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Investigating EFL Learners' Motivation and Attitudes during COVID-19 Pandemic: A Comparative Study between Introverted and Extroverted Learners

التحقيق في دوافع طلاب اللغة الإنجليزية كلغة أجنبية ومواقفهم أثناء جائحة COVID-19: دراسة مقارنة بين الطلاب الانطوائيين والمنفتحين

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Abstract:

The worldwide transition to blended learning during the COVID-19 pandemic brought about new difficulties for EFL students, affecting them differently depending on their personality characteristics, especially introversion and extroversion. This research seeks to examine the motivation and behaviors of these learner types at Algerian universities, drawing comparisons between them. Using a mixed methods research approach, the study gathered data through a questionnaire and the MBTI test. The sample comprised 53 second- and third-year EFL students from Guelma University in Algeria. The findings indicate that both introverted and extroverted EFL learners encountered numerous challenges with distance education, with many expressing a preference for in-

person learning. Additionally, learners experienced anxiety, depression, and diminished motivation. Introverted students were more prone to anxiety, while extroverts were particularly affected by the lack of social interaction. Despite these difficulties, EFL learners, being introverts or extroverts, demonstrated significant improvement in their autonomous learning skills.

Keywords: Blended learning; educational challenges; introversion and extroversion; learner behaviors;

المخلص:

دى التحول العالمي إلى التعلم المدمج خلال جائحة كوفيد-19 إلى تحديات جديدة لطلاب اللغة الإنجليزية كلغة أجنبية (EFL)، حيث تأثر الطلاب بشكل مختلف بناءً على سماتهم الشخصية، خصوصاً الانطوائية والانبساطية. تهدف الدراسة إلى مقارنة الدوافع وسلوكيات هذه الأنماط من المتعلمين في الجامعات الجزائرية. باستخدام منهج بحثي يجمع بين الأساليب الكمية والنوعية، جمعت البيانات عبر استبيان واختبار MBTI. شملت العينة 53 طالباً من جامعة قلمة. أظهرت النتائج أن كلا النوعين واجهوا صعوبات في التعليم عن بعد، مع تفضيل معظمهم للتعلم الحضوري، كما عانى الطلاب من القلق، الاكتئاب، وقلة الدافع. ومع ذلك، أظهر المتعلمون تحسناً في مهارات التعلم الذاتي.

الكلمات المفتاحية: التحديات التعليمية؛ التعلم المدمج؛ الانطوائية والانبساطية؛ سلوكيات المتعلمين؛

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1.INTRODUCTION

The global educational shift brought on by the COVID-19

pandemic has significantly reshaped learning environments, particularly in language education. With the rapid transition to online and blended learning, the way in which English as a Foreign Language (EFL) students interact with content has significantly evolved. Recent research emphasizes that learner attributes, particularly personality traits like extroversion and introversion, play a pivotal role in how students adjust to these new modes of learning (Ginting, 2021).

Individual differences significantly affect a human's thinking and behavior. Researchers have, therefore, been examining the link between the variety in language learning results and different learner characteristics (Dörnyei, 2005). Research on individual differences in foreign language studies (Griffiths & Soruç, 2021) has identified numerous factors that affect both language learning and teaching. Among these, personality traits stand out as a crucial element influencing the success of foreign language learning (Carrell et al., 1996). Accordingly, in foreign language studies and research, researchers seek to understand the behaviors of language learners as well as the motivation and drivers of their acts in light of the language learning process (Manchon, 2009). The extraversion-introversion dimension of personality has received the greatest attention in studies about personality differences and language learning (Dörnyei, 2005; Ellis, 2004). Likewise, extroversion and introversion are essential indicators of foreign language learning success (Griffiths, 1991).

Recent research has demonstrated that the effectiveness of online learning for language students depends heavily on individual learner characteristics, particularly personality traits like introversion and extroversion (Iglesias-Pradas et al., 2021). Furthermore, studies indicate that the pandemic's impact on motivation and learning behaviors was more profound than

initially expected (Hermanto & Srimulyani, 2021). This has led educators to rethink pedagogical strategies and consider blended learning as a more sustainable, long-term solution, balancing the benefits of both remote flexibility and in-person interaction (Iglesias-Pradas et al., 2021).

