
RESEARCH ARTICLE

Beyond the Curriculum: Aligning Critical Thinking Instruction with the Saudi Vision 2030 Human Capability Framework

Dr. Voke Efeotor

Standards and Evaluations Department, King Faisal Air Academy, Al Majmaah, Saudi Arabia

Corresponding Author: Dr. Voke Efeotor. **E-mail:** voke_e@hotmail.com

ABSTRACT

This exploratory study investigates the conceptualisation of critical thinking among English language practitioners within Saudi Arabian higher education and evaluates the pedagogical strategies employed in its delivery relative to the Human Capability Development Programme (HCDP). Using a qualitative research design, semi-structured interviews were conducted with five senior English language educators operating within a university preparatory year programme, and the resulting data were interpreted using multi-staged thematic analysis. The findings reveal divergent practitioner definitions of critical thinking and expose a transferability paradox: educators steadfastly advocate for explicit L2 critical thinking instruction despite holding a shared belief that critical thinking is an inherently transferable cross-linguistic meta-skill. Additionally, while top-down textbook structures provide an immediate classroom scaffold, they reveal critical gaps in sustained teacher professional depth. Ultimately, this paper argues for a strategic transition from performative curriculum delivery to sophisticated, practitioner-focused cognitive training to maximize the return on educational investment within the Kingdom's strategic framework

KEYWORDS

Critical thinking, English Language Teaching (ELT), Saudi Vision 2030, Human Capability Development, Teacher professional development, Qualitative thematic analysis.

ARTICLE INFORMATION

ACCEPTED: 30 April 2026

PUBLISHED: 26 May 2026

DOI: 10.32996/jeltal.2026.8.7.4

1. Introduction

Critical thinking has emerged as a primary focus for both educational institutions and employers globally. The simple transmission and assimilation of information are no longer regarded as sufficient; rather, the intelligent manipulation of data through original, creative, and critical thought is now a prerequisite for success in the modern era (Paul, 1985). Consequently, there has been a concerted effort by educational institutions to promote higher-order thinking skills (HOTS) amongst their students. This strategic push is particularly evident in the higher education landscape of Saudi Arabia, where it serves as a fundamental pillar of the Human Capability Development Programme (HCDP) under Vision 2030.

To support this transition, many Saudi universities have integrated sophisticated ELT series, such as Oxford's *Q Skills for Success* and Cambridge's *Unlock*, into their preparatory year English language programmes. These curricula boast specific critical thinking frameworks designed to develop essential cognitive skills, including analysing, synthesising, and evaluating. Whilst theorists and educationalists have posited a myriad of definitions for critical thinking, revealing several underlying principles and common themes, the practical reality of how teachers conceptualise these skills remains largely unexplored. This paper seeks to expound the key facets of critical thinking within the literature, evaluate teachers' awareness of these components, and investigate how they endeavour to implement them in the classroom. Such an enquiry is vital to ensure that pedagogical practices align with the Kingdom's ambition to foster a globally competitive and innovative workforce. An analysis of the definitions of critical thinking provides an apt starting point for this discussion.

Copyright: © 2026 the Author(s). This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC-BY) 4.0 license (<https://creativecommons.org/licenses/by/4.0/>). Published by Al-Kindi Centre for Research and Development, London, United Kingdom.

2. Literature Review

Critical thinking has gained significant prominence in educational discourse and practice in recent years. It is now globally recognised that a principal aim of education is to "foster students' ability to think critically, to reason, and to use judgement effectively in decision making" (McMillan, 1987, p. 3). Historically, seminal reports such as *Involvement in Learning* (1984) and *Integrity in the College Curriculum* (1985) catalysed the shift from rote content delivery to the instruction of cognitive skills.

In the contemporary Saudi context, this shift is no longer merely academic; it is a strategic requirement of Vision 2030. The Human Capability Development Programme (HCDP, 2021; 2024) emphasises that defining and measuring critical thinking is essential for producing a workforce capable of navigating a knowledge-based economy. However, a significant hurdle remains: the conceptual complexity of the term itself. As Abrami et al. (2008) purport, the "problem facing practitioners and researchers alike is that [critical thinking] is a complex and controversial notion that is difficult to define and, consequently, to study" (p. 1103).

2.1 The Evolution of the Modern Tradition

While the Socratic method serves as the ancient root of this approach, John Dewey is widely regarded as the father of the modern tradition. Dewey (1910) defined critical thinking, or reflective thought, as the "active, persistent, and careful consideration of a belief... in the light of the grounds which support it" (p. 9). This establishes the learner as an active agent rather than a passive recipient.

