and facilitates foreign language learning has sparked increased interest in recent years, our knowledge can still be considered very limited. In this essay, we report the results of a study that focused, among other factors, on sleep quality and learner-internal variables in a group of Brazilian preadolescents and adolescents. Adolescents are an age group that can, sometimes, be ignored. There is considerable literature that approaches the best ways to teach kids, adults, elderly people, but when it comes to adolescents some parents and teachers might simply take it for granted that they are unruly and lazy, then so be it. Also, plenty of research about FLE has samples formed of adults. There are still some learner-internal variables regarding adolescents that can be investigated.

It is key to consider all the emotional and physiological changes adolescents are constantly going through. The fact that they go through changes in sleep patterns during adolescence (PHILLIPS, 2007), for example, should not be neglected by schools and should be of interest among researchers. School hours do not seem to be suited for adolescents of the present generation, but before any attempts of changing school hours are made, more evidence is required. As aforementioned, sleep disturbances can compromise learning (CARSKADON, 2011; JENSEN; NUT, 2015; DEHAENE, 2020), but there is a research gap in understanding how exactly it affects language learning; more specifically, there has not been information of a study that investigates a potential relationship between sleep quality and enjoyment in preadolescents and adolescents. This is exactly the empirical gap this study will try to fill out: Will students enjoy learning another language more if they sleep better?

3 METHOD

The present study was approved by the Ethics Committee of the Federal University of Rio Grande do Sul (CAAE 46714921.0.0000.5347) and all participants and their parents signed an informed consent form. In this chapter, the non-experimental correlational design will be presented. The variables investigated are the level of enjoyment, the levels of sleep quality, and learner-internal variables (sex, self-assessed proficiency, relative standing among peers, and frequency of English use). First, the five research questions elaborated to investigate how the variables can be related to each other will be presented. Secondly, the participants and the criteria for being included or excluded in the sample will be described, followed by a description of the instruments used and the procedures adopted in the data collection. Because of the sampling limitations, such as the randomization and pre-tests being unfeasible, the only procedure for control to avoid extraneous variables adopted was avoiding research bias. The data collection was conducted by teachers of the institution who had no previous contact with the researcher. Also, the researcher did not have any contact with the participants, and they were only offered a more detailed explanation about the purpose of the research after the data collection. Otherwise, being aware of the purpose could bias their answers.

3.1 RESEARCH QUESTIONS

This research study aims at investigating to what extent sleep quality and learner-internal variables can be correlated to FLE. Five research questions were elaborated in order to verify how the variables are related. The research questions will be presented below:

1) Is sleep quality correlated to FLE in preadolescents and adolescents?

Because there have not been any studies investigating whether sleep and FLE can be related, but previous studies have suggested that sleep does play a role in school performance (MANDER *et al*., 2011; RASCH, 2017; CROSS *et al*., 2018;

RIBEIRO *et al*., 2020), we decided to investigate if sleep quality could be correlated to FLE in preadolescents and adolescents.

2) Is sex correlated to FLE in preadolescents and adolescents?

Previous research studies have shown that female learners experience more FLE (DEWAELE *et al*., 2016). Based on that, we decided to investigate whether the same effect would occur in a sampling of preadolescents and adolescents.

3) Is proficiency correlated to FLE in preadolescents and adolescents?

Previous research findings have shown that proficiency plays a role in FLE (BOTES *et al*., 2020). Thus, we decided to investigate the relationship between these variables to be in accordance with previous research methods that investigated FLE.

4) Are the variables sleep quality and FLE correlated?

Some previous studies have investigated the role of learner-internal variables in FLE (JIANG; DEWAELE, 2019; DEWAELE; MACINTYRE, 2019). The same step was adopted in this research study so it would be possible to understand the characteristics of our sampling.

5) What are the sources of FLE according to the participants?

Open-ended answers to the last question of the FLES have been proven to enrich the understanding of the quantitative data (DEWAELE; MACINTYRE, 2016). In order to better understand the characteristics of our sampling, the open-ended answers were qualitatively analyzed to help our understanding of what boosts FLE in preadolescents and adolescents.

3.2 PARTICIPANTS

This research study aimed at investigating the FLE, sleep quality, and learner-internal variables specifically in preadolescents and adolescents. For this reason, data were collected through convenience sampling in an institution that

accepted our request for data collection. The school coordination emailed the parents with the calls for participation, since the participants we were looking for are all underage. All consentment replies were checked before participants were allocated in the sampling. Also, following the established exclusion criteria, every participant who did not have Portuguese as mother tongue was removed from the sample, because participants who did not study English as an additional language would not fit the purpose of the study; the intention of the research study and the instruments adopted are all designed to investigate the variables in groups of foreign language learners. The sample was divided into two groups: preadolescents and adolescents.

3.3 INSTRUMENTS AND DATA COLLECTION

Initially, the data collection was planned to take place in the facilities of the institution with paper-based questionnaires. However, due to the Covid-19 pandemic, the lessons were totally remote at the moment, which made the data collection in the institution facilities impossible. For this reason, all the instruments necessary to investigate the research questions were incorporated into one online Google Form. The contentment form was sent separately in another Google Form only to the participants' parents. Participants received the link to the form through their teachers and filled it out on their own devices during regular English classes. The instrument contained three sections, as it follows: (1) Adolescent Sleep-Wake Scale, (2) Language Background Questionnaire, and (3) Foreign Language Enjoyment Scale. All materials were translated to Portuguese because some participants might have been beginners and it was expected that everyone could easily understand all the questions.

3.3.1 Adolescent Sleep-Wake Scale (ASWS)

One of the main ways to assess sleep quality is through the adoption of Likert scales. The ASWS used in the present study is a concise assessment tool that fits for research purposes (ESSNER *et al*., 2015) and has been validated and used in previous studies (KAPLAN, 2019; HUBER *et al*., 2020). The *Adolescent Sleep–Wake Scale*,

developed by Le Bourgeois *et al*. (2005), is a Likert scale self-report questionnaire that aims at measuring the sleep quality of individuals ranging from 12 to 18 years old. It consists of 28 items in which participants choose from (1) “Never”, (2) “Once in Awhile”, (3) “Sometimes”, (4) “Quite Often”, (5) “Frequently, if not Always”, and (6) “Always”. Higher scores indicate better sleep quality. The instrument measures 5 behavioral dimensions of adolescents’ sleep: (1) Going to bed, (2) Falling asleep, (3) Maintaining sleep, (4) Reinitiating sleep, (5) Returning to wakefulness. Below, there are examples of items from the ASWS regarding the five dimensions aforementioned:

Table 3 – ASWS Dimensions

Going to bed	I have trouble making myself go to bed at bedtime.
Falling asleep	When it's time to go to sleep (lights-out), I have trouble settling down.
Maintaining sleep	During the night, I toss and turn in my bed.
Reinitiating sleep	After waking up during the night, I have trouble going back to sleep.
Returning to wakefulness	I have trouble getting out of bed in the morning.

Source: Le Bourgeois *et al*. (2005).

All items were translated to Portuguese because even the participants with lower levels of proficiency were expected to fully understand the questions.

