

Academic texts in a foreign language as a tool for developing critical thinking and creative analysis skills in higher education students

Os textos acadêmicos em língua estrangeira como ferramenta para o desenvolvimento do pensamento crítico e das competências de análise criativa em estudantes do ensino superior.

Textos académicos en lengua extranjera como herramienta para desarrollar el pensamiento crítico y las habilidades de análisis creativo en estudiantes de educación superior

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Abstract

Contemporary society requires highly skilled professionals who are capable of not only excelling in the professional world but also becoming an integral part of society, communicating effectively, and solving problems. Successfully managing information flows in today's professional environment requires a developed, higher-order mindset. All the competencies students acquire in their university coursework must be in demand by both the surrounding society, primarily employers, and the students themselves. Based on narrative review and case study approach, the study demonstrates mismatching, contradiction between real-world skills of critical thinking and creative analysis required by the contemporary labor market and often obsolete scholasticism inherent in HE teaching methodologies in academic writing domain. The findings also revealed high benefits and potential of academic texts

in foreign language for developing high-order thinking skills in HE students. Conducted integrative analysis allowed suggesting FL academic texts implications integration into HE curricula and teaching methodology, based on IMRaD approach to reading, analysis, and writing FL academic texts will create the most favorable environment for developing critical thinking and creative analysis skills in students.

Keywords

IMRaD, High-Order Thinking, FL Scholarly Sources, Writing Center Paradox.

Resumo

A sociedade contemporânea exige profissionais altamente qualificados, capazes não só de se destacarem no mundo profissional, mas também de se tornarem parte integrante da sociedade, comunicando eficazmente e resolvendo problemas. Gerir com sucesso o fluxo de informação no ambiente profissional atual requer uma mentalidade desenvolvida e de ordem superior. Todas as competências que os alunos adquirem nos seus cursos universitários devem ser exigidas tanto pela sociedade em geral, principalmente pelos empregadores, como pelos próprios alunos. Com base numa revisão narrativa e num estudo de caso, este estudo demonstra a incompatibilidade e a contradição entre as competências práticas de pensamento crítico e de análise criativa exigidas pelo mercado de trabalho contemporâneo e o escolástico, muitas vezes obsoleto, inerente às metodologias de ensino superior na área da escrita académica. Os resultados revelaram também os grandes benefícios e o potencial dos textos académicos em língua estrangeira para o desenvolvimento de competências de pensamento de ordem superior em estudantes do ensino superior. A análise integrativa realizada permitiu sugerir as implicações da integração de textos académicos em língua estrangeira nos currículos e metodologias de ensino do ensino superior, com base na abordagem IMRaD à leitura, análise e escrita de textos académicos em língua estrangeira, o que criará o ambiente mais favorável para o desenvolvimento do pensamento crítico e das competências de análise criativa nos alunos.

Palavras-chave

IMRaD, Pensamento de Ordem Superior, Fontes Académicas de Língua Estrangeira, Paradoxo do Centro de Escrita.

Resumen

La sociedad contemporánea exige profesionales altamente cualificados, capaces no solo de sobresalir en el ámbito profesional, sino también de integrarse plenamente en la sociedad, comunicarse eficazmente y resolver problemas. Gestionar con éxito el flujo de información en el entorno profesional actual requiere una mentalidad desarrollada y de orden superior. Todas las competencias que los estudiantes adquieren en sus estudios universitarios deben ser demandadas tanto por la sociedad en general, principalmente por los empleadores, como por los propios estudiantes. Basado en una revisión narrativa y un estudio de caso, este estudio demuestra la discrepancia y la contradicción entre las habilidades prácticas de pensamiento crítico y análisis creativo que exige el mercado laboral actual y el escolasticismo, a menudo obsoleto, inherente a las metodologías de enseñanza superior en el ámbito de la escritura académica. Los hallazgos también revelaron los grandes beneficios y el potencial de los textos académicos en lenguas extranjeras para el desarrollo del pensamiento de orden superior en los estudiantes universitarios. El análisis integrador realizado permitió sugerir las implicaciones de la integración de textos académicos en lenguas extranjeras en los currículos y la metodología de enseñanza superior, basándose en el enfoque IMRaD para la lectura, el análisis y la escritura de textos académicos en lenguas extranjeras, lo que creará el entorno más favorable para el desarrollo del pensamiento crítico y el análisis creativo en los estudiantes.

Palabras clave

IMRaD, Pensamiento de Orden Superior, Fuentes Académicas de FL, Paradoja del Centro de Escritura.

1. Introduction

According to Human Capital Theory, education is considered in the context of a knowledge-driven economy as an investment in increasing individual productivity, promoting economic progress, and meeting societal demands. Higher education institutions play an important role in providing graduates with employability skills and matching curricula with market demands in order to better prepare students for a dynamic workplace. Among the various abilities required for occupational demands in the twenty-first century, cognitive competencies such as creativity and critical thinking stand out as essential for personal and professional growth.