Glaser (1941) expanded this by introducing the importance of disposition, suggesting that critical thinking requires not just the skill, but the inclination to apply logical enquiry. This was further refined by Ennis and Weir (1985), who linked reflective thinking directly to decision-making, a connection that resonates with the Vision 2030 goal of fostering leadership and decision-making capabilities in Saudi youth.

2.2 Consensus Frameworks: The Delphi Panel, Paul, and Halpern

A landmark definition was developed by the American Philosophical Association's Delphi Panel (Facione, 1990). This panel identified a comprehensive framework of six skills (interpretation, analysis, evaluation, inference, explanation, and self-regulation) and nineteen dispositions. The ideal critical thinker is described as "habitually inquisitive, well-informed, trustful of reason, and open-minded" (Facione, 1990, p. 3).

Taxonomies provided by Halpern (2003) and Paul (1990) further break down these dimensions into "nitty-gritty" cognitive operations. Paul (1990) offers a tripartite model consisting of affective dimensions (fair-mindedness), cognitive macro-abilities (Socratic discussion), and micro-skills (distinguishing relevant from irrelevant facts). However, critics warn that over-extending the term critical thinking may lead to the neglect of creative thinking and the role of emotions in cognition (Newton, 2013; 2024).

2.3 Contemporary Re-conceptualisations: The Digital and Global Shift

In the current decade, the definition of critical thinking has undergone a digital and civic evolution to meet the challenges of 2026. Recent scholarship (Al-Zahrani, 2025; UNESCO, 2025) suggests that in a post-AI landscape, critical thinking must transcend traditional logic to encompass algorithmic discernment and systems thinking.

Algorithmic Discernment: In alignment with the National Strategy for Data and AI (SDAIA), critical thinking now includes information sovereignty; the ability to verify, deconstruct, and identify bias in machine-generated outputs (Al-Zahrani, 2025).

Anticipatory Thinking: The OECD Learning Compass 2030 (updated 2024) defines critical thinking as part of anticipatory thinking, where learners reconcile tensions and dilemmas to prepare for future uncertainties.

Systems Thinking: UNESCO (2025) redefines the concept as the ability to understand how local actions, such as those within the Saudi Green Initiative (SGI), impact global sustainability outcomes.

2.4 The Transferability Debate in the Saudi Context

A central tension exists between the psychological strand (critical thinking as a generalisable, transferable skill) and the philosophical strand (critical thinking as context-specific knowledge).

In the Saudi ELT sector, this debate is of paramount importance. If critical thinking skills are indeed generic, one might question the necessity of intensive instruction within English preparatory programmes if students have already mastered these skills in Arabic (L1). However, the HCDP currently advocates for a dual-track approach: embedding critical thinking within specific

disciplines (like ELT) while fostering it as a core national competency for global competitiveness. This study seeks to investigate how teachers navigate this intersection of language, digital literacy, and logic.

3. Are Critical Thinking Skills Transferable? A Strategic Perspective

Critical thinking is taught across a diverse range of subjects. However, theorists differ as to whether these skills are generic and thus transferable across subject domains. As Abrami et al. (2008) state, "No one would argue that CT is applicable across a range of disciplinary areas, but there is little consensus about whether it is a set of generic skills... or whether it depends on the subject domain and context in which it is taught" (p. 1105). The belief in the transferability of critical thinking (CT) directly dictates pedagogical strategy. Advocates such as Halpern (1998; 2023) argue that CT can be learned in ways that promote transfer to novel contexts, suggesting that it should be taught through specialized courses or explicit frameworks.

3.1 The Preparatory Year Assumption

In many Saudi universities, the adoption of ELT series like Oxford's Q Skills for Success is predicated on the assumption of transferability. Curriculum designers aim to equip students with cognitive tools in the English classroom that will be successfully applied to their subsequent bachelor's degrees in fields such as engineering or medicine. This raises a critical question: if CT is a transferable meta-skill, would students not be better equipped to strengthen these higher-order thinking skills (HOTS) in their mother tongue, Arabic? The current institutional assumption seems to be that CT skills transfer across domains, yet their transferability between languages remains a complex variable.

3.2 The Content-Dependent Argument

Conversely, those who maintain that CT skills are non-transferable argue that they must be learned by confronting concrete problems within specific fields (Halliday, 2000; Smith, 2002). McPeck (1981) famously provided two rebuttals to transferability:

The Content Argument: Thinking is always about something; therefore, the subject matter shapes the nature of the thought, making logical transfer an impossibility.

The Triviality Argument: The more general a thinking skill becomes, the less practical cognitive value it holds.

