PROACTIVITY AS A PREDICTOR OF ESP STUDENTS' USE OF LANGUAGE LEARNING STRATEGIES DURING THE COVID-19 PANDEMIC

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Abstract. *Amidst the COVID-19 pandemic's pervasive influence, personality remained a key determinant of individuals' choices and academic accomplishments in higher education (Rodrigues, Rose, and Hewig 2024). Proactive students are more inclined to pursue foreign language proficiency, which is an educational advantage as by becoming equipped with intercultural communication skills, students become better prepared for the contemporary labor market. This research places emphasis on exploring higher education (HE) English for Specific Purposes (ESP) economics and business students' use of language learning strategies (LLSs) and their self-perceived proactivity, creativity and emotional regulation during the pandemic of COVID-19. Specifically, it assesses students' individual differences, investigates connections between LLSs and ESP students' proactivity, creativity, and emotional regulation, and reveals statistically significant predictors of ESP students' LLS use. The findings indicate that during the COVID-19 pandemic, medium strategy use was observed across all LLSs, and the metacognitive strategy was utilized the most frequently. Female ESP students employed the affective strategy more, whereas male ESP students utilized the cognitive strategy more. Proactivity was positively correlated with most LLSs and was revealed as the most significant predictor of ESP students' LLS utilization. The findings of this research contribute to LLS comprehension in the pandemic era, provide insights for ESP educators, and highlight the importance of foreign language learner autonomy.*

Key words: *language learning strategies, proactivity, English for specific purposes, COVID-19 pandemic*

1. INTRODUCTION

In today's globalized world, the specialist knowledge for business positions needs to be underpinned by higher proficiency levels of English language knowledge in order to be competitive in the job market and prepared for specific discourse communities the students will be part of in their future careers. Without doubt, the mentioned influences the increased motivation for English acquisition requesting from different target audiences to

acknowledge the ever-increasing demand for fluent English-speaking professionals and to embrace lifelong English learning. However, specific purposes pertaining to different target professions such as economics and business, make the foreign language acquisition (FLA) even more demanding as the targeted higher levels of fluency are a crucial prerequisite of a more efficient professional communication (Purwanto and Nurhamidah 2021). This was especially affirmed during the COVID-19 pandemic, when, globally, all aspects of peoples' lives became heavily dependent upon effective online communication (Reddy and Gupta 2020). While students of English for specific purposes (ESP) try to navigate the mentioned challenges, adequate language learning strategies (LLSs), or what Scarcella and Oxford (1995:63) refer to as "specific actions, behaviors, steps or techniques" assist them in fostering their efficiency and accelerating the target language acquisition. Generally speaking, the language acquisition processes imply the need to acknowledge learning as a dynamic and individual process which focuses on individual aspects of language learners and corresponding learning strategies learners use as to make learning "easier, faster, more enjoyable, more self-directed, more effective and more transferable to new situations" (Oxford, 1990:8). Hence, FLA is heavily dependent upon individual differences, i.e., language learner characteristics such as cognitive aptitude, personality, creativity, motivation, anxiety, etc. (Bell 2012; Ehrman and Oxford 1995; Pawlak 2021; Dörnyei 2005), which are prominent exactly in foreign language learning and consequently affect the success of language acquisition (Dörnyei 2005; Karimi-Aghdam 2020). The challenging period of the COVID-19 pandemic unequivocally changed the way educators taught (Knežević and Tripković-Samardžić 2021), yet it has recently been questioned whether language learning online had affected the way in which students learned (Gajek 2023). This research was conducted on higher education (HE) ESP students during the COVID-19 pandemic, and is aimed at exploring the use of LLSs, investigating whether a connection exists between LLSs and students' self-perceived dispositions such as proactivity, creativity and emotional regulation, which were especially relevant during the COVID-19 pandemic, and revealing predictors of LLS use.

Two hypotheses were put forward for this research:

Hypothesis 1: A positive correlation exists between students' proactivity, creativity, emotional regulation, and language learning strategies.

Hypothesis 2: Students' proactivity predicts the use of language learning strategies.

2. LITERATURE REVIEW

2.1. Language Learning Strategies

For almost fifty years, the effect of LLSs on language learning efficiency has interested foreign language researchers and practitioners (Chamot and Harris 2019; Rubin 1975), but has also attracted criticism by scholars due to ambiguity of its terminology and definition (Cohen 2014; Dörnyei 2005). Nonetheless, in the last decade, the field has been receiving increased recognition as it broadens the understanding of different ways in which individuals learn languages (Pawlak 2021; Lestari and Wahyudin 2020; Milla and Gutierrez-Mangado 2019). According to Petrogiannis and Gavriilidou (2015), substantial body of work into LLSs in FLA and educational psychology exists, which extent is closely related to the need to determine the traits and strategies of effective learners and promote learner-centered teaching. Obralić & Mulalić (2017) assert that the five-factor model of personality traits

(openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism) are significantly correlated with language learning strategies. Namely, language learning strategies and styles are the two main complementary aspects which influence the success of the language learning process (Wong and Nunan 2011; Oxford 1993). Language learning styles are general approaches to language learning and can be classified under the perceptual (visual, auditory etc.), the cognitive (global, analytic learner, etc.), personality (reflective, impulsive learner), and the compound learning style, i.e., the use of more than one style (Xu 2011). On the other hand, language learning strategies are specific approaches to improving understanding, enhancing learning, and aiding in remembering of information (O'Malley and Chamot 1990), i.e., behaviors that learners use to enhance their learning process and master their language learning (Dörnyei 2005; Oxford 1989), such as seeking communication with the speakers of the target language or thinking about one's progress while learning a language. Przybył and Pawlak (2023) view two perspectives of LLS application which affect the FLA. The micro-perspective of strategy use emphasizes specific strategies employed in LL process such as handling the language task and activity, and determining learners' strategic choices, whereas the macro-perspective accounts for the language being learnt, the language learning experience, cultural variables, and various individual differences (age, gender, aptitude, motivation). Overall, the more strategies students use, the more confident, motivated and successful students become (Ahmad, Mohammad, and Yaad 2022), especially since better language learners are the ones using a variety of learning strategies (Tandoc 2019). It can be assumed that less successful learners are in the position to improve their language performance if they start employing more LLSs. Arguably, language instruction ought to align with students' individual differences, preferred learning styles, and strategies to achieve the most effective learning outcomes.

The most prominent instrument developed for measuring the use of LLSs is the Strategy Inventory for Language Learning (SILL) by Oxford (1990). Oxford's initial taxonomy (1990) asserted language learning strategies to be divided into direct (cognitive, compensation, memory-related) and indirect strategies (metacognitive, affective, social). However, her more recent self-strategic regulation model (S2R) has been gaining prominence as it addresses the need for a holistic view of language learners by categorizing strategies to address all aspects of the learner's experience. Namely, the S2R model focuses on four main categories of strategies: cognitive, motivational, social, and affective, where each strategy category is supported by its meta-dimensions, which empower learners to take charge of their learning process (Oxford 2017).

2.2. Individual Differences in Language Learning

The recognition of learner individuality is at heart of modern language teaching (Botes et al. 2023) where students' personalities become motivational determinants as they shape and affect students' own behaviors and success in FLA (Obralić and Mulalić 2017; Code, Zap, and Ralph 2021). Inarguably, language learning success is also affected by a conglomerate of learners' language aptitude, psychological, and affective factors (Biedroń 2023), and the research into how exactly it affects learning is quite abundant, which is supported by Fallan's claim (2006) about its essential role in the choice of learning styles, but also in selecting majors. When considering the period of the COVID-19 pandemic, research shows that students' proactive personality was positively associated with their on-line learning performance (Chai, Hu, and Niu 2023). The pandemic also increased students' creativity and

autonomy in FLA (Mufidah, Yansyah, and Jumadi 2022), and students' positive and negative emotions were related and coexisted in the online learning of foreign languages (Maican and Cocoradă 2021). Therefore, this paper will focus specifically on the interconnectedness of the mentioned three factors which have yet not been explored together in the context of LLS use, but are relevant and important in FLA and, thereby, in acquiring ESP, especially within the context of the COVID-19 pandemic.

Proactivity is a relatively stable behavioral tendency in which individuals "scan for opportunities, show initiative, take action, and persevere until they reach closure by bringing about change", and, thereby, influence the environment (Bateman and Crant 1993:105). Proactivity is perceived as a significant employability asset (Tymon and Batistič 2016), one of the most significant traits of effective learners (Dai and Wang 2023; Fandos-Herrera et al. 2023), and constitutes a vital part of foreign language teaching and learning (Ngo 2022). Previous research on students indicates that proactivity contributes to academic performance (Cansino, Román, and Expósito 2018), while research on employees reveals that it contributes to career success (Seibert, Crant, and Kraimer 1999) and creativity (Kim, Hon, and Crant 2009). Research on ESP students shows that their overall academic participation in language courses was on a much higher level during the COVID-19 pandemic than before it (Knežević and Tripković-Samardžić 2021), which suggests that students were at that particular time more proactive. Interestingly, post-pandemic ESP students have an average proactive attitude toward English language acquisition with business students perceiving themselves to be more proactive than other ESP students (Ngo 2022). Naturally, FLA leads to foreign language comprehension, which contributes not only to becoming more eloquent communicators, but also to having higher future employment prospects (Sedlan-König, Hocenski-Dreiseidl, and Hocenski 2017). Since proactivity assumes a role in FLA, we aimed to explore its effect on the ESP students' LLS use during the COVID-19 pandemic.