Wei (2025) correctly observes that among the abilities to empower individuals, creativity and critical thinking are regarded as two major cognitive competencies that educated individuals of the twenty-first century should possess, for which the education system is accountable in terms of stimulation and development. The growing emphasis on students' cognitive development in higher education represents a shift in the educational paradigm from traditional academic learning, which is primarily concerned with academic performance, to personal development, which has the potential to benefit students throughout their careers. The future revolution in economic structure, driven by unpredictability, is unknown and may be modified by the period of globalization and digitization. The abilities and skills required in the workplace are also expected to alter as a result of the problems posed by internationalization and the incorporation of AI-powered solutions. Creativity and critical thinking can be viewed as a distinctively human intellectual power that broadens the study and discovery of information, resulting in the formulation of new conclusions and viewpoints, as well as the development of new knowledge.

Many countries' higher education policies and qualification criteria place a strong emphasis on creativity and critical thinking. In contrast, as Bouckaert (2023) points out, these skills are sparingly integrated into the dimensions of centralized assessments performed at the system level, particularly in OECD countries. At the local level, due to the high levels of institutional autonomy and academic freedom, there is little evidence that policy orientations translate into practical changes in assessment procedures devised and executed by faculty members.

One of the primary causes of this problem is insufficient attention to academic literature's thorough study. Meanwhile, academic books provide a foundation for critical thinking by encouraging active examination, assessment, and synthesis of knowledge. They compel readers to examine assumptions, evaluate evidence-based arguments, and consider different viewpoints, ultimately leading to autonomous, reasoned judgment and intellectual curiosity.

Meyers *et al.* (2023) discovered that first-year students in South African institutes of higher learning frequently find academic writing a difficult undertaking. This is because they lack the intellectual ability required for the rigors of academic writing, and their writing skills are not developed, resulting in lower academic accomplishment. There is insufficient support to help them improve their writing skills. As a result, they did poorly in academic writing classes. According to research, the writing needs of native English speakers (L1) and non-native English speakers (L2) vary by user group. Though most academic writing studies focus on L2 learners, Meyers *et al.* (2023) predict some single-letter misspellings among L1 users.

Foreign language acquisition is another useful tool for developing critical thinking skills. Foreign language acquisition in higher education (HE) has developed from a mechanics-focused activity to a tool for promoting critical thinking and creative analysis. By learning a new language, students challenge their cognitive processes, navigate cultural nuances, and adopt new views, improving their capacity to assess information, solve issues, and think creatively. Foreign language acquisition is not just a language skill, but a cognitive process that fosters high-level reasoning (see Table 1).

Table 1

Critical thinking, creative analysis and expression in FL learning

<i>Critical thinking</i>
Challenged assumptions: Students learn to examine, assess, and interpret material via a new language lens, avoiding shallow knowledge.
Analytical reasoning: Foreign language education encourages critical reading, allowing students to study complex, authentic texts (literature, news, academic papers) and evaluate their reliability.
Metacognition: Learning a new language enables students to reflect on their own thinking and learning processes.
Problem-solving involves dealing with ambiguity (unfamiliar structures/vocabulary), which promotes cognitive flexibility and improves decision-making.
<i>Creative analysis and expression</i>
Re-creating identity: Learners frequently re-create their identity within the context of a new language, which is naturally creative.
Creative writing and expression: Students can communicate their thoughts, feelings, and ideas in new ways when they produce spoken and written language in a foreign culture.
Interdisciplinary thinking: Learning foreign languages helps students link diverse concepts and develop a more inventive, flexible, and adaptive brain by bridging cultural divides.
Divergent thinking: Studies reveal that studying advanced foreign languages greatly improves the four essential elements of creativity: originality, adaptability, fluency, and elaboration.

Source: Tsang *et al.* (2020)

However, the potential of synergy of FL and academic reading/analysis is rarely comprehended in full, except the leading universities such as those belonging to Ivy League and some “old” European universities (in Bologna, Oxford, Cambridge, etc.). Remarkable fact is that using

scholarly sources in foreign languages in academic writing (essays, course assignments, and so on) is not encouraged and often is even considered as a significant drawback, leading to lowering the grade of student work. On the other side, FL learning curricula, as a rule, is based rather on everyday, 'consumerist' and informal communication practices, leaving FL use for scientific purposes, for conducting scholarly research, out of the scope of attention. Evidently, this impedes the development of critical thinking and creative analysis skills, necessary in today's knowledge economy and cross-disciplinarity paradigm in all spheres of societies' functioning in global landscape. Thus, there is a contradiction between the objective social and personal significance of critical thinking for university graduates and the underdeveloped methodology for using foreign language as a means of developing students' corresponding thinking skills. This is reflected, in particular, in the lack of pedagogical criteria for constructing educational texts that could develop students' critical thinking.