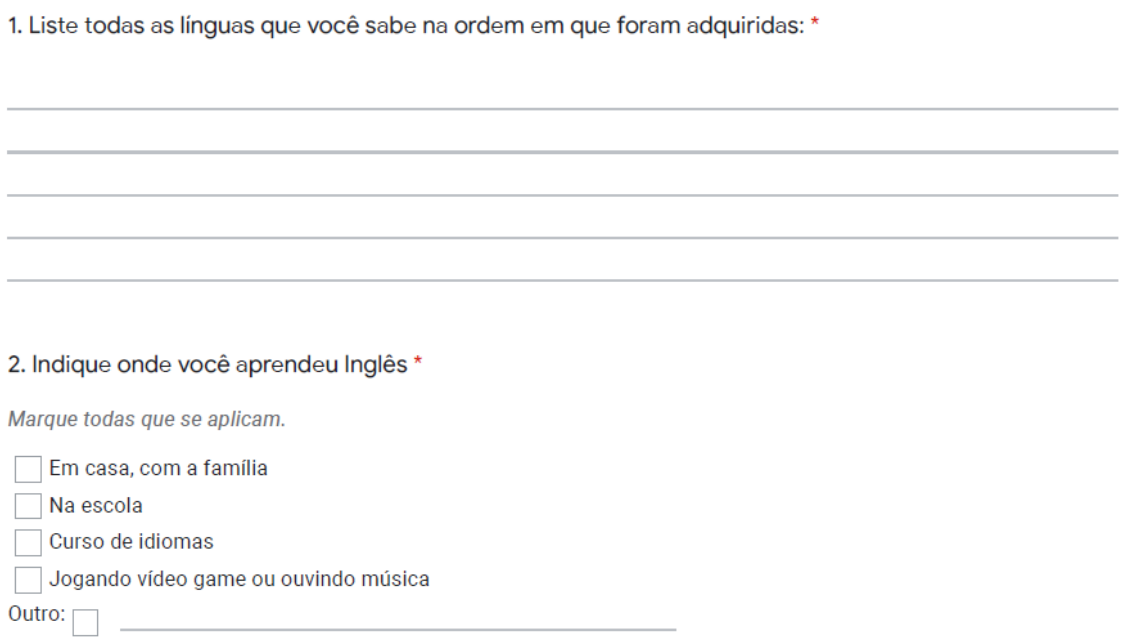
3.3.2 Language Background Questionnaire

The questionnaire contained items that aimed at obtaining information regarding participants’ language history background. There was also a specific question to measure the participants’ levels of self-assessed English proficiency regarding reading, listening, speaking and writing skills. For each one of the abilities, participants should rate (1) “Very Low”, (2) “Low”, (3) “Adequate”, (4) “Good”, (5) “Very Good”, and their mean average score was used in the analysis. In addition, the questionnaire contained 9 questions aimed at obtaining details regarding how frequently participants use English to

talk to their families, friends, talk at school, read and write at school, play games, read and write (overall), make video calls, listen to music/podcasts, and use social media, in which they were supposed to rank from 0 to 4 in a Likert scale (0="Never", 1="Rarely", 2="Once a week", 3="More than once a week", 4="Daily"). There was also an item where participants were supposed to self-assess their relative standing among peers, that is, how they perceived their proficiency in comparison to their classmates (1="Far below average", 2="Below average", 3="On average", 4="Above the average", 5="Far above the average").

In the first section, after participants agreed to answer the form, they would provide their main personal information such as name, sex, and age. Then, they should answer the first two questions regarding their English language knowledge. This section appeared in their screens as it follows:

Figure 1 – English Language Knowledge

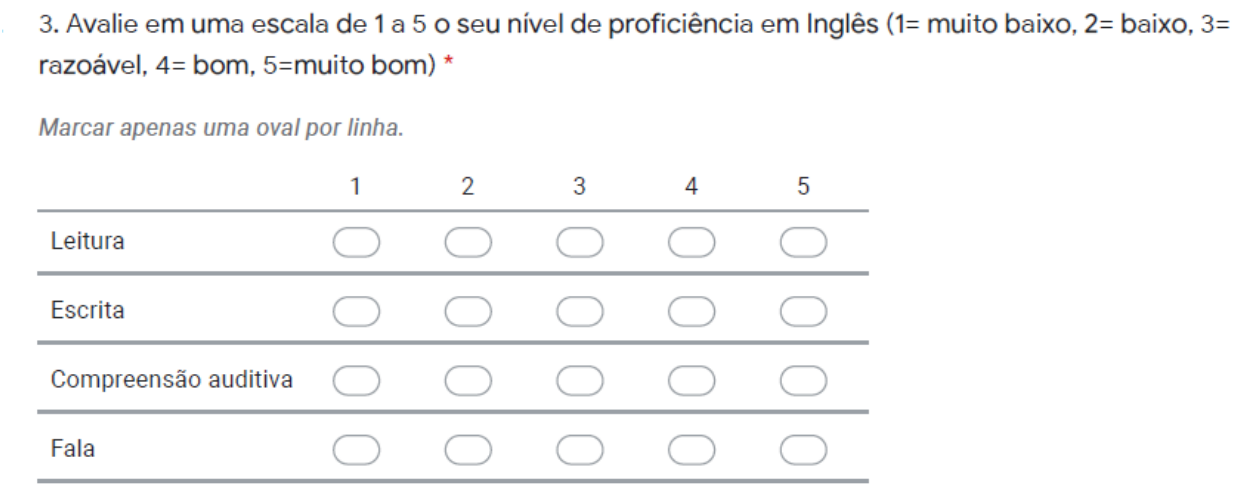


Source: author (2022).

In question 1, they were requested to write all languages they master in order of acquisition. In question 2, they were requested to inform all contexts in which they

learned English. After that, in question 3, participants needed to rate their own level of English language proficiency in the following chart:

Figure 2 – Proficiency



3. Avalie em uma escala de 1 a 5 o seu nível de proficiência em Inglês (1= muito baixo, 2= baixo, 3= razoável, 4= bom, 5=muito bom) *

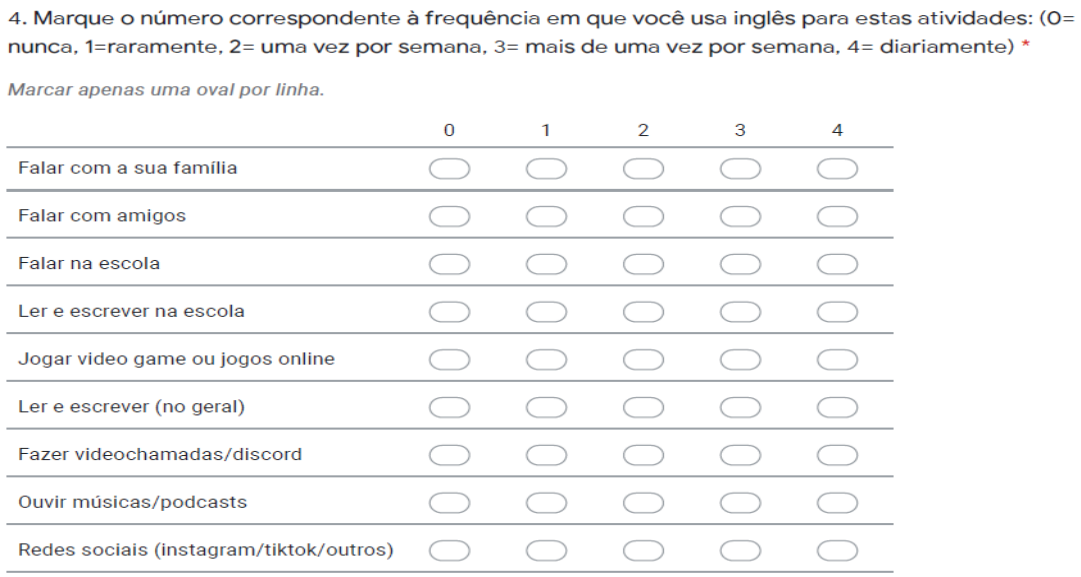
Marcar apenas uma oval por linha.

	1	2	3	4	5
Leitura					
Escrita					
Compreensão auditiva					
Fala					

Source: author (2022).

