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Self-regulation, motivation and quality of life of Accounting students in remote education

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Self-regulation, motivation and quality of life of Accounting students in remote education

Abstract

Objective: To analyze how the use of self-regulated learning practices, the level of motivation in learning, and quality of life are correlated. **Method:** A quantitative and descriptive research was conducted by applying a questionnaire to 217 accounting undergraduates enrolled in four higher education institutions (HEIs) at Paraná. **Results:** Students reported feeling little motivated to study during remote education due to COVID-19 and experiencing relatively high levels of negative feelings (such as bad mood, anxiety, and/or depression). As for self-regulated learning strategies, "self-evaluation" and "self-consequence" were, respectively, the most and least used. Statistical correlations showed that student motivation is strongly correlated with quality-of-life factors such as "ability" and "concentration" to study, and these, in turn, were the items most correlated with self-regulated learning strategies. **Contributions:** These results highlight the importance of increasingly stimulating autonomous learning by using teaching approaches that promote motivation, reducing the levels of negative feelings.

Keywords: Self-Regulated Learning Strategies. COVID-19. Motivation. Quality of Life.

Autorregulação, motivação e qualidade de vida dos discentes de Ciências Contábeis no ensino remoto

Resumo

Objetivo: Analisar como o uso de práticas de aprendizagem autorregulada, o nível de motivação em aprender e a qualidade de vida estão correlacionados. **Método:** Foi realizada uma pesquisa de abordagem quantitativa e descritiva por meio da aplicação de um questionário com 217 estudantes do curso de Ciências Contábeis de quatro instituições de ensino superior (IES) do Paraná. **Resultados:** As respostas dos estudantes evidenciaram que os respondentes se sentem pouco motivados a estudar no período de ensino remoto devido à Covid-19, além de apresentarem níveis relativamente altos de sentimentos negativos (como mau-humor, ansiedade e/ou depressão). Em relação às estratégias de aprendizagem autorregulada, a mais utilizada é a "autoavaliação", e a menos utilizada é a "autoconsequência". Já as correlações estatísticas evidenciam que a motivação dos discentes está fortemente correlacionada aos fatores de qualidade de vida, como "capacidade" e "concentração" para estudar, e esses, por sua vez, foram os itens mais correlacionados com as estratégias de aprendizagem autorregulada. **Contribuições:** Com base nesses resultados, ressalta-se a importância de estimular cada vez mais uma aprendizagem autônoma do discente, atentando-se em utilizar abordagens de ensino que os façam sentir-se mais motivados, reduzindo os níveis de sentimentos negativos.

Palavras-chave: Estratégias de Aprendizagem Autorregulada. Covid-19. Motivação. Qualidade de Vida.

Autorregulación, motivación y calidad de vida de estudiantes de Contabilidad en educación a distancia

Resumen

Objetivo: Analizar cómo se correlacionan el uso de prácticas de aprendizaje autorregulado, el nivel de motivación para aprender y la calidad de vida. **Método:** Se realizó una investigación con enfoque cuantitativo y descriptivo mediante la aplicación de un cuestionario con 217 estudiantes del curso de Contabilidad de cuatro instituciones de enseñanza superior (IES) de Paraná. **Resultados:** Las respuestas de los estudiantes mostraron que los encuestados se sienten poco motivados para estudiar en el período de enseñanza a distancia debido al Covid-19, además de tener niveles relativamente altos de sentimientos negativos (como mal humor, ansiedad y/o depresión). En cuanto a las estrategias de autorregulación del aprendizaje, la más utilizada es la "autoevaluación", y la menos utilizada es la "autoconsecuencia". Las correlaciones estadísticas muestran que la motivación de los estudiantes está fuertemente correlacionada con factores de calidad de vida, como "capacidad" y "concentración" para estudiar, y estos, a su vez, fueron los ítems más correlacionados con las estrategias de autorregulación del aprendizaje. **Aportes:** A partir de estos resultados, es importante fomentar un aprendizaje cada vez más autónomo por parte de los estudiantes, cuidando de utilizar enfoques didácticos que los hagan sentir más motivados, reduciendo los niveles de sentimientos negativos.

Palabras clave: Estrategias de Aprendizaje Autorregulado. COVID-19. Motivación. Calidad de vida.

Introduction

The COVID-19 pandemic generated a global sense of threat and uncertainty (Schiff et al., 2021). Challenges resulting from this health crisis affected both higher education institutions (HEIs) and students, teachers, and staff (Hodges et al., 2020). This is because with the suspension of in-person teaching activities, HEIs had to move to an "online reality" (Moreira et al., 2020) which affected their routines and work organization. Alongside this process, virtual environments and digital technologies have gained prominence as a way to continue promoting learning (Santos Junior & Monteiro, 2020).

In this new educational context, teachers should guide students towards a more autonomous learning, in which they learn how to learn (Moreira et al., 2020), a major educational goal (Pintrich, 1999) required in several areas, including Accounting (Aguiar et al., 2014). To do so, according to Boruchovitch (2008), self-regulated learning is needed.

Self-regulated learning can be influenced by motivation, personal resources and the environment (Becker, 2016), as well as external social factors (Aguiar et al., 2018). Consequently, although remote learning is a temporary option, we must consider that adaptation to the virtual environment can be difficult for students, because, according to Santos Junior and Monteiro (2020), their routines are modified, having to share time with other activities. As a result, emotional impacts can occur. Further, the different socioeconomic conditions of students interfere in effective learning, impacting, according to Borba et al. (2020), access to technologies and the time available for their use, the study environment, the working day, and family income. In the meantime, we can observe the impact of the student's quality of life during remote education due to COVID-19.