Pu (2022), in his monographic study on the cultural approach to critical thinking in academic writing, investigates critical thinking from a culture perspective. Based on an ethnographic study, the author contrasts how Chinese postgraduate students conceptualize and use critical thinking in three different situations in China and the United Kingdom. From an insider's perspective, he examines the complex interplay of many cultural and individual elements that influence students' critical thinking development as they learn to compose an academic thesis and manage postgraduate studies. The book provides insights into the nature of the issues that Chinese students face with critical thinking and anticipates the potential for critical thinking principles to have transformative power in an intercultural setting. Thus, working with academic texts in FL is critical for developing strong skills required of modern HE graduates, who must be prepared to conduct research even in highly dynamic and unfamiliar landscapes - a skill that is one of the core elements of today's employees' competence and competitiveness in the post-capitalist labor market.

Similar to this, Swahili, a significant indigenous language used for broader communication in Eastern and Central African nations, has been and still is utilized successfully in specialized communication for over thirty years. It is extensively utilized in the field of education, especially in Tanzania and Kenya. The language serves as the only medium of instruction in Tanzania's public elementary schools and primary school teacher training institutions. Additionally, high schools and universities teach it. Swahili is a required subject in Kenyan elementary and secondary schools, as well as at all public universities. Mwansoko (2003) notes that the language's widespread use in academia has resulted in the development of a distinct Swahili academic writing style. Thus, analyzing scholarly writings in Swahili and English (as well as other Romano-Germanic or Iberian-Romance languages) will help to foster critical thinking.

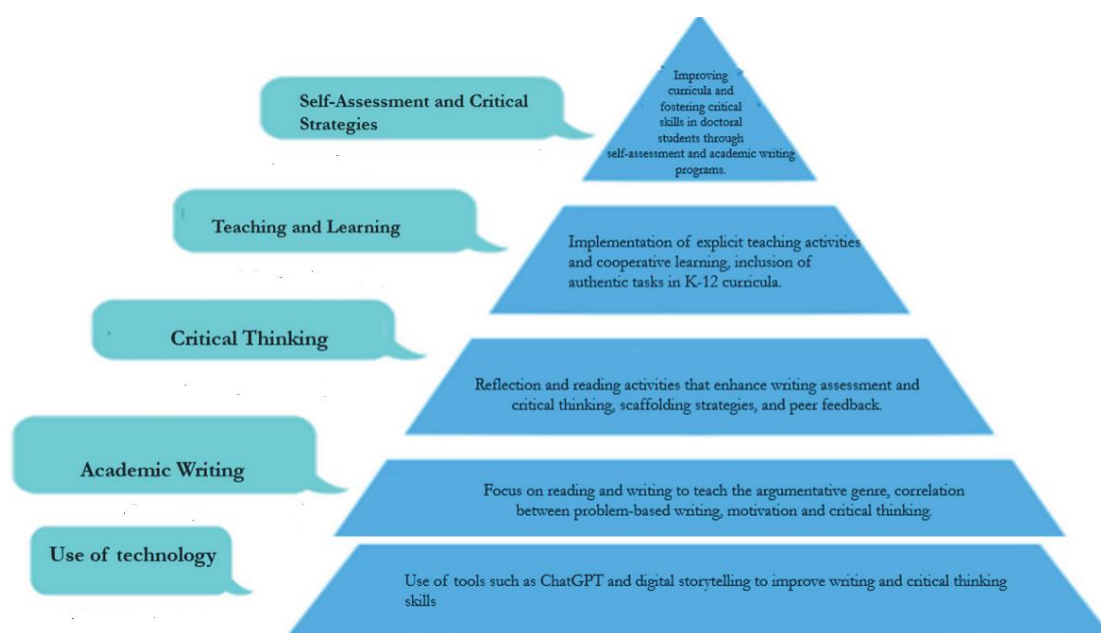
With this in mind, investigation of FL academic texts potential as a tool for synergetic development of critical thinking and analytical skills in HE represents an extremely relevant task.

2. Theoretical Framework

According to Hilario *et al.* (2025), critical thinking has three components: analytical, evaluative, and creative. Analytical dimension: This dimension entails breaking down ideas, problems, or arguments into constituent parts to better grasp their structure, internal relationships, and significance. The evaluative dimension assesses the quality, validity, and usefulness of information, arguments, and offered solutions. Creative Dimension: It is critical to produce fresh ideas, suggest inventive solutions, and approach challenges from novel angles. These authors developed a pyramid model which offers a holistic approach to the development of writing and critical thinking skills in the educational context (see Fig. 1). Each level builds on the preceding one, emphasizing the interdependence of technology, writing, critical thinking, instructional methods, and the vital role of self-assessment. This implies that an effective educational method must incorporate all these components to have a substantial impact on learning.

Figure 1

Holistic approach to the development of writing and critical thinking skills in the educational context



Source: Hilario *et al.* (2025)

Today's students need to be able to navigate the global information space, critically assess situations, develop their own system of views and judgments, and resist manipulation. In a constantly changing political, economic, and social environment, students must have their own views, beliefs, and a set of arguments to express them. It is precisely these critically thinking and innovative graduates that society demands and employers seek.