In the Saudi context, if students cannot apply the skills acquired in an ELT course to their specific major, the inclusion of CT in the English curriculum becomes nugatory. This is particularly vital in 2026, as the HCDP demands high Return on Investment (ROI) in education, requiring that every credit hour contributes directly to a student's global competitiveness.

3.3 Linguistic Transfer: Thought vs Output

While inter-disciplinary transfer has been studied, the inter-linguistic transfer (from L1 to L2) remains under-researched. If an individual can calculate likelihoods and solve problems in Arabic, does that capacity vanish in English? Vygotsky (1935) opined that while thought and language begin as separate entities, they eventually merge; at the university level, thinking requires language. However, expressing critical thought in a second language (L2) is not a simple act of translation; it is a redefinition of identity (Kramsch & Lam, 1999). As Thadphoothon (2005) notes, L2 critical expression requires both lexico-grammatical and socio-cultural competence.

I posit that while the cognitive process (the internal hidden thought) likely remains rooted in the mother tongue when faced with high-complexity tasks, the output (the decision or observation) can be expressed in English. It is doubtful that a learner would make a logically flawed decision simply due to L2 limitations if they are aware that their L1 cognitive process yielded a different result. Therefore, while CT skills may not be easily transferred into a foreign language in terms of the internal process, the results of that process can be. This leads to the hypothesis that it may be more efficient to anchor CT instruction in the mother tongue to ensure maximum cognitive development, a view that will be further explored through participant interviews.

4. Teaching Critical Thinking: Modern Frameworks and Pedagogies

Critical thinking instruction prioritises Higher-Order Thinking Skills (HOTS), which are essential for navigating the complexities of the 2026 global economy. Bloom's Taxonomy remains the primary scaffold, delineating a progression from lower-order processes to the highest-order stage: evaluation. At this level, students are expected to appraise, criticise, and justify material skills that are now considered the human advantage in an increasingly automated workforce. Similarly, Biggs' SOLO Taxonomy (Structure of Observed Learning Outcomes) describes a cognitive continuum reaching the extended abstract phase. In this phase, students theorise and hypothesise, moving beyond the surface-level memorisation that traditionally dominated educational landscapes. Consequently, pedagogical practices must shift away from rote learning toward methods that require students to analyse, synthesise, and evaluate (Scriven & Paul, 2007; Al-Qahtani, 2024).

4.1 Problem-Based Learning (PBL) in the Saudi Context

Recent empirical studies (Kumar & Natarajan, 2023; Alghamdi, 2026) confirm that Problem-Based Learning (PBL) is the most effective catalyst for critical thinking in Saudi Higher Education. PBL is a student-centred pedagogy wherein learners engage with authentic problems, such as those related to the Saudi Green Initiative (SGI) or NEOM's urban planning, to develop cognitive agility. In this model, the educator's role has evolved from a disseminator to a digital-age facilitator (Wilkerson & Gijsselaers, 1996; Smith & Jones, 2025). This transition is a core KPI within the HCDP, aiming to transform the classroom into an incubator for the resilient citizen. Learning is conducted in collaborative groups where the problem serves as the primary stimulus for the cognitive process (Barrows, 1996).

4.2 Modelling, Scaffolding, and AI Integration

Contemporary research (Hemming, 2000; Al-Zahrani, 2025) highlights the necessity of modelling critical thinking. Because students' prior schooling may not have demanded independent analysis, educators must provide a cognitive map. Broadbear (2003) argues that activities must be structured around four elements: ill-structured problems, criteria for assessment, self-assessment, and iterative improvement.

In 2026, this modelling has expanded to include AI-Criticality. Educators now model how to critically evaluate AI-generated content for bias and inaccuracy, a skill termed algorithmic discernment (Al-Zahrani, 2025). By providing these frameworks, teachers empower students to internalise and apply critical thinking techniques independently (Lundquist, 1999), bridging the gap between preparatory year English and the rigorous demands of specialized degree programmes in an Ambitious Nation.

5. Methodology

This research is designed as a small-scale, exploratory qualitative study. It investigates the perceptions of five English language practitioners currently engaged in the preparatory year programme at a Saudi university. The primary objective is to identify their conceptual understanding of critical thinking and the specific pedagogical methods they employ to foster it within the classroom. The study utilised semi-structured interviews as the primary research instrument. This approach was selected for its inherent flexibility, allowing for the exploration of predetermined key themes whilst providing the latitude to "diverge in order to pursue an idea or response in more detail" (Gill et al., 2008, p. 291). In the 2026 academic context, this format remains the gold standard for capturing the rich, lived experiences of educators navigating large-scale curricular shifts (Braun & Clarke, 2024). This format was essential for probing the nuanced, and often subjective, internal constructs of the participants, enabling the researcher to gain more detailed and meaningful insights (Wimmer & Dominick, 1997).