Moreover, such difficulties can leave many students unmotivated to learn. Perassinoto et al. (2013) indicate that student motivation can contribute to the adoption of learning strategies, such as self-regulation. We should also consider that institutions and teachers play a vital role in student motivation (Reis et al., 2017), and is up to them, especially in this period,

to generate a virtual communication and learning structure in which students feels motivated (Moreira et al., 2020).

Given the above, this study sought to analyze how the use of self-regulated learning strategies, the level of motivation in learning and quality of life correlated during the COVID-19 pandemic. To do so, we analyze the perceptions of accounting undergraduates from four HEIs (two public and two private) in the state of Paraná.

Its relevance stems from the fact that research on Accounting education is still little explored, as Santos et al. (2016) point out. Besides, we identified no studies that investigated these variables in this specific context, considering that the pandemic scenario requires many reflections, aiming at solutions to help meet the new needs of the academic community (Hodges et al., 2020) and develop teaching and learning strategies capable of mitigating the teaching losses due to school closures (Valente et al., 2020). From a theoretical perspective, this study seeks to complement research on accounting education, and may imply, in a practical context, the adoption of new pedagogical strategies and practices according to the understanding of student learning in this context. From a practical point of view, we also highlight the possibility of presenting alternatives to avoid a possible academic evasion from HEIs, since quality of life can lead to difficulties in the teaching and learning process (Catunda & Ruiz, 2008). Finally, motivation is considered a determining factor for students to "continue studying or not" (Becker, 2016, p. 2).

This article is subdivided into five sections, including this introduction. In the following section we review the specialized literature on the theme. Next, we describe the methodological procedures. The fourth section discusses the analysis of the results. Finally, the fifth and last section presents the final considerations, limitations and possibilities for future studies.

Theoretical framework

Remote Education and Digital Technologies in Mediating Learning During the Pandemic

With in-person classes suspended due to the COVID-19 pandemic, some educational institutions, via Ordinance No. 343 of March 17, 2020, which provides for the use of digital media for the duration of the pandemic, have chosen to continue their activities using digital technologies (Santos Junior & Monteiro, 2020), such as Skype, Google Hangouts, Zoom and platforms such as Moodle, Microsoft Teams and Google Classroom (Moreira et al., 2020), in a model called emergency remote education (ERE).

This new scenario demanded a rapid response from Universities, including a complete transformation from the traditional classroom teaching model to the online environment (Novak, Kozjak, & Perić, 2021). Novak et al. (2021) report that, in Europe, problem solving by technical infrastructure and teacher training were crucial aspects for maintaining quality in the teaching and learning process.

In Brazil, opinions diverged on the quality of teaching methodologies implemented by ERE, contributing so that, as Hodges et al. (2020) point out, remote education was seen as a weak option, given the great "temptation" of comparing it with in-person education. The issue, however, is not to opt for one model or another; but rather the need to analyze and discuss this unprecedented context in which it was impossible to project the resumption of in-person classes (Arruda, 2020).

Importantly, distance education (DE) and ERE differ: DE is a model planned and designed to be online since its inception, whereas ERE is an alternative—and temporary—teaching model proposed to provide access to educational supports and content in a "fast, easy

to set up and reliable manner" during the pandemic (Hodges et al., 2020, p. 6). Arruda (2020) argues that implementation of alternatives for students affected by school closures, even if conducted through digital technologies, does not constitute a distance education project.

ERE becomes relevant for maintaining the link between HEIs and students, despite possible limitations (Arruda, 2020), being a time in which, according to Hodges et al. (2020), one must "think outside the box" to enable solutions that can help meet the new needs of the academic community.

Self-Regulated Learning in Accounting and the Role of Motivation and Quality of Life

By self-regulated learning strategy we mean the learners' actions directed at acquiring information or skills that involve agency, purpose (goals), and instrumentality self-perceptions (Zimmerman & Pons, 1986). Moreover, self-regulated learning strategies (SRL) "is a process that establishes the active participation of the individual" (Lima Filho et al., 2015, p. 41).

In this new educational context, a more active stance is required from students, with Moreira et al. (2020) and Valente et al. (2020) pointing out that teachers should guide students towards a learning experience in which they learn how to learn. Studies on self-regulated learning in accounting are of paramount importance. International accounting bodies such as the Accounting Education Change Commission (AECC) and the American Institute of Certified Public Accountants (AICPA) recommend forming professionals capable of learning to learn, whether in in-person education or distance education (Aguiar et al., 2014).

Zimmerman and Pons (1986) developed 14 self-regulated learning strategies, considering them highly related to academic success (Table 1).

Table 1

Self-regulated learning strategies

Self-regulated learning strategies	Characteristics
1. Self-evaluation	Indicates student-initiated evaluations of the quality or progress of their work.
2. Organizing and transforming	Indicates student-initiated use of instructional materials to improve learning.
3. Goal-setting and planning	Indicates planning for sequencing, timing, and completing activities related to goals set by the student.
4. Seeking information	Indicates student-initiated efforts to secure further task information.
5. Keeping records	Indicates student-initiated efforts to record discussions.
6. Environmental structuring	Indicates student-initiated efforts to arrange the physical setting to make learning easier.
7. Self-consequences	Indicates student arrangement or imagination of rewards or punishment for success or failure.
8. Rehearsing and memorizing	Indicates student-initiated efforts to memorize the material.
9. Seeking assistance from teachers 10. Seeking assistance from peers 11. Seeking assistance from experts	Indicates student-initiated efforts to solicit help.
12. Reviewing notes 13. Reviewing tests 14. Reviewing textbooks	Indicates student-initiated efforts to reread notes, tests, or textbooks.