Critical thinking, in turn, is a system of strategies and methodological techniques designed for use across various subject areas, types, and forms of work. It enables the achievement of educational outcomes such as the ability to work with an increasing and constantly evolving flow of information in various fields of knowledge, to express own thoughts cogently (orally and in writing), to develop own opinion based on the analysis of various experiences, ideas, and concepts, to solve problems and independently manage own learning (academic mobility), to collaborate and work in a group, and to build constructive relationships with others.

There is currently significant interest in this way of thinking in the education system, as well as growing concern about how to develop it in students, regardless of their age, background, and abilities. On the one hand, increasingly widespread testing allows students to determine their level of knowledge; on the other hand, testing leads to simplification of thinking and a narrowing of knowledge, encouraging students to respond quickly and unfoundedly (Kerruish, 2024). Therefore, one of the pressing and significant challenges facing higher education today is the development of a critical thinking style in students, based on a set of reflective and evaluative procedures that facilitate students' meaningful self-determination in the world around them and in their future professional and social activities.

Furthermore, critical thinking and creative analysis abilities in post-capitalist higher education are becoming more focused on developing, maintaining, and assessing talents that go beyond standard profit-driven, neoliberal paradigms. These abilities are required for navigating a digital, networked, and fast changing society, preparing students to be responsible global citizens. In turn, it is unlikely that these abilities can be effectively developed without professional cross-cultural competence, which includes the capacity to read and comprehend academic (technical, social sciences, etc.) materials in foreign languages.

3. Results and Discussion

3.1 The Role of Educational Texts in Shaping Skills of Critical Thinking and Creative Analysis

The criteria for the compliance of educational texts with the task of shaping and developing critical thinking should include the criterion of the necessity for the authors to comprehend the actual degree of truth of such fragments of knowledge, which the authors of traditional educational texts rarely doubt. This presupposes: a) the inclusion of information on the extent to which experimental confirmation of a known fact is legitimate, as well as on the extent to which it is possible, in principle, to confirm any theoretical position by experiment; b) the inclusion of information in which the author invites the reader to reflect on the legitimacy of certain simplifications, neglects, assumptions about the insignificance of the influence of any factors on the course of the phenomenon under study, abstraction from any condition, etc.; c) the inclusion of information on widespread misconceptions with an analysis of their “roots” and the exposure of the falsity of what is proclaimed in them; d) inclusion of dialogue fragments in which the author presents an impromptu debate with a fictitious reader, without specifically formulating a particular final point of view for the student, but gradually leading the student to its awareness through the analysis of various approaches, among which there are productive and erroneous ones (Yang *et al.*, 2025).

Another important criterion for ensuring that educational texts support the development of critical thinking in students is the criterion based on the unity of symmetry and asymmetry. It suggests the following: a) including information about the differences between unjustifiably equated objects and phenomena in the educational process; b) including information about the presence of varying degrees of internal similarity between unjustifiably contrasted objects and phenomena (Özpir *et al.*, 2025).

It is also advisable to include the “equilibrium criterion” in the criteria for ensuring that educational texts are consistent with the idea of developing critical thinking in students. This criterion implies: a) the inclusion of information about the negative aspects of what is traditionally and unjustifiably overemphasized as positive; b) the inclusion of information about the positive aspects of what is unjustifiably overemphasized as negative.

An important issue requiring special discussion is the comprehension of academic texts in a foreign language. The term “comprehension” refers to the mental reproduction of the objective process of the emergence and formation of the subject of goal-directed activity and thought. Comprehension is both a necessary condition and a product of communication and collaborative activity. Understanding an academic text is a complex thought process with a multi-level structure. Psychology distinguishes several levels of comprehension, corresponding to the basic units of

semantic perception of an academic text: comprehension of individual words, comprehension of syntagmas (phrases), comprehension of various types of sentences, comprehension of superphrasal units, comprehension of the entire text, and finally, comprehension of the subtext, the intent of the text (Lustyantie *et al.*, 2019).

At the same time, understanding individual words is based primarily on the subject's enrichment of own vocabulary; understanding sentences requires knowledge of grammar and mastery of the logical category of judgment. The level of understanding superphase units (groups of sentences expressing a complete thought) corresponds to logical operations such as inferences, proofs, explanations, as well as sets of judgments describing the operations of defining concepts, classifying, and systematizing. Understanding individual superphase units that make up a text ultimately leads to understanding the entire text (Fang, 2023).

The highest level of textual comprehension is critical analysis – the ability for it manifests itself in additions to what has been read, in the reader expressing doubts or disagreements with the author, and in mentally expressing own point of view, which typically differs from the author's one. Thus, in an educational academic text, in order to develop critical thinking, it is advisable to present the author's interpretation of traditional, established, and generally accepted truths (approaches, laws, theories, widely used methods and techniques of scientific research) for their actual validity and the specific conditions under which they are valid and applicable.