Creativity has been linked to language learning as a characteristic of individuals who speak more than one language (Bialystok 2001). Researchers observe creativity as a personality trait that affects various aspects of individuals' personal, academic, and professional lives (Abdullaxayevna and Muhammadali 2022; Kharkhurin and Motalleebi 2008; Porter et al. 2022). According to DiLiello and Houghton (2008), the creative potential is one's creative self-efficacy, i.e., the creative capacity, skills, and abilities that individuals possess. It incorporates the belief in the ability to adequately do one's job, develop and test new ideas and ideas of others, find creative solution, and creatively solve problems. Foreign language educators establish the relevance of creativity in education by not only cultivating a climate of ingenuity within their classrooms, but also by actively engaging in activities geared towards nurturing their own creative thinking (Hocenski, Sedlan-König, and Turjak 2019). Interestingly, Hocenski, Sedlan-König, and Turjak (2018) ascertained these creative approaches in teaching to be more important to foreign language teachers than to educators of other subjects. The reason for that may be the fact that the implementation of creative methods in foreign language teaching plays a significant role in fostering heightened student motivation, thereby establishing a fundamental prerequisite for the proficient application of language abilities within a professional context (Rus 2020), which is the exact aim of ESP educators. For this exact reason, creativity ought to be considered as a prospective individual difference in FLA (Pipes 2023; Bialystok 2001), and will also be explored in this paper in relation to the use of LLSs of ESP students.

"Emotions are the driving force behind second language acquisition" (Dewaele 2011:36). The need for researching English as a foreign language (EFL) students' emotions was initially emphasized by Dewaele and MacIntyre (2014), followed by Pawlak and Oxford (2018) plea for exploring various combinations of factors including students' emotions that affect the use of LLS. Consequent research shows that the social and affective variables are associated with LLSs (Cohen and Griffiths 2015; Heras and Lasagabaster 2015), while enjoyment, as a positive emotion, has a positive correlation with the use of the self-regulatory learning (SRL) strategy (Shen et al. 2023). As expected, emotionally stable learners, in contrast to neurotic ones, tend to be most frequent strategy users (Przybył and Pawlak 2023), and academic optimism, in addition to both positive and negative emotions, is correlated with SRL strategies (Xu and Wang 2024). The effect of the COVID-19 pandemic should not be overlook as students' emotions at that time had an effect on their language learning success (Shao et al. 2023; Mihai et al. 2022). What is more, emotional regulation was essential for both educators and students (Zahrin et al. 2021; Zhao 2021). "Emotional regulation is the manipulation in self or other of emotion antecedents or certain physiological, subjective, or behavioral aspects of the emotional response" (Gross and Levenson 1993:970). The construct itself is an important component of the cognitive ability, the personality trait, and the mixed model of emotional intelligence (Hocenski 2021). Emotional intelligence encourages the language retention and the learning process (Sucaromana 2012), which is "emotion-laden because of challenges to and shifts in learner identity" (Cohen and Griffiths 2015:450). By prioritizing and facilitating emotional regulation strategies in the educational context, learners can become equipped with the ability to navigate and regulate their emotions effectively, which may enhance their FLA. Furthermore, the development of overall emotional intelligence in FLA also cultivates ESP students' entrepreneurial mindset (Cirkveni 2022), which, in today's dynamic and competitive professional world, is particularly significant. Namely, the entrepreneurial mindset, characterized by creativity, innovation, and proactive problem-solving (Kuratko, Fisher, and Audretsch 2020) could be nurtured through the development of emotional regulation strategies in FLA. Therefore, in this research, emotional regulation was used to investigate the connection to and the effect on students' LLS utilization during the COVID-19 pandemic.

This research aims to serve as a stepping stone for future systematic research by providing both theoretical insights and empirical understanding of the interconnections between LLSs and proactivity, creativity, and emotional regulation during the COVID-19 pandemic. The interplay of these factors seems important in differentiating students' use of LLS, especially in a time of crisis. Namely, by understanding whether these traits affect FLA not only sheds light on individual differences among students but also provides valuable insights for educators aiming to foster resilience and adaptability in their ESP learners. Together, these traits foster an environment where learners can maximize their potential by navigating the complexities of FLA, and thereby ESP, in unpredictable circumstances. Consequently, the first research problem in our study aimed to examine the relationships between students' self-perceived proactivity, creativity, and emotional regulation and their LLSs (H1: A positive correlation exists between students' proactivity, creativity, emotional regulation, and language learning strategies.). We then further hypothesized that proactivity has the potential to foster the use of LLSs. Therefore, the contribution of proactivity to the explanation of LLS use was explored as the second research problem (H2: Students' proactivity predicts the use of language learning strategies.).

2.3. Teaching and Acquiring ESP during the Pandemic of COVID-19

On May 5th, 2023, the World Health Organization had declared the end of the COVID-19 pandemic (Sarker et al. 2023), and it became apparent that in order to prepare for the unpredictability of the future, the society ought to develop adaptable and robust online, blended, and remote learning education systems (Ali 2020; Code, Zap, and Ralph 2021). Before the pandemic, globalization for ESP educators signified the realization of ESP as a way of overcoming traditional boundaries of a mere specialized vocabulary transfer to teaching about other cultures (Leon 2023), and technology was considered an efficient and available medium for teaching (Dashtestani and Stojković 2015). However, in contrast to pre-COVID teaching, where the educator's role was one of an information provider, during the pandemic, (ESP) educators became facilitators of the language learning process who also simultaneously had the additional task of managing and adjusting their own and developing their students' technological literacy (Purwanto and Nurhamidah 2021). During this period of changed living and learning conditions certain ESP students positively regarded the online learning implementation (Wardani 2020). Although blended learning was proven to improve students' motivation and language efficacy in ESP courses (Gerasimova, Pushmina, and Carter 2022), the virtual mode of teaching ESP had a more significant effect on students' technological literacy (Gaffas 2023). What is more, some ESP educators even encountered challenges in keeping students interested and engaged in online courses (Leon 2023). Since then, technology-enhanced learning has been additionally proven to positively affect foreign language proficiency, while also enhancing learners' critical thinking, communication skills, and their language awareness (Liu, Thurston, and Ye 2024).