Source. Adapted from Zimmerman and Pons (1986).

Previous research on the topic, such as that of Lima Filho et al. (2015), show that self-evaluation, environmental structuring and seeking assistance are the most used self-regulation strategies. In a study with DE students, Silva et al. (2017) observed the significant use of self-regulated learning strategies, especially self-evaluation, environmental structuring, and reviewing notes, tests, and textbooks. Aguiar and Silva (2017, p. 20), in turn, investigated the use of self-regulation strategies by Accounting undergraduates enrolled in in-person and DE classes, pointing out that DE students "tend to use more intensely goal-setting and planning strategies, while in-person students prefer rehearsing and memorizing."

Due to the limitations found in these studies, we chose to expand our research sample to include other locations and universities in other contexts, as well as other variables that may explain the use of self-regulation strategies (Aguiar & Silva, 2017; Santos Junior & Monteiro, 2020; Silva et al., 2016).

From this perspective, motivation, seen as the essence of the teaching-learning process (Maehr & Meyer, 1997), emerges as a variable that implies the use of learning strategies, referring to how much a student gets involved with some activity (Engelmann, 2010). Thus, "motivation for learning and the ability to regulate are expected characteristics of a self-regulating student so that they are able to self-monitor and self-manage their learning" (Jones et al., 2010, as cited in Aguiar et al., 2014, p. 6). Teodorescu et al. (2022) expand on it, noting that the social distancing imposed by the pandemic highlighted a major challenge—the students' loss of motivation.

Another relevant point, especially during the ERE, which can impact the use of self-regulated learning are the characteristics and conditions to which students are subjected (Silva et al., 2020), since the students' well-being and quality of life may be related to the teaching-learning process (Cerchiari, 2004). A study conducted with university students from Ukraine and Israel showed that concern for their family's health status and difficulty with learning tasks and online learning were the main difficulties faced during the pandemic (Schiff et al., 2021).

Quality of life, according to Tarbone et al. (2018, p. 206), is a broad and complex concept that "interrelates the environment with physical, psychological aspects, level of independence, social relations, and personal beliefs." As such, low quality of life may be associated with students losing motivation, performing activities simply to meet deadlines, or even dropping out.

Methodological procedures

As a quantitative study, this research used statistical techniques to analyze the correlations between the established variables (Raupp & Beuren, 2003; Richardson, 2012). As an applied study, its interest lies in the use and practical consequences of knowledge (Gil, 2002). As a descriptive research, it seeks to describe "characteristics of a given population or phenomenon or to establish relations between variables" (Gil, 2002, p. 44), since it analyzes the perception of Accounting students regarding the use of self-regulated strategies, quality of life and motivation, as well as the correlation between these factors.

Study sample consisted of Accounting students from two small private universities, in the municipality of Maringá (PR), and two state public universities, located in Paranavaí (PR) and Campo Mourão (PR). These universities have students who are enrolled in in-person education and, at the time of data collection—between July and August 2020—were performing their activities in the ERE modality. Since the private and public universities had about 80 and 620 students enrolled in the Accounting program, respectively, totaling a student population of approximately 700 students, we calculated a sample of at least 183 students for the sample to be significant, with sampling error of 5% and confidence level of 95%.

Data were collected by a closed-ended questionnaire with answers on an 11-point interval scale (0 to 10). This type of question "facilitates participant interpretation since, in general, people are familiar with this reference" (Santos Junior & Costa, 2014, p. 7). We applied the questionnaire to Accounting undergraduates to identify their perceived level of motivation to study during the ERE period. The questionnaire comprised 28 questions: 11 on self-regulated learning, based on the studies by Zimmerman and Pons (1986) and Lima Filho et al. (2015); eight on quality of life, based on the study by Tarbone et al. (2018); and nine on sociodemographic characteristics. After elaboration, the questionnaire was either sent directly to the students by email (one of the public universities) or forwarded by the course coordinator (both private universities and one of the public universities) via the Google Forms platform. We obtained a total of 217 valid answers. Importantly, prior to questionnaire application, we conducted a pre-test with eight individuals (students and teachers in the field), to verify adequacy and consistency.

Data were analyzed by descriptive statistics and correlations using Excel and IBM-SPSS software.

Analysis and discussion of results

Regarding gender, 59.4% of the undergraduates were women and 40.6% men. Age ranged from 17 to 41 years old, and 54% were up to 27 years old.

As for professional occupation, 22.2% declared they were not currently working or interning. Of the remaining 77.8% who work or do internships, 18% work up to 30 h/week, 48% up to 44 h/week, and the rest declared they work more than 44 h/week, are self-employed and/or have their own business.