This section would provide data to analyze their mean self-assessed proficiency. Then, participants needed to answer question 4, which was a chart where they would inform the frequency of English use in 9 situations:

Figure 3 – Frequency of English use



4. Marque o número correspondente à frequência em que você usa inglês para estas atividades: (0= nunca, 1=raramente, 2= uma vez por semana, 3= mais de uma vez por semana, 4= diariamente) *

Marcar apenas uma oval por linha.

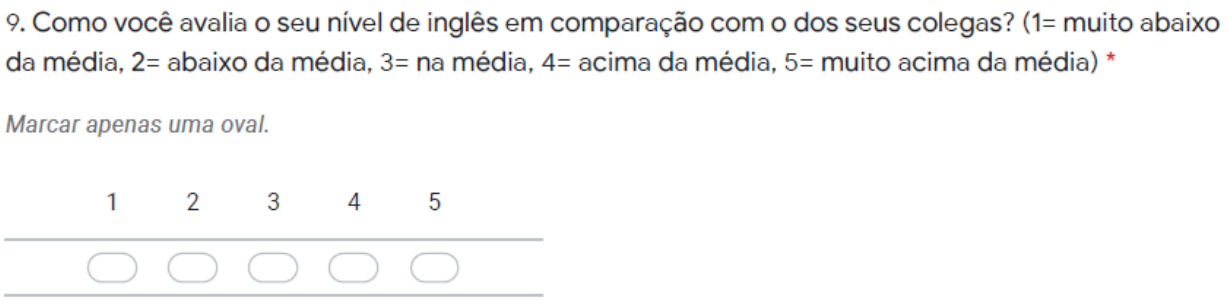
	0	1	2	3	4
Falar com a sua família					
Falar com amigos					
Falar na escola					
Ler e escrever na escola					
Jogar video game ou jogos online					
Ler e escrever (no geral)					
Fazer videochamadas/discord					
Ouvir músicas/podcasts					
Redes sociais (instagram/tiktok/outros)					

Source: author (2022).

Following the chart, there were questions 5, 6, 7, and 8 where participants had to inform at what age they started learning English, at what grade they started studying in the institution, and if they have lived or studied in an English-speaking country, respectively.

The last section of the Language Background Questionnaire was question 9, in which participants should self-assess their level of proficiency in comparison to their peers. Later, this score was used as their relative standing among peers.

Figure 4 – Relative standing among peers



9. Como você avalia o seu nível de inglês em comparação com o dos seus colegas? (1= muito abaixo da média, 2= abaixo da média, 3= na média, 4= acima da média, 5= muito acima da média) *

Marcar apenas uma oval.

1	2	3	4	5

Source: author (2022).

3.3.3 Foreign Language Enjoyment Scale (FLES)

The FLES was chosen because it is a tool that has not only been used in a number of research studies on enjoyment, but also in research studies that specifically investigated the levels of enjoyment of school-aged children (DEWAELE; MACINTYRE, 2014; DEWAELE *et al*., 2016). Developed by Dewaele and MacIntyre (2014), it is a Likert scale questionnaire with 21 items that reflect three dimensions of foreign language enjoyment: (1) private, (2) social, and (3) peer-controlled versus teacher-controlled positive atmosphere in the FL classroom (DEWAELE; MACINTYRE, 2016). The authors designed the scale based on Ryan *et al*.'s (1980) Interest/Enjoyment subscale and adapted the items related to enjoyment, fun, interest, and boredom for a language learning environment. Some items from the preexistent scale were rephrased in order to assess a wider judgment of participants previous experience with language lessons instead of a single activity. Dewaele and MacIntyre (2014) added questions regarding how students deal with mistakes, improvement, pride, group, peers, teachers, and attitudes towards foreign language learning. Participants' options to each item range from totally disagree (1) to totally agree (5). In Table 4, there are examples of items from the FLES regarding the three dimensions aforementioned:

Table 4 – FLES Dimensions

FLE-Social	Item 19: we form a tight group Item 21: we laugh a lot
FLE-Private	Item 4: I enjoy it Item 9: in class, I feel proud of my accomplishments
Peer-controlled versus teacher-controlled positive atmosphere in the FL classroom	Item 14: the peers are nice Item 17: the teacher is supportive Item 18: there is a good atmosphere

Source: Dewaele and MacIntyre (2014).

All the items are positively phrased, so the lowest score participants can make is 21, in case they choose the first option in the Likert scale (totally disagree). The higher they score, the higher are their levels of enjoyment. Moreover, at the end of the scale,

there is an open-ended question: “Describe one specific event or episode in your FL class that you really enjoyed, and describe your feeling in as much detail as possible.” The answers provided by participants to this question were analyzed to answer RQ5 (What are the sources of FLE according to the participants?).

4 DATA ANALYSIS AND DISCUSSION

The data analysis will be presented in this chapter. The analyses will be separated in subsections according to the research question they aimed at answering. All data was downloaded and exported to a spreadsheet on Google. Then, the answers were deleted from the form for safety reasons regarding participants' information. Participants who learned English as a first language were excluded from the sample as they did not match the inclusion criteria, and the data was run on SPSS.

4.1 SLEEP QUALITY AND FLE

Research question 1 asked the extent to which sleep quality scores could be correlated to FLE in preadolescents and adolescents. Even though a Pearson correlation did not reveal a relationship between sleep quality and FLE ($r = -0,043$, $n = 117$, $p = 0,645$), it was possible to find out two surprising findings. The first is that sleep quality levels are similar between preadolescents and adolescents, which suggests there might be a decrease in sleep quality in the present generation of preadolescents, since previous research claims it is during adolescence that individuals start sleeping less and worse (JENSEN; NUT, 2015). One way of looking at this result is that the onset of a decay in sleep quality is happening early in school aged children. This fact should be of concern and a potential reason for that is the amount of screen time children are having. In the past, it was not common for preadolescents to have access to cell phones and tablets, for example. The Internet was not so accessible, being the video games the main source of screen time for teens. Today, virtually all 12 year-olds have their own cell phones and spend huge amounts of time using it. This fact has direct impacts on sleep quality and the amount of hours they sleep.

The second surprising finding is that female participants scored less on sleep quality. Because the scale we used to measure had no open-ended questions, the reason why girls sleep worse than boys remains unknown, but a further investigation containing a qualitative analysis is needed to understand why they have less sleep

quality. One could hypothesize girls spend more time on their mobiles, thus having less hours to sleep, but this is just an assumption.

Table 5 – Sleep Quality and FLE

		Sleep Quality	FLE
Sleep Quality	Pearson Correlation	1	-0,043
	Sig.		0,645
	N	117	117
FLE	Pearson Correlation	-0,043	1
	Sig.	0,645	
	N	117	117

Source: author (2022).

Table 6 – Sleep Quality and Age

		Age	Sleep Quality
Age	Pearson Correlation	1	0,054
	Sig.		0,565
	N	117	117
Sleep Quality	Pearson Correlation	0,054	1
	Sig.	0,565	
	N	117	117

Source: author (2022).

In the analysis, we were expecting to find a correlation between Sleep Quality and FLE, since recent studies have been investigating how other variables might interact with FLE Interestingly, the data analysis revealed no significant relationship between sleep quality and FLE. However, it is premature to rule out the possibility that sleep quality plays a role on FLE, since adolescents scored higher on FLE and slightly higher on the ASWS in comparison to preadolescents. That is, participants who reported

sleeping better also reported enjoying the lessons more. The reason why we could not find a correlation between these variables might be due to the fact that our sample was unbalanced. Since we used convenience sampling, and depended on the parents to collect data because participants were underaged, our range was rather limited. Also, for the same reasons, it was not possible to balance the number of participants in a way that we had similar amounts of female and male learners from both Middle School and High School. Perhaps, a bigger sampling could have resulted in a more powerful analysis. Moreover, the instrument adopted to assess Sleep Quality might not be the best option for a reliable data on participants' sleep habits. Of course, taking into account our reality, it would never have been viable to have participants in a clinical setting to assess their sleep thoroughly. Still, for further research that attempts to assess sleep, we should reconsider the material.