5.1 The Participants

The participants for this study are experienced educators currently engaged at a university in Saudi Arabia. They were selected through purposive sampling, a method rooted in the recognition that "qualitative researchers recognise that some informants are 'richer' than others and that these people are more likely to provide insight and understanding for the researcher" (Marshall, 1996, p. 523).

To ensure the depth and reliability of the data, five practitioners were selected from a broader faculty pool of sixty-five teachers. The selection criteria focused on seniority and cross-departmental expertise; consequently, the chosen participants have contributed significantly to various domains, including curriculum design and assessment. Their professional experience is extensive, ranging from nine to twenty-seven years. Furthermore, each participant possesses a Master's degree in either TESOL or Applied Linguistics, providing the theoretical foundation necessary to offer expert perspectives on critical thinking within the ELT framework. This high level of professional qualification aligns with the Vision 2030 emphasis on teacher excellence as a prerequisite for national educational reform.

6. Ethical Consideration

Guided by the four pillars of social research ethics; avoidance of harm, informed consent, protection of privacy, and absence of deception (Diener & Crandall, 1978), this study prioritised participant protection through rigorous anonymisation and procedural transparency. As an independent researcher, I ensured psychological safety by providing categorical assurances of confidentiality, where all identifying markers were removed to prevent professional repercussions (Braun & Clarke, 2024; Saldana, 2025). Participants were fully briefed on the study's nature before providing formal informed consent. They were notified of their right to withdraw at any stage without prejudice, and all participants consented to audio recording, with the understanding that data would be stored securely on encrypted devices in accordance with BERA (2024) guidelines.

7. Findings & Analysis

Following the completion of the semi-structured interviews, the audio recordings were transcribed verbatim to ensure data integrity. The resulting qualitative data were analysed using a multi-staged Thematic Analysis approach (Braun & Clarke, 2024). Initially, open coding was employed to identify raw concepts within the text, which were subsequently refined through axial coding to establish relationships between categories. Through this iterative process, the codes were distilled into overarching themes that capture the participants' conceptualisations of critical thinking. Figure 1 illustrates the final thematic map derived from the insights provided by the five participants: Fahad, Gareth, Hamza, Ian, and Cole (pseudonyms have been used to ensure anonymity).

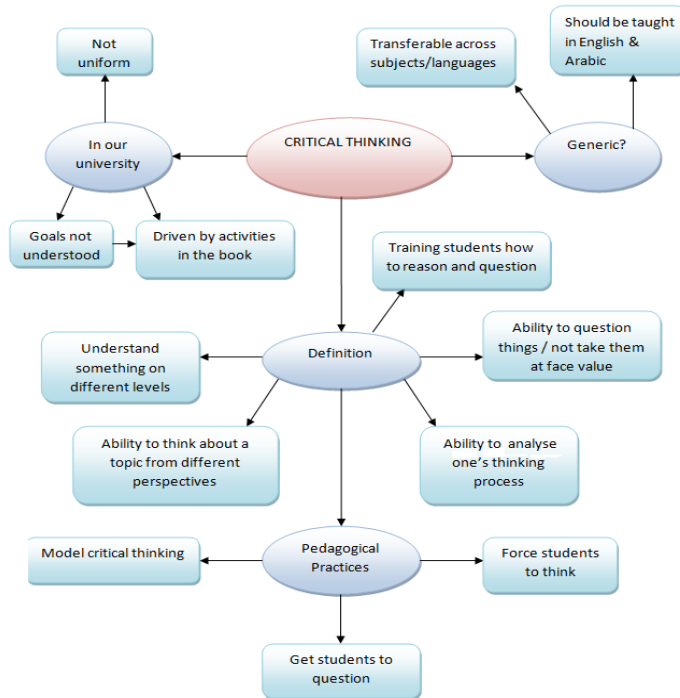


Figure 1: Thematic Map for the 5 Participants

8. Defining Critical Thinking: Practitioner Perspectives

Unsurprisingly, given the myriad of definitions posited by educationalists and theorists, the participants each defined critical thinking through a distinct lens. While their responses were naturally less exhaustive than the comprehensive taxonomies of Halpern or Paul, having been provided as immediate, spontaneous insights during the interviews, they serve to highlight the specific facets of critical thinking that these practitioners deem most pertinent to the Saudi ELT context.