3.2 Cases and Practices

Academic support services, such as writing centers, have been implemented in South African institutions for a few decades to help first-year students with academic writing, according to Mgodana-Zidea and Mukuna (2023). Even with the establishment of these programs, first-year students at many South African universities continue to write poorly for academic assignments. The study investigated how first-year English as a Second Language (ESL) students at a South African university could enhance their academic writing abilities through the use of the Academic Writing Center, a collaborative scaffolded approach. The study used descriptive research design and quantitative methodology. The tool utilized to acquire the data was a questionnaire. Nearly all of the respondents scheduled individual consultations at the Academic Writing Center for their academic writing sessions, according to the findings. This shows that cultural differences and social practices play a big part in students' academic writing and present a challenge, especially for ESL students, because students must use and understand precise scientific terminology, specific sentence structures, and various organizational structures when writing scientific texts. All of the students are more

proficient in their native tongues, which are not English, which is the medium of instruction in South African higher education, according to the biographical information provided by study participants. The conclusion that students from rural areas, lower socioeconomic backgrounds, and diverse cultural and ethnic groups have learned English as a second or first additional language and faced challenges in academic writing and discourse upon entering higher education was corroborated by scholars (Fesi & Mncube, 2021; Garrone-Shufan, 2021).

This presents a number of difficulties for non-native English speakers in a multilingual nation like South Africa, as they not only struggle with language barriers but also with the intricacies of academic writing. Furthermore, it is typically quite difficult for non-native postgraduate students to manipulate proper writing, *let alone* follow writing conventions similar to those of native English speakers (Alfehaid & Alkhatib, 2024). Thus, these deficits hinder the development of their authorial voice and researcher identity, particularly in terms of concept articulation and linguistic expression (Gupta *et al.*, 2022). Notwithstanding the presence or absence of academic writing support interventions for non-native English speakers who struggle with issues like grammar and idea articulation, higher education institutions still require doctoral students to exhibit advanced critical writing skills (Gupta *et al.*, 2022). Undoubtedly, doctoral-level academic writing involves a number of intricate nuances that students must grasp. However, this is a daunting undertaking for non-native English speakers, who must first address their language barriers before they can successfully negotiate the challenges of doctoral-level writing. The complexity and variations in English language ability and understanding are also influenced by sociocultural variety (Makati & Sibanda, 2025). Non-native English-speaking doctorate students' writing practices are greatly influenced by their disciplinary and cultural backgrounds, which may reflect certain cultural nuances that are not applicable or used in other regions of the world (Gupta *et al.*, 2022). According to Makati and Sibanda (2025), higher education institutions should value a variety of writing styles and support students in preserving their cultural identities when writing in English for academic purposes. They believe that this strategy can promote an academic setting that is more welcoming and honors language variety.

However, while Writing Centers can provide sound help in academic writing, they usually do not take into account cultural-linguistics specifics of student' background, and this constitutes a significant problem, which decreases the efficiency of Writing Centers' services.

Inconsistency between educating HE students to work with academic literature and actual scholarly texts is another issue. The strict sentence structure, the requirement that the thesis be included in the first paragraph of the introduction, the ban on putting references at the end of paragraph, and other requirements divert students' attention from the text's true scientific quality,

originality, and creativity. In fact, they make it more difficult for them to develop the writing skills they will need for academic writing in the real world. Hilario *et al.* (2025) correctly emphasize that the reductionist approach, which is prevalent in many international contexts, separates writing from its epistemic and reflective function, making it difficult for students to develop analytical and argumentative skills required for academic and professional training.

Writing has long been used to communicate ideas, but little is known about how it can help with the cognitive process itself. Writing is supposed to be a tool for boosting student learning, yet it is often employed to repeat material information and achieve predetermined results.

While academic text structure (particularly in essays) is important, it should not be taught as a form of ‘technology’, but rather as a starting point from which text structure can be built in a more or less flexible manner, depending on the area of study, topic under consideration, and other factors. Writing should allow people to think through arguments, and if done correctly, it can function as a cultivator and enabler of higher-order thinking. Academic writing used to rearrange knowledge enhances higher-order thinking (Fojkar & Bercnik, 2023). In this setting, writing may allow students to think through arguments and apply higher-order thinking abilities to challenging situations.

3.3 IMRAD Structure of FL Academic Texts: an Ecosystem for Critical Thinking, Analysis, and Creativity

In the Swedish context, Kaufhold and Yencken (2021) observe that European non-Anglophone universities have implemented services that aid in the development of students’ academic writing as a result of the massification and diversification of higher education. These writing centers in Sweden serve two academic languages: English and Swedish. This aligns with Nordic institutions’ language strategies, which seek to establish English as the lingua franca of science and the national language or languages.

