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Critical thinking on a 10-week EAP course: Teachers' and international pre-university students' views and experiences

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ABSTRACT

Critical thinking (CT) is a widely recognised academic practice in what is often termed "Western" higher education (HE) and has been the subject of debate and research, particularly since the late 1980s. However, discussions on CT often rely on dichotomous and rigid categories: whether it is a cognitive or emotional endeavour, whether it can be taught and learned, and if so, whether it should be taught in isolation or embedded within disciplines.

This article aims at contributing to previous studies of CT in HE by exploring the views and experiences of 12 English for Academic Purposes (EAP) teachers and 50 international pre-university students enrolled on a 10-week summer pre-sessional course at a university in the United Kingdom (UK). Using pre- and post-course survey data analysed thematically, the study reported on here reveals dynamic rather than rigid views and experiences of CT among the participants. Participating teachers emphasised different aspects of CT to be taught and assessed in an EAP context. Additionally, they tended to view CT primarily as an academic practice, but their students tended to view it as both an academic and social practice. Crucially, the findings indicate that CT can be developed over a 10-week period, with meaningful changes in international pre-university students' understanding and application of CT at the end of the course.

The article discusses the implications of these findings for CT instruction on pre-sessional courses and highlights key theoretical and pedagogical considerations for future practice.

1. Introduction

Critical thinking (CT) is widely recognised as central to academic practices in what is often termed "Western" higher education (HE) (e.g., Alexander et al., 2008; Moore, 2013), and a key requirement for academic success (Bruce, 2011; Li, 2023; Wilson, 2016). Since the publication of UNESCO's Education for Sustainable Development (ESD) document in 2020, CT has taken on a broader role. It is now seen as one of the competencies which "empower learners to transform themselves and the society they live in by developing

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knowledge, skills, attitudes, competencies and values required for addressing global citizenship and local contextual challenges of the present and the future" (UNESCO, 2020, p. 55).

Despite decades of debate, particularly since the late 1980s, there remains theoretical ambiguity around CT, rendering it still difficult to define, learn or teach (Bağ & Gürsoy, 2021; Li, 2023; Moeiniasl et al., 2022; Moore, 2011a; Wilson, 2016). Pedagogical guidance on how to teach it is also limited (Lamont, 2023; Molinari & Kavanagh, 2013; Thompson, 2002) and some scholars (e.g., Atkinson, 1997; Fox, 1994) even argue that CT is part of the socialisation process experienced in childhood, equating it with cultural thinking. Consequently, they claim, CT cannot be taught to second-language learners, as it is absorbed "through the pores" (Atkinson, 1997, p. 73; see also Fox, 1994; Ramanathan & Kaplan, 1996). However, many researchers emphasise that while certain conceptualizations of CT align closely with "Western" HE, other educational contexts have their own traditions of CT that differ in interpretation and application (Davies & Barnett, 2015; Dong, 2015; Hadley & Boon, 2023; Moeiniasl et al., 2022; Stapleton, 2001; Wilson, 2016). Given CT's reaffirmed significance in ESD, it is timely to examine empirically how it is understood and whether— and to what extent— it can be learned within the context of EAP. EAP often represents an international student's initial experience of Western academic practices in English, offering an opportunity to develop CT as a tool for personal and societal change.

This article reports on a collaborative research project involving 3 EAP researchers who coordinated the project and co-authored this article, 12 hourly-paid EAP teachers-7 of whom co-authored this article together with the researchers, and 50 international students on a summer EAP course. The project aimed to examine how teachers and students conceptualise CT, and to contribute to ongoing debates on its definition and teachability. By analysing students' understanding of CT before and after the course, the study also investigated whether CT can indeed be learnt. The findings revealed that while the 12 participating teachers shared broadly similar views of CT, they emphasised different components for teaching and assessment. This highlights the need for consistent training during induction to ensure fair teaching and assessment practices. The data from 50 international pre-university students showed signs of conceptual maturation in their understanding and application of CT over the 10-week course, suggesting that it can indeed be developed within this timeframe.

The article is structured as follows: First, we review key literature on CT, focusing on its conceptualisation, pedagogical approaches, and assessment practices. Next, we describe the study's methodology, including the context, participants, data collection methods, analysis, and ethical considerations. We then present and discuss the findings, followed by theoretical and pedagogical implications drawn from the study.

2. Literature review

This section critically examines the literature informing the current study. It is divided into three subsections: conceptualisations of CT, pedagogical approaches, and assessment practices, highlighting key debates and research relevant to the study.

2.1. Conceptualisations of CT

The theoretical landscape of CT has been characterised by conflicting views and diverse theoretical perspectives (e.g., Benesch, 1993, 2001; Ennis, 1996, 2015; Li, 2023; McPeck, 1992; Moore, 2004, 2011a, 2011b; Norris, 1992; Siegel, 1988). Early definitions of CT were primarily derived from philosophy of education and have influenced general teaching practices and EAP. Ennis (1996, 2015), for example, defines CT as "reflective thinking that is focused on deciding what to believe or do" (2015, p. 32). Similarly, Siegel (1988) describes a critical thinker as someone who is "appropriately moved by reasons" (p. 25). However, these early conceptualisations have been critiqued for presenting CT as a set of *decontextualised, transferable skills*, independent of disciplinary context (e.g., Gimenez, 2012, 2017; Moore, 2004). This view is especially common in EAP, where CT is generally treated as a collection of discrete skills like analysis, evaluation, and synthesis. Li (2023), for instance, found that the Chinese teachers in her study perceived CT as a set of skills, while US Writing and Composition circles define it as the ability to analyse, synthesise, interpret, and evaluate ideas (Council of Writing Program Administrators, 2014; cited in Moore, 2019, p. 6).

In addition to skills-based definitions, some scholars conceptualise CT as a *disposition*, a set of attitudes and beliefs that shape how

Table 1
Three approaches to defining CT.

Approaches to defining CT	Definition	Constitutive elements
A skill	CT is reasoned analysis and logical argumentation; "… reflective thinking focused on deciding what to believe or do." (Ennis, 2015, p. 32)	Sub-skills such as interpreting, identifying, analysing, evaluating and synthesising, inferencing, detecting and avoiding bias, comparing and contrasting, and identifying author purpose and bias.
A way of being and acting	CT is a disposition that presupposes a set of attitudes, beliefs, and values that influence people's behaviour.	Attitudes, beliefs, and values such as remaining open to new ideas, being prepared to listen and consider alternative reasons and viewpoints, and holding a stance and defending it whilst remaining flexible to change it when needed.
An affective process embedded in social and relational contexts	A thinking-feeling practice that pays attention to "the affective conditions in which criticality emerges, circulates and is transformed to interrogate or reproduce existing socio-political conditions" (Zembylas, 2024, p. 1618).	Social and cognitive, emotional and rational, and material and discursive tools to deconstruct social realities and reveal their sometimes-hidden ideologies.

individuals engage with information (e.g., Ennis, 1996; Norris, 1992; Siegel, 1988). Ennis (1996) categorises key dispositions as striving for accuracy, representing positions honestly, and respecting others' dignity. However, these approaches, like the skills-based models, are often critiqued for being too general and not context-specific enough (Nieto Carracedo & Valenzuela, 2012).

A third perspective frames CT as a *social practice*, challenging the notion that it is simply a cognitive exercise (e.g., Benesch, 1993, 2001; Moore, 2011a, 2011b). Benesch (1993) argues that CT should empower students to recognise and challenge social inequities. More recently, Hadley and Boon (2023, p. 1) define CT as a "mental skill" that helps people uncover the assumptions behind messages they encounter daily. Along similar lines, researchers such as Danvers (2021) and Zembylas (2024) provide a more balanced view of CT that includes not only a cognitive but also an affective dimension. In his review of CT, Zembylas (2024, p. 1607) draws attention to the affective dimension of critical thinking, seen as "embedded in social, embodied and relational contexts, rather than being a decontextualised and individualized set of skills and competences". He argues that CT is "a practice that is both social *and* cognitive, emotional *and* rational, material *and* discursive" (emphasis in the original), suggesting that CT should be taught as thinking-feeling practice that pays attention to "the affective conditions in which criticality emerges, circulates and is transformed to interrogate or reproduce existing socio-political conditions" (p. 1618).

