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From Curriculum Goals to Classroom Practice: Uncovering the Critical Thinking Gap in Portuguese Language Education

Lucimar Dantas*

Assistant Professor, Lusofona University, CeIED, Lisbon, Portugal, <https://orcid.org/0000-0002-3804-1903>

Jorge Oliveira

*Associate Professor, Lusofona University, HEI-Lab., Lisbon, Portugal,
<https://orcid.org/0000-0002-3467-4981>*

Carla Galego

Assistant Professor, Lusofona University, CeIED, Lisbon, Portugal, <https://orcid.org/0000-0001-9425-3217>

***Corresponding author:** lucimar.dantas@ulusofona.pt.

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Abstract: This study examines the relationship between Portuguese language teaching practices and the development of critical thinking (CT) in secondary schools across Angola, Brazil, and Portugal. Using a qualitative, cross-cultural design, the research involved 151 Grade 12 students (86 female, 65 male) and six Portuguese language teachers. Data were collected through annual lesson plans, a validated Critical Thinking Test (CTT), and a focus group with teachers and coordinators. Descriptive and inferential statistics complemented content analysis of lesson plans and discussions. Findings reveal a striking gap between curricular expectations and students' actual CT performance. On the CTT, the average student score was 10.6 out of 25 (SD = 5.6), with considerable cross-national variation: Portugal obtained the

highest mean (15.3), followed by Angola (8.8) and Brazil (7.7). Across all contexts, students scored highest on *analysis* and *interpretation*, while *evaluation*, *synthesis*, and creativity-related tasks yielded the lowest results. These patterns mirror the cognitive complexity of classroom activities identified in lesson plans, where simpler interpretative and analytical tasks predominated. The study highlights a strong connection between the level of cognitive complexity embedded in teaching activities and students' performance in CT. Results suggest that explicit, intentional, and progressively demanding tasks — particularly those involving evaluation and synthesis — are crucial for improving CT outcomes. Teachers generally perceive CT as an overarching skill developed indirectly through literature, reading, and writing activities, rather than as a structured competence requiring targeted instruction. The novelty of this research lies in its comparative perspective across three Lusophone countries, providing rare cross-cultural evidence on how language teaching can either foster or hinder CT. Practically, the findings underscore the need for more deliberate integration of higher-order cognitive demands in classroom practice, bridging the persistent gap between curricular aims and student learning outcomes.

Keywords: Portuguese language teaching, critical thinking, cognitive complexity, learning outcomes, pedagogical practices.

Introduction

Research Problem

Critical thinking (CT) is widely acknowledged as a fundamental competence for the 21st century (OECD, 2013, 2018), contributing to academic success (Halpern, 2014), informed decision-making (Butler, 2012), and enhanced professional opportunities (Brotherton, 2011; Weng, 2015). It is also seen as a key educational goal for fostering social inclusion and sustainable development (UNESCO, 2017). Despite this recognition, empirical evidence suggests that students have insufficient levels of CT (Flores et al., 2012).

The gap is particularly evident in secondary education. International assessments reinforce this concern: in Brazil, 15-year-old students achieved an average of 23 points in the PISA 2022 *creative thinking* test, compared with the OECD average of 33 points. In Portugal, performance was relatively stronger—83% of students reached at least the baseline proficiency and 29% were classified as top performers—but disparities persist across social groups (OECD, 2023). Angola lacks comparable international data, yet persistent difficulties in reading comprehension and foundational learning highlight structural barriers to the development of higher-order cognitive skills.

While the value of CT is well established, there is less consensus on effective teaching strategies, particularly at the secondary level. Research on high school students remains limited (Liang & Fung, 2021), perhaps because CT is often conceptualised as a higher-order skill associated with adulthood, higher education, and professional contexts (Bağ & Gürsoyb, 2021). However, according to Piaget's Theory of Cognitive Development, adolescents possess the cognitive capacities necessary for advanced reasoning. Still, most empirical work at this stage has focused either on measuring CT levels (Reid & Chin, 2021) or exploring correlations with language proficiency, motivation, and academic achievement (Altay, 2013; Bagheri, 2015), often in the context of second language (L2) learning.

In contrast, studies on CT in mother tongue instruction are fewer. Some evidence suggests that students can develop higher-order skills, such as analytical thinking and problem-solving, in this domain (Demir, 2022). However, CT development is strongly mediated by contextual factors, including pedagogical approaches (Fung, 2017; Liang & Fung, 2021), parents' educational level (Ekinci & Aybek, 2010), and reading habits (Çelik et al., 2015; Gökkuş & Delican, 2016; Koçak et al., 2015). Against this background, in

Portuguese-speaking countries such as Angola, Brazil, and Portugal, the persistence of low-complexity classroom practices undermines the curricular expectation that CT should be systematically developed in secondary education (Dantas et al., 2024).

Research Focus

This study addresses the link between pedagogical practices in Portuguese language teaching and students' actual CT outcomes. Language is both a symbolic system and a cognitive tool (Bronckart, 2006; Hagoort, 2023), making it a privileged context for cultivating reasoning and meaning-making. However, CT is often treated as a transversal competence expected to emerge from engagement with texts, rather than as a structured set of skills requiring intentional instruction. By analysing lesson plans, classroom practices, and student performance, this study explores how the cognitive complexity of pedagogical activities is associated with the development—or stagnation—of CT in secondary schools across Angola, Brazil, and Portugal.

Research Aim and Questions

This research aims to analyse how Portuguese language teaching practices in secondary education influence the development of students' critical thinking skills in Angola, Brazil, and Portugal. To address this aim, the study is guided by the following research questions:

1. How is critical thinking represented and operationalised in Portuguese language lesson plans at the secondary level?
2. What are the measurable outcomes of students' CT performance, and how do these outcomes differ across Angola, Brazil, and Portugal?
3. How do teachers conceptualise their role in fostering CT, and what challenges or constraints do they report?
4. To what extent can Portuguese language classes serve as a privileged context for the structured and intentional development of CT skills?

Language teaching and critical thinking learning

Language is the primary human symbolic system, responsible for creating meanings, accessing culture, and expressing thoughts, feelings, and ideas. It is through language that we have a storehouse of shared meanings constructed throughout our life experiences and educational training (Bruggink et al., 2022), which is available to all speakers of a language.