This study, set within Algerian universities, seeks to understand how the pandemic influenced EFL learners' attitudes and motivation, while also exploring how different personality traits shaped their experiences and responses to these challenges. A comparative study between introvert and extrovert learners is conducted for the purpose of identifying how their distinct personality traits influence their behaviors, motivation, and performance in the context of blended learning environments. The study seeks to explore differences in coping mechanisms and learning strategies between the two groups by analyzing factors such as learner engagement, emotional well-being, and autonomy during the COVID-19 pandemic.

2. Theoretical Framework

In this research, the theoretical framework is based on the intersection of personality psychology and educational theory, specifically within the context of language learning during the COVID-19 pandemic. Personality traits, notably introversion and extroversion, have been widely studied for their impact on learning behaviors and outcomes. Research indicates that introverted learners often prefer solitary learning environments, which can be exacerbated in online settings, leading to increased anxiety and decreased motivation (Ginting, 2021). Conversely, extroverted learners thrive in social interactions and collaborative settings, making the transition to distance learning particularly challenging due to the lack of in-person engagement (Iglesias-Pradas et al., 2021). This framework posits that understanding these personality dimensions is crucial for

addressing the diverse needs of EFL learners in blended learning environments.

Furthermore, the construct of motivation plays a significant role in language acquisition, as outlined in Dörnyei's (2005) motivational framework. The pandemic-induced shift to blended learning has brought about unique challenges that can impact learners' intrinsic and extrinsic motivation. Introverted students may struggle with the self-directed nature of online learning, potentially leading to feelings of isolation and decreased engagement. In contrast, extroverted students may experience a decline in motivation due to the absence of social interactions that typically energize their learning process (Hermanto & Srimulyani, 2021). Therefore, the study explores how these motivational dynamics manifest among introverted and extroverted learners, contributing to a deeper understanding of their respective challenges and adaptations during the pandemic.

Lastly, this research is situated within the broader discourse on individual differences in education, particularly in language learning contexts. Griffiths and Soruç (2021) emphasize that variations in learner characteristics significantly influence pedagogical effectiveness and learner outcomes. The integration of personality traits into the analysis of learner motivation and attitudes provides valuable insights into the unique challenges faced by EFL learners during unprecedented times. By employing a mixed methods approach, this study not only examines quantitative data through questionnaires but also captures qualitative nuances through interviews, allowing for a comprehensive understanding of how personality traits influence learners' experiences in a blended learning environment. This dual approach highlights the necessity for educators to consider personality differences when designing and implementing

language learning strategies in a post-pandemic educational landscape.

Research Questions

- 1- How did the COVID-19 pandemic and the transition to blended learning affect the motivation levels of introverted and extroverted EFL learners at Algerian universities?
- 2- What differences in learning behaviors, emotional responses, and coping strategies can be observed between introverted and extroverted EFL learners during the pandemic?
- 3- To what extent did introverted and extroverted learners demonstrate improvements in autonomous learning skills in the context of blended learning during the pandemic?
- 4- What are the key challenges faced by introverted and extroverted EFL learners in a blended learning environment, and how do these challenges impact their academic performance and engagement?

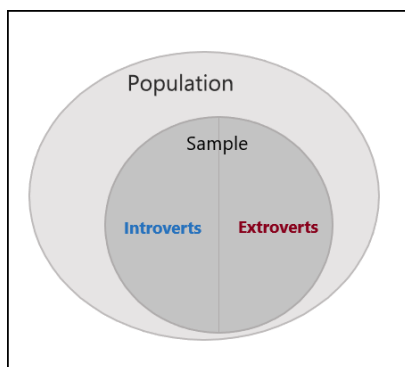
3. Research Methodology

This section outlines the population, sample selection process, and research tools used in this work.

This research was conducted with a population of 468 LMD students from the Department of English at Guelma University, Faculty of Letters and Languages, comprising 239 second-year students and 229 third-year students. Formal approval to access the university was obtained prior to initiating the study ensuring adherence to institutional protocols. The focus was placed on exploring the experiences of these two student groups. From this population, a random sample of 53 students was drawn, with two groups selected from each academic level over the 2020/2021 and 2021/2022 academic years. Based on the results of the Myers-Briggs Type Indicator (MBTI) test, 34 of the participants were classified as introverts (64.2%), while 19 were identified as extroverts (35.8%). To

gather data, the study employed a combination of research tools, including questionnaires and the MBTI test, enabling a detailed analysis of the learners' motivation, attitudes, and behaviors in the context of the blended learning environment imposed by the pandemic. This approach facilitated a comprehensive comparison between the two personality groups.