3. METHODOLOGY

The research paradigm of this quantitative theoretical and empirical research was grounded in the epistemological assumption of positivism, as it aimed at investigating the interconnected relationships between LLSs and ESP students' self-perceived proactivity, creativity, and emotional regulation, and exploring whether these three factors contribute to the explanation of students' LLS use during the COVID-19 pandemic. The secondary data entails previous research which was used to write this papers' literature review, while the primary data was collected by a structured self-report questionnaire which was based on the following four affirmed, validated, and reliable measuring instruments.

The Strategy Inventory for Language Learning (SILL) (Oxford 1990) was used to assess strategies students utilize when learning ESP. Although the latest S2R model focuses only on four main strategies (Oxford 2017), for this research, we decided to use the initial SILL taxonomy due to its' common use in FLA and ESP research (such as Pašalić 2013; Maulidia 2023). SILL consists of 50 items measuring six following strategies: memory-related (9 items), cognitive (14 items), compensation (6 items), metacognitive (9 items), affective (6 items), and social (6 items). Cronbach's Alpha Coefficients for the six subscales of the SILL were .76 for the memory-related, .84 for the cognitive, .58 for the compensation, .84 for the metacognitive, .55 for the affective, .77 for the social strategy, and .92 for the overall composite construct of SILL.

Proactivity Scale (Bateman and Crant 1993) was used as a self-report instrument to measure the perception of students' proactivity. The scale consists of 17 items, and the Cronbach's Alpha Coefficient for the overall proactivity was .86.

Creative Potential Scale (DiLiello and Houghton 2008) was used to measure the perception of one's creative potential, i.e., students' creativity. The scale consists of 6 items, and the Cronbach's Alpha Coefficient for overall creativity was .88.

Emotional Regulation and Control Scale (Takšić 2003) was employed in order to evaluate how individuals perceive their ability to manage and control their emotions. The assessment included gauging the effect of negative emotions and moods on thoughts, memory, behavior, and emotional regulation ability. The scale consists of 20 reverse-coded items separated into and measured by three dimensions, i.e., *the influence of emotions and moods on thoughts* (8 items), *the influence of emotions and moods on memory* (6 items) and *the control of emotional reactions* (6 items). Cronbach's Alpha Coefficients for the three dimensions were .89 for the influence of emotions and moods on thoughts, .85 for the influence of emotions and moods on memory, .75 for the control of emotional reactions, and .91 for the overall ERAC composite construct.

The questionnaire was translated to students' mother tongue, and was administered online, in the midst of the COVID-19 pandemic, from March to April 2021, during one of students' ESP classes when all courses were still being delivered remotely. The participation in this research was voluntary and completely anonymous. The questionnaire given to participants included three sections in which they needed to indicate how much they agreed with statements regarding their thoughts, inclinations, and behaviors when acquiring ESP. The first section comprised the following demographic-related items: age, gender, study year, student status (i.e., full-time or part-time students), and the foreign language being learnt (English or German language). The second section contained three segments assessing various strategies while learning ESP, whereas the last section investigated certain aspects of respondents' opinions, emotional states, and tendencies towards creativity and proactivity. The questionnaire was assessed on a 5-point Likert scale where "1" indicated "never or almost never true of me" and "5" indicated "always or almost always true of me". The data was consequently analyzed in the Statistical Program for Social Science (SPSS) by using univariate (descriptive data analysis methods of frequencies, arithmetic means, and standard deviations), bivariate (correlation analysis), and multivariate methods (regression analyses).

In total, there were 302 complete responses (N=302). The analyzed demographic data revealed that 73.5% of students identified themselves as female (N=222), whereas 26.5% identified themselves as male (N=80). Slightly more than 15% of students were 23 years old or older (N=46), 17.5% of students were 19 or younger (N=53), whereas the majority of students were aged from 20 to 22 (N=203). All respondents were HE ESP students who study economics and business. Moreover, 93% were undergraduate students (N=281), and 7% were graduate students (N=21). Most of them were studying full time (88%, N=266), whereas only 12% were studying part time (N=36). When taking students' first language into account, 94.4% of students studied English as their first foreign language (N=285), in contrast to only 5.6% of students studying German as their first foreign language (N=17).