All in all, we still believe the interaction between FLE and Sleep Quality deserves further investigation. Similarly to previous research on adolescents' sleep quality suggesting that male participants sleep longer than female participants (GARIEPY *et al*., 2020), the male participants of the present study scored significantly higher than female participants on the ASWS. However, sleep quality scores were similar between preadolescents and adolescents, which was unexpected since previous research points out that adolescents lose on average 2.75 hours of sleep in comparison to preadolescents (JENSEN; NUT, 2015). This finding does not sound positive. If recent studies found that preadolescents used to sleep better, after looking at our results one could infer that a decay in sleep quality may be starting earlier in the present generation, which reinforces the urge to call for an intervention in school aged children's sleep quality. Not only adolescents are not improving their sleep, preadolescents are losing theirs. Given the importance of a healthy sleep hygiene for all the reasons aforementioned, we need to understand why this is happening in order to find ways to solve this issue.

4.2 SEX AND FLE

A two-way analysis of variance for two factors (sex and age[9]) analyzed whether these variables were correlated to FLE. We analyzed the separate effects and the interaction of the variables. The analysis was done separately for each variable. Also, inter-subjects effect was tested. The analysis showed that the female adolescents scored 77,96 on FLE, and male adolescents scored 79,09 on FLE. That is, their scores were quite similar. The difference is found when we look at the preadolescents' scores. Female preadolescents scored significantly higher than male preadolescents (81,16 and 70,13 respectively).

Table 7 – Descriptive Statistics

Sex	Group	Mean	Standard Error	N
Female	High School	77,96	13,343	50
	Middle School	81,16	9,197	19
	Total	78,84	12,359	69
Male	High School	79,09	8,865	33
	Middle School	70,13	7,763	15
	Total	76,29	9,437	48
Total	High School	78,41	11,720	83
	Middle School	76,29	10,128	34
	Total	77,79	11,279	117

Source: author (2022).

After that, we also conducted an Inter-Subjects Effect Test in order to investigate the differences between female and male learners and understand the main effect of the variables sex and age. The test showed a main effect of the variable sex, but the main effect of age was not statistically significant. The test revealed the variable sex as a predictor for FLE.

[9] We considered age as a categorical variable (middle school or high school) and not as a numerical variable.

Table 8 – Inter-Subjects Effect Test

Origin	Type III Sum of Squares	df	Mean square	Z	Sig.
Corrected model	1152,170 a	3	384,057	3,19	0,026
Intercept	560578,764	1	560578,764	4656,07	<,001
Sex	577,144	1	577,144	4,794	0,031
Group	195,6	1	195,6	1,625	0,205
Sex * Group	871,193	1	871,193	7,236	0,008
Standard	13604,907	113	120,397		
Total	722846	117			
Corrected total	14757,077	116			

Source: author (2022).

We found a main effect of the variable sex. There is a difference on the FLE between female and male learners, but there is not a main effect of age. That is, when we compare adolescents to preadolescents the difference is not statistically significant. However, the interaction between sex and age shows that the difference (between male and female) is not the same for both age groups, that is, the comparisons will be different depending on the sex. A follow-up test with Bonferroni correction confirmed the main effect of the variable sex, as it is described in Table 9:

Table 9 – Main Effect of Sex

			confidence interval 95%	
Sex	Mean	Standard Error	Limit Inferior	Limit Superior
Female	79,559	1,479	76,630	82,488
Male	74,612	1,708	71,227	77,997

Source: author (2022).

When we investigated the interaction of the variables age, sex, and FLE, we found a very interesting phenomenon. Previous research had already found that female learners score higher on FLE (DEWAELE *et al*., 2016). However, having the two groups (preadolescents and adolescents) compared showed that the difference on FLE levels significantly decreases once the boys reach the adolescence phase. This surprising

finding is novel in the FLE literature, and suggests that male learners might undergo a maturing process that makes them enjoy the lessons more.

Table 10 – Age, Sex, and FLE

Group	(I) Sex	(J) Sex	Mean Difference (I-J)	Standard Error	Sig.[b]
High School	Female	Male	-1,131	2,461	, 647
	Male	Female	1,131	2,461	, 647
Middle School	Female	Male	11,025 *	3,790	, 004
	Male	Female	-11,025 *	3,790	, 004

Source: author (2022).

The analysis shows that male learners start experiencing more FLE in the adolescence phase. The female learners even experience a bit less FLE when they become adolescents, but the male adolescents considerably change their levels of FLE from 70,133 to 79,091.

Table 11 – Mean FLE

				confidence interval 95%	
Sex	Group	Mean	Standard Error	Limit Inferior	Limit Superior
Female	High School	77,960	1,552	74,886	81,034
	Middle School	81,158	2,517	76,171	86,145
Male	High School	79,091	1,910	75,307	82,875
	Middle School	70,133	2,833	64,520	75,746

Source: author (2022).

Consistently with previous research findings, the results from this study revealed female learners experience more FLE (DEWAELE; MACINTYRE, 2014; DEWAELE *et al*., 2016). It is relevant to observe, however, as we will see in the section below, that once one takes a look at the answers to the FLE open-ended question, it might become more evident why girls have been demonstrating higher levels of FLE. The answers provided by the female participants suggest they are more aware of their language learning process. While boys usually report enjoying games in the lessons, most girls claim to be aware of how every activity assigned in class and everything that happens in

the lesson has a purpose and contributes to an improvement in linguistic knowledge. When they enjoy a listening activity with a song, for instance, they demonstrate not to like it only for the song itself; they seem vibrant because the activity shows them that they can use English as a means to achieve something. The most promising finding of this study, however, is the fact that once learners reach the adolescence phase, levels of FLE are not so different. It means that the female advantage only happens during the preadolescence phase because when male learners get older they have FLE boost. This is the first research study to contribute to a wider understanding of how sex affects FLE. Now that we know that male learners undergo some changes that result in more FLE during adolescence, we need to understand why.

4.3 PROFICIENCY AND FLE

English proficiency was measured through self-assessment in the four skills (reading, listening, speaking and writing). A mean score by each participant was calculated and used in the analysis. Overall, a positive correlation between proficiency and FLE scores was found. One way of looking at this result is that having a wider understanding of what is being conveyed in class makes learning English more enjoyable since the higher the proficiency levels are, the higher the FLE scores.

Table 12 – FLE and Proficiency

		FLE	Proficiency
FLE	Pearson Correlation	1	,337**
	Sig.		0,000
	N	117	117
Proficiency	Pearson Correlation	,337**	1
	Sig.	0,000	
	N	117	117

Source: author (2022).

A Pearson correlation was computed to assess the relationship between the variables FLE and Proficiency. We found a positive correlation between FLE and

proficiency scores (r= 0,337, n= 117, p= 0,000) and also between Relative Standing and FLE, which is similar to previous findings on the relationship between these variables (JIANG; DEWAELE, 2019; BOTES *et al*., 2020). Learners' perception about their proficiency among peers in the present sample is also associated with higher levels of FLE (JIANG; DEWAELE, 2019). This particular finding suggests how learner's self-perceptions and comparisons with their peers can affect their performance in the target language, which supports the relevance of FLE private and social dimensions (DEWAELE; MACINTYRE, 2016). These results highlight the importance of making learners aware of the language learning process, so they can better deal with their expectations, goals, and even their frustrations. A number of learners might actually have a good level of proficiency, but fail to perceive their potential., thus, experiencing less FLE in language lessons.