According to human cognition approaches, our brain functions as a prediction machine (Clark, 2016), enabling us to interact with the world based on internal generative models. When predictions do not match the evidence, a prediction error occurs, prompting our prediction models to update. Language acts in this process, providing the cognitive toolkit to create rich, generative models of the world (Hagoort, 2023). Since we do not have direct access to the world itself (Hoffmann, 2020), but only mediated access through our symbolic systems (Vygotsky, 1962), language plays a crucial role. Our language works in two ways: allowing us to have conscious access to declarative knowledge, which is part of our internal models (Jackendoff, 2007), as well as enabling us to externalise the internal models, share them with other members of a language community, creating socially shared models (Hagoort, 2023). Socially shared models serve as the foundation for knowledge accumulation and are the essential mechanism for joint action (Clark, 1996).

As a biocultural hybrid (Evans & Levinson, 2009), language is shaped by the linguistic community while simultaneously shaping the social context, creating shared meanings and facilitating socially coordinated actions. However, how does language act to develop such activities? Moreover, how does it

impact learning in an educational context? These questions have been discussed by Bronckart (2006, 2007) in his Sociodiscursive Interactionist theory. The author argues that language, as a code shared by its speakers, enables the transmission of information, the construction of socially shared meanings, and the creation of knowledge considered necessary and valid within a given socio-historical context. The “situated language-practices (or text-discourses) are the main instruments of human development, both in relation to knowledge and skills” (Bronckart, 2006, p.10).

This theoretical language-culture background remains at the basis of recent studies on the relationship between language ability and critical thinking, which has been primarily studied in the context of second language learning in higher education (Luk & Lin, 2015; Peng, 2014). Advocates of the culture’s role in critical thinking argue that critical thinking is a Western construct (Canagarajah, 2002, 2005). These studies suggest that in Western cultures, individuals are encouraged to express their opinions in debates, whereas in East Asian cultures, questioning and disagreeing can be perceived as a lack of respect, even in academic contexts (Moeiniasl et al., 2022). Researchers have found that inadequate English language proficiency is linked to Asian students’ reluctance to manifest critical thinking ability in class activities (Floyd, 2011; Lun et al., 2010).

Moreover, language proficiency has been found to play a crucial role in students’ ability to think critically. Clifford et al. (2004) indicated that college students’ scores on the verbal comprehension subtest of the Wechsler Adult Intelligence Scale-Third Edition are a significant predictor of their critical thinking test scores. Lun et al. (2010) pointed out that English proficiency could explain the difference in critical thinking skills proficiency between Asian and Western students, rather than cultural differences. Paton (2005) explained the observed lack of critical thinking among Asian students as a result of their inadequate language proficiency or insufficient confidence in using the English language. Liang and Fung (2021) also pointed out that English language students’ proficiency is a barrier to the development of critical thinking in second language contexts. Other studies also suggest that critical thinking can both facilitate language skills and enhance general language proficiency (Liaw, 2007). These findings suggest that strong language abilities are necessary to effectively perform critical thinking cognitive skills, as they require the linguistic and cognitive capacities of language comprehension and writing.

Materials and Methods

Sample and Participants

The study involved 151 Grade 12 students from three public secondary schools in Angola, Brazil, and Portugal, as well as seven Portuguese language teachers (including classroom teachers and subject coordinators).

Of the student participants, 86 were female and 65 were male, with a mean age of 17.7 years (SD = 0.81). Inclusion criteria required that students (i) be enrolled in the final year of secondary education, (ii) attend regular Portuguese language classes, and (iii) provide informed consent signed by both students and parents or guardians. Exclusion criteria included incomplete consent forms or irregular school attendance. Within each school, two classes were selected through a simple randomisation procedure applied to the list of available Grade 12 classes, ensuring that all eligible students had an equal probability of inclusion. The sample size (N = 151) was determined a priori as sufficient to allow between-country comparisons with medium effect sizes (Cohen’s $d = 0.5$) and a statistical power of 0.80 at the 0.05 level.

In addition, five teachers participated in the focus group: two from Angola (one female teacher and one male coordinator), one from Brazil (a female teacher and also a coordinator), and two from Portugal (two Portuguese language teachers). All participants had more than two decades of teaching experience, reflecting diverse academic backgrounds and career trajectories. For instance, the Angolan teacher held a

degree in Organisational Psychology and a teaching qualification, with 32 years of service; the Angolan coordinator studied Theology and Law, later specialising in Portuguese, and had 23 years of teaching experience. The Brazilian teacher graduated in Portuguese–English (Letters) and had 22 years of service, also teaching at the university level, and combined school-level teaching with curriculum supervision. Among the Portuguese participants, one held a doctorate in Education and the other combined qualifications in Portuguese and French with postgraduate studies in Women’s Studies and Portuguese Literature, both with over 30 years of teaching experience.

This diversity of training and professional pathways brought complementary perspectives to the study, offering a rich picture of pedagogical practices in Portuguese language teaching at the secondary level across Lusophone contexts.

Instruments and Procedures

Critical Thinking Test (CTT). The Critical Thinking Test (Lopes et al., 2018), previously validated for Portuguese-speaking students in primary and secondary education, was administered. The CTT consists of a brief text describing a problem situation and three possible solutions, each accompanied by its advantages and disadvantages. Six open-ended questions then assess five cognitive processes: (i) interpretation, (ii) analysis, (iii) explanation, (iv) evaluation, and (v–vi) synthesis, including creativity and originality. In this study, the CTT was administered during regular class hours, taking 45–50 minutes to complete.

Portuguese language lesson plans. Lesson plans from the participating schools—including annual, semi-annual, and fortnightly plans for Grade 12 — were collected for the 2022/2023 academic year. These documents provided insights into the cognitive complexity of classroom tasks and the explicit or implicit integration of CT.

Focus group. A virtual focus group was conducted via Zoom with the five teachers described above. The session lasted approximately 90 minutes and was recorded in both audio and video. Transcription was carried out using Microsoft Office 365 automated tools, followed by manual revision by the research team to ensure accuracy. The discussion covered teachers’ social representations of Portuguese language teaching, pedagogical practices, professional competences, and strategies for fostering CT.