4. FINDINGS AND DISCUSSION

4.1. Descriptive Statistics

The descriptive statistics that was used to analyze ESP students' LLS use, as well as their self-perceived proactivity, creativity, and emotional regulation is provided in Table 1. The averages of 3.5 to 5.0 are considered to be high strategy use, averages of 2.5 to 3.4 are assigned medium strategy use, while averages from 1.0 to 2.4 are appointed low strategy use (Oxford and Burry-Stock 1995). Based on methods of frequencies and arithmetic means, our findings revealed that all six strategies were assigned medium strategy use with the metacognitive strategy (M=3.39) having the most frequent, while the affective strategy (M=2.64) the least frequent use. This suggests that during the COVID-19 pandemic, our sample of ESP students were intrinsically motivated to initiate, sustain, and assess the development of their language learning process. Namely, students had to manage their progress effectively in remote learning environments. Therefore, the higher use of metacognitive strategies aligns with the adaptive response expected from students facing challenging circumstances brought about by the pandemic.

Table 1 Descriptive Statistics of Measured Variables

	M	σ	α
SILL	3.08	.50	.92
Memory-Related Strategy	2.92	.62	.76
Cognitive Strategy	3.20	.65	.84
Compensation Strategy	3.18	.60	.58
Metacognitive Strategy	3.39	.69	.84
Affective Strategy	2.64	.61	.55
Social Strategy	2.91	.83	.77
PROACTIVITY	3.63	.50	.86
CREATIVITY	3.67	.72	.88
ERAC	2.93	.73	.91
ERAC Thoughts	2.95	.90	.89
ERAC Memory	2.85	.92	.85
ERAC Control	3.00	.81	.75

Note. N=302; SILL = Strategy Inventory for Language Learning; ERAC = Emotional Regulation and Control; M = Arithmetic Mean; σ = Standard Deviation; α = Cronbach's Alpha Internal Consistency Coefficients.

These findings are in line with previous research on higher education students' use of LLSs as they reveal the metacognitive (Lestari and Wahyudin 2020; Pagalilauan 2023), the cognitive (Alhaysony 2017), and the compensation strategy to be used the most, while the memory-related, the social, and the affective strategy the least (Pašalić 2013). It is also found that intermediate B1-B2 level students tend to use metacognitive strategies more often than beginning level students (O'Malley et al. 1985). Namely, once language learners become aware of LLSs, they choose ones that fit their learning style making them a "toolkit for active, conscious, and purposeful self-regulation of learning" (Oxford 2003:2). Depending on the purpose of learning, such as studying for General English or ESP, students use different LLS and adapt them accordingly (Griffiths 2019). Raising awareness of LLSs is paramount not only to FLA but also to the context of ESP as its use

broadens the understanding of language learning, promotes learner-centered teaching, and develops self-regulated learners (Oxford 2017). The lower use of the affective strategy, in our findings, may be attributed to stress due to changed learning environment, as well as limitations in social interactions.

Researchers tend to explore the effect of additional variables such as age, gender, educational level, or cultural background on LLS use (Ahsanah 2020; Karlak and Bagarić Medve 2016). By using the independent samples T-test as the statistical analysis method, our findings revealed several statistically significant differences. The first difference was in the reported use of the affective strategy according to students' gender. Female students (N=222; M=2.7, σ=.56; p<.007) reported higher use of the affective strategy than did male students (N=80; M=2.47, σ=.71; p<.007), which potentially reflects greater emotional awareness and proactive management of stress and anxiety among female students during this challenging period. Furthermore, contrary to popular belief (Ülger and Morsünbül 2016), our findings show that male students (M=3.72, σ=.59, p<.05) are the ones who perceive themselves to be slightly more creative than do female students (M=3.65, σ=.76; p<.05). The reason for this finding may range from the educational environment to cultural factors, but it may also be due to individuals' subjective perception. Namely, creativity is associated with independence and self-direction, which, stereotypically, are considered to be masculine characteristic, and "stereotypically masculine behavior enhances a man's perceived creativity, whereas identical behavior does not enhance a woman's perceived creativity" (Proudfoot, Kay, and Koval 2015:1), which suggests the existence of implicit gender bias in the perception of creativity. The final statistically significant difference is found between part-time and full-time students in their reported use of the compensation strategy. Part-time students (N=36; M=3.34, σ=.89, p<.002), who likely have different schedules and responsibilities compared to full-time students, reported higher use of the compensation strategy than did full-time students (N=266; M=3.16, σ=.55, p<.002). This suggests that part-time students have relied more on compensation strategies to help them adapt to the challenges of remote or disrupted learning caused by the pandemic. Additionally, relying on compensation strategies is more important for less proficient foreign language learners due to their lack of knowledge (Almusharraf and Bailey 2021). However, it is debatable whether that is the case with our sample as the level of students' English knowledge was not within the scope of this research. Nonetheless, in general, part-time students do spend considerably less time studying than do full-time students and self-reliance is a key aspect of managing both their personal and professional life at the same time. As a way of coping with acquiring ESP, it is to be expected that part-time students would guess and predict the meaning more, and use more gestures and similar phrases. When controlling for the effect of other independent demographic variables, no additional statistically significant differences in the use of LLSs were found.