In summary, CT is conceptualised as a skill, a disposition, a social and affective practice. Table 1 presents an overview of these perspectives which can be situated along a continuum from cognitive operations to socially embedded affective practices.

2.2. Pedagogical approaches to CT

Pedagogical approaches to CT have predominantly focused on teachers' perspectives, with limited research on students' experiences (e.g., Lee et al., 2024; Truong, 2024). This focus may stem from the perception that CT is something teachers impart *to* students rather than something they co-construct *with* them.

Studies examining the influence of teachers' understanding of CT on their teaching practices (e.g., Li, 2023; Molinari & Kavanagh, 2013; Wilson, 2016; Zhang et al., 2020) reveal confusion and fragmentation in its conceptualisation and a lack of clear pedagogical guidelines. Teachers often struggle to provide sufficient time for students to develop CT skills, and researchers such as Li (2023) and Yuan et al. (2022) advocate integrating CT pedagogy into teacher-training programmes.

Other studies explore the relationship between CT and specific academic skills. Wilson's (2016) research on EAP pedagogy suggests that structured scaffolding and high engagement can help students become more critical readers and thinkers. In a similar vein, Bağ and Gürsoy (2021) examine how CT connects with the four language skills, focusing on collaborative tasks that require critical negotiation of meaning and other higher-order skills. Thompson (2002) offers pedagogical interventions, including activities to explore students' understanding of CT, apply critical perspectives to academic tasks, and analyse texts. Hadley and Boon (2023) similarly emphasise continuous development, providing activities to support students' progression in CT.

Table 2 summarises three main pedagogical approaches, ranging from teaching CT as an independent skill to fully integrating it into students' academic and social practices. These approaches can form the foundation for a developmental pedagogy of CT, enabling students to refine their abilities continuously. However, empirical validation of these methods in EAP contexts is still needed.

2.3. Assessment of CT

In the literature, the assessment of CT has been explored less extensively than its conceptualisation and pedagogy. This may be due to the theoretical ambiguity surrounding CT and limited pedagogical guidance available to teachers (e.g., Bağ & Gürsoy, 2021; Molinari & Kavanagh, 2013). While various tests exist to assess CT skills (e.g., McPeck, 1992; Rear, 2019; Stapleton, 2001), each has significant shortcomings. As Rear (2019) argues, these tests share the limitations of the taxonomies on which they are based. As a result, CT assessment in EAP is often the responsibility of individual teachers. Li (2019, p. 8) notes that "assessing critical thinking is another challenging area for teachers to tackle".

Table 2
Three approaches to teaching CT.

Approaches to teaching CT	Definition	Application
The skills approach	CT is taught as a set of generic cognitive skills that can be transferred across disciplines. This pedagogical view mirrors the as-a-skill definition of CT.	CT is taught *per se* as a skill, devoid of disciplinary content and in a 'bolt-on' manner. This includes teaching lists of discrete constitutive elements of CT such as analysing, evaluating and synthesising for students to later identify in largely decontextualised texts.
The discursive approach	CT is taught as language and discourse used by the authors of written and oral texts to frame their judgements.	CT is taught in connection with the typical disciplinary genres (e.g., essays, reports, case studies). Students are asked to identify and later reproduce the language and discursive elements in these genres that enact constitutive elements of CT such authorial voice, evaluative language and expressions of certainty such as hedging and boosting.
As critical social practice	CT is taught as evaluation, "involving the critical scrutiny of [oppressive] social structures and practices […] which contribute to forms of social injustice" (Moore, 2017, p. 21) so that they can be challenged and transformed. In this sense, CT is both cognition and affect.	CT is taught as a set of strategies for deconstructing texts so that the writer's underlying purposes and ideologies are unmasked, challenged and transformed by action.

Some scholars (e.g., Li, 2019; Wilson, 2019) advocate using Bloom's revised framework (Anderson et al., 2001) to develop rubrics for assessing higher/lower order thinking skills such as CT. They recommend including CT criteria in the evaluation of all academic outputs. Wilson (2019) stresses the importance of clear rubrics for both formative and summative assessments, enabling students to peer- and self-assess, while also facilitating fair assessments by teachers. She provides examples of rubrics that assess skills such as engaging with literature, presenting well-reasoned arguments, and adopting ethical positions.

Ikuenobe (2001) proposes a developmental approach to CT assessment, structured into four levels: from understanding basic concepts to applying principles to analyse argument structures using tools like truth tables or Venn diagrams. However, his framework conceptualises CT as a general skill and does not address discipline-specific assessment.

Black (2012) discusses the Cambridge Assessment taxonomy, which categorises CT sub-skills into five groups: analysis, evaluation, inference, synthesis/construction, and self-reflection. However, like many other classifications, the Cambridge Assessment taxonomy treats CT as a collection of discrete skills. In contrast, Stapleton (2001) offers a context-specific framework for assessing CT in argumentative writing, focusing on elements like the number of arguments, extent of evidence, and recognition of opposing viewpoints. The results of his study of Japanese students also serves to challenge the idea that CT is solely a "Western" socialisation process.

Assessment guides for EAP teachers (e.g., Li, 2019; Wilson, 2019) also seem less developed as they dedicate minimal space to assessment. Moreover, existing tests often lack validity and fail to measure CT in authentic academic contexts.

If, as previously argued, CT is a *collaborative* process between teachers and students, assessment practices should reflect this. Student self-assessment should play a more significant role, though this perspective is not well represented in the literature. This could perhaps be made possible by the introduction of AI into HE assessment and feedback, offering new pathways for students to participate in both processes.

Table 3 summarises three main approaches to assessing CT, reflecting the conceptual and pedagogical approaches discussed earlier.

Based on this review, the study reported in this article addresses the following research questions:

RQ1. How do teachers and international pre-university students on an EAP 10-week summer course conceptualise CT?
RQ2. How do the teachers approach the teaching and assessment of CT?
RQ3. Do student understandings and experiences of CT change over 10 weeks? If so, how?

3. Methods

This study adopted a survey research design, which is a well-established approach in educational and social science research. This design is used to collect data systematically to describe phenomena or characteristics within a specific population, providing valuable insights into participants' experiences and perceptions (Creswell & Creswell, 2023). As the present study examined the experiences and reflections of participants regarding CT on an EAP course at a university in the UK, the survey research design was deemed appropriate as it facilitated the exploration of these experiences and reflections in a structured manner. The study did not consider the gender of the participants, nor were participants asked to provide their gender identity, reflecting the tendency in the extensive literature that informed it.

The study employed a convenient sampling technique, which involves selecting participants who are easily accessible and willing to participate in the research (Bryman, 2016). Although this approach can lead to sampling bias and limited generalisability, it was considered suitable for this context as the final sample was sufficiently representative of typical EAP courses in the UK— in terms of number, nationality, and previous learning experiences. Combining a robust research design with a practical data collection strategy, this methodology supported the exploration of critical thinking in an EAP setting, yielding findings that contribute to both theoretical and practical discussions in the field as will be later discussed.

Twelve teachers and 50 pre-university international students on a 10-week summer pre-sessional course at a university in the UK participated in the study (see participants' profile in Table 4). The teachers are all pre-sessional teachers who belong to the Centre for Education and Teaching Innovation (CETI) of the university. The university has a considerable number of international students and runs 13-week, 10-week and 6-week pre-sessional courses in the summer and autumn semesters. The data samples were taken from the summer 10-week course as it was considered the typical summer pre-sessional course in terms of student composition and number in many universities in the UK.

To collect the required data, a self-administered web-based questionnaire was employed. The questionnaire was designed to examine participants' conceptualisations of critical thinking, their experiences in teaching and learning CT, and the strategies they used to assess and apply these skills in academic tasks. The questions were structured to include both demographic data and experiences and reflections upon CT to ensure comprehensive data collection (see Table 5, and Appendix). The questionnaire was piloted and calibrated following the results of the pilot.

The pre-course survey was administered in week 1 of the course, and the post-course survey at the end of week 10. Both surveys were completed outside class-time.

The data sets were analysed qualitatively. Data from Part A of the questionnaire was analysed descriptively by category to gain a better understanding of the main demographics of the sample and to check for its representability.

Data from Part B was thematically analysed to identify topics, ideas, and patterns through emerging themes (Naeem et al., 2023), using a multiple cycle inductive process (Saldaña, 2025). As shown in Fig. 1, in the first cycle, a round of data coding was undertaken

Table 3
Three approaches to assessing CT.