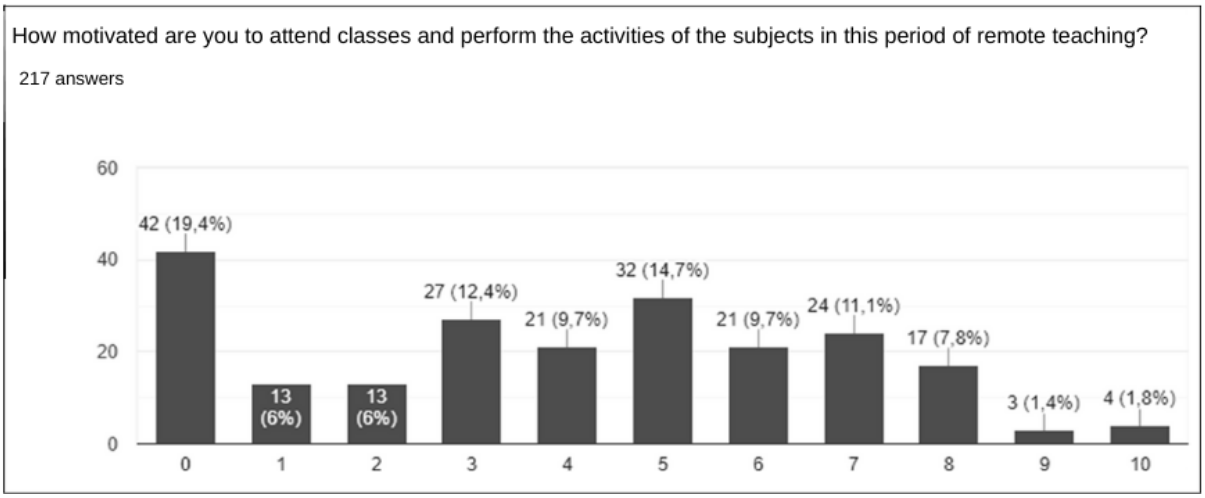
Regarding the devices used to follow remote education, 44% of the students use both mobile phone and computer, 23% use only mobile phone and 32% only computer, and the remaining participants use tablets. Importantly, some students reported using their work computer, while others use only their cell phones because they don't have a computer.

Educators use platforms such as Moodle and Google Classroom to upload asynchronous activities and classes, using YouTube and/or Google Drive to make access links to recorded video lessons available. Synchronous classes are held via platforms such as Zoom, Google Meet, and Microsoft Teams.

We note that both teachers and students are adapting to the virtual reality, trying to optimize teaching and learning within their limitations. Moreover, motivation plays a key role in this process. Figure 1 shows the students' level of motivation to study during the ERE imposed by the pandemic.

Figure 1

Level of motivation to study during remote learning



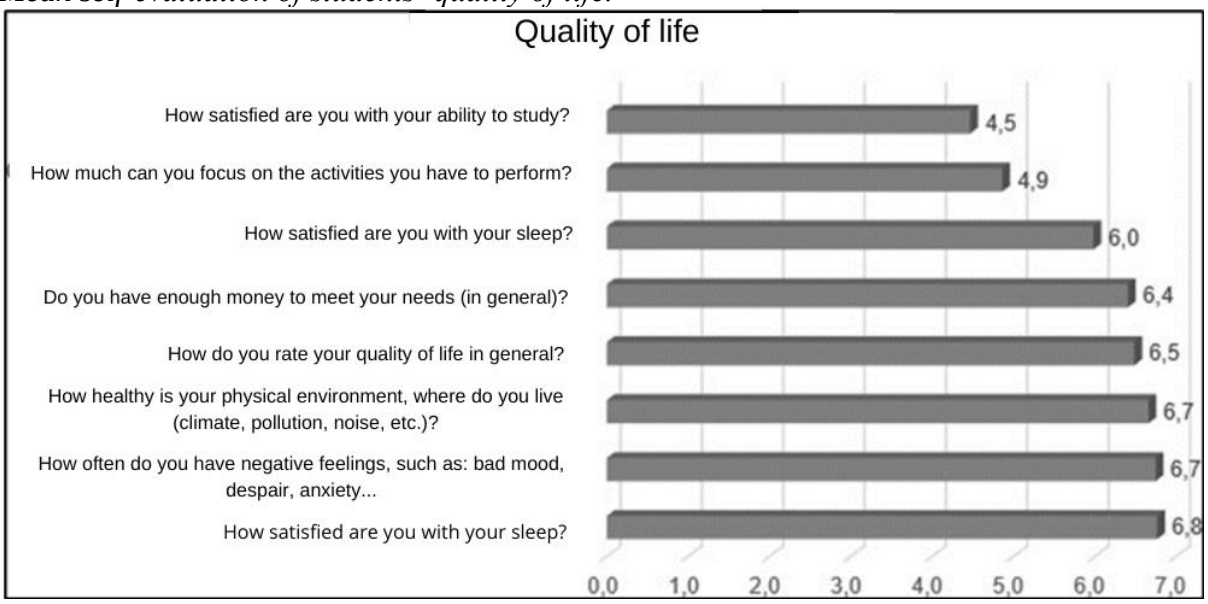
Note. 0 = unmotivated; 10 = very motivated.

Most respondents (68.2%) attributed a value of up to 5 to their level of motivation, with a mean of 3.97. Such a result is worrisome since values well below the midpoint (5) point to students who feel little motivated to complete activities and attend classes during this period. This result corroborates study by Teodorescu et al. (2022), who investigated students at a Romanian university, pointing out that half of the students could not stay motivated. Thus, one can see that the loss of motivation is not restricted to the national context.

As discussed in the theoretical background, motivation may be associated with students' quality of life (Cerchiari, 2004; Tarbone et al., 2018). According to Figure 2, factors with the lowest means are related to "satisfaction with ability to study" (4.5), "concentration on activities to do" (4.9), and "satisfaction with sleep" (6.0). The latter and "ability to study" corroborate a study by Tarbone et al. (2018).

Figure 2

Mean self-evaluation of students' quality of life.