Fig.1. Sample and Population



Methods

The study used a mixed methods approach, combining quantitative and qualitative tools: a questionnaire and the Myers-Briggs Type Indicator (MBTI) test. The questionnaire focused on EFL learners' behaviors, motivation, and experiences during the COVID-19 pandemic, with closed-ended questions providing quantifiable data and open-ended questions offering qualitative insights into emotional well-being and learning preferences. The MBTI test identified students' personality traits, distinguishing between introverts and extroverts, allowing the study to explore how these traits influenced learner behavior, motivation, and their adaptation to blended learning environments.

4. Research Results

While tackling the results and discussion below, a comparison study focuses on students' personality types as introverted and extroverted learners.

4.1 The Personality Test Results

In this study, an online MBTI¹ test was administered to the participants to identify their personality types as either introverts or extroverts. Upon completion of the test, the results revealed that 34 out of the 53 students, or 64.2% of the sample, were classified as introverts, while the remaining 19 students, representing 35.8%, were identified as extroverts.

4.2 Students' Questionnaire

Section One: General Information

The first section of the questionnaire gathers basic information about the participants, including their gender, personality type, and academic year. It covers both introverted and extroverted students.

Fig.2. Participants' Characteristics

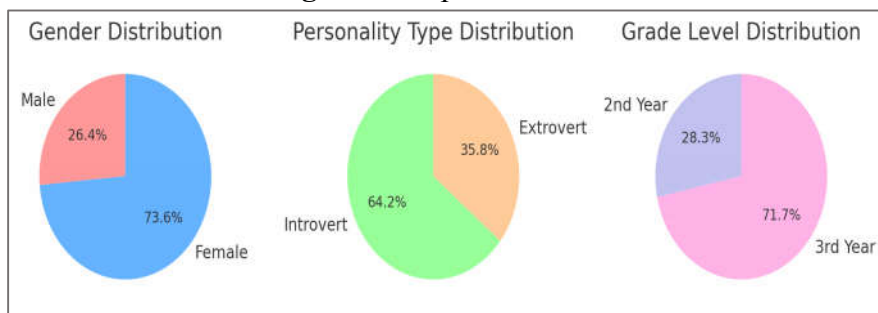


Figure 2 provides a summary of the participants' general information. Out of the 53 students, 26.4% are male and 73.6% are female. In terms of personality, 64.2% of the students are classified as introverts, while 35.8% are extroverts. Regarding grade level, 28.3% of the participants are in their second year,

¹ <https://www.16personalities.com/free-personality-test>

whereas 71.7% are third-year students. These statistics highlight that the majority of participants are female, introverted, and in their third year of study.

Section Two: Learning During the Pandemic

Section two of the students' questionnaire examines the extent and nature of students' learning challenges during the COVID-19 pandemic which coincided with the academic years 2020 - 2021 and 2021 - 2022. A significant portion of students, both introverts and extroverts (60.4%), characterized their learning experience during this period as moderate, with a clear preference for in-person classes (58.5%) and a combination of in-person and online learning (34%).

Table 1. Students Challenges during COVID-19

Challenge	Introverted Students (34)	Extroverted Students (19)	Overall (53)
Feeling of anxiety	9 (26.5%)	4 (21%)	13 (24.5%)
Lack of social interaction	7 (20.6%)	7 (36.8%)	14 (26.4%)
Change of planning and schedule	19 (55.9%)	11 (57.8%)	30 (56.6%)
Online-learning related issues	25 (73.5%)	9 (47.3%)	34 (64.2%)

Table 1 highlights that the major challenge students encountered during the COVID-19 pandemic was the shift to online learning, affecting 64.2% of the group. Introverted students were particularly impacted, with 73.5% identifying online learning challenges as their biggest hurdle, while for extroverts, changes in planning and schedules emerged as the main issue (57.8%). Additionally, the second major challenge

for introverts was changes in planning and scheduling (55.9%), whereas extroverts primarily struggled with online learning issues (47.3%). Notably, extroverts, faced greater difficulties due to a lack of social interaction (36.8%) compared to introverts who reported higher levels of anxiety (26.5%).