4.2. Correlations

Proactive attitude is considered a beneficial characteristic of individuals who acquire FLs (Tandoc 2019), creativity as a lifelong skill encourages more efficient language learners (Adel 2017), while emotional regulation as a concept improves FLA (Derakhshan and Zare 2023). Research even shows that a positive connection exists between students' proactivity, creativity, and emotional intelligence (Zampetakis et al. 2009). However, to

our knowledge, research has not been conducted specifically on the connection between the mentioned three constructs and students' use of LLSs, which is why we aimed to explore this in the context of acquiring ESP during the altered circumstances of the COVID-19 pandemic. Consequently, the initial research problem was to investigate the connection between LLSs and students' proactivity, creativity, and emotional regulation. The first hypothesis (H1: A positive correlation exists between students' proactivity, creativity, emotional regulation, and language learning strategies.) was analyzed by exploring the bivariate correlations of all constructs. Table 2 provides the intercorrelation matrix calculated by the Pearson's correlation coefficient (r) for all composite constructs and variables, and the elaboration of the connections between each construct and LLS follows.

Table 2 The Intercorrelation Matrix

	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1 Age	-.06	.55**	-.07	-.03	-.09	-.08	-.11	-.01	.05	.10	-.02	.08	.08	.06	.05
2 Gender	-	-.06	.03	.06	-.07	.02	.07	.16**	0	0	-.04	-.11	-.17**	0	-.07
3 Student Status		-	.07	.06	.03	.10	.01	.09	.08	.05	.05	.04	.03	0	.07
4 SILL			-	.72**	.86**	.58**	.81**	.59**	.79**	.32**	.25**	-.01	.03	-.07	-.01
5 Memory-Related				-	.52**	.36**	.46**	.41**	.44**	.24**	.22**	-.03	-.03	-.05	0
6 Cognitive					-	.44**	.64**	.29**	.59**	.28**	.25**	.03	.09	-.06	.01
7 Compensation						-	.31**	.35**	.36**	.06	.02	-.12*	-.06	-.14*	-.11
8 Metacognitive							-	.41**	.61**	.36**	.23**	.07	.09	0	.06
9 Affective								-	.51**	.14*	.02	-.16**	-.17**	-.10	-.11
10 Social									-	.26**	.21**	.01	.05	-.02	0
11 PROACTIVITY										-	.67**	.28**	.35**	.12*	.18**
12 CREATIVITY											-	.23**	.32**	.04	.16**
13 ERAC												-	.88**	.78**	.83**
14 ERAC Thoughts													-	.49**	.62**
15 ERAC Memory														-	.51**
16 ERAC Control															-

Note. N=302; * p < .05, ** p < .01; SILL = Strategy Inventory for Language Learning;
ERAC = Emotional Regulation and Control.

The findings reveal statistically significant positive correlations between proactivity and the composite constructs of SILL (r=.32; p<.01), the memory-related, the cognitive, the metacognitive, the social strategy (r ranges from .24 to .36; p<.01), and the affective strategy (r=.14; p<.05). The strongest connection to proactivity is found between the indirect metacognitive strategy (r=.36; p<.01) and the direct cognitive strategy (r=.28; p<.01). This suggests that students who are more aware of their language learning capabilities and want to consciously improve their ESP, are generally more proactive. Furthermore, a significant positive connection exists between proactivity and emotional regulation (r=.28; p<.01), and all its dimensions (r for *the influence of emotions and moods on memory* is .12; p<.05; r for the *influence of emotions and moods on thoughts* is .35; p<.01; r for *the control of emotional reactions* is .18; p<.01), which suggests that the more proactive ESP students perceive themselves to be, the more they are in control of their emotional reaction. Some researchers even believe that ESP students ought to assume a more proactive role in the choice of materials and activities in class (Marjanovikj-Apostolovski 2017), while others assert that ESP students do search for additional opportunities to interact in the English language outside the university context

(an example of the metacognitive strategy) (Trinder 2013), which portrays students' proactiveness and suggests the profound effect that proactivity has on acquiring ESP, but also on FLA in general.

The composite construct of creativity has a statistically significant positive correlation to the memory-related, the cognitive, the social and the metacognitive strategy (r ranges from .21 to .25; p<.01), but also to the composite construct of SILL (r=.25; p<.01). This suggests that students who perceive themselves to be more creative also use LLSs more. Previous research shows a positive relationship between creativity and the use of LLSs, in particular the metacognitive strategy, and language proficiency (Rezaei and Almasian 2007). This is in line with the research of Pipes (2023:35), who states that "exploring creativity individually or in small groups remains the most promising way of understanding its impact and how it might be harnessed for the overall good of improving language learning results". Furthermore, aligned with existent research on business students that shows a positive connection of students' creativity, proactivity and emotional intelligence (Kumar and Shukla 2019), our findings also show positive and statistically significant associations between ESP students' creativity and proactivity (r=.67; p<.01). The reason for this may be the fact that proactive ESP students tend to take initiative, seek out new opportunities to learn, and engage in self-directed learning (Zimmerman and Moylan 2009), which naturally fosters creativity. Creativity belongs in the ESP classroom as it affects students' visual literacy and technological skills, and reinforces their ESP acquisition (Kulenović 2022; Adel 2017). There was also a statistically significant positive connection between creativity and emotional regulation (r=.23; p<.01) and its two dimensions *influence of emotions and moods on thoughts* (r=.32; p<.01), and *the control of emotional reactions* (r=.16; p<.01). These findings suggest that creative students have a better control of their emotional reactions, and since the pandemic required students' rapid adjustment to the altered circumstances, creative students could devise innovative coping mechanisms, which in turn enhanced their emotional regulation during the pandemic.