Ethical considerations. Informed consent was obtained from all student participants and their guardians (for those under 18 years of age) as well as from all teachers. Participation was voluntary, coded identifiers guaranteed anonymity, and all participants were informed of their right to withdraw at any time without penalty.

Analysis

We applied descriptive and inferential statistics to analyse the Critical Thinking test. The mean and standard deviation statistics were used to describe the results in terms of central tendency and variability of the scores in the Critical Thinking test. Considering the three participating countries — Angola, Brazil, and Portugal — one-way ANOVAs were conducted to compare the scores between countries. The dependent variables in this analysis were the results of the Critical Thinking Test for each dimension, with country as the independent variable. These scores were then compared with respect to country and gender variables using inferential statistics. When using gender coded as M/F, independent samples t-Student tests were conducted to compare the scores between genders. The effect sizes were calculated for each statistical test using Eta Squared for the ANOVA and Cohen’s d for the t Student Test. The alpha level for the inferential statistics was set to 0,05.

Content analysis (Bardin, 1977) was applied to both the lesson plans and the Focus Group. Lesson plans were analysed under the following dimensions of analysis: (i) the learning objectives and (ii) the activities proposed in the plans. For both dimensions, we established as analysis categories the exact cognitive dimensions of the critical thinking test (i) interpretation, (ii) analysis, (iii) explanation, (iv) evaluation and (v) synthesis (Lopes et al., 2018).

The focus group was recorded in both audio and video formats, and the audio was transcribed using Microsoft's transcription tool, Office 365, with manual corrections made by the project coordinators. Content analysis (Bardin, 1977) was carried out, establishing dimensions of analysis: (i) social representations of teachers about the Portuguese language and its teaching; (ii) pedagogical practices, (iii) teaching skills, and (iv) teaching of critical thinking.

Results

Critical thinking test

The general result of students' critical thinking was poor. From a maximum total of 25 points, the participants had a mean score of 10,6 points (Standard Deviation - SD = 5,6). There were considerable differences between countries, as shown in Table 1.

Table 1

General performance in critical thinking by country

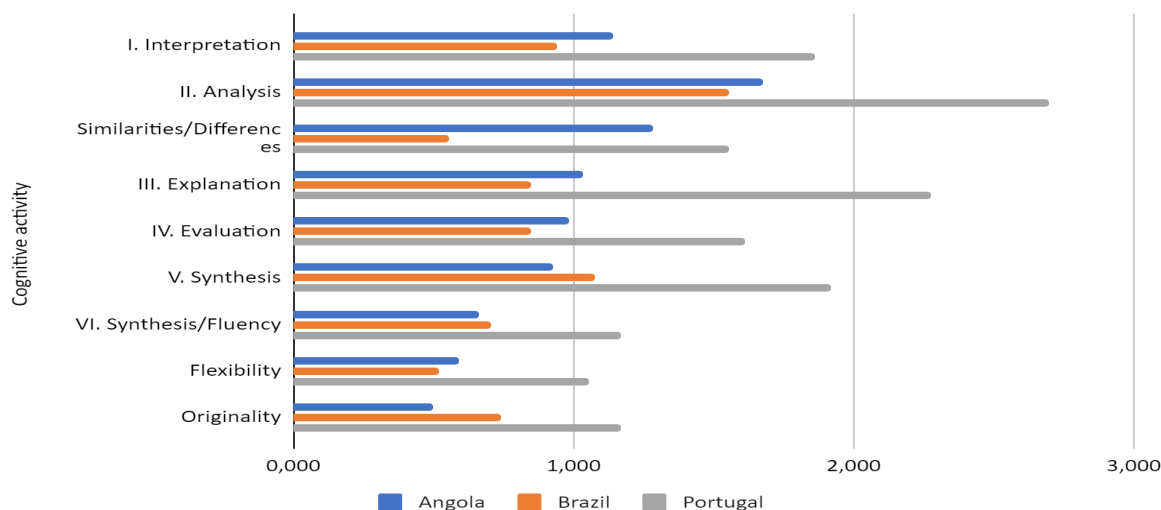
Country	Mean Scores (SD)
Angola	8,8 (3,8)
Brazil	7,7 (5,3)
Portugal	15,3 (5,2)

Source: prepared based on research data by L. Dantas (2024)

As shown in Table 1, Portugal was the country that achieved the highest score in the sum of all cognitive activities involved in critical thinking, with a total of 15.3. Angola followed, with 8.8 points and Brazil, with 7.7 points. Once the general score is known, we are interested in understanding how it is distributed across various cognitive activities. This is illustrated in Figure 1.

Figure 1

Performance by cognitive activity and country



Source: prepared based on research data by L. Dantas (2024)

Disaggregating the results by country and cognitive activity allowed us to identify in detail which participants obtained the highest and lowest scores, and consequently infer the levels of cognitive complexity and effort demonstrated in solving each question. Among the six activities evaluated by the CTT, (ii) analysis was the one that presented the highest results not only in all countries, but also in each one of them, followed by (i) interpretation. The exception was for Portugal, whose second-best result was recorded in (iii) explanation. The activities with the lowest scores, in most of the three countries, were (vi) synthesis/fluency, especially when evaluating flexibility and originality, (iv) evaluation and (v) synthesis, with slight differences in this order between the countries. The inferential statistics conducted on these variables aimed to compare these differences by country.