The Swedish centers foster literacy in both the local language and English, just like academic writing centers in other non-Anglophone nations. Since 1998, attempts to expand access have led to the establishment of these facilities (Bjernhager & Grönvall Fransson, 2018). Their original mandate was to increase student completion rates and assist students in developing their academic Swedish (Lennartson-Hokkanen, 2016). Support for academic English writing has been added to the mandate due to the rise in English-medium instruction programs and research students’ aspirations to publish internationally in English. As a result, the centers experience the consequences of university policies concerning parallel language use, globalization with regard to English-medium instruction, and expanding access and participation.

Because of the current professionalization processes in writing centers, the strong influence of academic English, and the legal protection of the local language or languages, the environment of higher education in Northern Europe offers an interesting scenario. According to Gustavsson and Ganobcsik-Williams (2016), the primary pedagogical goal of the writing centers is to assist students in becoming autonomous academic writers through group discussions and writing process supervision without assessment. It is highly regarded to approach writing as a process rather than just the final output.

Beliefs about how language influences knowledge creation and how language should be regulated permeate discussions regarding the function of writing centers in students' language development. Learning developers (LDs) are unavoidably "participants in the policymaking process" due to their role in language development (Kaufhold & Yencken, 2021). Despite their capacity to act as a bridge between institutional policies and students' writing growth, their agency is rarely taken into account.

Kaufhold and Yencken's (2021) study demonstrates the complex relationship between the prevalent essayist literacy approach that prioritizes "product over process" and the dominant institutional "parallel monolingualism". The focus frequently switches to the outcome and the use of the target language, even while the LDs emphasize the value of assisting the writing process and the advantages of using multilingual resources. The "writing center paradox", which contends that LDs represent both the students and the higher education institution, is echoed by these divergent viewpoints. This means that in the multilingual setting of the study, the LDs constantly negotiate their goals of respecting the multilingual resources of the students and following institutional monolingual assessment protocols.

Hilario *et al.* (2025) highlight that while genre and linguistic approaches enhance lexical-grammatical skills, their successful integration in educational programs necessitates teacher training. Additionally, active learning techniques like cooperative writing and PBL enhance abilities and involvement.

The IMRaD (Introduction, Methods, Results, and Discussion) model is used to arrange the majority of scholarly papers in the actual world of science. Since it makes the literature review easier, the IMRaD structure approach has been beneficial in helping readers find content that is pertinent to their goals. Additionally, by summarizing the research process in an ideal sequence and without superfluous detail, it effectively supports a reordering that removes unnecessary detail and enables the reader to evaluate a well-ordered presentation of the pertinent and significant information. This makes it possible to clearly and logically communicate the most important information to the

audience. The IMRaD structure is a standard, logical framework for scientific reporting that aims to ensure clarity, reproducibility, and critical examination. It enables a “storytelling” approach to data, in which the researcher walks the reader through the “why” (Introduction), “how” (Methods), “what” (Results), and “what it means” (Discussion) of their investigation. What was done, what was discovered, and what it signifies are all separated by IMRAD approach. It goes without saying that this method might be a great technique to educate students creative analysis and critical thinking. However, in HE pedagogy, a strong bias exists, penetrating all the ‘fabric’ of teaching process and methodologies: “educational goals” are opposed to “publication goals”. Surprisingly, the structures required in HE students’ papers, while resembling IMRaD, still somewhat differ from it – in particular, “Methodology” part is often omitted, “Results and Discussion” are boiled down to several standardized paragraphs of “pros” and “cons” arguments. The reasoning goes like this: since students’ aim is to develop their academic thinking and argumentation skills rather than to produce publishable research, they are not always obliged to follow strict IMRAD. Additionally, the rules are different because journal articles are contributions to the research record, whereas student papers are pedagogical tools. This is even more harmful reasoning: “A student paper demonstrates competence”. A journal article advances human understanding. This logic is evidently erroneous, leading to formation of wrong attitude of students to research process and goals, lack of creative analysis’ real purpose comprehension, lack of understanding the discipline’ connection with real world practices.

Meanwhile, implementing IMRaD approach in students’ academic writing has a wide range of advantages. A logical research sequence is enforced by IMRaD: What’s wrong? How did you look into it? What did you discover? What does it signify? Uncertain research topics, ambiguous methodological explanations, and combining data and interpretation are all things that this structure can help new researchers avoid (Tabuena, 2020).

With an emphasis on succinct, rational, and evidence-based reporting, the IMRaD model would organize student FL academic materials to reflect the scientific process. Content is arranged as follows: Introduction (background/research question), Methods (methods of the study), Results (data/findings), and Discussion (interpretation of the results). In this case, the students will gradually acquire and apply the particular abilities meant for research writing as they embrace the research learning process.