Approaches to assessing CT	Definition	Application
The taxonomy-based approach	CT as a set of skills and dispositions based on existing taxonomies (e.g., Bloom's; Ennis, 1996)	Well-known taxonomies are used to inform the design of tests of CT.
The developmental approach	CT skills and dispositions are grouped into levels (e.g., Ikuenobe, 2001), with a strong focus on recognising and producing discursive elements.	CT skills and dispositions are divided into levels of proficiency, organised from easier (e.g., recognising a particular skill or disposition in texts) to more difficult (e.g., producing a particular skill or disposition in texts).
The context-specific approach	CT as a set of dispositions constituting a context-specific scheme (e.g., Stapleton, 2001)	Specific CT dispositions form a context-sensitive scheme that assess CT both quantitatively and qualitatively.

Table 4
Participants' profile.

Participant Group	Number of Participants	Participants' main demographics
Teachers	12	EAP instructors holding a master's degree or higher, with diverse levels of experience in teaching
Students	50	First language: Arabic, Cantonese, Hangeul, Japanese, Korean, Mandarin, Portuguese, Thai, and Turkish Country of birth (number of students): Brazil (2), China (34), Japan (2), South Arabia (1), South Korea (4), Taiwan (3), Thailand (1), Turkey (3) Years studying English (range): 2–14 yrs English proficiency level at start of course (range): IELTS 4.5–5.5

Table 5
Structure of the web-based questionnaire.

Questionnaire Part	Purpose	Question Type	Question Content
Part A	To collect demographic and background information	Open-ended	- Name - Pseudonym - Years of teaching English (Ts) - Years of studying English (Sts) - Nationality/Ethnicity - First language
Part B	To capture reflections on CT experiences in EAP	Open-ended, reflective	- Conceptualisation of CT - Teaching experiences of CT (Ts) - Learning experiences of CT (Sts) - Materials/activities for developing CT - Assessment of CT in academic tasks (Ts) - Use of CT in academic tasks (Sts)

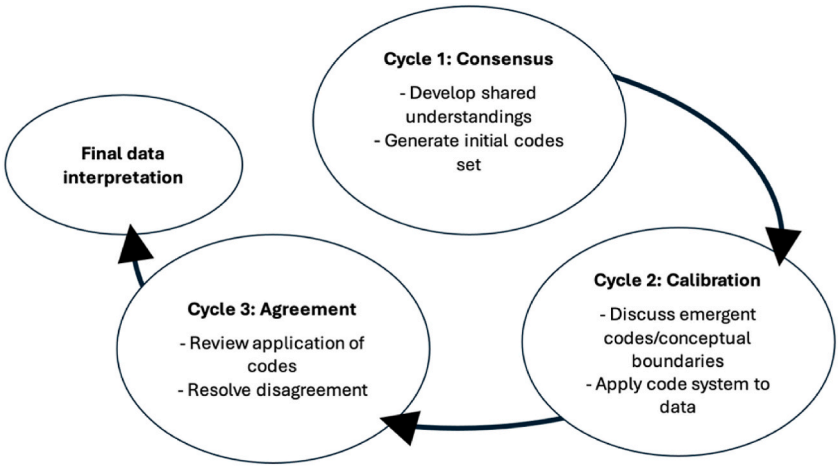


Fig. 1. Multiple cycle data analysis process.

by the research team during a dedicated workshop session to develop a shared understanding of the data sets and generate an initial set of codes. This approach aligns with established procedures for collaborative coding, which recommend early joint review sessions to build consensus among coders (Naeem et al., 2023). Following this initial workshop, the second cycle involved a calibration exercise conducted to discuss and refine the emergent codes, ensuring that all team members consistently applied the agreed-upon codes and understood the conceptual boundaries between them. Such calibration exercises are commonly used to enhance coding reliability and validity (Braun & Clarke, 2006). However, coders were encouraged to remain open to inductive coding, introducing new codes if novel patterns or themes emerged as they engaged more deeply with the data. This iterative approach allowed the analysis to capture both anticipated and unanticipated thematic dimensions. The third cycle aimed to establish inter-rater agreement. The research team held a group discussion in which each coder's application of the codes to a sample of transcripts was reviewed. Any disagreements or ambiguities were deliberated and resolved through consensus. At the end of this cycle, the team generated the final interpretation of the data.

The study was approved by the Ethics Committee of our university. Participants were given an Information Sheet which explained the aims of the study, what their participation would entail, and their rights. Consent was given in writing after questions were cleared. Anonymity was ensured using pseudonyms and by excluding any identifiable information. Data was stored securely and made accessible only to the research team.

4. Results

The data from the teachers' and students' surveys demonstrates the conceptualisations, teaching, assessment and applications of CT on a pre-sessional English course at a university in the UK. The results presented in this section respond to the three research questions outlined at the end of the literature review.

4.1. Teachers' conceptualisations of CT

The teacher survey data revealed two main strands in the understanding of CT: 1) definitions of criticality, and 2) descriptions of teaching practices related to CT in an academic English context. Teachers' responses to Q1 in the survey reflect this distinction, with Table 6 summarizing the most common key terms associated with CT.

The combined responses to survey Q2 (teaching CT) and Q3 (materials and activities) provide a more robust understanding of the pedagogical practices the teachers employ to teach critical skills to their students of academic English. These were organised thematically, and the most common themes identified are shown in Table 7.

In response to Q4, teachers' views on assessing CT are categorised into three themes: 1) uncertainty about how CT can be assessed in isolation, 2) the belief that critical skills should be assessed, and 3) the view that assessment should align with how CT is taught. This uncertainty about assessment reflects ongoing debates in the literature regarding the teachability and assessibility of CT (Bağ & Gürsoy, 2021; Li, 2023; Moeiniasl et al., 2022; Moore, 2011a; Wilson, 2016).

The data shows some overlaps of responses to Q4 (see Fig. 2), meaning that teachers believe it should be assessed, but are unsure how; "I'm not sure how 'critical skills' can be explicitly assessed" (Ben[1]). Others clearly express that they are unsure if CT can be assessed; "Unsure if critical skills CAN be assessed" (teacher L9); "It is difficult to assess a nuanced skill, therefore students shouldn't be penalised for not demonstrating criticality" (Don).

4.2. Pre-university students' conceptualisations of CT

The pre-university students in this study conceptualised CT as a multifaceted cognitive process characterised by intellectual independence, objective analysis, and openness to different perspectives. As shown in Table 8, students' conceptualisations varied, but common themes included thinking independently ("not following the fashion and trend"- Grace.Ding), analysing pros and cons ("analyzing advantages and disadvantages"- Piano), and considering issues from multiple perspectives ("think about problems from multiple dimensions" and "approach issues from diverse perspectives"- Albert).

As to the development of CT skills, the students reported development through deliberate practice, with some engaging in philosophy classes or using diverse media to broaden their perspectives. For example, Clare learned through their philosophy classes, as did Irene, who supplemented this by "watch[ing] a lot of news to open my mind and broaden my understanding". Similarly, student ZW developed CT by reading articles with contrasting perspectives, comparing viewpoints, and debating these contrasting positions.

Despite a wide range of conceptualizations, from basic definitions to complex, multistage approaches, most students viewed CT as a transformative practice— one that goes beyond surface-level understanding. Chloe described CT as a tool to "think more deeply about phenomena," encouraging examination of underlying causes and potential consequences.

The study also examined how students applied CT, with the data showing a spectrum of behaviours, ranging from teacher-dependent approaches to more self-governing, independent practices (See Table 9). For instance, Jason demonstrated a critical approach by not simply accepting teachers' views but by researching alternative interpretations and forming their own conclusions.

[1] Names are pseudonyms the participants themselves chose to protect their anonymity and confidentiality. Quotes have not been edited to respect the participants' linguistic identities.

Table 6
Teachers' key definitions of CT.

How EAP teachers define CT	Evaluate, accept, and refute opinions Going beyond what is given Curiosity and judgment to question ideas and practices Consider a range of perspectives Higher order thinking skills Analyse and interpret information

Table 7
Teachers' pedagogical practices.