Note. 0 = unmotivated; 10 = very motivated.

Another interesting factor regarding quality of life is the frequency with which students experience "negative feelings, such as: bad mood, despair, anxiety, and/or depression" (mean of 6.8). About 63% of the respondents attributed a value between 7 and 10 to this aspect. Such a finding is relevant and indicates that HEIs should provide pedagogical support not only to fulfill the programmatic content of the disciplines, but also to monitor students' psychological issues.

When analyzing these results on motivation and quality of life, one should also remember that students had their routine affected as a whole (personal, professional, and academic), and the overload of academic activities—which began to be developed in an environment other than the classroom—can result in low concentration and make students feel unable to meet academic demands, besides contributing to the emergence of negative feelings.

Given the new methodologies adopted during ERE, we should examine whether students have also changed their way of studying. When asked if they changed their learning strategies during ERL, 76% answered yes, 15% said they changed strategies for at least one discipline, and only 8.8% did not change their way of studying.

We also sought to analyze whether students are adopting self-regulated learning strategies. We subdivided these strategies into 11 questions (Figure 3), based on research by Lima Filho et al. (2015), addressing the 14 self-regulated strategies proposed by Zimmerman and Pons (1986) (Table 2).

Table 2

Statements on self-regulated learning strategies

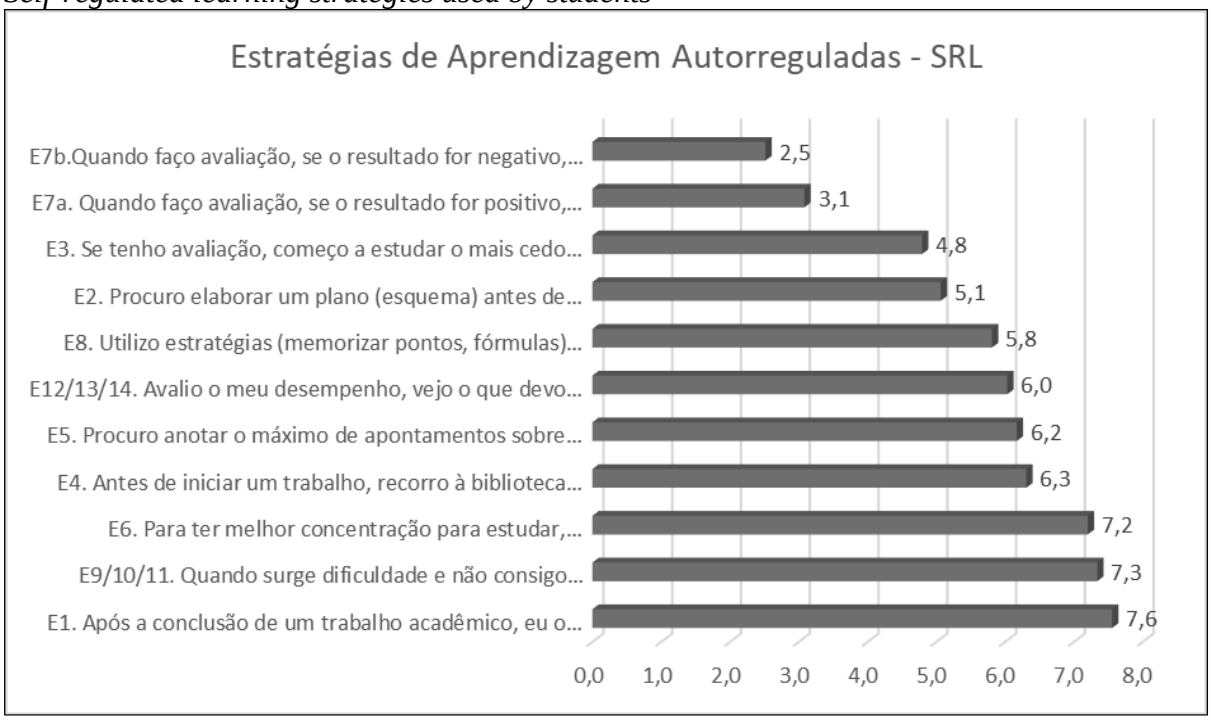
Statements	Self-regulated learning strategies
1. After finishing an academic paper, I check my work to make sure I did it right.	1. Self-evaluation
2. I make an outline before starting an activity.	2. Organizing and transforming
3. If I have an exam, I start studying as soon as possible so I can pace myself on the day.	3. Goal-setting and planning
4. Before starting on a paper, I go the library and/or use other means of research, whether physical or digital.	4. Seeking information
5. I take as many notes as possible on the contents studied.	5. Keeping records
6. To better concentrate to my studies, I look for suitable environments.	6. Environmental structuring
7a. If I do well on a test, I treat myself to a reward. 7b. If I fail a test, I give up something.	7. Self-consequences
8. I use strategies (memorizing points, formulas) to improve my learning on subjects to be studied.	8. Rehearsing and memorizing
9. If I have problems with an assignment, I seek external help (teacher, peers, others).	9. Seeking assistance from teachers 10. Seeking assistance from peers 11. Seeking assistance from experts
10. I evaluate my performance, note what I need to improve, and try to overcome any difficulties detected.	12. Reviewing notes 13. Reviewing tests 14. Reviewing textbooks

Source: Adapted from Lima Filho et al. (2015).

Results show that "self-evaluation" (S1) was the most used strategy, followed by "seeking external help" (S9/10/11) and "environmental structuring" (S6), corroborating the study by Lima Filho et al. (2015). Moreover, "environmental structuring" has been widely used by students, suggesting that most respondents have an adequate physical environment.