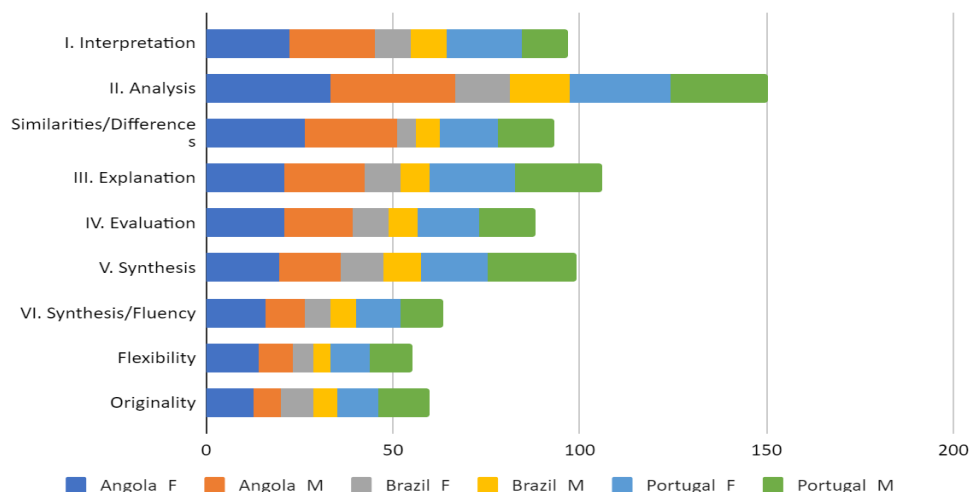
The ANOVAs showed statistically significant differences by country for all dependent variables, namely, for Interpretation ($F(2, 145) = 13,408$; $p < 0,001$; $\eta^2 = 0,158$), Analysis ($F(2, 145) = 22,948$; $p < 0,001$; $\eta^2 = 0,243$), Similarities/Differences ($F(2, 145) = 21,679$; $p < 0,001$; $\eta^2 = 0,233$), Explanation ($F(2, 145) = 34,413$; $p < 0,001$; $\eta^2 = 0,325$), Evaluation ($F(2, 145) = 12,633$; $p < 0,001$; $\eta^2 = 0,150$), Synthesis ($F(2, 145) = 15,169$; $p < 0,001$; $\eta^2 = 0,175$), Synthesis/Fluency ($F(2, 145) = 5,060$; $p = 0,008$; $\eta^2 = 0,066$), Flexibility ($F(2, 145) = 7,421$; $p < 0,001$; $\eta^2 = 0,094$), and Originality ($F(2, 145) = 5,941$; $p = 0,003$; $\eta^2 = 0,077$). The Bonferroni-corrected post-hoc tests revealed that the scores in the Critical thinking tests from Portuguese students were significantly higher than those from both Brazilian and Angolan students ($p < 0,05$). Only in the Similarities/Differences dimension were the scores significantly higher for Portuguese students, followed by Angolan students, who were significantly higher than Brazilian students ($p < 0,05$). In the other dimensions, the scores between Angolan and Brazilian students were not statistically different ($p > 0,05$).

These results were surprising, as, according to Bloom's Taxonomy, which theoretically supports CTT, interpretation is considered the most basic level of cognitive activity, corresponding to the knowledge level, which translates into the ability to recall previously discussed information. In the specific case of CTT, the question that assesses interpretation asked participants to indicate the subject of the text.

Figure 2 shows the performance of participants by cognitive activity, country and sex.

Figure 2

Performance by cognitive activity, country and sex



Source: prepared based on research data by L. Dantas (2024)

The participants from the three countries consisted of a total of 151 students in their final year of secondary education, with 86 being female and 65 being male. Fifty-nine students participated from Angola (32 F and 27 M). Participants from Brazil totalled 55 (25 F and 30 M). From Portugal, 37 students participated (29 F and 8 M).

In the cognitive activity of (i) interpretation, a better score was observed for female participants from Portugal. In the activities of (ii) analysis, which includes similarities and differences, as well as in the activities of (iii) explanation and (iv) evaluation, no marked difference was observed between the sexes. In the activities of (v) synthesis, (vi) synthesis/fluency, which includes flexibility and originality, a better score was noted among female participants from Angola. Still in the activities of (v) synthesis and (vi) synthesis - originality, male participants from Portugal had a higher result than female participants. Participants from Brazil showed no notable differences between genders in any of the cognitive activities assessed.

The indicated differences in performance between the sexes do not, however, constitute statistically significant differences, as the study lacked a representative sample of the population and was instead an exploratory investigation involving the participation of only one school per country. The inferential statistical analysis was also conducted to compare critical thinking skills between genders. The t-Student tests showed differences between M/F for the following dimensions of the Critical thinking test: Interpretation ($t(141,382) = 2,436$; $p = 0,016$; $d = 0,402$); Explanation ($t(144) = 2,115$; $p = 0,036$; $d = 0,352$); Evaluation ($t(144) = 2,316$; $p = 0,022$; $d = 0,386$); and Flexibility ($t(144) = 2,143$; $p = 0,034$; $d = 0,357$). In these variables, the scores from female students were significantly higher than those of male students.

Lesson plans results

In Table 2, we present the results of the lesson plan analysis by country and dimension.

Table 2

Cognitive activity of CT in lesson plans

Cognitive activity	Angola	Brazil	Portugal
Interpretation			
Nº occurrences	8	12	4
Examples	<i>Define</i> the poetic text and the poem/ <i>Detect</i> the fundamental elements of the literary text/	Read, understand and <i>interpret</i> verbal, non-verbal and mixed texts corresponding, with ease, to the skills indicated by the descriptors explored in the SEB/ <i>Recognize</i> the uses of the standard norm of the Portuguese language in different communication situations	<i>Active listening</i> , listening to literary texts, <i>reading</i> and <i>interpreting</i> texts/ analytical and critical reading/ intertextuality; comparative reading and reading project.
Analysis			
Nº occurrences	8	9	6
Examples	<i>Differentiate</i> the lyrical text within the scope of other literary texts/ Study the subgenres of poetry to <i>distinguish</i> them from each other	<i>Relate</i> information about artistic conceptions and literary text construction procedures/ <i>Establish relationships</i> between the literary text and the moment of its production, situating aspects of the historical, social and political context	Registration of <i>regularities and patterns</i> , exploration of hypotheses, study and consolidation/ active listening, listening to literary texts, reading and interpretation of texts, analytical and critical reading, intertextuality, <i>comparative</i> reading
Explanation			
Nº occurrences	0	1	0
Examples		Analyze different artistic productions <i>as a means of explaining</i> different cultures	
Evaluation			
Nº occurrences	1	2	2
Examples	Discuss the nature and value of the literary text as a historical-cultural document.	<i>Infer</i> from a text what the objectives of its producer are and who its target audience is by <i>analyzing the argumentative</i>	<i>Text evaluation</i> , synthesis of content and expansion of knowledge

		<i>procedures used/ Understand the importance of analyzing and studying literary works to understand literary schools</i>	
Synthesis			
Nº occurrences	1	0	1
Examples	Creatively <i>mobilize</i> linguistic and non- linguistic expressive resources		Text evaluation, content <i>synthesis</i> and knowledge expansion

Source: prepared based on research data by L. Dantas (2024)

Focus Group discussion

In the present study, Portuguese language teachers and subject area/department coordinators from three public schools located in Angola, Brazil, and Portugal participated. The characterisation of these institutions, as well as their respective educational contexts, is particularly relevant, as it facilitates a deeper understanding of the specific conditions in which teaching practices occur and enables a more consistent interpretation of the data generated through the focus group.