Discussions & Debates	• To demonstrate how multiple perspectives can be considered in class discussions • Assign stances to practise argumentation; students justify their positions and challenge each other's' views
Questioning	• Prompting learners to question the extent to which they agree with the author/speaker • Encourage curiosity • Exploration tasks
Identifying Stances	• Dissecting sources/student writing/lectures that cover multiple perspectives to identify the argument/stance
Evaluating	• Examining sources to determine if they support the argument; selecting/rejecting sources
Approaches	• Holistic • Learner-focused • Communicative approach • Dialogical approach • Process led approach • Proactive learning • Collaborative learning

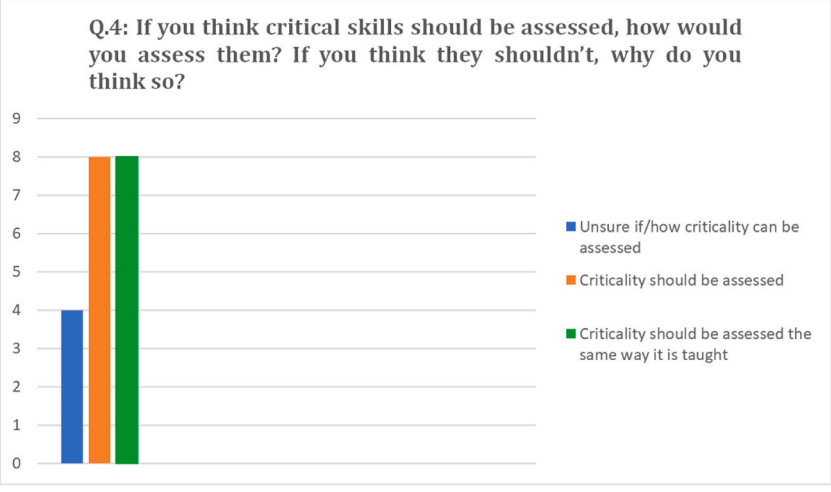


Fig. 2. Teachers' views on assessing CT.

Table 8
Characterisations and dimensions of CT in pre-university students.

Students' characterisations of CT	Dimensions of CT
Objective analysis	Analytical depth
Intellectual independence	Independent thinking
Epistemological openness	Challenging established narratives

Table 9
Systematic strategies for applying CT by pre-university students.

Systematic strategies
• carefully analysing texts
• questioning assumptions
• evaluating evidence credibility
• constructing nuanced arguments
• accepting teacher's perspectives

4.3. Changes in conceptualisations and experiences over time

In response to our question whether international pre-university students' conceptualisations change over time (RQ3), the data show that their conceptualisations of CT appear to change meaningfully over time, particularly during structured educational experiences like EAP courses, the experience of which abets the narrowing of the pre-course gap in both understanding and application of CT. Initially, many students exhibit simplistic understandings of CT, often perceiving it as limited to questioning or holding different opinions. An example of this would be Cici, who initially equated CT with "having different opinions", or Mike who offered "Think 2 sides about the question". However, over the course of the ten-week programme, there was a transition from surface-level to deeper, more deliberate intellectual engagement, whereby students began to see CT as an active, ongoing process in their studies.

In this respect, student XL exemplifies a significant transformation. Initially, XL viewed CT as a relatively abstract concept but later described it as a "purposeful, self-disciplined way of thinking" involving "in-depth analysis, evaluation, and reasoning of issues and information". XL transitioned from viewing CT as passive to understanding it as an active, multifaceted cognitive process: "Critical thinking, for me, is the process of analyzing and evaluating information deeply and thoughtfully, questioning assumptions, and considering multiple perspectives before forming conclusions. It involves being reflective, open-minded, and rigorous in approaching academic work". Similarly, Leslie highlighted its components as "analyzing facts to form a judgment," recognising "logical connections between ideas," and "questioning assumptions".

Additional narratives reinforce this developmental pattern. Jia initially perceived CT as merely "asking questions" but later adopted a more sophisticated approach, emphasizing logical reasoning and challenging existing viewpoints. Likewise, Butterfly progressed from focusing on a "dialectical mindset" to articulating CT as building a robust knowledge base, developing independent judgement, and incorporating opposing viewpoints to strengthen arguments. Similarly, Yun recognised CT as a systematic process involving rational analysis, independent evaluation, and reflection before drawing one's own conclusions.

An interesting and meaningful picture of the two survey instances emerges when we visualise the students' responses by comparing the wordlinks for both. Wordlinks, a software application, provides a graphic representation of the linguistic context of key words (in blue) by showing their most frequent collocates (in orange). As shown in Fig. 3, whilst the links for the pre-course survey show that key words in the students' responses are connected in equal strength (thinness of grey lines) to words such as 'essays', 'skills', 'news' and 'books' that refer to concrete objects, indicating the students' sources for developing their CT skills, the same key words in the post-course survey are linked in various strengths to words such as 'develop', 'different', independently', and 'writing' that refer to abstract, intellectual processes associated with CT, thus offering some further evidence of the changes in conceptualisations and experiences of many of the participating students over time.

These developmental shifts reflect the broader trend of students moving from simplistic to deeper and more deliberate intellectual

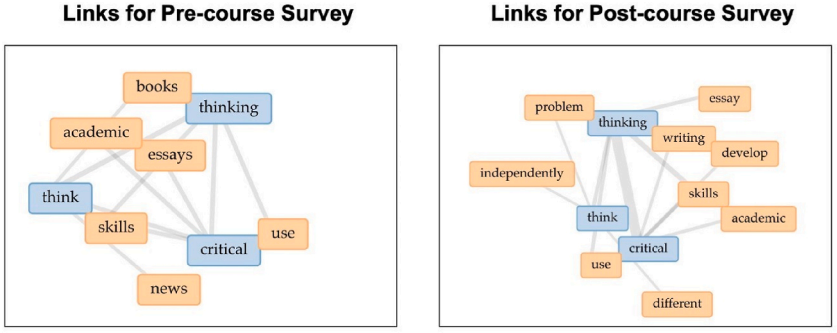


Fig. 3. Links for the pre- and post-course surveys.

engagement with CT during the course.

5. Discussion

This section discusses key results to uncover their significance in light of the relevant literature. Teachers' conceptualisations of CT and approaches to its assessment will firstly be considered before looking at this from the pre-university students' perspective. The extent to which international pre-university students' understandings and experiences of CT change over a 10-week pre-sessional course will also be focused upon.

5.1. Teachers' conceptualisations of CT

As summarised in Table 6, teachers' conceptualisations of CT broadly establish a consensus around the skills and dispositions instrumental to academic success– albeit originating from what can sometimes be an elusive concept. This is unsurprising given that the EAP teachers mediate learning opportunities for students from a range of educational, cultural, and disciplinary backgrounds entering UK-based HE. Conceptualisations largely reflect skills-based definitions of CT and their constitutive elements– such as analysis, synthesis, and evaluation (Ennis, 1987; 2015). Such conceptualisations may reflect what is most widely accepted and can most easily be assessed and observed in HE (Ennis, 1993). Although these conceptualisations may be critiqued as presenting transferable skills lacking context (Gimenez, 2012, 2017; Moore, 2004; Nieto-Carrecedo & Valenzuela, 2012), disciplinarity is certainly not absent from how teachers conceive of CT. For instance, teacher L9 notes, "… especially in areas like social sciences and humanities, simple answers and hard truths are rare". Zara also adds, "if a cohort was aligned to a discipline, it [criticality] was much easier".

Having underlined the importance of considering a range of perspectives when thinking critically, the 12 teachers also aligned their conceptualisations with CT as a disposition. Taking into account multiple perspectives not only requires cognitive skills but also the necessary attitudes and beliefs to engage with, be curious about, and accurately represent other standpoints (Ennis, 1996; Norris, 1992; Siegel, 1988). As put forward by Teacher E, "criticality in academic contexts can be seen as just an extension of our curiosity and our inquisitive minds". However, it is when teachers explain their pedagogies for teaching CT that a deeper understanding is gained of how CT development as a skill, disposition *and* social practice are enacted in the classroom (see Table 7). Emphasis on a holistic, learner-centred, communicative, process-led collaborative approach would certainly provide opportunities for CT development as a socially constructed practice. Nevertheless, whether this approach goes as far as to meet Benesch's (2001) criteria— in terms of fostering CT to challenge social inequities and power relations, while promoting agency and transformation— is largely unvoiced. Rather, in line with Wilson (2016, p. 264), through 'delicate scaffolding', pedagogies for CT are seen as "demystifying the cultural codes of higher education and empowering students to participate". In this vein, through formative tasks students are afforded opportunities to engage with critical thinking as a skill, disposition, and social practice over this 10-week period.