4.4 THE LINK BETWEEN LEARNER-INTERNAL VARIABLES AND FLE

To answer the question related to the extent to which learner-internal variables were correlated to FLE, we conducted a series of Pearson correlation analysis to explore the relationships between these variables. The bivariate correlational analysis revealed some weak and moderate correlations between FLE and frequency of English use and FLE and relative standing. Even though there is a relationship between FLE and learner-internal variables in this sampling, there might be some unpredicted extraneous variables in action. Still, the results suggest that learners who talk, read, and write more in the target language at school tend to experience more FLE.

Table 13 – FLE and Learner-Internal Variables

		FLE	Frequency: Talk to Family	Frequency: Talk at School	Frequency: Read and Write at School	Frequency: Play Video Games and Online Games	Frequency Read and Write (general)	Frequency: Video Calls	Frequency: Listen to Music and Podcasts	Frequency: Social Media
FLE	Pearson Correlation	1	,270**	,357**	,385**	0,077	,263**	0,162	,210*	,248**
	Sig.		0,003	0,000	0,000	0,412	0,004	0,082	0,023	0,007
	N	117	117	117	117	117	117	117	117	117
Frequency: Talk to Family	Pearson Correlation	,270**	1	,387**	,402**	0,115	,290**	,422**	,214*	,298**
	Sig.	0,003		0,000	0,000	0,216	0,001	0,000	0,020	0,001
	N	117	117	117	117	117	117	117	117	117
Frequency: Talk at School	Pearson Correlation	,357**	,387**	1	,813**	0,100	,416**	,184*	,353**	,387**
	Sig.	0,000	0,000		0,000	0,282	0,000	0,047	0,000	0,000
	N	117	117	117	117	117	117	117	117	117
Frequency: Read and Write at School	Pearson Correlation	,385**	,402**	,813**	1	0,163	,472**	,198*	,398**	,371**
	Sig.	0,000	0,000	0,000		0,078	0,000	0,033	0,000	0,000
	N	117	117	117	117	117	117	117	117	117
Frequency: Play Video Games and Online Games	Pearson Correlation	0,077	0,115	0,100	0,163	1	,272**	,266**	,212*	0,145
	Sig.	0,412	0,216	0,282	0,078		0,003	0,004	0,022	0,119
	N	117	117	117	117	117	117	117	117	117
Frequency Read and Write (general)	Pearson Correlation	,263**	,290**	,416**	,472**	,272**	1	,428**	,421**	,398**
	Sig.	0,004	0,001	0,000	0,000	0,003		0,000	0,000	0,000
	N	117	117	117	117	117	117	117	117	117
Frequency: Video Calls	Pearson Correlation	0,162	,422**	,184*	,198*	,266**	,428**	1	,258**	,225*
	Sig.	0,082	0,000	0,047	0,033	0,004	0,000		0,005	0,015
	N	117	117	117	117	117	117	117	117	117
Frequency: Listen to Music and Podcasts	Pearson Correlation	,210*	,214*	,353**	,398**	,212*	,421**	,258**	1	,571**
	Sig.	0,023	0,020	0,000	0,000	0,022	0,000	0,005		0,000
	N	117	117	117	117	117	117	117	117	117
Frequency: Social Media	Pearson Correlation	,248**	,298**	,387**	,371**	0,145	,398**	,225*	,571**	1
	Sig.	0,007	0,001	0,000	0,000	0,119	0,000	0,015	0,000	
	N	117	117	117	117	117	117	117	117	117

Source: author (2022).

Similarly to previous studies (JIANG; DEWAELE, 2019; BOTES *et al*., 2020), we found a positive correlation between FLE and Relative Standing (r = 0,300, n= 117, p= 0,001). That is, participants who had a more positive and confident perception about their proficiency in comparison to their peers experienced more FLE in English lessons.

Table 14 – FLE and Relative Standing

		FLE	Relative Standing
FLE	Pearson Correlation	1	,300**
	Sig.		0,001
	N	117	117
Relative Standing	Pearson Correlation	,300**	1
	Sig.	0,001	
	N	117	117

Source: author (2022).

Higher levels of FLE were found to be related to how often participants use English to talk to their friends and family and use the target language at school. These findings suggest the more English has meaningful use in the participants' lives, the more they enjoy learning, which brings us to some relevant pedagogical implications. Teachers must show learners how speaking another language can have a positive impact in our lives. In countries where a very small part of the population speaks English, as is the case in Brazil, for example, it is imperative to make students detach from the idea that speaking English is only worth it for those who are financially able to travel overseas.

4.5 SELECTION OF PARTICIPANTS' ANSWERS TO THE OPEN-ENDED FLES QUESTION

Emotions are not an exact science. Even though the quantitative data can provide an accurate measure of the variables under investigation, having a qualitative section can be an advantage for research studies that deal with emotions. Some of its nuances can only be attained by looking at personal reports of classroom situations, so that is why we included the open-ended question from the FLES in the analysis. According to Dewaele and MacIntyre (2016), mixing qualitative and quantitative research methods can enrich the data interpretation. If the quantitative data shows that female learners have higher FLE levels, for example, the open-ended answers can provide a deeper

comprehension of the reasons for this finding. Therefore, in order to further investigate the relationship between learner-internal variables and FLE, participants were asked to report, in as much detail as possible, one episode in their English lessons that they remember having really enjoyed. These reports were used to answer RQ5. Overall, participants' reports were very short. Still, from the answers they provided, it is possible to infer possible explanations for the results reported above. The analysis indeed revealed female participants scored higher on FLE, and the following reports illustrate these results. While male participants apparently do not care or like the classes, female participants seem to be aware that it is possible to enjoy the learning process:

(male, 12) It's pretty boring.

(male, 15) I can't remember.

(male, 15) I don't know.

(female, 12) The classes where we play Kahoot and Gartic. We have fun and learn English in a fun and easy way.

(female, 15) I loved the activities we had in our first week of classes, where we had to describe ourselves using characters from movies and TV shows. It was fun!

(female, 15) When we had an activity where we should listen to the song and fill in the gaps. It helped a lot with listening and comprehension. I liked this activity very much, mainly because I was practicing English while listening to music.

Unfortunately, virtually all male participants did not provide detailed answers. The participant who stated the classes were pretty boring, for example, does not give us an idea for the reasons that he has to think so. Perhaps, for this age group - and more specifically for male participants - it could be useful to add a question asking them to report why classes are boring. Still, if there is one thing one can learn from these answers, it is the importance of understanding the learner. We need to know what makes the classes boring for them in order to take any measures towards this problem. The other male answers illustrate the same problem. The boys simply stated they neither remember nor know of an enjoyable moment. On the other hand, the female answers illustrate the results found in the quantitative analysis: they enjoy the lessons

more. Moreover, they provide explanations on why they have fun. They enjoy games such as Kahoot[10] and Gartic[11]. The female answers provide insight on what to use in class for boosting FLE. Gamification, music, and tv series seem to work well.

The results also revealed adolescents tend to score higher than preadolescents on FLE. The following reports support this finding:

> *(female, 16) I love when we discuss something in the classes because I can practice my speaking and learn new expressions, etc. I feel fluent and capable.*
>
> *(male, 15) When we were supposed to make a presentation with old photos. It was my turn to present my photos and we laughed a lot because they were funny.*
>
> *(male, 12) There were not any moments I enjoyed.*
>
> *(male, 12) When we play Gartic.*

Overall, adolescents reported in more detail what makes them enjoy the lessons. The quantitative analysis shows that they score higher on FLE, and the open-ended answers support this finding because they indeed put more effort on explaining the classroom situations they enjoyed. Excerpts of students saying “I love when...” and “I like when” were much more frequent among the adolescents’ answers in comparison to preadolescents’ answers. Combining the two quantitative findings that show boys and preadolescents enjoy the lessons less, the answer above from the 12 year old male participant clearly confirms it. According to him, there were not enjoyable moments. It shows how challenging it is to please them and boost their FLE. The second 12 year old male participant stated he likes when they play Gartic, but unlike the female participants he did not make any association or attempt to explain how this game makes the lesson fun. One could infer they like the game because they perceive it as a break, not as a moment to learn English.