The composite construct of emotional regulation has a statistically significant negative connection to the affective strategy (r=-.16; p<.01) and the compensation strategy (r=-.12; p<.05). Although this connection is weak, this indicates that students who have confidence in their ability to effectively manage their emotions, will use the affective and the compensation strategy less. Although previous research shows that emotional regulation is linked to spontaneous strategy use (Eldesouky and English 2019), our finding show no positive statistically significant correlation between ERAC and any of the LLSs. Reasons for these findings may range from the altered reality in which students were living in, differences in the ESP learners' backgrounds, to the possibility of emotional regulation affecting the manner in which ESP students approach learning but not directly leading to an increased use of a specific LLS.

Finally, the findings revel that the SILL composite construct is statistically significantly and positively connected to both proactivity and creativity, while two ERAC dimensions are negatively statistically significantly connected to two SILL subscales. This suggests that higher LLS use is associated with higher levels of proactivity and creativity. Additionally, students whose emotions affect their thoughts and memory may struggle to employ affective and compensation strategies effectively, as their emotions interfere with their ability to implement these strategies. Thus, the first hypothesis (H1) is partially confirmed.

4.3. Regression Analyses

Given numerous statistically significant correlations with the construct of proactivity, we assumed that, during the COVID-19 pandemic, proactivity had the potential to affect the use of LLSs, which is why the final research problem aimed to explore whether proactivity predicts the use of LLSs. Based on the final research problem, the second hypothesis (H2) states: Students' proactivity predicts the use of language learning strategies. In order to analyze the second hypothesis, regression analysis was used. Six models were created where each of the six LLSs was explored as the dependent variable. The predicting independent variables were demographic manifest variables of age, gender, and student status; latent variables of proactivity and creativity; and three dimensions of emotional regulation (i.e., *influence of emotions and moods on opinions*; *influence of emotions and moods on memory*; *control of emotional reactions*). Table 3 provides the main regression model with the highest percentage of the total variance explained (TVE), which was found in the use of the metacognitive strategy. Namely, the results reveal that all mentioned independent variables statistically significantly account for 17% of the metacognitive strategy use variance (R^2=.17; F=7.37; p<0.01). Considering their high Beta coefficients (β), proactivity (β =.41; t = 5.56; p<0.01) and age (β =-.21; t = -3.18; p<0.01) emerged as two statistically significant independent predictors of the metacognitive strategy use.

Other models also revealed proactivity as the most common independent predictor of the use of FLLSs. Namely, the second model was the cognitive strategy use model whose variance is accounted for 12% (R^2=.12; F=4.92; p<0.01), with proactivity (β =.24; t = 3.09; p<0.01) and age (β =-.18; t = -2.62; p<0.01) emerging as two statistically significant predictors. The third model explored the affective strategy use with 11% of the variance being explained (R^2=.11; F=4.52; p<0.01). Proactivity (β =.29; t = 3.75; p<0.01), student status (β =.15; t = 2.26; p<0.05), gender (β =.13; t = 2.24; p<0.05), and *the influence of emotions and moods on thoughts* (β =-.19; t = -2.41; p<0.05) are found to be the statistically significant independent predictors. The forth regression model analyzed the memory-related strategy use, with 9.3% of the variance being accounted for (R^2=.093; F=3.74; p<0.01), and proactivity (β =.21; t = 2.71; p<0.01) being the sole statistically significant predictor. The fifth model explored the social strategy use, whose variance is accounted for 8.2% (R^2=.082; F=3.26; p<0.01), with proactivity (β =.23; t = 3.00; p<0.01) once more being the only statistically significant predictor. The final model analyzed the compensation strategy use with 7% of the variance being accounted for (R^2=.07; F=2.77; p<0.01). Student status (β =.22; t = 3.27; p<0.01) and age (β =-.22; t = -3.12; p<0.01) were the two statistically significant independent predictors.

Our findings are, to an extent, in alignment with the principles of the Proactive Language Learning Theory (PLLT) which puts the learners' active role at the forefront and posits that "proactive second language learning is strategic" (Papi and Hiver 2024:8). Although the PLLT founders emphasize the focus on strategic patterns of learning behavior rather than specific strategies used, we believe that the use of isolated strategies should be understood first, especially during changed circumstances such as the COVID-19 pandemic, to later be able to explore the language acquisition as a whole.

Table 3 Contribution of Predictors to the Explanation of Metacognitive Strategy Use

Predictors	β	R	R^2	Adj. R^2	Std. Estimate Error	F	R Square Change	F Change	df1	df2	t	Sig.
							Change Statistics					
Age	-.21**										-3.18	.00
Gender	.06										1.2	.23
Student Status	.11										1.67	.09
Proactivity	.41**	.41	.17	.15	.64	7.37**	.17	7.37**	8	293	5.56	.00
Creativity	-.05										-.67	.49
ERAC Thoughts	.00										-.05	.96
ERAC Memory	-.05										-.78	.44
ERAC Control	.03										.44	.66

Note. * p < .05, ** p < .01; LLS = Language Learning Strategy; ERAC = Emotional Regulation and Control.