Regarding summative assessment, teachers' views varied. While teachers are required to evaluate 'evidence of criticality and analysis' according to the marking criteria used in most EAP courses, it is largely at the discretion of the teaching team to co-create— with their students— a shared understanding of what constitutes CT. As a key indicator of academic success (Bruce, 2011; Li, 2023; Wilson, 2016), 8 out of 12 teachers emphasised that CT was an important area to assess. Concerns raised about how to assess CT were linked to the 'slippery eel' (Molinari & Kavanagh, 2013) depictions of conceptual variances and divergences in CT (as outlined in 2.1) and the students' very recent arrival to UK HE. As highlighted in 4.1, the challenges of assessing CT, though acknowledged, did not detract from the high value all 12 EAP teachers stated they placed on developing students' criticality. Teachers also indicated a strong alignment with the BALEAP Competency Framework (2008) in describing how they introduce CT incrementally through the syllabus and promote self-assessment.

The question of whether to offer more explicit guidance on CT assessment to address any divergences may be contentious. Molinari and Kavanagh (2013, p. 207) caution that the formulation of a taxonomy "actually detracts from the nature of critical thinking because it suggests that there are quantifiably set ways of thinking critically". Conversely, Yin et al. (2024) develop a detailed framework for assessing CT in EAP Speaking. This includes both skills-based as well as dispositions-based conceptualisations of CT. Offering useful guidance on CT skills to students and teachers, it nonetheless seems that adopting a particular framework would require significant adjustments to align with contextual divergences in different settings. Indeed, it would be fair to assume that ongoing discussions during induction sessions and more evidence around assessment practices for criticality in EAP and HE more widely would be highly beneficial when shaping future approaches.

5.2. Pre-university students' conceptualisations of CT

Mirroring to some extent their EAP teachers, a number of students' conceptualisations of CT could be categorised in terms of skills and dispositions. Although EAP teachers largely conceive of CT as a contextualised tool for successful participation in HE, students tended to view CT from a behavioural lens in terms of deliberate analytical behaviours needed in their study. Jia, for example, explains CT as "to cultivate an independent thinking, rational analysis, rigorous and truth-seeking thinking mode". Albert also underlines that "when researching a problem, it is necessary to cut into the argument you want to explore from multiple angles and levels to get different ideas and make the essay richer". This is congruent with Chan et al. (2011) who emphasise epistemological openness (see also Table 8) and the ability to see counterarguments rather than a single truth as fundamental to CT. However, it is also important to recognise that not all students arrive with the expectation of finding CT on the pre-sessional curriculum; Evan Blake stresses, "I do not need critical thinking to study English".

In terms of materials and activities for CT, it was noted in 5.1 that teachers place emphasis on a learner-centred approach, developing understanding through structured debates and stimulating discussions. Students, on the other hand, were likely to refer to reading books and watching videos as well as interacting not only with peers and teachers, but also those outside academic contexts. In other words, teachers favour more academic practices, while students value both academic and non-academic (personal) experiences. Indeed, both Sylvia and ET mention "daily life" in their discussion of materials and activities. Students' recognition of CT in "daily life" aligns with the notion of CT as a socially constructed practice, suggesting its applicability beyond academic contexts. This perspective reinforces arguments by Benesch (2001) and Moore (2017) that CT extends into broader sociocultural and practical domains. Indeed, "questioning assumptions" and having an "open mind" were mentioned by students as key characteristics of CT, and Table 8 shows challenging established narratives as one of the dimensions of CT in pre-university students.

Although the study did not investigate students' perceptions of assessing critical thinking, as this might be conceptually challenging for them, it did examine their application of it (see Table 9). When contrasted with teachers' views on assessment, a similar theme emerges to that outlined above. While teachers claim to assess skills and competences for CT in both written and spoken genres by means of teacher and self-assessment, students tend to use CT for cognitive activities and working together. In short, teachers are inclined to focus on academic requirements, while students emphasise collaborative learning. Jason's questioning of their teachers' views reinforces the idea that students perceive themselves as capable of, and responsible for, developing critical thinking beyond the classroom context. This concept has received limited attention in the literature, which tends to offer practical suggestions for teachers, predominantly focusing on classroom activities. For example, Li (2019) introduces four different approaches to critical thinking instruction, all of which are centred around classroom-based settings. Similarly, Wilson (2019) focuses on classroom environments in her guide for teachers.

5.3. How students' conceptualisations change over time

The changes noted in most students' conceptualisations over time indicate that CT can be taught and learnt, even in a relatively short time frame within mixed disciplinary classes. This is exemplified by Nancy, who although initially able to articulate their perception that CT is important to succeed in HE, did not explain why or how: "It need to be learn at high education". In the second survey, Nancy, like others, was able to give a much more insightful explanation: "Critical thinking is evaluation and consideration from an objective aspect". It is also noteworthy that students are aware of the shift in their perceptions, for example Butterfly who states "Previously I thought … Now I think …". Best also recognises significant progress in their own understanding: "When I was in my university, I learned how to apply critical thinking a little bit. But during this course, I completely understand critical thinking".

Signs of increased confidence and more sophisticated conceptualisations of CT may be attributed to cognitive, linguistic and social factors. At the time of taking the second survey, students are likely to have gained more language resources and had recent opportunities with teachers and peers to develop CT and subsequently articulate their perceptions. A note of caution is required here though, as there is a possibility that students may have used search engines or AI to help formulate their responses, particularly in the second survey after having been taught how to use these tools. It is also important to note that not all students' conceptualisations were seen to have changed or developed. Indeed, Largo and Albert both gave a more simplistic answer in the second survey than the first. Nonetheless, the data broadly indicate that students are able to consciously benefit from opportunities to develop critical thinking throughout the 10-week period, consistent with findings from previous studies such as Bağ and Gürsoy (2021), Hadley and Boon (2023), Thompson (2002), and Wilson (2016).

As with most social science research, our study presents a number of limitations. The primary limitation of the study involves the size, and the origin of the data collected. A larger student sample and the inclusion of data from multiple universities would have strengthened the study. While the study maintains ecological validity— given its realistic context and typical participant profiles—

gathering data from multiple institutions would have increased its external validity. Additionally, although representative of the typical pre-sessional course, the 10-week duration of the study may have influenced the depth of the results, as a longer period could have allowed students to develop more robust conceptualizations of CT. Lastly, supplementing the survey data with interviews would have provided richer insights into how pre-university students conceptualise and develop CT skills.

In summary and despite its limitations, the findings of the present study highlight the multifaceted nature of CT as conceptualised and practised by both teachers and pre-university students. Teachers predominantly view CT through a skills-based and dispositions-oriented lens, aligning with academic success in HE contexts, while their pedagogical approaches also reflect elements of CT as a socially constructed practice. International pre-university students, meanwhile, perceive CT as both an academic and everyday practice, with some evidence of epistemological openness and behavioural application. The observed shifts in students' understanding over the 10-week course highlight the potential for CT development, albeit with varying degrees of progression seen in the questionnaire data.

6. Theoretical and pedagogical implications

6.1. Theoretical implications

A key contribution of the study is to the long-standing debate on whether CT can be explicitly taught and learned or whether it develops implicitly, "through the pores" (Atkinson, 1997, p. 73). The results suggest that even within a short period— such as a 10-week course— pre-university students' conceptualizations of CT evolved from simplistic to more sophisticated, more nuanced and rounded. Many students exhibited greater conceptual maturity in the second survey, demonstrating an understanding of CT as a lived experience rather than a mere dictionary definition. This conceptual development was accompanied by a sense of ownership reflected in the language they used in the post-course survey. Phrases such as "I believe," "in my experience," "for me …," and "I find" are indicators of appropriation, showing that students were internalising and personalising their understanding of CT. Similarly, their application of CT in academic contexts also progressed over time. By the end of the pre-sessional course, most students viewed CT not merely as an analytical skill but as a transformative practice that extends beyond surface-level understanding. We argue, therefore, that with appropriate exposure, practice, and reflection, international pre-university students can develop a complex and sophisticated understanding of CT that informs their academic practices.