Figure 3

Self-regulated learning strategies used by students



Note: 0 = never; 10 = always. S = Strategy

In turn, "self-consequences" (S7a/b), "goal-setting and planning" (S3), and "organizing and transforming" (S2) were the least used strategies. Such result complements Aguiar and Silva's (2017) research, which found that DE students tend to use planning strategies with greater intensity, while in-person students do not prepare in advance for tests/exams. In our study with students in ERE, which resembles DE, these perspectives remained unchanged.

Overall, we note a still moderate use of self-regulated learning strategies, with students attributing a, average adoption of 5.6. We found no significant differences between public and private universities regarding the most used strategies and average use.

After the descriptive analysis of each study variable, we sought to analyze how they were correlated. Due to the non-normal statistical distribution of the data, we performed Spearman's correlation (Table 3).

Table 3

Correlation between motivation and quality of life

	Motivation
Overall quality of life	**.508****
Satisfaction with one's health	.403**
Concentration on activities to do	**.742****
Health of the physical environment where one lives	.352**
Enough money to meet one's needs (in general)	.315**
Sleep satisfaction	.323**
Satisfaction with ability to study	**.795****
Presence of negative feelings	.286**

*Note: *Correlation is significant at level 0.05; **correlation is significant at level 0.01.*

As can be observed, student motivation shows a statistically significant correlation with all quality-of-life factors. In other words, the higher the quality of life, the more motivated the student is to learn during the period, and the less negative feelings they experience.

But considering that only values equal or above 0.5 indicate a strong correlation (Pereira, 2014), motivation is strongly and positively correlated with "ability to study" (by 79.5%), "concentration on activities to do" (74.2%), and "overall quality of life" (50.8%).

We also analyzed the correlation between motivation and use of self-regulated learning strategies (Table 4).

Table 4

Correlação entre motivação e estratégias de aprendizagem autorregulada

Self-regulated learning strategies	Motivation
E12/13/14	**.491****
E3	**.515****
E2	.321**
E4	.306**
E5	.347**
E6	.302**
E7a (positive)	.203**
E7b (negative)	.163*
E8	.433**
E9/10/11	.241**
E1	.298**

*Note: *Correlation is significant at level 0.05; **correlation is significant at level 0.01.*

As can be observed, all correlations were statistically significant and positive. Although most correlations were low, we found a strong correlation between motivation and self-regulated learning strategies S3 (Goal-setting and planning, 51.5%) and S12/13/14 (Reviewing notes; Reviewing tests; Reviewing textbooks, 49.1%). This finding concurs with the study by Perassinoto et al. (2013), who argued that motivation can contribute to the adoption of learning strategies.

Finally, we analyzed the correlation between use of self-regulated learning strategies and quality-of-life factors (Table 5).

Table 5

Correlação estratégias de aprendizagem autorregulada e qualidade de vida

Strategy/QoL	E12/ 13/14	E3	E2	E4	E5	E6	E7a positive	E7b negative	E8	E9/ 10/11	E1
Overall quality of life	.321**	.310**	.271**	.282**	.288**	.377**	.181**	No sig.	.359**	.226**	.241**
Satisfaction with one's health	No sig.	.253**	.265**	.217**	.257**	.224**	.155*	No sig.	.271**	.147*	.202**
Concentration on activities to do	.436**	.457**	.392**	.294**	.366**	.393**	.196**	.137*	.428**	.315**	.345**
Health of the physical environment where one lives	.218**	.220**	.204**	.160*	.230**	.322**	.212**	No sig.	.324**	.294**	.268**
Enough money to meet one's needs (in general)	.210**	.281**	.241**	.178**	.179**	.261**	No sig.	No sig.	.237**	.170*	.253**
Sleep satisfaction	.230**	.159*	.291**	.206**	.225**	.220**	No sig.	No sig.	.285**	.208**	.254**

Satisfaction with ability to study	**.510****	**.488****	.419**	.301**	.399**	.356**	.202**	.159*	.463**	.242**	.342**
	No sig.	No sig.	-.183**	-.138*	No sig.	No sig.	No sig.	No sig.	-.170*	No sig.	No sig.

*Note: *Correlation is significant at level 0.05; **correlation is significant at level 0.01.*

Quality of life factors such as "Concentration on activities to do" and "Satisfaction with ability to study" are significantly correlated with all self-regulated learning strategies.

"Satisfaction with ability to study" and strategies S3 (goal-setting and planning) and S12/13/14 (reviewing notes; reviewing tests; reviewing textbooks) were strongly correlated. Thus, the more students feel satisfied and able to study, the more they evaluate the activities done to optimize their performance and plan their studies. In other words, they feel more empowered, learn more by reviewing the material and stop studying "at the last minute."

Conversely, "self-consequences" (S7a/b) showed a low degree of correlation (and even significance) with every quality-of-life factor. All other self-regulated learning strategies presented some significant correlations, weakly or moderately, with quality of life.

According to these results, student's quality of life can affect the use of self-regulated strategies, given their degree of correlation. Thus, teaching and learning processes must consider the physical environment available to students (to study and concentrate), and their mental and physiological aspects, as Cerchiari (2004) and Santos Junior and Monteiro (2020) point out.

Final considerations

During the remote education period imposed by the COVID-19 pandemic, educational institutions, which operated in-person and unexpectedly had to adapt to a virtual reality, faced a number of challenges. In this educational context, the need for student-initiated self-regulated learning becomes more evident. Moreover, students' motivation and quality of life interfere with effective learning.

