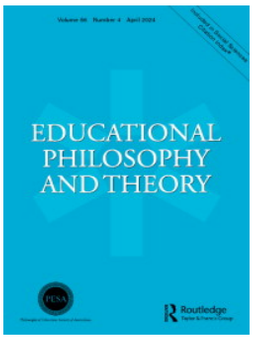

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# Cultivating criticality through transformative critical thinking curriculums in a time of flux and transformation

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EDITORIAL



# Cultivating criticality through transformative critical thinking curriculums in a time of flux and transformation

## Thinking, critical thinking, and living in a time of flux

Thinking, the process of considering or reasoning about something, is one of the most distinctive qualities that set humans apart from other species. Philosophers around the world, such as Socrates, Confucius, Rene Descartes, Zhu Xi, and John Dewey, have proposed numerous and long-standing thoughts about what thinking is, why thinking matters, and how to think in desirable ways. For instance, Confucius' idea of 'I daily examine my personal conduct on three points (吾日三省吾身)' stresses the importance of thinking backward on one's conduct for personal growth. Descartes' well-known saying, 'I think, therefore I am (cogito, ergo sum),' highlights the act of thinking doubtfully about one's own existence as proof of the reality of one's own mind. The Nobel Prize laureate Daniel Kahneman's best-selling book 'Thinking, Fast and Slow' proposes two systems of thinking, one featuring fast, instinctive, and emotional thinking and the other slower, more deliberative, and more logical thinking, providing a helpful framework for thinking about thinking in nuanced ways. These and other influential thoughts have triggered an extensive, sustained, and multidisciplinary inquiry into the phenomenon of human thinking, which has fruited into a wide range of concepts attempting to characterize the various types of thinking, such as intuitive thinking, logical thinking, reflective thinking, relational thinking, flexible thinking, systems thinking, among many others.

Among all existing concepts about thinking, critical thinking (CT) has emerged to be a crucial one for naming the thinking desired/necessitated in contemporary education, work, and life. CT is notoriously defined but conveys a basic idea: careful thinking directed to a goal (Hitchcock, 2018). As Lai (2011) summarized in her review, two dominant perspectives of understanding CT have emerged: the philosophical and psychological approaches. Informed by the writings of ancient and contemporary philosophers (e.g. Socrates, John Dewey, Mathew Lipman), the philosophical approach understands CT in terms of the qualities and characteristics that an ideal critical thinker should possess, such as inquisitiveness, the ability to understand diverse viewpoints, and the willingness to suspend judgment and consider other perspectives (Facione, 1990). In contrast, the cognitive perspective draws on the behaviorist tradition and the experimental research paradigm to explore how people actually think versus how they could or should think under ideal conditions (Sternberg, 1986). As a result, the cognitive psychological approach tends to understand CT in terms of a host of cognitive skills (e.g. analyzing, interpreting, formulating questions) or procedures (e.g. learning new concepts, making decisions, solving problems) possessed or performed by critical thinkers (Lewis & Smith, 1993).

The philosophical and psychological perspectives of CT have significantly advanced the development of research, practice, and policy concerning human thinking. Nevertheless, the two traditionally dominant perspectives face new and increasingly thorny challenges as we enter a new era of flux and transformation. The COVID-19 pandemic has qualitatively changed many people's taken-for-granted assumptions about how the world operates and what we, as a shared community of mankind, should and could do. The intensifying relationships among various countries, such as the plummeting US-China relationship and the ongoing war between Ukraine and Russia,

urge people within and outside these countries to ponder what they can and should do to bring the world back to peace, harmony, and prosperity. The worsening environmental circumstances, such as global warming and extreme climates, repeatedly remind humankind to realize that they do not exist superiorly over other species but are just an indiscriminate group influenced by the macroscopic conditions of the world. All these new trends in human societies have questioned whether CT should exist in someone's mind, regardless of whether the thinking is normatively defined or naturally occurring, or should it be extended to encompass concrete actions for tackling real-world problems and enhancing public good, especially for the structurally marginalized, minoritized, and oppressed populations.

## Criticality as a crucial 'flavor' and 'ingredient' of critical thinking

The new realities, trends, and challenges we face urge us to think about an old question: What lies at the core of CT? The philosophical and psychological perspectives place individuals' brain activities, cognitive processing, and emotional laboring for achieving a desired goal at the center of CT. However, such viewpoints tend to gloss over the historical, socio-cultural, and political dimensions of thinking. Perhaps that is why scholars have begun to think critically about CT in recent decades, attempting to (re)clarify the core element/aspect/quality of CT. As Michael A. Peters, the former Editor-in-Chief of *Educational Philosophy and Theory*, critiqued, 'The movement of critical thinking also tends to treat thinking ahistorically, focusing on universal processes of logic and reasoning' (Peters, 2007, p. 350). Similarly, Chinese educational sociologist Liu Yunshan (2021) was also concerned by the zealous emphasis on 'knowing-how' over 'knowing-what' in the current curriculums for CT education influenced by cognitive constructivism, which would eventually lead students to develop skillful but unthoughtful savage minds.