8.1 Judgment and Knowledge Transfer

Fahad opined that a critical thinker must be able to examine all aspects of a specific issue to form a reasoned judgement. This emphasis on the soundness of judgement aligns with the foundational principles established by the American Philosophical Association Delphi Panel (Facione, 1990). Furthermore, Fahad noted the importance of a learner's ability to utilise existing knowledge while processing new information. This conceptualisation mirrors what Paul (1990) identifies as the macro-ability to transfer insights across novel contexts, a skill central to the Human Capability Development Programme (HCDP) goal of fostering cognitive agility.

8.2 Inquisitiveness and Reason

For Gareth, critical thinking entails a deep understanding of causality, necessitating the ability to reason and formulate smart questions. This definition draws directly upon the Delphi Panel's profile of the habitually inquisitive thinker and echoes the reasonable thinking framework championed by Ennis and Weir (1985). Hamza shared a similar perspective, positing that critical thinking is defined by the capacity to question and a refusal to accept information at face value. In the 2026 context of algorithmic discernment, this healthy scepticism is increasingly vital for students navigating an information-dense digital landscape.

8.3 Metacognition and Analytical Breadth

Ian's definition focused on the critical thinker's ability to analyse their own thought processes; a concept Ennis and Weir categorise as reflective thinking or metacognition. Finally, Cole highlighted the dual capacity to analyse information and approach a topic from diverse perspectives. This emphasis on multi-perspectivity is a key requirement for the globally competitive Saudi citizen, who must engage with complex, international discourses as part of the Vision 2030 transformation.

9. Critical Thinking in our Curriculum:

The participants expressed divergent views regarding the clarity and institutional communication of critical thinking requirements within the curriculum. Gareth noted that the university had facilitated a professional development session delivered by Cambridge University Press, titled 'A Practical Approach to Critical Thinking Building Blocks'. The primary objective of this intervention was to familiarise staff with the critical thinking frameworks embedded in the prescribed textbooks and to provide a platform for sharing pedagogical strategies for classroom integration.

Despite this formal training, a perceived gap remains between institutional intent and classroom reality. Ian suggested that a significant portion of the teaching faculty remains inadequately aware of the complex theoretical and practical nuances surrounding critical thinking. This discrepancy reflects broader findings in recent Saudi ELT research, which indicate that while top-down training sessions provide a useful introduction, they often fail to address the deep-seated pedagogical beliefs of practitioners (Al-Zahrani, 2025; Smith & Jones, 2025).

In the 2026 context, this highlights a critical challenge for Vision 2030: the transition from merely delivering a curriculum to ensuring that teachers possess the cognitive agility and theoretical depth required to facilitate higher-order thinking effectively (Alghamdi, 2026). Without sustained, reflective professional development, the integration of critical thinking risks becoming a performative exercise rather than a transformative educational outcome.

Partial Transcription of interview with Ian	
Interviewer	In our textbooks we have a critical thinking component. Do you think it is clear to the teachers what is wanted from them in terms of teaching critical thinking to the students?
Ian	No. I think it is complicated. It's overlapping. At times-if you ask a normal teacher or just run into a teacher and ask him what is critical thinking, I don't think they will understand what the term means. Normally people think that thinking is just one thinking. Only thinking. But to my understanding, it becomes critical when you can analyse your thinking process and come to a logical opinion. It helps you to come to-some-a logical conclusion.

Gareth, Hamza and Cole stated that even if a teacher does not fully grasp critical thinking, the textbook is designed such that critical thinking will be taking place in the classroom regardless.

Partial Transcription of interview with Gareth	
Interviewer	And critical thinking it comes in our coursebook-Q Skills book. Do you think the teachers have a general understanding of critical thinking and what is required of them in terms of teaching it to the students?
Gareth	I can't speak about the teachers because it may vary from one teacher to another. But we had a workshop by Cambridge on critical thinking. So, I assume that-I mean the course-erm-you know imposes its own strategy. In other words, it makes-even if the teacher doesn't know what is meant by critical thinking, the activities and the exercises which are represented in the coursebook lead to that.

Partial Transcription of interview with Cole	
Interviewer	In the book, in the Q Skills book we have a critical thinking component. It's one of the reasons the book was chosen. It's because it promotes critical thinking. Do you think the teachers understand the goals of this component and what is expected of them in terms of teaching their students critical thinking?

Cole	Eh, yeh I think that, in my opinion critical thinking-every unit has a question. There are some questions that promote students to think critically and answer the question....
-------------	---

All participants maintained that critical thinking is a highly transferable competency, applicable across both subject domains and languages. Paradoxically, despite acknowledging this inherent transferability, the participants remained steadfast in their belief that critical thinking should be explicitly taught within the English language curriculum. Fahad, for instance, suggested that instruction in both Arabic and English would be complementary, creating a symbiotic cognitive reinforcement.