What follows is a description of the participating schools, highlighting their main institutional, organisational, and pedagogical features. This contextualization not only situates teachers within their professional environments but also provides a solid interpretative basis for the comparative analysis of the results obtained.

Regarding the schools involved, distinct institutional and organisational realities can be observed. In Angola, the participating school is located in Luanda and was initially designed for primary education, later being adapted to the second cycle of secondary education in response to the lack of provision at that level in the area. In 2022, it employed eight Portuguese language teachers, five of whom were responsible for 12th-grade classes, along with a subject coordinator. In Brazil, the study was conducted in a public school in São Luís, Maranhão, which has operated as a full-time institution since 2020. In that year, it enrolled 441 upper-secondary students, supported by five Portuguese language teachers, one of whom also served as coordinator for the Languages, Codes, and Technologies area. In Portugal, the participating school is the headquarters of a school cluster in the Greater Lisbon area, with over 1,000 students and approximately 250 teachers. It is distinguished by the diversity of its educational offer (daytime, evening, and vocational programmes) and by the systematic incorporation of digital resources into the teaching and learning process.

Thus, the teachers and coordinators involved in the study represent contrasting educational realities, shaped by different structural, organisational, and pedagogical conditions. Despite these differences, they share a common denominator: the centrality of Portuguese language teaching and its relevance in students' schooling and academic development.

A synthesis of the findings from a focus group is organised according to four analytical dimensions: (i) social representations of the Portuguese language and its teaching, (ii) pedagogical practices, (iii) teaching skills, and (iv) the teaching of critical thinking. Participant quotations are included to illustrate key insights.

Social Representations of the Portuguese Language and Its Teaching - Teachers across all three countries viewed the Portuguese language not merely as a disciplinary subject but as a foundational tool for communication, identity construction, and cognitive development. In Angola, this role is accentuated by the country's multilingual context, where Portuguese functions as a lingua franca promoting national unity. As one Angolan teacher expressed: "The Portuguese language does not only teach us how to write [...] it promotes interpretation and grants us an understanding of the world in general." (Angola). In Brazil, the focus shifted toward embracing students' linguistic and cultural backgrounds as a pedagogical resource: "We adopt a socio-interactionist methodology, which seeks to understand and integrate the language students bring from home." (Brazil). Portuguese teachers underscored the language's cross-curricular relevance: "If a student cannot read, interpret or write, they will not be able to understand a math or science problem. Portuguese is the key to success in all subjects." (Portugal)

Pedagogical Practices - Pedagogical approaches described by participants emphasised active, student-centred learning. Standard practices included text interpretation, comparative reading, literary analysis, and collaborative learning strategies. These methods aim to foster students' critical engagement with texts and real-life contexts. A Portuguese teacher explained: "We employ analytical and critical reading, intertextuality, and reading projects to deepen understanding." (Portugal). In Brazil, student agency and protagonism were emphasised: "Students are now the protagonists. We, as teachers, are facilitators. Language teaching makes them reflective and active learners." (Brazil). In Angola, the practice was reported as conservative, as stated by a teacher, "These manuals do not promote creativity or research, or rather, an interest in research or the pursuit of knowledge, because, in a way, they trap students. They position them as mere recipients of the knowledge imparted by teachers." (Angola)

Teaching Skills - The transition from traditional content-based teaching to a competency-based approach was acknowledged across all contexts. Teachers reported increasing demands for adaptability, autonomy, and interdisciplinary awareness in their professional practices. An Angolan coordinator noted: "We are trying to move from just delivering content to developing competencies. It is not easy, but necessary." (Angola). In Brazil, this transition is driven by curricular reform: "The BNCC requires that we help students develop skills, not just knowledge. This fundamentally changes the teacher's role." (Brazil). Portuguese teachers discussed institutional support and collaboration: "We work collaboratively across the department to align our practices with new curricular demands." (Portugal).

Teaching of Critical Thinking - All participants recognised the importance of developing critical thinking (CT) through language education. Teachers described various classroom strategies, including argumentation, textual problematization, and perspective-taking. However, challenges such as time constraints and assessment limitations were also reported. A Portuguese teacher emphasised the broader significance of CT: "A student who knows Portuguese well and has an open mind to criticism, argumentation, and counter-argumentation is capable of reading and writing clearly across disciplines." (Portugal). An Angolan teacher highlighted the use of textual problematization: "We try to problematize texts, showing students how to question and interpret cultural meanings." (Angola). For the Brazilian coordinator, the teaching of CT is underlying text interpretation: "In our classes, since they are contextualised, we do it like this: through the text, with grammar, and we also ask for a critical summary of that text. So they already make that interpretation, with their opinion on that subject of the text."

This synthesis demonstrates the convergences and contextual specificities in how Portuguese language educators across Portuguese-speaking countries conceptualise and operationalise their pedagogical roles, particularly in fostering communication, reflection, and critical reasoning among students.

Discussion

Critical thinking holds a prominent place in Portuguese language classes, as indicated in the lesson plans analysed in this study, as well as in curricular guidelines for Portuguese language teaching in Angola, Brazil, and Portugal (Dantas et al., 2024). Critical thinking is introduced to students primarily through literature, reading comprehension and textual writing, but it is not intentionally directed towards the cognitive activities involved in this skill.