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[10] Kahoot is an online educational game where teachers can design quizzes, open-ended questions, and puzzles and project it in class. The questions are displayed on screen, and students use their devices to log in and click on the right answer. At the end of the game, the podium is displayed on screen.

[11] Gartic is an online game where participants log in and take turns in drawing a random word (the topics can be chosen in advance, which makes it good to practice vocabulary, for example). The other participants need to guess what the participant is drawing and send the word in the chat. The game only accepts answers if they are spelled correctly.

The quantitative analysis also revealed a correlation between FLE scores and frequency of English use. Indeed, some participants reported enjoying themselves more when they are expected to use the target language in class:

> *(female, 12) When I had to talk about a topic in front of the class, I was able to express myself very well. In the beginning I was very nervous and ashamed, but then I got so happy and excited. I was also proud of myself for being able to do that.*
>
> *(male, 15) When the teacher asked us to make a presentation in English about a TV show or movie that we liked the most. I loved it. I usually watch them in English and it helped a lot. I felt pleasure doing this task because I was talking about something that I like.*

The answers to the open-ended question confirm this finding. Overall, participants enjoyed having to use English orally in class. This finding was unexpected. Teachers have been long aware that a number of students fear the need of speaking English in front of the class and making presentation activities. A reason that may explain why the quantitative analysis found a significant direct association between FLE scores and frequency of English use can be inferred from the 15 year old male participant's open-answer above where he claims he enjoyed talking about his favorite tv show in the presentation: when students are familiar and like the topic they are supposed to talk about, the task is more enjoyable. Probably, the reason why we have encountered so much resistance in oral presentations is because we have been assigning topics that do not trigger students' interests. Once they need to talk about something of their interest, FLE can be boosted.

The qualitative analysis involving the answers to the FLES open-ended question supported the findings from the quantitative analysis. Many participants, especially the preadolescent males, stated that games were an important factor for them to enjoy English lessons, suggesting that gamification can help teachers boost students' FLE. Music also proved itself to be a good tool in achieving FLE, since various participants from both groups claimed to enjoy using song activities in the English lessons. A surprising finding from the answers was the amount of reports related to how they liked to make presentations in front of their peers. One usually associates oral presentation in

class with the arousal of negative emotions, but according to a number of reports participants perceived the opportunity to speak English in front of the class as a positive opportunity to improve proficiency. They reported enjoying oral presentations when the topic relates to something of their liking, such as talking about series, movies, or even about their personal life experiences. These reports reinforce the importance of making the learning process meaningful, exploring topics that engage students and prompt enjoyment in the classroom. In other words, if you give students something they want to talk about, they will feel motivated to do it.

The reports also indicate that the biggest challenge lies in teaching preadolescent male learners. The occurrence of negative answers to the open-ended question was alarming among them. Most claim not enjoying the classes, and the ones who enjoy them only mentioned games as a motivating factor, differently from the female participants from both age groups, who could always make a connection with the learning process when mentioning games. It seems like they can understand games work as a learning tool, whereas male participants might like games because they perceive it as a break from the lessons.

5 FINAL CONSIDERATIONS AND PEDAGOGICAL IMPLICATIONS

Teaching learners who are going through all the changes regarding adolescence can be quite challenging. Teachers face a problem that does not occur when dealing with other age groups; we do not know who our students are. In fact, not even they know that because of the turmoil that is taking place inside their minds. Trying to find ways to make adolescents enjoy the learning process presents so many obstacles because they are starting to reject things they have enjoyed in childhood and discovering what makes them happy in this new phase of their lives. The figure of the supportive teacher who was always there for them may now have become a source of boredom. It is important for teachers to bear in mind that when adolescents do not seem to cope or to take interest in our lessons that it is not (always) the teacher's fault.

As mentioned in the introduction of this dissertation, the schools have been taking too long to adapt to the needs of the 21st century, and the reflections of that are students who do not feel like they fit nor should be in the classroom. The knowledge we teachers judge relevant for them might be perceived as detached from their reality. Unfortunately, there is not, and there will never be, a recipe to deal with adolescents. However, before any concerns about contents to be covered, teachers must worry and work towards establishing trust with adolescents. Adolescents live in a world where knowledge and information can be easily accessed online without the assistant of teachers. They do not need to receive content from us. And they are aware of that. They need to be inspired by the teacher, and see us as someone who can show them what can be done with the knowledge they already know how to get.

The findings from the present study, when compared to previous research findings, can be taken as a reinforcement of the important role of the teacher as a mediator in the classroom. Language teachers need to work towards building a positive and safe environment so learners of an additional language can profit from the lessons. Also, findings regarding learner-internal variables, such as the association between frequency of English use and FLE, can be considered novel for us, since specially in the Brazilian context it is very common to think and presume otherwise. It has long been common sense that using the target language in class can make students

uncomfortable, but that is not what the findings from this research show. A powerful pedagogical implication that can be inferred from this research study, especially from the open-ended answers, is that teachers must plan meaningful activities that are able to make students willing to try, explore, and develop their communication skills. As it can be seen from the open-ended answers to the FLE, students actually enjoy having the possibility of using English in the classroom. It is the teachers' responsibility to make sure oral activities are designed in a way that will not make students feel uncomfortable and afraid. Getting to know students as much as we can is always the best way to know how to prepare activities that will contemplate their interests, strengths, and weaknesses. Every activity can be adapted according to the context. The open-ended answers from the FLE provided rich suggestions to boost enjoyment in English lessons.

According to our data analysis, preadolescent male learners seem to be the most challenging group. They tended to answer in much less detail one episode in English class that they have enjoyed, and a number of them simply reported not enjoying it at all. From the answers provided by male preadolescent participants, it is possible to infer that gamification might be a useful tool. Teachers can actually trick them into thinking it is just a game, but use these games as a strategy to explore the content and knowledge we want to convey. The least challenging situation appears to be dealing with female learners. Similarly to previous research studies, they scored higher on FLE, and judging by the open-ended answers they not only have more fun, but also have a more clear perception of the linguistic purposes that underlie the activities in class. Several research studies have found that girls have more fun in English lessons, so it might be relevant for further studies to conduct a deeper analysis that aims to understand the reasons why they experience more FLE. However, both groups of female learners, preadolescents and adolescents, scored lower on sleep quality scores, which is worrying. We need to know why girls are having worse sleep quality than boys. Still on sleep quality, our data shows that there are not significant differences in sleep quality levels between preadolescents and adolescents. Therefore, it is also necessary to further investigate why preadolescents are facing a decay in sleep quality that is only expected to happen later in their lives. If changing the school timetables in a way that fits their physiological needs for contemplating the hours they need to sleep is not possible,

then the schools need to address the issue of sleeping. The role of an integral formation is more and more the schools' responsibility rather than parents. Whether this is right or not is another issue. However, institutions are aware of that and have been willingly accounting for this responsibility, so they should also address the issue of sleeping through teaching preadolescents and adolescents how to improve their sleeping routine. This instruction can be done in a number of ways, such as workshops, lectures, transdisciplinary projects that involve sleeping (and here there is a chance for English language teachers to address the topic, perhaps by developing a project with the science teacher that encompasses content about sleep that can be taught in English).