That transformative practice should, however, start from day one of the pre-sessional course. As (active or potential) critical thinkers, students have the responsibility and the right to the experience of learning in which, for example, the time allocated to find and navigate the timetable, contents and assessments must also include time to "enquire into their own questions related to the syllabus content, to work together, and share their work and understanding" (Salvi, 2020 p 188). Thus, the first time and space within which students can collaborate to express criticality is that of responding to this information with questions on the rationale behind the structure and content of the course itself. This is where, crucially, the tutor can model criticality, respect and expertise — and where CT within teacher induction immediately begins to prove its value.

The study also lends some empirical support to the theoretical position that CT, as a multifaceted concept shaped by various factors— including culture, prior experiences, social roles and task— should not be approached as a fixed, monolithic skill. Instead, it should be seen as a fluid construct whose prominence and characteristics shift depending on such factors. Our findings show that teachers primarily oriented themselves toward an academic conceptualisation of CT, emphasizing its role in enabling students' successful participation in higher education. In contrast, students viewed CT not only as an academic tool but also as a personal and non-academic experience. This divergence suggests the need for a more inclusive theoretical perspective— one that acknowledges the diverse manifestations of CT and the multiple factors that shape its development.

6.2. Pedagogical implications

The evidence presented in this paper from the teacher data highlights the need for teacher education on the different dimensions of CT to debunk the embedded idea that teachers will teach CT and the students will learn it. This supports previous literature that suggests that for the teaching and learning of CT to occur, there needs to be a mutual understanding between the teachers and the students regarding the definition of CT and how it can be applied in the EAP classroom (e.g., Naem et al., 2023). Therefore, a communicative and collaborative approach in the EAP classroom is considered the most adaptive and effective. This research has addressed student and teacher conceptualisations of CT, revealing that such perceptions are dependent on experience, social needs and intention, which challenges the idea that teaching, rather than creating opportunities for practising, CT is enough as an intellectual stimulus for its development (Choy & Cheah, 2009).

The data from the teacher survey demonstrates differing teacher perceptions of the definition of CT. This will possibly result in

different approaches to teaching and assessing CT, and differences in student acquisition. There is, therefore, a need to consider the different positions on a continuum that can progress during the 10-week course. Establishing an initial definition, which can be supported by the theoretical underpinnings presenting in the CT approaches in Table 2, will provide a starting point from which ideas and practices can grow. For this to occur, teachers will need to have an understanding of the theoretical underpinnings of teaching CT in an EAP context before applying them in their classroom practices, and for criticality skills to be assessed both formatively and summatively.

The consensus approach employed during the initial stages of the study to determine the thematic codes used to interpret the student data proved to be an effective means of decision making among the teachers. This study therefore proposes a consensus approach based on teacher-led discussion during the teacher induction to revisit and refine existing guidelines for teaching CT. The study argues that teacher education should be an ongoing process throughout the EAP course, which will support continuous professional development (CPD) and encourage teachers to continuously question and develop their pedagogical competencies for the teaching and assessment of CT. Continued teacher education also affords an opportunity for collaborative scholarly activities such as the one reported on here.

Feedback workshops can be held to discuss the learning outcomes based on the initial guidelines and suggest any necessary changes in approach based on the uptake of CT by the students, and its subsequent manifestation in their work. The sharing of ideas and outcomes with fellow teachers will help establish consensus in relation to critical thinking pedagogical practices, to accommodate differences in learner type and teacher practices. Inviting students to participate in the workshops would provide understanding of CT awareness from a student perspective, helping ensure teaching and assessment practices are established based on both teacher and student input. One student representative from each teaching group could be appointed to collate the ideas of their peers to be communicated during the workshops. Furthermore, this creates an opportunity to survey student conceptualisations and practices of CT during the course.

7. Conclusion

This study has examined the perspectives of EAP teachers and their international pre-university students on a 10-week pre-sessional course, shedding light on how they perceive and experience CT. The findings from the pre- and post-course surveys challenge the notion of CT as a fixed and monolithic concept. Instead, participants engaged with CT as a dynamic and fluid academic practice. This is evident in the varying ways teachers approached the teaching and assessment of CT, highlighting the crucial role of teacher induction in fostering a shared understanding of key CT aspects. Establishing such a consensus can help ensure that all students, regardless of their instructor, benefit from a comparable academic experience.

The study also reveals that while teachers primarily viewed CT as an academic skill essential for success in HE, students experienced it more broadly— as both an academic practice and a social activity they engaged in with family and peers. This finding supports the idea that CT is a complex and context-dependent concept, reinforcing the need for a more inclusive and multifaceted definition that acknowledges diverse perspectives.

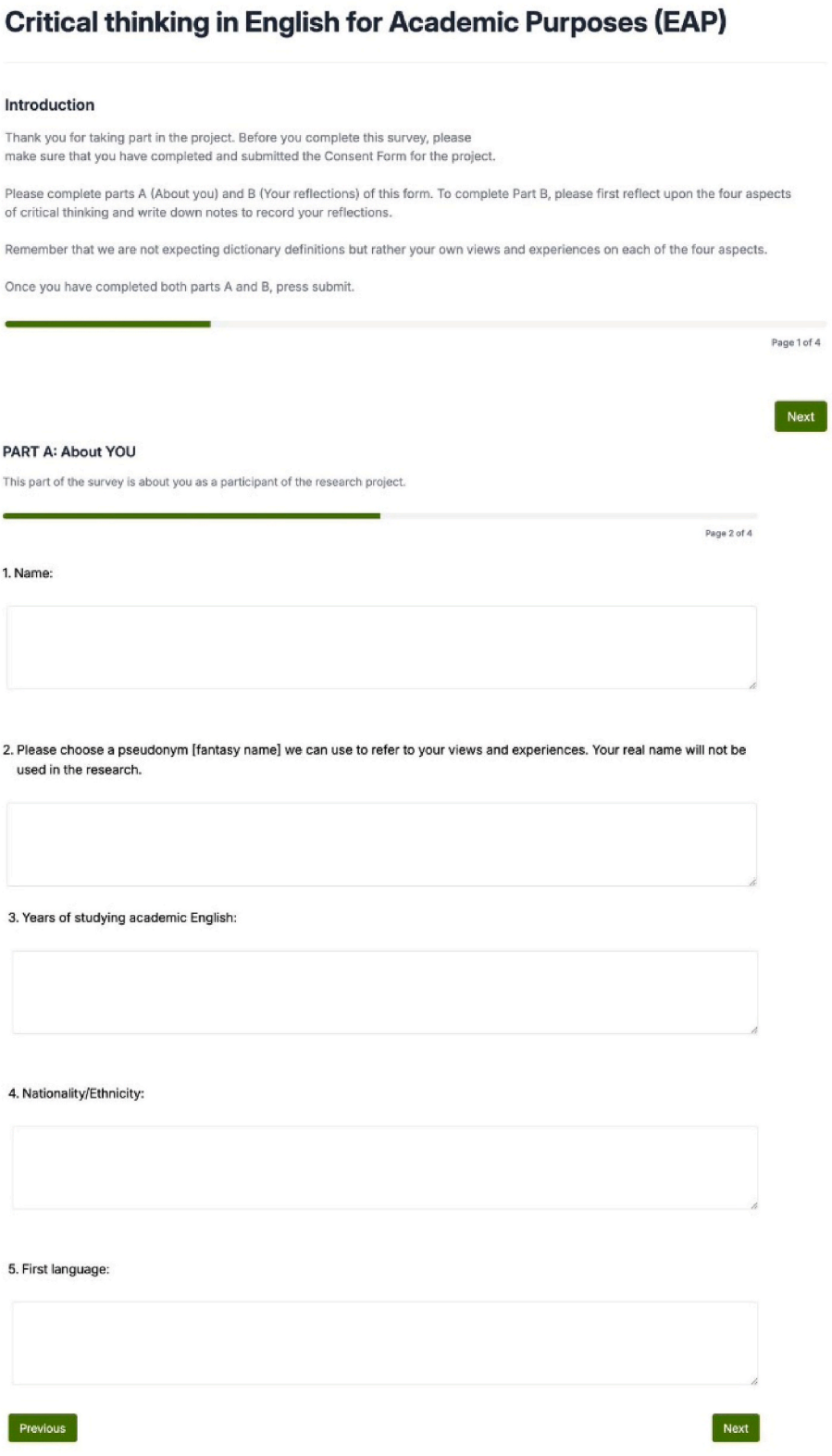
Importantly, our findings counter claims that CT cannot be taught or learned. The survey data indicate that over the course of 10 weeks, students' conceptualizations and applications of CT evolved meaningfully. By the end of the course, their understanding had often become more nuanced, reflecting an appropriation of the concept that extended beyond conventional dictionary definitions. This underscores the value of EAP courses in providing students with the time and space necessary to develop and refine their CT skills.