Given the above, this study sought to analyze how the use of self-regulated learning strategies, the level of motivation in learning and quality of life correlated during the pandemic. By applying questionnaires to accounting undergraduates, we observed that students are feeling unmotivated and presenting relatively high levels of negative feelings (such as bad mood, anxiety and/or depression), which is worrisome because besides interfering in the students' learning process, they can cause academic dropout and damage to their mental health.

Regarding self-regulated learning strategies, we noted that students generally use them moderately, with "self-evaluation" (S1) and seeking external help (S9/10/11) and "self-consequences" (S7a/b) and "goal-setting and planning" (S3) being the most and least used, respectively. This last strategy is considered important, especially in a period such as the pandemic, which requires better organization since classes and asynchronous activities demand a higher level of discipline on the part of students to be performed within the established deadlines.

As for the statistical correlations, we found that student motivation is strongly correlated with the following self-regulated learning strategies: "goal-setting and planning" (S3) (51.5%) and "reviewing notes; reviewing tests; reviewing textbooks" (S12/13/14) (49.1%). In other words, the higher the motivation, the more students tend to adopt such strategies.

In conclusion, the study variables are linked to each other, given that motivation is strongly correlated with quality-of-life factors related to "ability" and "concentration" to study, which, in turn, were the items most strongly correlated with the self-regulated learning strategies, except for the S7a/b strategy ("self-consequence"). Self-regulated learning, motivation, and quality of life are therefore correlated with each other, forming a cycle in which

the higher quality of life, the more motivated the student is and the more self-regulated learning strategies they use—and vice versa.

Our results also point to the need for teachers to apply methodologies that motivate students to learn, in order to inhibit negative factors such as anxiety and bad mood. Anxiety, for example, can worsen due to the overload of academic activities made available in virtual environments, which can make students feel unable to solve what has been proposed. Educators should therefore be cautious when proposing some types of classes and activities, since the different physical and mental states of each student, as discussed, imply in effective learning processes or not.

Finally, further discussions on Accounting Education are needed to optimize educational processes in the pandemic and post-pandemic period, since the knowledge obtained during tertiary education reflects on the student as a professional. Given the limited number of students surveyed, future research should expand the study sample to investigate whether the factors presented in other regions and universities differ. Another recommendation is to analyze post-pandemic student motivation, and whether online didactic practices influence motivation, as suggested by Teodorescu et al. (2022).

References

Aguiar, J. H. S., & Silva, A. C. R. (2017). Aprendizado autorregulado em contabilidade: uma análise comparativa entre discentes de modalidade presencial e a distância. *Revista Catarinense da Ciência Contábil*, *16*(48), 7-23.

Aguiar, J. H. S., Silva, A. C. R., & Silva, T. B. J. (2014). Aprendizagem autorregulada (SRL) no ensino à distância de contabilidade de custos. In *Anais do XXI Congresso Brasileiro de Custos-ABC*, 1-14.

Aguiar, J. H. S., Silva, A. C. R., & Soares, P. A. (2018). Análise demográfica e acadêmica da autorregulação da aprendizagem de estudantes de ciências contábeis de IES em Salvador. In *Anais do XII Congresso AnpCont*. https://www.anpcont.org.br/pdf/2018_EPC394.pdf

Arruda, E. P. (2020). Educação remota emergencial: elementos para políticas públicas na educação brasileira em tempos de Covid-19. *EmRede – Revista de Educação a Distância*, *7*(1), 257-275. https://doi.org/10.53628/emrede.v7.1.621

Becker, M. H. (2016). *Autorregulação da aprendizagem em matemática: uma experiência com alunos de ensino médio* [Dissertação de Mestrado, Universidade de Brasília]. Repositório UnB. http://dx.doi.org/10.26512/2016.07.D.21630

Borba, P. L. O., Bassi, B. G. C., Pereira, B. P., Vasters, G. P., Correia, R. L., & Barreiro, R. G. (2020). Desafios 'práticos e reflexivos' para os cursos de graduação em terapia ocupacional em tempos de pandemia. *Cadernos Brasileiros de Terapia Ocupacional*, *28*(3), 1103-1115. https://doi.org/10.4322/2526-8910.ctoEN2110

Boruchovitch, E. (2008). A motivação para aprender de estudantes em cursos de formação de professores. *Educação*, *31*(1), 30-38.

Catunda, M. A., & Ruiz, V. M. (2008). Qualidade de vida de universitários. *Pensamento Plural*, *2*(1), 22-31.

Cerchiari, E. A. N. (2004). *Saúde mental e qualidade de vida em estudantes universitários* [Tese de Doutorado não publicada]. Universidade Estadual de Campinas.

Engelmann, E. (2010). *A motivação de alunos dos cursos de artes de uma universidade pública do norte do Paraná*. [Dissertação de Mestrado, Universidade Estadual de Londrina]. Biblioteca Digital Universidade Estadual de Londrina. http://www.bibliotecadigital.uel.br/document/?code=vtls000158187

Gil, A. C. (2002). *Como elaborar projetos de pesquisa* (4a ed.). Atlas.

Hodges, C., Moore, S., Lockee, B., & Bond, A. (2020). As diferenças entre o aprendizado online e o ensino remoto de emergência. *Revista da Escola, Professor, Educação e Tecnologia*, *2*(4), 1-12.