However, from an analytical perspective, the position held by the participants appears fundamentally contradictory. If critical thinking is indeed a universal, transferable cognitive skill, as the participants claim, then the necessity of re-teaching it within the English classroom becomes questionable. This logical inconsistency is further explored through the syllogism presented in Figure 2, which suggests that if the skill is already mastered in the mother tongue and is linguistically transferable, its inclusion in the ELT syllabus may be redundant.

- Premise 1: Critical thinking skills are transferable from one language to another.
- Premise 2: I can critically think in Arabic.
- Conclusion: Therefore, I can critically think in English.

Figure 2: Syllogism about Critical Thinking Instruction

If the two premises outlined in the transferability syllogism are accepted, logic dictates that the conclusion must also be embraced. The participants explicitly accepted the first premise, that critical thinking is transferable, while simultaneously acknowledging that the cognitive load is significantly reduced when thinking in one's mother tongue. This raises a fundamental question: if students can be equipped with critical thinking skills in Arabic, the continued mandate for intensive critical thinking instruction within the English curriculum requires a stronger pedagogical justification than currently exists.

The participants reported utilizing a variety of strategies to foster critical thinking in the classroom. The primary technique cited by all practitioners was the elicitation of student questioning. Ian, for instance, noted that he creates specific classroom scenarios where students are forced to think, suggesting a reliance on situational problem-solving.

However, a notable gap emerged between these classroom practices and the theoretical frameworks discussed earlier. The participants did not explicitly mention the systematic instruction of the higher-order cognitive processes detailed in Bloom's or SOLO taxonomies. Furthermore, there was a distinct lack of focus on the affective dispositions, the specific characteristics of a critical thinker, as defined by the American Philosophical Association Delphi Panel (Facione, 1990).

This omission may be attributed to two factors:

Methodological Limitation: It may have been a minor oversight during the initial semi-structured interviews, which could be further explored in subsequent sessions.

Conceptual Simplification: Alternatively, it may stem from the participants' own limited definitions of critical thinking. Unlike educationalists and theorists, who deconstruct the nitty-gritty of cognitive operations, these practitioners may perceive critical thinking as a general pedagogical vibe or a broad set of questioning techniques rather than a structured set of discrete, teachable skills.

10. Limitations

This research was designed as an exploratory, first-stage inquiry rather than a comprehensive survey; consequently, several limitations must be acknowledged.

10.1 Sample Size and Generalisability

The primary limitation is the relatively small sample size, which precludes the generalisability of the findings to the broader Saudi ELT sector. Furthermore, the use of purposive sampling, while effective for gathering rich data from experienced practitioners, inherently leaves the study open to discussions regarding researcher bias. However, as Bassey (1981) famously argued, the relatability of a case study is often more significant than its statistical generalisability (p. 85). In the 2026 academic landscape, this fuzzy generalisation remains a valid qualitative benchmark; it is anticipated that practitioners operating in similar preparatory year environments will find the described phenomena highly relatable to their own professional contexts (Braun & Clarke, 2024).

10.2 Demographic and Institutional Scope

A further constraint is the institutional structure of the university. As a segregated institution, this study was conducted exclusively within the male campus. The absence of perspectives from female faculty members, who represent a significant and distinct portion of the Saudi teaching force, means the findings cannot be viewed as a universal representation of the university's pedagogical climate. In the context of Vision 2030's focus on gender-inclusive educational reform, future research must incorporate a dual-campus approach to provide a more holistic view of Human Capability Development.

10.3 Interview Depth and Reflection

Finally, the data collection was restricted to a single interview per participant. This prevented the researcher from delving deeper into complex issues that surfaced only during the post-interview reflection and transcription phases. Subsequent research would benefit from a longitudinal approach or a second round of member checking to refine these emergent themes and provide a more robust longitudinal perspective on how critical thinking evolves over a full academic cycle (Saldana, 2025).

11. Conclusion

This exploratory study has served as a critical inquiry into the pedagogical landscape of higher-order thinking within a Saudi ELT context. It has illuminated the diverse conceptualisations of critical thinking held by practitioners and identified the strategies currently employed to foster these skills. Most significantly, the findings present a series of strategic provocations for university administration and curriculum designers. If critical thinking is indeed a transferable competency, institutional efficiency, a core tenet of the Human Capability Development Programme (HCDP), suggests it may be more effectively delivered as a standalone module or integrated into mother-tongue instruction. Conversely, if these skills are not inherently transferable, the curriculum must explicitly define how students are expected to bridge the cognitive gap as they transition into specialised degree programmes.