Our study revealed low levels of critical thinking in 12th-grade students, especially in the results from Brazil and Angola. The mean score of 10.6 out of 25 across all participants corroborates earlier findings of insufficient CT development among secondary school students (Lopes et al., 2018). The comparatively higher performance of Portuguese students (15.3) aligns with international studies indicating stronger CT outcomes in Portugal (OECD, 2023). Conversely, the lower results in Brazil (7.7) and Angola (8.8) resonate with international reports (for Brazil, see OECD, 2023) on weaker performance in problem-solving and higher-order reasoning among students.

There is a significant gap between the Portuguese language curricular guidelines (Dantas et al., 2024) and the results of participants in the critical thinking test. This gap increases depending on the country, and appears to be explained by four interconnected factors.

The social and cultural characteristics of the school contexts significantly shape learning opportunities and, consequently, the development of CT. In Angola, the multilingual environment positions Portuguese simultaneously as a school subject and as a lingua franca, ensuring national cohesion. This dual role often prioritises functional literacy over higher-order reasoning, limiting the space for structured CT development. In Brazil, deep social inequalities and limited access to quality educational resources exacerbate the challenge of implementing a curriculum that aspires to foster complex cognitive skills. By contrast, in Portugal, despite persistent inequities, stronger institutional structures and more homogeneous linguistic contexts provide comparatively favourable conditions for CT development. These contextual differences resonate with previous findings that CT is not culturally neutral but mediated by linguistic and social factors (Canagarajah, 2005; Liang & Fung, 2021).

The pedagogical practices of Portuguese language teachers play a decisive role in bridging—or reinforcing—the gap between curricular goals and student performance. Lesson plan analysis revealed a predominance of interpretative and analytical activities, with scarce attention to evaluation, synthesis, and creativity. This confirms the pattern observed in other studies, where teachers often assume that CT will develop “naturally” through engagement with texts, rather than through the intentional design of cognitively demanding activities (Fung, 2017). Teachers’ professional identities and training backgrounds also influence their practices. In Angola, the limited availability of specialised training in CT pedagogy constrains classroom strategies; In Brazil, teachers’ workload and curricular reforms often hinder experimentation. In Portugal, greater access to continuous training may help explain the comparatively higher student performance.

The level of autonomy in curriculum planning and the dynamics of continuous teacher training also contribute significantly to the observed differences. Schools and teachers in Portugal tend to enjoy higher degrees of autonomy in adapting curricula and designing activities, supported by institutional structures that promote professional collaboration. In Angola, teachers reported that curricular planning remains strongly centralised, and opportunities for professional development are scarce, limiting innovation in classroom practices. In Brazil, the National Common Curricular Base (BNCC) provides centralised guidelines, but states and municipalities have autonomy to contextualise content, and teachers retain flexibility in choosing methodologies. Nevertheless, this autonomy is uneven, and opportunities for continuous professional development, while more widely available than in Angola, are often fragmented

and not always directed to the concrete needs of the classroom. The uneven access to structured training and institutional support hinders teachers' ability to implement pedagogies that foster higher-order cognitive skills consistently. The literature emphasises that autonomy and ongoing training are critical for teachers to translate abstract curricular objectives into effective classroom practice (Halpern, 2014).

Finally, the time required for curricular regulations to take effect and to be translated into classroom practices can also explain cross-country differences. In Portugal, competency-based approaches to language education have been in place for an extended period, allowing teachers and schools more time to adjust their practices, train staff, and develop resources. In Brazil, the implementation of the BNCC (Base Nacional Comum Curricular) is relatively recent, and its translation into everyday practices remains uneven. In Angola, curricular reforms are relatively recent and constrained by systemic challenges, including shortages of trained personnel and inadequate educational infrastructure. As with other reform processes, there is a lag between the formal adoption of curricular objectives and their effective incorporation into teaching and learning, which directly affects the extent to which CT development is realised in classrooms.

Taken together, these four factors — sociocultural context, pedagogical practices, curricular autonomy and training, and the time-lag of implementation — explain why student performance in CT varies so markedly across Angola, Brazil, and Portugal. They also highlight the need for multi-level strategies that integrate policy reform with professional development and context-sensitive pedagogical interventions.

Our results indicate that critical thinking is not taught in a structured and intentional way about the various cognitive activities involved in the act of thinking critically (i) interpretation, (ii) analysis, (iii) explanation, (iv) evaluation and (v) synthesis). Throughout all the documentation analysed, there is a widely generalised conception that critical thinking skills develop spontaneously, as a holistic competence, simply from engaging in certain activities and teaching specific content. In this context, the activities of literary education, reading, interpretation and textual writing stand out as those in which critical thinking is most exercised.

In the students' results in cognitive critical thinking activities, the study surprisingly revealed low rates in i) interpretation, which is considered the least cognitively demanding according to Bloom's Taxonomy. These results may be related to the fact that the test question assessing this ability explicitly requires participants to use their own words to indicate the subject of the text. This task involves not only the ability to locate information within the text, but also to synthesise it coherently.

When we cross-referenced the students' results by cognitive activity with those indicated in the activities carried out in the classroom, as stated in the lesson plans, we found a close relationship between these aspects. The cognitive activities of the critical thinking test, which yielded better results for students, namely analysis/similarities and differences, and interpretation, are also those most required in the activities proposed in the lesson plans, as expected learning objectives, or in proposed activities for students. This relationship between students' results on the critical thinking test and the levels of cognitive complexity indicated in the learning objectives, particularly in the activities developed by students, raises essential theoretical and practical considerations regarding the relationship between language teaching and learning in a school context. Firstly, it reinforces the assumptions presented by Bronckart (2006) that situated language practices are instruments of human development, in the construction of knowledge and the development of capabilities. Suppose students frequently carry out activities that require them to identify and recognise information, and establish relationships of similarity and difference. In that case, these will be their cognitive action schemes that are most easily evoked and those in which they will be most likely to obtain the best results.

Secondly, and following the first consideration, Portuguese language classes provide a privileged space for developing students' critical thinking skills, particularly in more complex cognitive activities, such as evaluation and synthesis. To achieve this, it is essential to constantly implement intentionally planned activities to require students to develop assessment, synthesis and creativity skills.

Conclusions

The set of data collected and analysed allows us to draw the conclusions that we summarise below.