Tabuena (2020) evaluated students’ perceptions of the IMRaD structure method and its consequences for the research writing process in high school. The author used a sequential mixed method design to investigate the implementation and evaluation of the IMRaD structure approach, as well as its implications for the research writing process among Grade 12 senior high school students

of the Humanities and Social Sciences (HumSS) academic strand, at the Espiritu Santo Parochial School of Manila, Inc. in the 2019-2020 school year. In terms of data collection, quantitative and qualitative methodologies were used sequentially, through surveys and interviews, respectively. According to the data acquired from the students, they firmly agree that the IMRaD structure method aided them in terms of teaching and learning, with an average weighted mean of 3.51, which is interpreted as very helpful in the research writing process. Students can participate in class activities and communication, learn more (motivation), prepare for the requirements (research paper, documents) before submitting them (preparation), comprehend how to use research skills and their functions in the course's research writing process (practice tests), and comprehend the course with the aid of visual aids and approach-appropriate presentations.

With an average weighted mean score of 3.28, which indicates that it was highly effective, students strongly believe that the IMRaD structure approach helped them with the research writing process when it came to learning activities (written assignments, minor and major performance tasks, and quarterly evaluations). Students have a clear outcome in terms of their performance and can apply specific learning assignments based on a critical academic criterion; they have access to a variety of formative and summative assessments that are regularly utilized to track student development and modify instruction (measurable); they have enough time to finish the learning assignments and make use of focused instruction, evaluation, and intervention pertaining to the course goal (working toward the learning tasks will yield reachable but realistic development); it becomes possible to achieve specific levels of expected performance tied to an important content standard, and that represent important and meaningful learning for all students (result-oriented), and to have a sufficient time frame (Schedule of Learning Activities) that is specifically identified and linked to each learning task (time-bound) (Tabuena, 2020). With an average weighted mean of 3.37, the students also strongly agree that the IMRaD structure technique improved their course outcomes in the research writing process, suggesting that it was highly effective. Students can learn about the breadth of research topics in the field of inquiry, the value of studying the field of interest, and the specificity of the challenge given by creating research outline proposals and concept papers; they demonstrate an understanding of the significance of research in everyday life; the characteristics, processes, and ethics of research. Through title defense, it appeared possible to adequately describe quantitative research designs, samples, instruments used, data collection and analysis procedures, as well as collect and analyze data with intellectual honesty using appropriate statistical and non-statistical techniques; to primarily focus on quantitative analysis and various statistical tools through the development of research instruments in terms of validity and reliability. Natural question arises – if such amazing results were

achieved in high school students, why IMRaD approach is still not in broad use in academic writing within HE?

The same mismatch exists also in writing assignment-reports. Business and economic students are often taught to write “reports” that look nothing like the reports they will later write in consulting firms, banks, corporations, or government agencies. It is considered that this mismatch reflects different purposes, audiences, and accountability systems. In brief, core differences in purpose and evaluation criteria are given in Table 2.

Table 2

Comparison of academic and business reports goals and quality criteria

	Primary goals	Evaluation criteria
Academic business reports	Demonstrate analytical competence Show understanding of theory Display structured reasoning Be graded	Theoretical grounding Correct citation Logical coherence Method explanation
Workplace reports	Enable decisions Reduce uncertainty Recommend action Create accountability	Clarity Speed Actionability Risk assessment Financial impact

Thus, in academic ‘variant’, logic tie “critical thinking – creative analysis” appears broken.

3.4 The Role and Potential of FL Landscape in Teaching Real-World Work with Academic Texts

As follows from the above analysis, integration of real-world approaches (first of all, IMRaD approach) in working with academic reading and writing has sound potential for development of competencies needed for contemporary workplaces. Following the principles and practices of real-world scholarly research, we should mention the significant role of foreign language materials in it. Researcher, striving to deepest investigation of the research topic, addresses, in particular, foreign language materials, and if his/her FL skills are not sufficient for proper understanding of the text, he/she makes efforts to enhance then quickly, to find the optimal way to understand and comprehend necessary FL content, and this, in turn, makes actually two-fold effect on critical thinking and creative analysis skills – both through enhancing FL skills in the intercultural scientific domain and deepening discipline development knowledge. This approach, naturally, seems highly appropriate for integration in HE curricula and methodology of teaching.

Reliance on the principle of integrity in education generates a crucial process of interdisciplinary interaction between a foreign language and professional disciplines, on the basis of