Overall, our research shows that, during the COVID-19 pandemic, self-perceived proactivity was found to be predictive of the use of each indirect (the metacognitive, the affective, the social) and two direct LLSs (the cognitive, the memory-related). This suggests that those ESP students who considered themselves proactive would use almost all LLSs more, whereas the highest effect would be on the use of the metacognitive strategy. Since proactivity does statistically significantly affect the use of the compensation strategy, it can be assumed that proactive ESP learners truly prefer to fully comprehend what they are learning rather than compensate for their lack of knowledge by making words up or guessing their meaning. Interestingly, in this research, higher age of ESP learners seems to be related to lower use of the cognitive and the metacognitive strategy. The reason for these findings may include the fact that older individuals have a lower cognitive flexibility (Egner and Siqi-Liu 2024). Namely, it seems that younger ESP learners are more adaptable and responsive to acquiring knowledge and languages and, thereby, tend to use the mentioned two strategies more. Furthermore, gender, student status, proactivity, and *the influence of emotions and moods on thoughts* statistically affect the utilization of the affective strategy. In particular, this suggests that female part-time students who believe that they are proactive but cannot regulate their emotions well, are more likely to use the affective strategy while learning ESP.

Consequently, the mentioned regression analysis findings show that during the COVID-19 pandemic the construct of proactivity, along with age, gender, student status, and the ERAC dimension *the influence of emotions and moods on thoughts*, were revealed as statistically significant independent predictors of the use of LLSs, which results in the second hypothesis (H2) being confirmed.

5. LIMITATIONS AND IMPLICATIONS

There are many limitations to this research, but the initial one concerns the timeframe of when the research was conducted, which was during the COVID-19 pandemic. Since during the pandemic, learners had to adapt to new learning environments, and educators had to adjust to online teaching, these changed circumstances may have affected our findings as they concern a very specific learning situation. What is more, this research

was limited to ESP students of economics and business from one HE institution, and although the sample was large, it was rather heterogenous as the participants varied in terms of age, study year, study discipline, and employment status. The mentioned makes our findings not generalizable beyond the immediate context, which limits the prospective applicability of the results to other studies. However, in order to achieve generalizability, future research should include ESP students from different study disciplines and across more than one University in a country. Another limitation is the use of self-report instruments as they lead to "social desirability" biases in responses, over-subjectivity, inability to verbalize clearly, and low self-awareness among certain learners" (Oxford and Burry-Stock 1995:2). The final limitation deals with the modest percentage of strategy use variance explanation in regression analyses, which suggests that during the COVID-19 pandemic, alternative constructs that were not included in this research served as additional predictors of ESP students' use of LLSs. Therefore, when considering the utilization of LLSs, additional constructs as individuals' differences should be examined.

This research may contribute to the existing literature on FLA (in particular ESP) and LLSs by introducing the constructs of proactivity, creativity, emotional regulation as individual difference factors that are connected to and could contribute to a higher use of LLSs. Moreover, our findings carry significant pedagogical implications for ESP educators as they emphasize the importance of acquainting ESP students with LLSs, while also acknowledging the effect of students' individual dispositions on the utilization of LLSs. It is our hope that our findings inform educators of the ESP students' use of LLSs during the COVID-19 pandemic, and that ESP educators tailor their syllabi accordingly to not only advance their ESP students' language skills, but also to cultivate their students' proactivity, creativity, and emotional regulation, equipping students with skills that will benefit them throughout their studies and, hopefully, careers.

6. CONCLUSION

The findings from this research shed light on various aspects of LLSs and their relationship with ESP students' self-perceived proactivity, creativity, and emotional regulation during the COVID-19 pandemic. The medium strategy use was observed across all LLSs and the metacognitive strategy was found to be used most frequently, while the affective strategy was ranked the lowest in terms of usage. Statistically significant gender differences were observed and female ESP students were found to employ the affective strategy more frequently compared to male students. On the other hand, male ESP students were found to utilize the cognitive strategy more and perceive themselves as more creative compared to female students. Additionally, part-time students seemed to rely more on the compensation strategy in their ESP learning compared to full-time students. Our findings further show that proactivity is positively correlated with almost all LLSs, while creativity is positively correlated with the social, the memory-related, the cognitive, and the metacognitive strategy. Conversely, emotional regulation showed a negative correlation with the affective and the compensation strategy. Ultimately, proactivity is identified as the most statistically significant individual predictor of the use of almost all LLSs by ESP students, while the *influence of emotions and moods on thoughts* emerged as a statistically significant predictor of the use of the affective strategy. Hence, it can be concluded that proactivity is a vital factor in how ESP students navigated their language

learning during the COVID-19 pandemic. Thereby, encouraging ESP learners to foster their proactivity, creativity, and emotional regulation, especially in special circumstances, may effectively increase the use of certain LLSs, which could result in enhancing ESP outcomes. Based on the mentioned findings, this research contributes to the understanding of LLS utilization, provides valuable insights for ESP educators and foreign language learners alike, and emphasizes the crucial role of promoting learner individuality in the FLA process.

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