1. The Portuguese language taught in secondary education in Angola, Brazil and Portugal is an essential instrument for developing the set of skills and abilities for the 21st century, as indicated by both the OECD and UNESCO, including critical thinking.
2. Portuguese language classes in secondary education are a privileged space for teaching critical thinking, due to the subject's specific content, particularly literature, and the types of activities developed with students.
3. There is a wide gap between the learning proposed by the curricular guidelines regarding critical thinking and its implementation observed in students. The most effective bridge between the two points is the type of activity carried out by students and the levels of cognitive complexity of these activities, rather than the simple presence of an objective for a specific learning experience in teachers' planning.
4. Language structures create cognitive action structures. The results of the critical thinking test are related to the level of cognitive complexity required in the activities carried out by students in Portuguese language classes.
5. Teachers view critical thinking as a broad ability that develops almost spontaneously through teaching content and engaging in activities related to literature.
6. The explicit and intentional teaching of critical thinking in Portuguese language classes can improve the development of this ability in students.

From a policy perspective, these results reinforce the need for curricular reforms and teacher professional development programs that extend beyond the formal inclusion of CT in official documents, providing concrete guidance, resources, and training for the design of cognitively demanding activities. Policies should also support schools in creating collaborative structures for lesson planning and encourage the systematic inclusion of CT across subjects, with Portuguese language teaching as a central driver.

The conclusions mentioned here must be read in light of the limitations of the present study, namely its exploratory nature, and the analysis only of the cognitive component of critical thinking. Further studies that also include the analysis of the affective dimension of critical thinking could provide new insights that help teachers teach this much-needed skill to all segments of society.

Suggestions for Future Research

Although the present study sheds light on the relationship between Portuguese language teaching and critical thinking (CT) outcomes in Angola, Brazil, and Portugal, several avenues for further investigation remain open. Future research should employ longitudinal designs to examine not only the effectiveness of pedagogical interventions aimed at fostering CT but also the parallel development of linguistic competencies, particularly writing and reading comprehension. Such studies would enable the identification of reciprocal influences between language skills and CT, as well as capture the sustainability of improvements over time.

It is also essential to broaden the scope of inquiry beyond cognitive dimensions by including the affective components of CT, such as curiosity, open-mindedness, and willingness to engage with diverse perspectives (Facione, 2020). These dispositions are fundamental to a holistic understanding of how CT develops in authentic classroom contexts and how it can be nurtured through intentional pedagogical strategies.

Finally, comparative research should be extended to other languages and cultural contexts, enabling scholars to explore how linguistic structures, cultural traditions, and educational systems shape both the conceptualisation and the practice of CT. Such studies would provide valuable insights into the extent to which CT can be considered a universal competence or one that is deeply embedded in cultural and linguistic contexts.

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Conflict of Interest

None.

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References

- Altay, B. (2013). *İngilizce öğrenme sürecinde bilişsel farkındalık, dil öğrenme stratejileri, eleştirel düşünme ve öz-düzenleme becerileri arasındaki ilişkinin incelenmesi* [Examination of the relationship between cognitive awareness, language learning strategies, critical thinking, and self-regulation skills in the process of learning English] [Unpublished master's thesis]. Adnan Menderes University, Institute of Social Sciences.
- Bağ, H. K., & Gürsoy, E. (2021). The effect of critical thinking embedded English course design on the improvement of critical thinking skills of secondary school learners. *Thinking Skills and Creativity*, 41, Article 100910. <https://doi.org/10.1016/j.tsc.2021.100910>
- Bagheri, F. (2015). The relationship between critical thinking and language learning strategies of EFL learners. *Journal of Language Teaching and Research*, 6(5), 969–975. <https://doi.org/10.17507/jltr.0605.08>
- Bardin, L. (1977). *Análise de conteúdo* [Content analysis]. Edições 70.
- Bronckart, J.-P. (2006). Les conditions de construction des connaissances humaines [The conditions for the construction of human knowledge]. In M. Carton & J.-B. Mayer (Eds.), *La société des savoirs: Tromper l'œil ou perspectives?* (pp. 27–48). L'Harmattan. <https://archive-ouverte.unige.ch/unige:37556>
- Bronckart, J.-P. (2007). *Desarrollo del lenguaje y didáctica de las lenguas* [Language development and didactics of languages]. Miño y Dávila.
- Brotherton, P. (2011). Critical thinking: A top skill for future leaders. *T+D*, 65(11), 24. <https://www.td.org/magazines/td-magazine/critical-thinking-a-top-skill-for-future-leaders>

- Bruggink, M., Swart, N., van der Lee, A., & Segers, E. (2022). Theories of reading comprehension: The current state of affairs on reading comprehension research. In M. Bruggink, N. Swart, A. van der Lee, & E. Segers (Eds.), *Putting PIRLS to use in classrooms across the globe. IEA Research for Educators* (Vol. 1). Springer. https://doi.org/10.1007/978-3-030-95266-2_2
- Butler, H. A. (2012). Halpern Critical Thinking Assessment predicts real-world outcomes of critical thinking. *Applied Cognitive Psychology*, 26(5), 721–729. <https://doi.org/10.1002/acp.2831>
- Canagarajah, S. (2002). Multilingual writers and the academic community: Towards a critical relationship. *Journal of English for Academic Purposes*, 1(1), 29–44. [https://doi.org/10.1016/S1475-1585\(02\)00007-3](https://doi.org/10.1016/S1475-1585(02)00007-3)
- Canagarajah, S. (2005). Critical pedagogy in L2 learning and teaching. In E. Hinkel (Ed.), *Handbook of research in second language teaching and learning* (pp. 931–949). Taylor & Francis.
- Çelik, S., Yılmaz, F., Karataş, F., Al, B., & Karakaş, N. S. (2015). Critical thinking disposition of nursing students and affecting factors. *Journal of Health Science and Profession*, 2(1), 74–85. <https://doi.org/10.17681/hsp.27211>
- Clark, A. (2016). *Surfing uncertainty: Prediction, action and the embodied mind*. Oxford University Press.
- Clark, H. H. (1996). *Using language*. Cambridge University Press.
- Clifford, J. S., Boufal, M. M., & Kurtz, J. E. (2004). Personality traits and critical thinking skills in college students: Empirical tests of a two-factor theory. *Assessment*, 11(2), 169–176. <https://doi.org/10.1177/1073191104263250>
- Dantas, L. A., Galego, C., Koppe, B., Almeida, E. S., Neves Gonçalves, M., & Brás, J. (2024). Mother tongue teaching and skills development: An analysis of secondary education curricula in European countries and Brazil. In Y. Waghid & A. Alasfour (Eds.), *Values education and beyond: Implications for emotional learning*. WCCES–Brill Book Series.
- Demir, E. (2022). An examination of high school students' critical thinking dispositions and analytical thinking skills. *Journal of Pedagogical Research*, 6(4), 190–200. <https://doi.org/10.33902/JPR.202217357>
- Ekinci, Ö., & Aybek, B. (2010). Analysis of the empathy and the critical thinking disposition of the teacher candidates. *The Turkish Online Journal of Educational Technology (TOJET)*, 9(2), 816–827.
- Evans, N., & Levinson, S. C. (2009). The myth of language universals: Language diversity and its importance for cognitive science. *Behavioral and Brain Sciences*, 32(5), 448–494. <https://doi.org/10.1017/S0140525X0999094X>
- Facione, P. A. (2020). *Critical thinking: What it is and why it counts* (pp. 1–18). Insight Assessment.
- Flores, K. L., Matkin, G. S., Burbach, M. E., Quinn, C. E., & Harding, H. (2012). Deficient critical thinking skills among college graduates: Implications for leadership. *Educational Philosophy and Theory*, 44(2), 212–230. <https://doi.org/10.1111/j.1469-5812.2010.00672.x>
- Floyd, C. B. (2011). Critical thinking in a second language. *Higher Education Research & Development*, 30(3), 289–302. <https://doi.org/10.1080/07294360.2010.501076>