The study is anticipated to have a reflexive impact on the participants, encouraging a deeper engagement with the theoretical underpinnings of their classroom practice. While current textbooks may provide a scaffold for critical thinking, practitioner awareness of the concept's multifaceted nature is essential for transformative learning. As noted in recent scholarship, the human advantage in the age of AI lies not in following a textbook, but in the sophisticated application of discernment and evaluation (Al-Zahrani, 2025; Smith & Jones, 2025).

Ultimately, if critical thinking is to remain a cornerstone of the Vision 2030 educational reform, this priority must be reflected in the rigour of professional development. Successful integration cannot occur in a vacuum of teacher ambiguity; it requires a robust, evidence-based approach that transcends one-off training sessions. To successfully equip the next generation of Saudi citizens with the cognitive tools required for a globalised economy, the transition from a vague awareness to a structured, sophisticated pedagogical framework is imperative.

Funding: This research received no external funding.

Conflicts of Interest: The author declares no conflict of interest.

ORCID iD: <https://orcid.org/0009-0002-5083-1091>

Publisher's Note: All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers.

References

- [1]. Abrami, P. C., Bernard, R. M., Borokhovski, E., Wade, A., Surkes, M. A., Tamim, R., & Zhang, D. (2008). Instructional interventions affecting critical thinking skills and dispositions: A stage 1 meta-analysis. *Review of Educational Research*, 78(4), 1102–1134. <https://doi.org/10.3102/0034654308326084>
- [2]. Alghamdi, S. (2026). *Pedagogical Shifts in the Saudi Preparatory Year: A Longitudinal Study on PBL and Critical Thinking*. Riyadh: King Saud University Press.
- [3]. Al-Qahtani, A. (2024). Fostering higher-order cognitive skills in contemporary Gulf higher education. *Gulf Educational Review*, 16(2), 45–61.
- [4]. Al-Zahrani, M. (2025). Algorithmic Discernment: Critical Thinking in the Age of Generative AI. Jeddah: Dar Al-Hikma.
- [5]. Barrows, H. S. (1996). Problem-based learning in medicine and beyond: A brief overview. In L. Wilkerson & W. H. Gijsselaers (Eds.), *Bringing problem-based learning to higher education* (pp. 3–12). San Francisco: Jossey-Bass. <https://doi.org/10.1002/tl.6801>
- [6]. Basse, M. (1981). Pedagogic research: On the relative merits of search for generalisation and study of single events. *Oxford Review of Education*, 7(1), 73–94. <https://doi.org/10.1080/0305498810070108>
- [7]. BERA. (2024). *Ethical Guidelines for Educational Research* (5th ed.). London: British Educational Research Association.
- [8]. Braun, V., & Clarke, V. (2024). *Qualitative Research in Education: Thematic and Interpretative Approaches*. London: SAGE Publications.
- [9]. Broadbear, J. T. (2003). Essential elements of lessons designed to promote critical thinking. *Journal of Scholarship of Teaching and Learning*, 3(3), 1–8.