In wrapping up this section, participants shared their reflections on the positive aspects of the past year amid the pandemic. A majority appreciated having more free time and the opportunity to stay at home. They pointed out the advantages of experimenting with online education and balancing in-person and virtual learning. Many students felt they had grown more independent and responsible in managing their studies. Introverted students, in particular, welcomed the reduction in social interactions, while several participants reported better academic performance and improved grades.

Section Three: Learners' Personality Awareness

In section three of the questionnaire, students reflect on their personality characteristics within the introverted-extroverted continuum and discuss how these traits shape their learning experiences. Around 50.9% of students contend that their introversion or extroversion has an influence on their learning during the pandemic, whereas 49.1% disagree.

Furthermore, a notable portion of the respondents (56.6%) assert that their personality types play a role in their participation, engagement, and teamwork abilities. A substantial majority of extroverts (68.4%) believe that their personality impacts group collaboration, while only half of the introverts (50%) share this perspective. On the other hand, a majority of introverts (52.9%) feel that their personality traits affect their participation and engagement, in contrast to a higher percentage of extroverts (63.2%) who concur with this notion.

Fear of asking questions and speaking up is seen as influenced by personality traits, with 49.1% of participants acknowledging this. Risk-taking was noted by 32.1% of respondents, while 18.9% mentioned listening skills and self-esteem. Interestingly, a larger percentage of introverts (17.6%) than extroverts (10.5%) associate being reserved with their personality type.

Furthermore, 47.2% of participants feel that their learning style during the pandemic differs somewhat from their pre-pandemic experience. Meanwhile, 28.3% believe the difference is substantial, while 11.3% see it as similar and 13.2% think it is the same.

When discussing these differences, students cite various factors, including the introduction of online learning, a reduction in lesson frequency and classroom time, and a shift toward more autonomous learning. Numerous students observed a drop in their academic motivation during the pandemic, with introverted individuals particularly impacted on a psychological level. By the conclusion of this section, 58.5% of participants indicated that remote learning did not improve their educational experience, while 41.5% found it advantageous. Some students favored face-to-face classes, whereas others valued online education for its convenience, allowing them to avoid lengthy commutes. Introverts frequently mentioned the limited social interaction as a reason for preferring virtual learning, while others leaned toward traditional classrooms due to issues like unreliable internet connections.

Section Four: Online Learning

This section provides insights into students' experiences with online learning, including their attendance and engagement levels. For example, 34% of participants report that they always

attend online classes, 32.1% attend frequently, 24.5% attend occasionally, and only 9.4% attend infrequently.

The primary device used for online classes among both introverted and extroverted students is mobile phones, with 77.4% opting for this option. Laptops are used by 45.3%, while only 5.7% use desktop computers or tablets.

Students utilize a variety of platforms for online learning, with Moodle and Google Classroom being the most popular, each chosen by 47.2% of respondents. Google Meet follows with 39.6%, and social media platforms like Facebook and YouTube are used by 28.3%. Zoom is the least favored platform, with only 20.8% of students using it.

Among introverts, Moodle is the preferred platform (50%), whereas extroverts favor Google Meet and Google Classroom (47.4%). Introverts also dislike Zoom the most (14.7%), while extroverts express similar discontent toward Zoom and social media platforms (31.6%).

The section concludes with an overview of student satisfaction regarding their online learning experiences. About 39.6% of students describe their online learning experience as somewhat positive, while 24.5% view it as only slightly pleasant. Additionally, 20.8% of participants feel that the online experience was not pleasant at all, and only 15.1% believe it was very enjoyable.

Section Five: Suggestions

The concluding segment of this questionnaire offers insights from both introverts and extroverts regarding their educational experiences throughout the COVID-19 pandemic. A significant number of participants highlight the need for universal access to the internet and digital devices. Many students also express a preference for platforms such as Google Meet or Zoom over Moodle, noting challenges with logging in,

attending sessions, and retrieving recordings for long durations. Additionally, some students suggest that the ministry should implement training programs focused on online learning for both students and educators, recognizing this as a novel aspect of education in Algeria.