We hope this study, the result of a collaboration between EAP researchers, pre-sessional teachers, and students, will inspire colleagues in other EAP contexts to further engage in this discussion. Conducting similar studies can contribute additional evidence and insights, fostering a broader academic dialogue and deepening our understanding of the complexities of CT.

CRediT authorship contribution statement

Julio Gimenez: Writing – review & editing, Writing – original draft, Supervision, Project administration, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Edward Greening:** Writing – review & editing, Writing – original draft, Visualization, Formal analysis, Data curation, Conceptualization. **Hilary Key McDowell:** Writing – review & editing, Writing – original draft, Formal analysis, Conceptualization. **Matt Lawrence:** Writing – review & editing, Writing – original draft, Formal analysis, Conceptualization. **Sarah Miccoli:** Writing – review & editing, Writing – original draft, Formal analysis, Conceptualization. **Svetlana Page:** Writing – review & editing, Writing – original draft, Formal analysis, Conceptualization. **Kat Robb:** Writing – review & editing, Writing – original draft, Visualization, Methodology, Formal analysis, Data curation, Conceptualization. **Ernesto Roque Gutierrez:** Writing – review & editing, Writing – original draft, Methodology, Formal analysis, Conceptualization. **Samina Salim:** Writing – review & editing, Writing – original draft, Methodology, Formal analysis, Conceptualization. **Mariangela Spinillo:** Writing – review & editing, Writing – original draft, Visualization, Formal analysis, Conceptualization.

APPENDIX



Critical thinking in English for Academic Purposes (EAP)

Introduction

Thank you for taking part in the project. Before you complete this survey, please make sure that you have completed and submitted the Consent Form for the project.

Please complete parts A (About you) and B (Your reflections) of this form. To complete Part B, please first reflect upon the four aspects of critical thinking and write down notes to record your reflections.

Remember that we are not expecting dictionary definitions but rather your own views and experiences on each of the four aspects.

Once you have completed both parts A and B, press submit.

Page 1 of 4

Next

PART A: About YOU

This part of the survey is about you as a participant of the research project.

Page 2 of 4

1. Name:

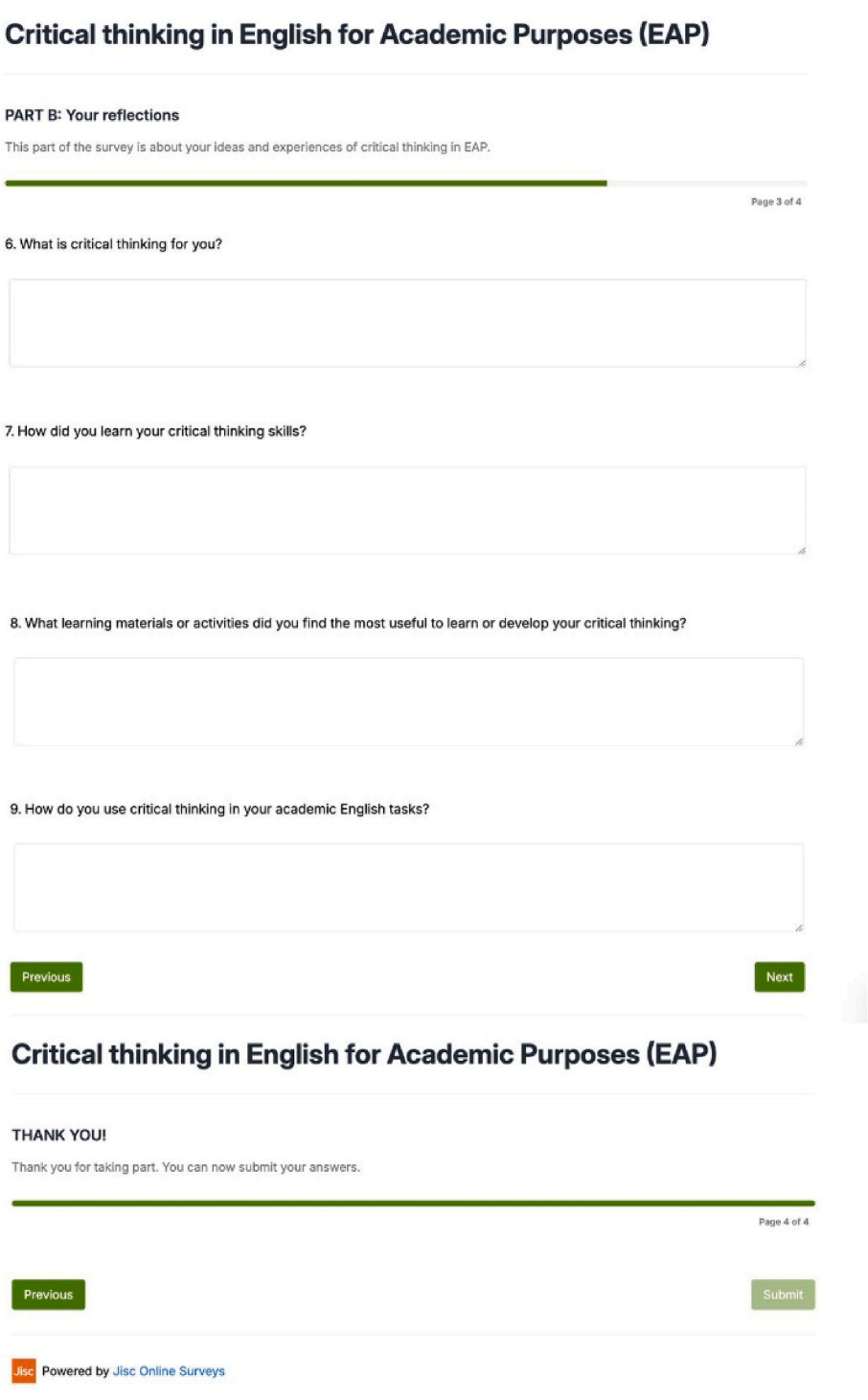
2. Please choose a pseudonym [fantasy name] we can use to refer to your views and experiences. Your real name will not be used in the research.

3. Years of studying academic English:

4. Nationality/Ethnicity:

5. First language:

Previous Next



References

Alexander, O., Argent, S., & Spencer, J. (2008). EAP essentials: A teacher's guide to principles and practice. *Garnet education*.
Anderson, L. W., Krathwohl, D. R., & Bloom, B. S. (2001). *A taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives*. Longman.