Recognizing the limitations of viewing CT as a cognitive process detached from where it unfolds, by whom, for what ends, and under what conditions, a growing number of studies have been devoted to (re)claiming the definitive spirit, element, and quality of CT. Mainly influenced by poststructuralist philosophy and critical theory, the critiquing of the cognitive and logical models of CT has developed into a critical perspective for understanding CT. The critical perspective challenges the reductionist views of the process, content, assessment, and intellectual standards of CT and their inadequacy to account for the link between thinking and acting. Instead, the critical approach incorporates criticality into the meaning of CT and understands CT in terms of individuals' critical actions based on their cognitive skills and dispositions. As Burbules and Berk (1999) state, 'Criticality is a practice, a mark of what we do, of who we are, and not only how we think' (p. 62).

In particular, criticality refers to the ability to reflexively understand, evaluate, and act on historically, socio-culturally, and politically conditioned phenomena through self-critiquing and self-transformation (Pettersson, 2023). The critical perspective of CT is intricately linked with the principles of critical pedagogy, as both approaches share significant concerns regarding oppression, control, and struggle individuals face in their engagement with social structures. Thus, individuals are strongly encouraged to foster and apply CT through their extensive participation in the world, actively and agentively questioning the status quo, changing social bias and stereotypes, and initiating positive changes in social reality within potentially constraining realities (Burbules & Berk, 1999; Yuan, 2023).

In short, as the world enters a time of ideological, technological, and ecological flux and turbulence, alongside the accumulating and intensifying social problems concerning marginalization, discrimination, and oppression, the 'flavor' and 'ingredient' of criticality, which emphasizes reflexivity and action-taking, should be integrated and explicitly stressed in the conceptualization and enactment of CT and CT education today.

## Cultivating criticality through transformative critical thinking curriculums

If the primary goal of CT education ought to be shifted to focus on cultivating students' criticality, how can the education systems achieve the goal? Many previous studies on CT education have extensively examined students' and teachers' perceptions of CT, pedagogical approaches and strategies for teaching CT, and influences of contextual factors (e.g. policy interventions, socio-cultural beliefs, reform discourses) on CT education (e.g. Liao et al., 2022; Lun et al., 2010; Yuan et al., 2022). Another robust thread of research (e.g. Ennis, 1989, 2018) has investigated curriculum issues about CT education. As viewed as a sum of learning and teaching experiences, encompassing subject knowledge, instructional and assessment activities, and the socio-cultural milieu surrounding students and teachers (Dillon, 2009; Jordens & Zepke, 2009), curriculums can function as a crucial leverage point for gathering, configuring, and synergizing resources for CT education.

For instance, Ennis (1989) created a typology consisting of four curricular approaches to CT education: (1) the general approach in which CT is emphasized as curricular goals while subject-matter contents are not included; (2) the infusion approach in which both CT and subject-matter contents are explicitly stressed in curricular goals; (3) the immersion approach in which the subject-matter contents are highlighted in curricular goals while cultivating CT as an implicit, hidden goal; (4) the mixed approach in which CT is taught as an independent track within a specific subject matter (Abrami et al., 2015). Guided by the typology, Ennis (2018) envisioned a curriculum titled CTAC (Critical Thinking Across Curriculum) for teaching CT, mainly defined as a series of higher-order cognitive skills, to higher education students through a long-term, multiple-phased, integrative curriculum approach.

While Ennis's (1989) typology can help configure CT and subject-matter contents for structuring the curriculum for CT education, it seems unclear and less helpful for centering criticality in the curricular goals of CT education. Drawing on Kennedy's (2005) framework for analyzing professional learning, we propose a new typology of CT curriculum, which distinguishes three different types of CT curriculum: the transmissive CT curriculum, the transactional CT curriculum, and the transformative CT curriculum. The transmissive CT curriculum considers CT as prescribed contents (e.g. cognitive skills) that can be delivered to learners by external experts, mainly focusing on technical aspects of CT rather than issues relating to values, beliefs, and attitudes. The transactional curriculum views CT as contextualized contents that are co-constructed by relevant stakeholders of CT education and emphasizes the personal, relational and context-dependent aspects of CT.

In contrast to the former two types, the transformative CT curriculum posits CT as a value-driven, power-laden, and socio-politically charged praxis linking theory and practice. It highlights the critical, actional, and transformative potentials of CT in tackling structural, social, and real-world issues for enhancing public goods for all. Given its more ambitious, radical, and action-oriented stance and goals, the transformative CT curriculum would entail more innovatively configured curricular goals, materials, instructions, evaluations, supportive conditions, and continuous upgrades and transformations to be realized on the ground.