- Fung, D. (2017). The pedagogical impacts on students' development of critical thinking dispositions: Experience from Hong Kong secondary schools. *Thinking Skills and Creativity*, 26, 128–139. <https://doi.org/10.1016/j.tsc.2017.10.006>
- Gökkuş, İ., & Delican, B. (2016). Pre-service classroom teachers' critical thinking tendencies and attitudes towards reading habit. *Cumhuriyet International Journal of Education*, 5(1), 10–28. <https://doi.org/10.30703/cije.321061>
- Hagoort, P. (2023). The language marker hypothesis. *Cognition*, 230, 105252. <https://doi.org/10.1016/j.cognition.2022.105252>
- Halpern, D. F. (2014). *Thought and knowledge: An introduction to critical thinking* (5th ed.). Psychology Press. <https://doi.org/10.4324/9781315885278>
- Hoffmann, C. (2020). Helmholtz, Hermann von: *Handbuch der physiologischen Optik*. In H. L. Arnold (Ed.), *Kindlers Literatur Lexikon (KLL)*. J. B. Metzler. https://doi.org/10.1007/978-3-476-05728-0_10193-1
- Jackendoff, R. (2007). *Language, consciousness, culture*. MIT Press. <https://doi.org/10.7551/mitpress/9780262101184.001.0001>
- Koçak, B., Kurtlu, Y., Ulaş, H., & Epçaçan, C. (2015). Examining the elementary class teachers' critical thinking levels and their attitudes towards reading. *Ekev Akademi Journal*, 61, 211–228.
- Liang, W., & Fung, D. (2021). Fostering critical thinking in English-as-a-second-language classrooms: Challenges and opportunities. *Thinking Skills and Creativity*, 39, 100769. <https://doi.org/10.1016/j.tsc.2020.100769>
- Liaw, M. (2007). Content-based reading and writing for critical thinking skills in an EFL context. *English Teaching & Learning*, 31(2), 45–87.
- Lopes, J., Silva, H., & Morais, E. (2018). Test de pensamiento crítico para estudiantes de enseñanza básica y secundaria [Critical thinking test for elementary and secondary students]. *Revista de Estudios e Investigación en Psicología y Educación*, 5(2), 82–91. (DOI не вказано у надійному форматі.)
- Luk, J., & Lin, A. (2015). Voices without words: Doing critical literate talk in English as a second language. *TESOL Quarterly*, 49(1), 67–91. <https://doi.org/10.1002/tesq.161>
- Lun, V. M.-C., Fischer, R., & Ward, C. (2010). Exploring cultural differences in critical thinking: Is it about my thinking style or the language I speak? *Learning and Individual Differences*, 20(6), 604–616. <https://doi.org/10.1016/j.lindif.2010.07.001>
- Moeiniasl, H., Taylor, L., Braga, M., Manchanda, T., Huggon, W., & Graham, J. (2022). Assessing the critical thinking skills of English language learners in a first-year psychology course. *Thinking Skills and Creativity*, 43, Article 101004. <https://doi.org/10.1016/j.tsc.2022.101004>
- Organisation for Economic Co-operation and Development. (2013). *Education at a glance 2013: OECD indicators*. OECD Publishing. <https://doi.org/10.1787/eag-2013-en>
- Organisation for Economic Co-operation and Development. (2018). *The future of education and skills 2030: The future we want*. OECD Publishing.
- Organisation for Economic Co-operation and Development. (2023). *PISA 2022 results (Volume I): The state of learning and equity in education*. OECD Publishing. <https://doi.org/10.1787/53f23881-en>

- Paton, M. (2005). Is critical analysis foreign to Chinese students? In E. Manalo & G. Wong-Toi (Eds.), *Communication skills in university education: The international dimension* (pp. 1–11). Pearson Education.
- Peng, J. (2014). *Willingness to communicate in the Chinese EFL university classrooms: An ecological perspective*. Multilingual Matters.
- Reid, S., & Chin, P. (2021). Assessing critical thinking in L2: An exploratory study. *Shiken*, 21(1), 8–21. <https://doi.org/10.37546/JALTSIG.TEVAL25.1-2>
- United Nations Educational, Scientific and Cultural Organization. (2017). *Education for sustainable development goals: Learning objectives*. <https://bangkok.unesco.org/content/education-sustainable-development-goals-learning-objectives>
- Vygotsky, L. S. (1962). *Thought and language*. MIT Press. <https://doi.org/10.1037/11193-000>
- Weng, W. (2015). Eight skills in future work. *Education*, 135(4), 419–422.