Atkinson, D. (1997). A critical approach to critical thinking in TESOL. *Tesol Quarterly, 31*(1), 71–94. https://doi.org/10.2307/3587975
Bağ, H. K., & Gürsoy, E. (2021). The effect of critical thinking embedded English course design to 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
BALEAP. (2008). Competency framework for teachers of English for academic purposes. https://www.baleap.org/wp-content/uploads/2016/04/teap-competency-framework.pdf.
Benesch, S. (1993). Critical thinking: A learning process for democracy. *Tesol Quarterly, 27*, 545–548. https://doi.org/10.2307/3587485
Benesch, S. (2001). Critical English for academic purposes. *Theory, politics, and practice*. Routledge.
Black, B. (2012). An overview of a programme of research to support the assessment of critical thinking. *Thinking Skills and Creativity, 7*, 122–133. https://doi.org/10.1016/j.tsc.2012.04.003
Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa
Bruce, I. (2011). *Theory and concepts of English for academic Purposes*. Palgrave.
Bryman, A. (2016). *Social research methods*. Oxford University Press.
Choy, S. C., & Cheah, P. K. (2009). Teacher perceptions of critical thinking among students and its influence on higher education. *International Journal of teaching and learning in Higher Education, 20*(2), 198–206. https://www.isetl.org/ijtlhe/pdf/IJTLHE336.pdf.
Creswell, J. W., & Creswell, J. D. (2023). Research design. *Qualitative, quantitative, and mixed methods approaches* (6th ed.). Sage.
Danvers, E. (2021). Individualised and instrumentalised? Critical thinking, students and the optics of possibility within neoliberal higher education. *Critical Studies in Education, 62*(5), 641–656. https://doi.org/10.1080/17508487.2019.1592003
Davies, M., & Barnett, R. (2015). *The palgrave handbook of critical thinking in higher education*. Palgrave Macmillan.
Dong, Y. (2015). Critical thinking education with Chinese characteristics. In M. Davies, & R. Barnett (Eds.), *The palgrave handbook of critical thinking in higher education* (pp. 335–351). Palgrave Macmillan.
Ennis, R. H. (1996). Critical thinking dispositions: Their nature and assessability. *Informal Logic, 18*, 165–182. https://doi.org/10.22329/il.v18i2.2378
Ennis, R. H. (2015). Critical thinking: A streamlined conception. In M. Davies, & R. Barnett (Eds.), *The palgrave handbook of critical thinking in higher education* (pp. 31–47). Palgrave.
Fox, H. (1994). *Listening to the world: Cultural issues in academic writing*. National Council of Teachers of English.
Gimenez, J. (2012). Disciplinary epistemologies, generic attributes and undergraduate academic writing in nursing and midwifery. *Higher Education, 63*(4), 401–419. https://doi.org/10.1007/s10734-011-9447-6
Gimenez, J. (2017). Discipline-specific writing for business students: Research, practice and pedagogy. In J. Flowerdew, & T. Costley (Eds.), *Discipline-specific writing: Theory into practice* (pp. 226–243). Routledge.
Hadley, G., & Boon, A. (2023). *Critical thinking*. Routledge.
Ikuenobe, P. (2001). Teaching and assessing critical thinking abilities as outcomes in an informal logic course. *Teaching in Higher Education, 6*, 19–32. https://doi.org/10.1080/13562510020029572
Lamont, J. (2023). Contemplating criticality. April, 21st. In *Paper presented at the 2023 BALEAP conference: Caution! EAP under deconstruction*. Warwick, UK https://www.baleap.org/event/baleap-conference-caution-eap-under-deconstruction.
Lee, N. Y., Wang, Z., & Lim, B. (2024). The development of critical thinking: What university students have to say. *Teaching in Higher Education, 29*, 286–299. https://doi.org/10.1080/13562517.2021.1973412
Li, L. (2019). Pathways for the development of students' critical thinking in EAP programmes. *Cambridge papers in ELT series*. Cambridge University Press. https://www.cambridge.org/elt/blog/wp-content/uploads/2019/06/LiLi-WP_-CT_final-ONLINE.pdf.
Li, L. (2023). Critical thinking from the ground up: Teachers' conceptions and practice in EFL classrooms. *Teachers and Teaching, 29*, 571–593. https://doi.org/10.1080/13540602.2023.2191182
McPeck, J. (1992). Thoughts on subject specificity. In S. Norris (Ed.), *The generalizability of critical thinking: Multiple perspectives on an educational ideal* (pp. 198–205). Teachers College Press.
Moeiniasl, H., Taylor, L., deBraga, 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
Molinari, J., & Kavanagh, A. (2013). "The slippery eel": Defining critical thinking for EAP curriculum design and assessment. In J. Wigglesworth (Ed.), *Proceedings of the 2011 BALEAP conference. EAP Within the higher education garden: Cross-pollination between disciplines, departments and research* (pp. 197–208). Garnet.
Moore, T. J. (2004). The critical thinking debate: How general are general thinking skills? *Higher Education Research and Development, 23*(1), 3–18. https://doi.org/10.1080/0729436032000168469
Moore, T. J. (2011a). Critical thinking and disciplinary thinking: A continuing debate. *Higher Education Research and Development, 30*, 261–274. https://doi.org/10.1080/07294360.2010.501328
Moore, T. J. (2011b). *Critical thinking and language: The challenge of generic skills and disciplinary discourses*. Bloomsbury.
Moore, T. J. (2013). Critical thinking: Seven definitions in search of a concept. *Studies in Higher Education, 38*(4), 506–522. https://doi.org/10.1080/03075079.2011.586995
Moore, T. J. (2017). On the teaching of critical thinking in English for academic purposes. In R. Breeze, & C. Sancho Guinda (Eds.), *Essential competencies for English-medium university teaching* (pp. 19–35). Springer.
Moore, T. J. (2019). Developing critical thinking strategies in EAP programmes. *Cambridge papers in ELT series*. Cambridge University Press. https://www.cambridge.org/elt/blog/wp-content/uploads/2019/06/Moore-WP_CT_final-_ONLINE.pdf.
Naeem, M., Ozuem, W., Howell, K., & Ranfagni, S. (2023). A step-by-step process of thematic analysis to develop a conceptual model in qualitative research. *International Journal of Qualitative Methods, 22*. https://doi.org/10.1177/16094069231205789
Nieto Carracedo, A., & Valenzuela, J. (2012). A study of the internal structure of critical thinking dispositions. *Inquiry: Critical Thinking Across the Disciplines, 27*, 31–38. https://doi.org/10.5840/inquiryct20122713
Norris, S. P. (1992). Testing for the disposition to think critically. *Informal Logic, 2*(3), 157–164. https://doi.org/10.22329/il.v14i2.2538
Ramanathan, V., & Kaplan, R. B. (1996). Audience and voice in current L1 composition texts: Some implications for ESL student writers. *Journal of Second Language Writing, 5*(1), 21–34. https://doi.org/10.1016/S1060-3743(96)90013-2
Rear, D. (2019). One size fits all? The limitations of standardised assessment in critical thinking. *Assessment & Evaluation in Higher Education, 44*, 664–675. https://doi.org/10.1080/02602938.2018.1526255
Saldaña, J. (2025). *The coding manual for qualitative researchers* (5th ed.). Sage.
Salvi, A. I. (2020). A practitioner-research study of criticality development in an academic English language programme. In A. Simpson, & F. Dervin (Eds.), *The Meaning of Criticality in Education Research. Reflecting on critical pedagogy* (pp. 181–214). Palgrave Macmillan.
Siegel, H. (1988). *Educating reason: Rationality, critical thinking and education*. Routledge.
Stapleton, P. (2001). Assessing critical thinking in the writing of Japanese university students: Insights about assumptions and content familiarity. *Written Communication, 18*, 506–548. https://doi.org/10.1177/0741088301018004004
Thompson, C. (2002). Teaching critical thinking in EAP courses in Australia. *TESOL Journal, 11*, 15–20. https://doi.org/10.1002/j.1949-3533.2002.tb00104.x
Truong, H. N. (2024). Students' perspectives on the use of teacher questions to promote critical thinking in EFL classrooms. *International Journal of Legal Information, 3*, 1–17. https://doi.org/10.54855/ijli.24321
UNESCO. (2020). Education for sustainable development: A roadmap. https://unesdoc.unesco.org/ark:/48223/pf0000374802.locale=en.
Wilson, K. (2016). Critical reading, critical thinking: Delicate scaffolding in English for Academic Purposes (EAP). *Thinking Skills and Creativity, 22*, 256–265. https://doi.org/10.1016/j.tsc.2016.10.002
Wilson, K. (2019). Critical thinking in EAP: A brief guide for teachers. *Cambridge papers in ELT series*. Cambridge University Press. https://www.cambridge.org/elt/blog/wp-content/uploads/2019/06/Critical-Thinking-in-EAP-Wilson-White-paper-21-May-19.pdf.

Yin, S., Fan, J., Jin, Y., & Stapleton, P. (2024). Towards a framework of critical thinking for assessing EAP speaking. *Journal of English for Academic Purposes, 71*, Article 101426. https://doi.org/10.1016/j.jeap.2024.101426

Yuan, R., Liao, W., Wang, Z., Kong, J., & Zhang, Y. (2022). How do English-as-a-foreign-language (efl) teachers perceive and engage with critical thinking: A systematic review from 2010 to 2020. *Thinking Skills and Creativity, 43*, Article 101002. https://doi.org/10.1016/j.tsc.2022.101002

Zembylas, M. (2024). Revisiting the notion of critical thinking in higher education: Theorizing the thinking-feeling entanglement using affect theory. *Teaching in Higher Education, 29*(6), 1606–1620. https://doi.org/10.1080/13562517.2022.2078961

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