- [10]. Cohen, L., Manion, L., & Morrison, K. (2012). *Research Methods in Education* (7th ed.). London: Routledge.
- [11]. Dewey, J. (1910). *How We Think*. Boston, MA: D. C. Heath & Co.
- [12]. Diener, E., & Crandall, R. (1978). *Ethics in Social and Behavioral Research*. Chicago, IL: University of Chicago Press.
- [13]. Ennis, R. H., & Weir, E. (1985). *The Ennis-Weir Critical Thinking Essay Test*. Pacific Grove, CA: Midwest Publications.
- [14]. Facione, P. A. (1990). *Critical thinking: A statement of expert consensus for purposes of educational assessment and instruction (The Delphi Report)*. Millbrae, CA: California Academic Press.
- [15]. Fok, S. C. (2002). Teaching critical thinking skills in a Hong Kong secondary school. *Asia Pacific Education Review*, 3(1), 83–91. <https://doi.org/10.1007/BF03024912>
- [16]. Gill, P., Stewart, K., Treasure, E., & Chadwick, B. (2008). Methods of data collection in qualitative research: Interviews and focus groups. *British Dental Journal*, 204(6), 291–295. <https://doi.org/10.1038/bdj.2008.192>
- [17]. Glaser, E. M. (1941). *An experiment in the development of critical thinking*. teacher's College, Columbia University.
- [18]. Gurses, A., Acikyildiz, M., Dogar, C., & Sozbilir, M. (2007). An investigation into the effectiveness of problem-based learning in a physical chemistry laboratory course. *Research in Science & Technological Education*, 25(1), 99–113. <https://doi.org/10.1080/02635140601053641>
- [19]. Halliday, J. (2000). Critical thinking and the academic vocational divide. *The Curriculum Journal*, 11(2), 159–175.
- [20]. Halpern, D. F. (1998). Teaching critical thinking for transfer across domains: Disposition, skills, structure training, and metacognitive monitoring. *American Psychologist*, 53(4), 449–455. <https://doi.org/10.1037/0003-066X.53.4.449>
- [21]. Halpern, D. F. (2003). *Thought and Knowledge: An Introduction to Critical Thinking* (4th ed.). Mahwah, NJ: Lawrence Erlbaum Associates.
- [22]. Human Capability Development Program (HCDP). (2021). *Human Capability Development Program Charter*. Riyadh: Saudi Vision 2030 Office.
- [23]. Human Capability Development Program (HCDP). (2024). *Human Capability Development Program Delivery Plan 2021–2030*. Riyadh: Saudi Vision 2030 Office.
- [24]. Hughes, C. (2014). Theory of Knowledge aims, objectives and assessment criteria. *Journal of Research in International Education*, 13(1), 30–45.
- [25]. Kramsch, C., & Lam, W. S. E. (1999). Textual identities: The importance of being non-native. In G. Braine (Ed.), *Non-native educators in English language teaching* (pp. 57–75). Lawrence Erlbaum Associates.
- [26]. Kumar, R., & Natarajan, S. (2023). *Problem-Based Learning and Transferability: A Meta-Analysis of ELT Contexts*. Oxford: Oxford University Press. <https://doi.org/10.1093/elt/2023.045>
- [27]. Lundquist, R. (1999). Critical thinking and the art of making good mistakes. *Teaching in Higher Education*, 4(4), 523–530. <https://doi.org/10.1080/1356251990040408>
- [28]. Marshall, M. N. (1996). Sampling for qualitative research. *Family Practice*, 13(6), 522–525. <https://doi.org/10.1093/fampra/13.6.522>
- [29]. McMillan, J. H. (1987). Enhancing college students' critical thinking: A review of studies. *Research in Higher Education*, 26(1), 3–29. <https://doi.org/10.1007/BF00991931>
- [30]. McPeck, J. E. (1981). *Critical Thinking and Education*. Oxford: Martin Robertson.
- [31]. Newton, D. P. (2014). *Thinking with Feeling: Fostering Productive Thought in the Classroom*. London: Routledge.
- [32]. Paul, R. W. (1985). Critical thinking in the strong sense: Rooting history and theory in cognitive excellence. *Thinking: The Journal of Philosophy for Children*, 5(4), 23–31.
- [33]. Paul, R. W. (1990). *Critical Thinking: What Every Person Needs to Survive in a Rapidly Changing World*. Rohnert Park, CA: Center for Critical Thinking and Moral Critique.
- [34]. Royalty, J. (1995). The generalisability of critical thinking: Paranormal beliefs versus statistical reasoning. *Journal of Genetic Psychology*, 156(4), 477–488.
- [35]. Saldana, J. (2025). *The Coding Manual for Qualitative Researchers* (5th ed.). London: SAGE Publications.
- [36]. Scriven, M., & Paul, R. (2007). *Defining critical thinking*. The National Council for Excellence in Critical Thinking.
- [37]. Smith, P., & Jones, L. (2025). *The Facilitators Handbook: Teaching in the Knowledge-Based Economy*. Cambridge: Cambridge University Press.
- [38]. Tempelaar, D. T. (2006). The role of metacognition in business education. *Industry and Higher Education*, 20(5), 291–297.
- [39]. Thadphoothon, J. (2005). *Promoting Critical Thinking in Language Learning Through Computer-Mediated Collaborative Learning* (Doctoral dissertation, University of Canberra).
- [40]. UNESCO. (2025). *Framework for systemic cognitive resilience and digital citizenship education*. Paris: UNESCO Guidelines.
- [41]. Vygotsky, L. S. (1935). *Thought and Language*. Cambridge, MA: MIT Press.
- [42]. Watkins, K. (2001). Learning by changing: Action science and virtual organisation development. *Adult Learning*, 11(3), 20–22.
- [43]. Wilkerson, L., & Gijsselaers, W. H. (1996). Concluding comments. In L. Wilkerson & W. H. Gijsselaers (Eds.), *Bringing problem-based learning to higher education: Theory and practice* (pp. 101–104). San Francisco: Jossey-Bass.
- [44]. Wimmer, R., & Dominick, J. (1997). *Mass Media Research: An Introduction*. Belmont, MA: Wadsworth.