5. Discussion

The analysis of the collected data indicates that the COVID-19 pandemic significantly influenced the learning behaviors of EFL learners at Algerian universities in various ways. Both introverted and extroverted learners experienced moderate challenges in their learning during this time. Participants noted a stark contrast between their educational experiences pre-pandemic and during the pandemic, highlighting how COVID-19 impacted their learning behaviors. Regarding personality traits, the results show that over half of the participants identified as introverts, with the remainder being extroverts. Observations from classroom settings and online interactions revealed varying degrees of introversion and extroversion among students. Interestingly, some students reported increased levels of introversion due to the pandemic. Overall, many students experienced decreased motivation and engagement, although some introverts appreciated the comfort of studying from home, which addresses the first research question regarding how the pandemic and blended learning affected their motivation levels.

The pandemic's impact on student psychology was evident, as concerns about safety, lack of social interaction, and changes in learning modalities contributed to heightened anxiety and diminished interest in academic pursuits. Notably, introverts struggled more with anxiety, while extroverts faced challenges related to insufficient social interaction. This distinction highlights the differences in learning behaviors, emotional

responses, and coping strategies between introverted and extroverted learners, effectively answering the second research question.

A key finding of this study is the students' general preference for face-to-face learning over online formats, a sentiment shared by both personality types. The technical difficulties encountered during online classes were a major factor influencing this preference. However, many students recognized the value of the new online learning experience, even as their unfamiliarity with it initially intimidated them and affected their engagement. Conversely, some introverted students reported feeling more engaged and comfortable in online settings. This discussion directly relates to the fourth research question regarding the challenges faced by learners in a blended learning environment and how these challenges impacted their academic performance and engagement.

Moreover, the pandemic facilitated a notable increase in learners' autonomy. With less structured learning environments, students had more opportunities to take control of their education, shifting from passive to more active learning approaches. The alterations in planning and scheduling during this time encouraged greater responsibility in their learning processes, addressing the third research question about improvements in autonomous learning skills in the context of blended learning during the pandemic.

The comparison between introverted and extroverted EFL learners reveals significant differences in their learning experiences, emotional responses, and coping strategies during the COVID-19 pandemic. Introverted learners often reported heightened levels of anxiety and discomfort in social interactions, which impacted their motivation and engagement in both online and blended learning environments. They

expressed a preference for the solitude of online learning, appreciating the comfort of studying from home, yet still struggled with feelings of isolation and reduced participation. In contrast, extroverted learners faced challenges related to the lack of social interaction, which significantly affected their motivation and overall engagement. While they enjoyed collaborative activities and group work, the transition to online learning diminished their opportunities for socialization, leading to frustration and disengagement. This contrast highlights how personality traits influence not only learners' preferences for different learning modalities but also their emotional well-being and adaptability in response to the challenges posed by the pandemic. Understanding these differences is crucial for developing tailored educational strategies that cater to the unique needs of both introverted and extroverted students.

In comparison to existing literature, this study addresses gaps by focusing on the role of personality types in shaping learning experiences during the pandemic. It contrasts with previous research that did not consider individual differences, thus contributing a nuanced understanding of how introversion and extroversion influenced motivation and learning behaviors in this unprecedented context. Overall, the findings illustrate a complex interplay between personality, learning experiences, and the challenges presented by the COVID-19 pandemic, enriching the existing discourse on EFL learners' education.

6. CONCLUSION

This study has investigated the attitudes and motivation of introverted and extroverted EFL students at Algerian universities during the COVID-19 pandemic, examining the issue from psychological, academic, and technical perspectives. The findings indicate that students experienced anxiety, depression, and diminished motivation, which significantly affected their engagement in online learning environments.

Despite these challenges, EFL learners demonstrated notable growth in their autonomy as learners. Factors such as poor internet connectivity, unfamiliarity with online education, and technical difficulties encountered by both teachers and students contributed to a preference for face-to-face learning over online formats.

While this study builds on previous research in the field, it does have certain limitations. The sample size was limited to 53 participants, primarily due to the nature of the personality assessment used to categorize students. The researcher opted for conveniently available participants, as they were teaching the involved groups and could easily administer the personality test. Additionally, participation was voluntary, which further reduced the sample size.

Given that the COVID-19 pandemic remains a pressing concern, reforms in the educational system and the online learning landscape are essential. The Algerian government must prioritize organizing and facilitating education during such crises, ensuring that students have access to reliable online learning platforms and stable internet connections.