Findings of this study also revealed how important and relevant what learners think and perceive of themselves is. The analysis revealed that relative standing among peers and proficiency were all significantly and positively correlated with FLE. Therefore, language teachers should not overlook students' self-perceptions and beliefs. Teaching an additional language also requires teaching students that the learning process works differently for each individual. Language teachers could make an attempt to talk to students about learning outcomes and make sure they understand better that they will not be punished because of their performance. Moreover, they need to make sure students feel comfortable not only with us, the teachers, but also among their peers. The classroom must be a safe place for exploration. As previous research findings have shown, even though the support among peers might be more relevant for students, feeling comfortable with the teacher may also help students experience more enjoyment in the lessons.

The present study aimed at reinforcing the importance of combining findings from different fields with the intention to improve learning conditions. Considering that positive emotions can play a decisive role in the learning outcomes, we highlight the importance of investigating how FLE interacts with other variables, such as sleep quality. Our findings confirmed that female learners experience more FLE, similarly to the results reported by Dewaele *et al*. (2016), and showed that learner-internal variables may be linked to higher scores on FLE (JIANG; DEWAELE, 2019), and that male learners sleep better than female learners (GARIEPY *et al*., 2020). As far as we know, this is the first study in Brazil that investigated FLE and Learner-Internal variables. It is interesting to

learn that Brazilian learners share many aspects with learners from other languages and social backgrounds. This is also the first study that we know of to investigate whether sleep quality is related to FLE, an empirical gap the present research aimed to account for. Findings from this study may help clarify ways to deal with emotions in the classroom through the adaptation of pedagogical practices and the incorporation of emotional intelligence to the language classroom.

Finally, this research study highlights how so many factors that, in a first glimpse, do not seem to interfere in the school life of students are actually intertwined. It is common sense that us, teachers, do what we can, but maybe we can and should do more. By implementing the suggestions from SEL, for example, in language lessons, we can develop Self-awareness and Self-management to help students deal with their emotions and behavior - many of them possibly caused by the poor sleep quality. We can develop Social-awareness and Relationship skills, making the classroom environment more comfortable and safer for exploration, a place where most students would feel at ease to practice their speaking skills, which our data has proven to be related to higher levels of FLE, thus boosting everyone's levels of FLE, and develop Responsible decision-making, which has a direct impact on students' well-being. Most of all, teachers must remember that we have been there, and there are so many things that adolescents need before remembering grammar rules.

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APPENDIX

APPENDIX A – Termo de Consentimento Livre e Esclarecido

Termo de Consentimento Livre e Esclarecido

O projeto de pesquisa `A RELAÇÃO ENTRE DIVERTIMENTO E QUALIDADE DE SONO NA APRENDIZAGEM DE INGLÊS COMO LÍNGUA ADICIONAL POR ADOLESCENTES EM CONTEXTO ESCOLAR tem como objetivo identificar os possíveis efeitos do divertimento e da qualidade do sono no processo de aprendizagem de Língua Inglesa. Para tanto, serão analisadas as respostas dos participantes, aprendizes de Língua Inglesa, a um questionário sobre divertimento e a um questionário sobre qualidade de sono. Solicitamos sua autorização para que seu/sua filho(a) participe da pesquisa respondendo a estes questionários. A identidade do participante será mantida em sigilo, conforme Resolução CNS 510/2016. Os resultados obtidos na tarefa serão armazenados em um banco de dados para posterior análise e discussão. Seu/sua filho(a) pode não se beneficiar diretamente desta pesquisa. No entanto, acreditamos que sua participação no estudo pode ajudar a ampliar nossa compreensão sobre os efeitos do divertimento e da qualidade de sono nas aulas de Língua Inglesa. Os riscos envolvidos na participação são mínimos, tais como a possibilidade de perceber algum sintoma de fadiga devido à duração da coleta de dados (cerca de 30 minutos), bem como certa preocupação com as respostas dadas nos questionários. Esses riscos, caso se concretizem, serão de caráter passageiro, e não permanente. Para minimizar os riscos, será oferecido à instituição um momento com os participantes em que o pós-graduando responsável pela pesquisa possa sanar eventuais dúvidas e desconfortos oriundos da coleta de dados.

Ao concordar com o presente Termo de Consentimento Livre e Esclarecido, você declara que autoriza a participação de seu/sua filho(a) neste projeto de pesquisa, pois foi informado, de forma clara e detalhada, livre de qualquer forma de constrangimento e coerção, dos objetivos e justificativa desta pesquisa, dos procedimentos a que serão submetidos(as), dos riscos, desconfortos e benefícios e sobre as tarefas que realizaremos, todos acima listados. Foi, igualmente, informado:

* da garantia de receber resposta a qualquer pergunta ou esclarecimento a qualquer dúvida acerca dos procedimentos, riscos, benefícios e outros assuntos relacionados com a pesquisa;

* da liberdade de retirar seu consentimento, a qualquer momento, e de retirar a participação de meu (minha) filho(a) do estudo, sem justificativa e sem que isso me traga prejuízo;

* da garantia de seu/sua filho(a) não será identificado(a) quando da divulgação dos resultados e que as informações obtidas serão utilizadas apenas para fins científicos vinculados ao presente projeto de pesquisa.

A pesquisadora responsável por este projeto de pesquisa é a professora Dra. Ingrid Finger (ingrid.finger@ufrgs.br) telefone institucional: 51-3308.6704; endereço institucional: gabinete Nº220 do Prédio Administrativo do Instituto de Letras do Campus do Vale da UFRGS.

Quaisquer dúvidas podem ser sanadas junto ao pós-graduando Rafael Leote Dutra (rafaelleotedutra@gmail.com, fone: 51-99354.3429) ou junto ao Comitê de Ética em Pesquisa da UFRGS (CEP/UFRGS: 51-33083738). Horário de Funcionamento: de segunda a sexta, das 08:00 às 12:00 e das 13:00 às 17:00h.

*Obrigatório

Você autoriza seu/sua filho(a) a participar da pesquisa? *

- Autorizo a participação
- Não autorizo a participação

APPENDIX B – Termo de Assentimento

Termo de Assentimento Livre e Esclarecido

Você está sendo convidado(a) a participar da pesquisa `A RELAÇÃO ENTRE DIVERTIMENTO E QUALIDADE DE SONO NA APRENDIZAGEM DE INGLÊS COMO LÍNGUA ADICIONAL POR ADOLESCENTES EM CONTEXTO ESCOLAR`. Esta investigação tem como objetivo identificar os possíveis efeitos do divertimento e da qualidade de sono no processo de aprendizagem de Língua Inglesa. Você será convidado(a) a responder a um questionário sobre o divertimento nas aulas de Língua Inglesa. Para participar deste estudo, primeiramente, o responsável por você deverá autorizar a sua participação através do Termo de Consentimento Livre e Esclarecido. Além disso, o responsável por você poderá retirar o consentimento ou interromper a sua participação a qualquer momento. A sua participação é voluntária, por isso, você não terá nenhum custo, nem receberá qualquer vantagem financeira. A recusa em participar dessa pesquisa não acarretará qualquer penalidade ou modificação na forma em que você é atendido(a) pelo pesquisador que irá tratar a sua identidade com padrões profissionais de sigilo, conforme Resolução CNS 510/2016. Os riscos envolvidos na participação são mínimos, tais como a possibilidade de perceber algum sintoma de fadiga devido à duração da coleta de dados (cerca de 30 minutos), bem como certa preocupação com as respostas dadas nos questionários. Esses riscos, caso se concretizem, serão de caráter passageiro, e não permanente. Para minimizar os riscos, será oferecido à instituição um momento com os participantes em que o pós-graduando responsável pela pesquisa possa sanar eventuais dúvidas e desconfortos oriundos da coleta de dados. Ainda que você não se beneficie diretamente, acreditamos que sua participação no estudo pode ajudar a ampliar nossa compreensão sobre os efeitos do divertimento e da qualidade de sono nas aulas de Língua Inglesa.