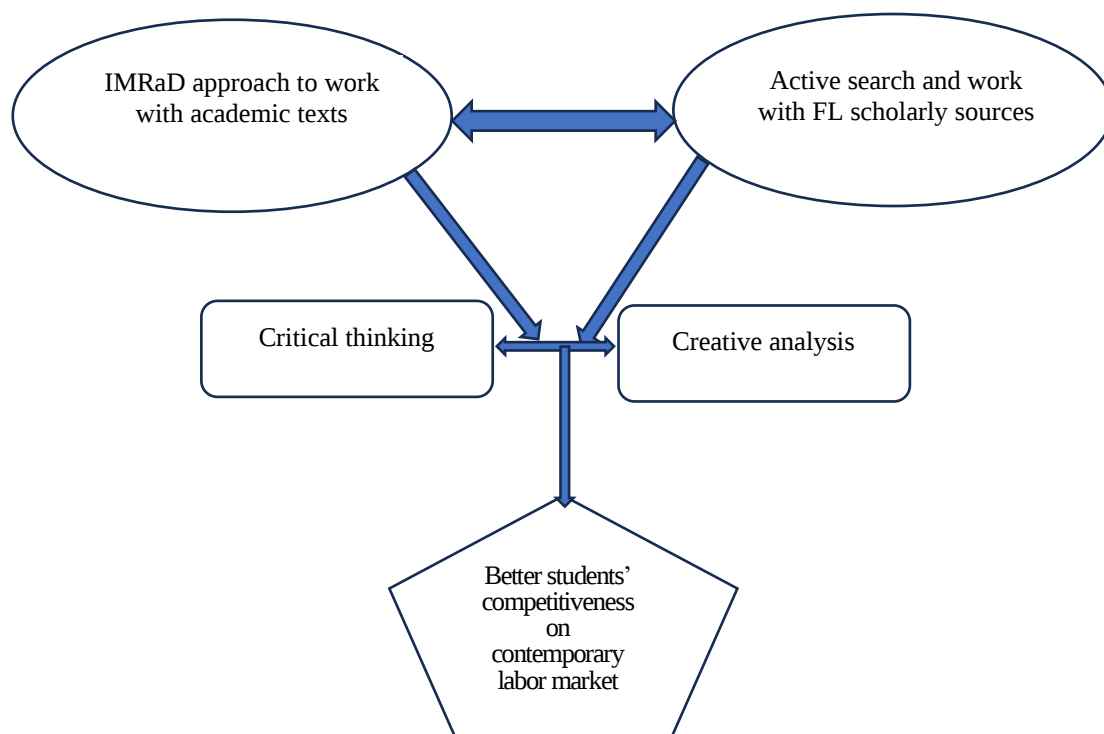
which students are involved in the so-called simultaneous achievement of educational goals in two subjects. In order to access international literature and facilitate cross-cultural study, foreign languages are crucial in contemporary academic research. They remove language barriers, making it possible to examine original texts written in languages other than English or one's native tongue and comprehend a variety of viewpoints.

In their study, Gong *et al.* (2019) investigate the impact of absorbed information on research impact by examining the correlation between the number of citations received by the citing work and the linguistic variety of cited sources. The Chinese Social Sciences Citation Index (CSSCI) supplied the data, which includes 950,302 publications published between 1998 and 2013 with 8,151,327 cited references. The study focuses on Chinese social sciences. The findings show that the Chinese social scientific community is consuming a great deal more foreign language content, with English-language content making up the great majority of this consumption. The citation advantage of internationalized work persists even after adjusting for citing paper characteristics like discipline, journal prestige, institution prestige, and scientific collaboration. Papers with foreign language references receive a disproportionately higher number of citations than those without. Such facts undoubtedly support the introduction of FL academic books into HE curriculum.

This integration is expected to bring amplified, synergetic result: IMRaD approach to reading, analysis, and writing FL academic texts will create the most favorable environment for developing critical thinking and creative analysis skills in students, thanks to mobilization of both domains' (academic texts and FL) potentials for critical thinking, seeking for optimal ways of quick and proper comprehension, diverse intercultural perspective, and creative approach. The scheme of suggested integration and its expected results is presented in Fig. 2 below.

Figure 2

Model of FL academic texts implications integration into HE curricula and teaching methodology



Source: developed by the authors

The technology described above is based on a clear three-phase structure: the challenge phase, the comprehension phase, and reflection. Each phase aims to address specific psychological, pedagogical, and didactic challenges, achieved through a variety of original methodological approaches. The technology offers a variety of productive and interactive ways to work with academic texts in a foreign language in the classroom, enabling problem-based learning and the application of modern pedagogical approaches such as communicative, activity-based, student-centered, and holistic. As a result, students' intrinsic motivation to acquire new knowledge grows, interest in research increases, and productive forms of activity increasingly attract attention.

4. Conclusions

The conducted research clearly shows how irrational it is to teach high-quality critical thinking with low-quality content, and how detrimental is mismatching of HE approach to teaching work with academic texts and real-world scholarly research process.

Recognizing foreign language academic texts as a tool for critical thinking has significant pedagogical implications, advocating for a shift from rote learning to cognitively demanding tasks. Thus, integrating regular debates and structured discussions on controversial or complex topics

relevant to learners' interests requires them to formulate arguments, provide evidence, and respond to counter-arguments in foreign language.

Further implementation and evaluation of the IMRaD structure approach for the research courses may result in the maintenance or improvement of the teaching and learning approach in terms of classroom activities and interaction, motivation, preparation, practice tests, visual aids, and presentations; learning tasks in terms of written tasks, minor and major performance tasks, and quarterly assessment; and additional research development programs for the students.

When using such texts at the initial stage of university education, it is advisable to provide students with learning tasks that combine: a) analysis of critically oriented fragments for the absence of substantive and logical errors; b) independent reconstruction of incorrect fragments of critically oriented educational texts.

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