It is also crucial to acknowledge individual differences among learners within educational institutions. Educators should enhance their ability to recognize and appreciate these differences to provide effective language instruction. Personality traits, a fundamental aspect of individual differences, play a significant role in shaping students' learning experiences. According to Oxford and Ehrman (1995), foreign language teachers must understand substantial individual differences among their learners to optimize educational outcomes.

Oxford (2003) further suggests that introverts can engage with and benefit from language learning just as much as extroverts when given appropriate opportunities. A belief that extroverts inherently possess advantages in language acquisition can adversely affect introverted learners' performance. Therefore, it is imperative for all stakeholders in the educational process to ensure that every student, regardless of their

personality type, has an equal chance to learn a language effectively in the classroom.

To provide equitable learning opportunities for both introverted and extroverted students, diverse teaching strategies, methods, and materials, such as blended learning, should be employed. Technology can serve as a valuable tool to enhance student motivation and facilitate access to authentic language resources. As the COVID-19 pandemic continues, further research is warranted to monitor the evolving experiences of introverted and extroverted EFL learners and to assess fluctuations in their motivation in the post-pandemic landscape.

References

- 1-Briggs, S. R. (1988). Shyness: Introversion or neuroticism?. *Journal of Research in Personality*, 22(3), 290–307. [https://doi.org/10.1016/0092-6566\(88\)90031-1](https://doi.org/10.1016/0092-6566(88)90031-1)
- 2- Carrell, P. L., Prince, M. S., & Astika, G. G. (1996). Personality types and language learning in an EFL context. *Language Learning*, 46(1), 75–99. <https://doi.org/10.1111/j.1467-1770.1996.tb00641.x>
- 3- Dörnyei, Z. (2005). *The psychology of the language learner: Individual differences in second language acquisition* (1st ed.). Routledge. <https://doi.org/10.4324/9781410613349>
- 4- Ellis, R. (2004). Individual differences in second language learning. In *The Handbook of Applied Linguistics* (pp. 525–551). <https://doi.org/10.1002/9780470757000.ch21>
- 5- Free personality test. 16Personalities. <https://www.16personalities.com/free-personality-test>
- 6- Ginting, D. (2021). Student engagement and factors affecting active learning in English language teaching. *Voices of English Language Education Society*, 5(2), 215–228. <https://doi.org/10.29408/veles.v5i2.3968>
- 7- Griffiths, C., & Soruç, A. (2021). Individual differences in language learning and teaching: a complex/dynamic/socio-ecological/holistic view. *English Teaching & Learning*, 45, 339 - 353. <https://doi.org/10.1007/s42321-021-00085-3>

- 8- Griffiths, R. (1991). *Individual differences in second-language learning* by Peter Skehan. Edward Arnold, 1989. *Issues in Applied Linguistics*, 2(1). <http://dx.doi.org/10.5070/L421005134>
- 9- Hermanto, Y. B., & Srimulyani, V. A. (2021). The challenges of online learning during the Covid-19 pandemic. *Jurnal Pendidikan Dan Pengajaran*, 54(1), 46–57. <https://doi.org/10.23887/jpp.v54i1.29703>
- 10- Iglesias-Pradas, S., Hernández-García, Á., Chaparro-Peláez, J., & Prieto, J. L. (2021). Emergency remote teaching and students' academic performance in higher education during the COVID-19 pandemic: A case study. *Computers in Human Behavior*, 119, 106713. <https://doi.org/https://doi.org/10.1016/j.chb.2021.106713>
- 11- Manchon, R. M. (2009). Individual differences in foreign language learning: The dynamics of beliefs about L2 writing. *Rev. Esp. Linguist. Apl.*, 22, 245-268. <https://hispadoc.es/descarga/articulo/3138282.pdf>
- 12- Myers, I. B. (1962). The Myers-Briggs type indicator: Manual. <https://doi.org/10.1037/14404-000>
- 13- Oxford, R. L. (2003). Language learning styles and strategies: Concepts and relationships. *IRAL*, 41(4), 271-278. <https://doi.org/10.1515/iral.2003.012>
- 14- Oxford, R. L., & Ehrman, M. E. (1995). Adults' language learning strategies in an intensive foreign language program in the United States. *System*, 23(3), 359–386. [https://doi.org/https://doi.org/10.1016/0346-251X\(95\)00023-D](https://doi.org/https://doi.org/10.1016/0346-251X(95)00023-D)