A pesquisadora responsável por este projeto de pesquisa é a professora Dra. Ingrid Finger (ingrid.finger@ufrgs.br) telefone institucional: 51-3308.6704; endereço institucional: gabinete Nº220 do Prédio Administrativo do Instituto de Letras do Campus do Vale da UFRGS. Quaisquer dúvidas podem ser sanadas junto ao pós-graduando Rafael Leote Dutra (rafaelleotedutra@gmail.com, fone: 51-99353 3429) ou junto ao Comitê de Ética em Pesquisa da UFRGS (CEP/UFRGS: 51-33083738). Horário de Funcionamento: de segunda a sexta, das 08:00 às 12:00 e das 13:00 às 17:00h

Ao concordar com o presente Termo de Assentimento, você declara que autoriza sua participação nesta pesquisa, e que foi informado(a), de forma clara e detalhada, livre de qualquer forma de constrangimento e coerção, dos objetivos e justificativa desta pesquisa, dos procedimentos a que será submetido(a), dos riscos, desconfortos e benefícios e de informações sobre as tarefas que realizará, todos acima listados.
*Obrigatório

Você aceita participar da pesquisa? *

Aceito participar

Não aceito participar

APPENDIX C – Questionário de Histórico de Linguagem

Questionário de Histórico de Linguagem

Nome: ……. Sexo: ……. Data de nascimento:…….

Turma: ( ) 7º Anos Finais ( ) 1º Ano Ensino Médio

1. Liste todas as línguas que você sabe em ordem de aquisição (1 sendo sua língua nativa):

Língua 1		Língua 3	
Língua 2		Língua 4	

2. Indique onde você aprendeu as suas línguas (marque tantas opções quantas forem necessárias):

Língua 1	Língua 2	Língua 3	Língua 4
( ) Casa ( ) Escola ( ) Curso de Línguas ( ) Sozinho ( ) Outro: ……..	( ) Casa ( ) Escola ( ) Curso de Línguas ( ) Sozinho ( ) Outro: ……..	( ) Casa ( ) Escola ( ) Curso de Línguas ( ) Sozinho ( ) Outro: ……..	( ) Casa ( ) Escola ( ) Curso de Línguas ( ) Sozinho ( ) Outro: ……..

3. Avalie em uma escala de 1 a 6, seu nível de proficiência nas línguas que sabe (1 = muito baixo, 2 = baixo, 3 = razoável, 4 = bom; 5 = muito bom e 6 = proficiente)

Língua 1
Leitura 1 2 3 4 5 6
Escrita 1 2 3 4 5 6
Compreensão auditiva 1 2 3 4 5 6
Fala 1 2 3 4 5 6

Língua 2
Leitura 1 2 3 4 5 6
Escrita 1 2 3 4 5 6
Compreensão auditiva 1 2 3 4 5 6
Fala 1 2 3 4 5 6

Língua 3
Leitura 1 2 3 4 5 6
Escrita 1 2 3 4 5 6

Compreensão auditiva 1 2 3 4 5 6
Fala 1 2 3 4 5 6

Língua 4
Leitura 1 2 3 4 5 6
Escrita 1 2 3 4 5 6
Compreensão auditiva 1 2 3 4 5 6
Fala 1 2 3 4 5 6

4. Marque o número correspondente à frequência em que você usa o inglês para estas atividades:

1 = algumas vezes por ano 2 = uma vez por mês 3 = uma vez a cada duas semanas
4 = uma vez por semana 5 = mais de uma vez por semana 6 = diariamente

	Frequência
Falar com sua família	**1 2 3 4 5 6**
Falar com amigos	**1 2 3 4 5 6**
Falar na escola	**1 2 3 4 5 6**
Ler/escrever na escola	**1 2 3 4 5 6**
Ler (livros, revistas, jornais...)	**1 2 3 4 5 6**
Jogar video game ou jogos online	**1 2 3 4 5 6**
Escrever em geral (e-mails, mensagens, chats, diário, agenda...)	**1 2 3 4 5 6**
Assistir TV, filmes, séries, Youtube e outros vídeos	**1 2 3 4 5 6**

Ouvir música, podcasts e outros áudios	**1 2 3 4 5 6**
Usar redes sociais (Instagram/TikTok)	**1 2 3 4 5 6**

5. Com que idade você começou a aprender inglês?
6. Você já estudou inglês fora do Brasil? Por quantos meses? (Caso a resposta seja não, coloque zero)

APPENDIX D – Foreign Language Enjoyment Scale

1. Eu consigo ser criativo
2. Acho engraçado quando cometo algum erro no idioma que estou aprendendo
3. Eu não fico entediado
4. Eu aproveito a aula
5. Eu sinto como se eu fosse uma pessoa diferente durante a aula de inglês
6. Eu aprendi a me expressar melhor em inglês
7. Eu sou um membro importante da turma
8. Eu aprendi coisas interessantes
9. Na aula, eu fico orgulhoso do que consigo fazer
10. A sala de aula é um ambiente positivo
11. É legal saber inglês
12. Eu me divirto
13. Cometer erros é parte do processo de aprendizagem
14. Os colegas são legais
15. O professor nos encoraja
16. O professor é amigável
17. O professor nos dá apoio
18. Tem um clima legal
19. Formamos um grupo unido
20. Nós temos as nossas piadas internas
21. Nós rimos muito

Descreva um momento específico de alguma aula de inglês que você tenha gostado. Descreva o seu sentimento em relação ao momento o mais detalhadamente possível

APPENDIX E – Adolescent Sleep–Wake Scale

1. Quando é hora de ir para a cama, quero ficar de pé fazendo outras coisas, como assistir televisão, jogar videogame, ou ficar no celular
2. Eu tenho problemas para ir para a cama no horário
3. Não estou pronto/a para ir para a cama no horário
4. Não gosto do horário de dormir
5. Eu tento postergar o horário de ir para a cama
6. Quando é hora de apagar a luz e dormir, eu tenho dificuldade para me acomodar
7. Quando é hora de apagar a luz e dormir, não me sinto sonolento/a
8. Quando é hora de apagar a luz e dormir, eu deito mas depois me levanto e saio do quarto
9. Eu tenho problemas para dormir
10. Eu preciso de ajuda pra dormir, como escutar música, assistir televisão, tomar remédio, ou ter alguém como companhia no quarto
11. Eu não durmo rápido
12. Durante a noite, eu viro para lá e para cá na cama
13. Durante a noite, sou muito inquieto/a
14. Durante a noite, eu falo dormindo
15. Durante a noite, minhas pernas chutam ou empurram
16. Durante a noite, eu acordo mais de uma vez
17. Eu não durmo tranquilamente a noite toda
18. Depois de acordar no meio da noite, tenho dificuldade para voltar a dormir
19. Depois de acordar no meio da noite, tenho dificuldade para ficar confortável
20. Depois de acordar no meio da noite, eu acordo alguém da família
21. Depois de acordar no meio da noite, eu preciso de ajuda pra dormir, como escutar música, assistir televisão, ler, ou dormir com outra pessoa
22. Depois de acordar no meio da noite, eu sinto medo
23. Depois de acordar no meio da noite, não consigo virar pro lado e durmo novamente
24. Pela manhã, eu acordo e não me sinto pronto pro resto do dia

25. Pela manhã, eu acordo sem estar descansado e alerta
26. Pela manhã, eu acordo e simplesmente não consigo me mexer
27. Preciso de ajuda para acordar de manhã, como um alarme ou outra pessoa me chamar
28. Tenho dificuldades para sair da cama de manhã