Lima Filho, R. N., Lima, G. A. S. F., & Bruni, A. L. (2015). Aprendizagem autorregulada em contabilidade: diagnósticos, dimensões e explicações. *Brazilian Business Review*, *12*(1), 38-56. http://dx.doi.org/10.15728/bbr.2015.12.1.2

Maehr, M. L., & Meyer, H. A. (1997). Understanding motivation and schooling: Where we've been, where we are, and where we need to go. *Educational Psychology Review*, *9*(4), 371-409. http://dx.doi.org/10.1023/A:1024750807365

Moreira, J. A., Henriques, S., & Barros, D. M. V. (2020). Transitando de um ensino remoto emergencial para uma educação digital em rede, em tempos de pandemia. *Dialogia*, *3*(34), 351-364. https://doi.org/10.5585/Dialogia.N34.17123

Novak, E., Kozjak, S. K., & Perić, T. Š. (2021, maio). Overview of university accounting education practices during the COVID-19 pandemic in Europe. In *2021 IEEE Technology & Engineering Management Conference-Europe (TEMSCON-EUR)* (pp. 1-7). IEEE.

Perassinoto, M. G. M., Boruchovitch, E., & Bzuneck, J. A. (2013). Estratégias de aprendizagem e motivação para aprender de alunos do Ensino Fundamental. *Avaliação Psicológica*, *12*(3), 351-359.

Pereira, A. T. (2014). *Métodos quantitativos aplicados à contabilidade*. Intersaberes.

Pintrich, P. R. (1999). The Role of Motivation in Promoting and Sustaining Self-Regulated Learning. *International Journal of Educational Research*, *31*(6), 459-470. https://doi.org/10.1016/S0883-0355(99)00015-4

Raupp, F. M., & Beuren, I. M. (2003). Metodologia da pesquisa aplicável às ciências sociais. In Beuren, I. M. (Coord.), *Como elaborar trabalho monográficos em contabilidade: teoria e prática* (pp. 76-96). Atlas.

Reis, C. F., Miranda, G. J., & Freitas, S. C. (2017). Ansiedade e desempenho acadêmico: um estudo com alunos de ciências contábeis. *Advances in Scientific and Applied Accounting*, *10*(3), 319-333.

Richardson, R. J. (2012). *Pesquisa social: métodos e técnicas* (3a ed.). Atlas.

Santos Junior, S. D. D., & Costa, F. J. (2014). Mensuração e escalas de verificação: uma análise comparativa das escalas de Likert e Phrase Completion. *PMKT – Revista Brasileira de Pesquisas de Marketing, Opinião e Mídia*, *15*, 1-16.

Santos Junior, V. B., & Monteiro, J. C. S. (2020). Educação e Covid-19: as tecnologias digitais mediando a aprendizagem em tempos de pandemia. *Revista Encantar-Educação, Cultura e Sociedade*, *2*(24), 1-15.

Santos, L. A. F., Gaspari, S. S. L. C., & Marques, M. D. S. (2016). Pesquisa bibliométrica sobre os métodos de ensino em contabilidade. *Caderno de Administração*, *24*(2), 60-71.

Schiff, M., Zasiekina, L., Pat-Horenczyk, R., & Benbenishty, R. (2021). COVID-related functional difficulties and concerns among university students during COVID-19 pandemic: a binational perspective. *Journal of Community Health*, *46*(4), 667-675. https://doi.org/10.1007%2Fs10900-020-00930-9

Silva, T. B. J., Haag, S., Biavatti, V. T., & Lay, L. A. (2016). Estratégias de aprendizagem autorregulada em contabilidade: um estudo em duas instituições privadas do ensino superior catarinense. *Revista Mineira de Contabilidade*, *17*(3), 5-15.

Silva, T. B. J., Lay, L. A., Hein, N., Biavatti, V. T., & Zonatto, V. C. S. (2017). As estratégias de aprendizagem autorregulada (SRL) no ensino EAD de contabilidade. *Revista de Educação e Pesquisa em Contabilidade (REPeC)*, *11*(1), 90-109. https://doi.org/10.17524/repec.v11i1.1412

Silva, T. B. J., Sallaberry, J. D., Freitas, M. M., & Flach, L. (2020). As características dos discentes de Ciências Contábeis e as estratégias metacognitivas de aprendizagem autorregulada. *Revista de Gestão e Avaliação Educacional*, *9*(18), 1-17. https://doi.org/10.5902/2318133842375

Tarbone, D. G., Ferreira, J. L. N., & Pavão, J. A. (2018). Percepção dos discentes do curso de administração sobre fatores internos da instituição, qualidade de vida e desempenho acadêmico. *REA – Revista Eletrônica de Administração*, *17*(2), 200-215.

Teodorescu, D., Aivaz, K. A., & Amalfi, A. (2022). Factors Affecting Motivation in Online Courses During the COVID-19 Pandemic: The Experiences of Students at a Romanian Public University. *European Journal of Higher Education*, *12*(3), 332-349. https://doi.org/10.1080/21568235.2021.1972024

Valente, G. S. C., Moraes, É. B., Sanchez, M. C. O., Souza, D. F., & Pacheco, M. C. M. D. (2020). O ensino remoto frente às exigências do contexto de pandemia: Reflexões sobre a prática docente. *Research, Society and Development*, *9*(9), e843998153-e843998153. http://dx.doi.org/10.33448/rsd-v9i9.8153

Zimmerman, B. J., & Pons, M. M. (1986). Development of a structured interview for assessing student use of self-regulated learning strategies. *American Educational Research Journal*, *23*(4), 614-628. https://doi.org/10.3102/00028312023004614