## Generating new evidence and insights on transformative critical thinking curriculums

To generate new empirical evidence about and theoretical insights into cultivating students' criticality through transformative CT curriculums, we edited the current special issue titled 'Critical Thinking and Curriculum: A critical perspective' for *Educational Philosophy and Theory*. We released a call for proposals in early 2022, which later attracted 48 submissions of research proposals with a wide range of topics, multiple theoretical angles, and plural methodological approaches from

21 countries. After screening the proposals and rigorous peer reviews of full-length manuscripts, six papers have been accepted for publication in this special issue, constituting a collection of the latest scholarships examining the intersection of criticality, CT, and curriculum.

Nomura's study[1] examines the discrepancy between global and Japanese perceptions of CT education, as revealed by the TALIS 2018 survey. While Japan's self-efficacy in CT teaching remains low, this research delves into the indigenous understanding of CT in Japanese education through qualitative interviews with 12 schoolteachers with diverse backgrounds. Despite the lack of explicit emphasis on CT in the national curriculum, teachers value multidimensional-multiperspective thinking (MMT), reflecting a nuanced approach to understanding and fostering CT in the Japanese context. The study underscores the influence of the curriculum and cultural values such as empathy on CT instruction and Japanese educators' endeavors of navigating between global and local models of CT teaching. The researcher also emphasizes the need for further exploration into classroom dynamics and moral education and calls for more discussions on reconciling global and indigenous understandings of CT teaching.

Pu and Xu's paper presents a critical realist perspective on curriculum design to foster CT while liberating students from egocentric rationality. It critiques the technicist paradigm prevalent in higher education, which reduces CT to instrumental skills and fosters an egocentric mentality. Drawing on Bhaskar's critical realism, the authors argue for a curriculum that prioritizes self-critique, aiming to transform students' ways of being. The researchers illustrate how a curriculum, which was designed around self-critique and exemplified through an undergraduate debate course, could help students transcend egocentric rationality. Overall, this study emphasizes the dynamic nature of curriculum as a space for student self-realization and advocates for a holistic approach addressing rational, emotional, ethical, and aesthetic dimensions of CT education. The researchers also invite further discussion on curriculum design as an agent of emancipatory change, emphasizing the importance of integrating CT with transformative educational practices.

Zou and Chen's study explores the challenges of integrating CT into English language classrooms, particularly during the COVID-19 pandemic. It highlights the need to navigate contextual complexities and bridge the gap between curriculum ideals and classroom realities. In particular, the researchers examine how eight EFL teachers in China perceived and addressed CT instruction amidst the pandemic's disruptions. Findings underscore the importance of integrating CT into language learning objectives and leveraging educational technologies for critical dialogues. Teachers are urged to consider students' emotions and life experiences while fostering hope and skepticism. This study suggests avenues for future research to delve deeper into CT instruction in the digitalized post-pandemic era, emphasizing the transformative potential of CT in times of flux and transformation.

Takkinen et al.'s paper critically examines the notion of CT within the context of post-sustainability, arguing for a shift from the traditional autonomous subject to a more interconnected understanding of persons. It addresses the epistemic and existential challenges of ecological crises and suggests that curriculum theory should emphasize ontological criticality. The authors advocate for a pedagogical approach that acknowledges individuals' socio-historical conditions and vulnerabilities in navigating post-sustainability. The researchers propose concrete curriculum suggestions that promote interdependence, humility, and collective action, emphasizing the need for critical self-reflection and understanding of one's material and energetic conditions. The study highlights the importance of fostering a curriculum that encourages students to engage critically with environmental issues and collectively address them in the era of ecological crises.

De Costa et al.'s study explores the implementation of a transformative and decolonizing pedagogy in a U.S. graduate educational linguistics course. The study involved collaborating with a ninth-grade English teacher in Nepal to internationalize the curriculum. The researchers emphasize the importance of decolonizing higher education by challenging Eurocentric knowledge production and incorporating critical theory and indigenous knowledge. The article highlights the need for culturally sustaining pedagogical materials and the importance of collaborative professionalism in achieving these goals. The researchers emphasize the need for reciprocal

relationships, active listening, and humility when engaging in collaborative work with partners from the Global South and propose establishing study-abroad teacher education programs to further promote a decolonizing agenda in higher education.

Miller et al.'s study examines how CT has been implemented in teacher education curriculums in the U.S. context, focusing on the areas of music, media and information literacy, and social studies. While CT was intended to cultivate well-informed democratic citizens, it has become a standardized, technical skill focused on logical analysis rather than transformation. The paper argues that CT must be reconceptualized with the purpose of achieving educational equity through reflective praxis. It proposes cultivating CT through collaborative, dialogic learning instead of standardized assessments. Given reduced time for subjects such as social studies, implementing a transformative CT approach could help address issues like the spread of misinformation. The paper concludes that institutional changes are needed to realize CT's potential for liberation and social justice.

With the six papers introduced above, our special issue as a collective can make at least two critical scholarly contributions to educational research communities. First, these papers have clarified and strengthened the theoretical grounds of cultivating criticality in CT curriculums. Most authors have concurred in their papers that a purely scientism-, rationalism-, technicism-, or, more generally, modernism-oriented understanding of CT is becoming incompatible with the new eras characterized by increasingly intensified uncertainties, pluralized ideologies and radical changes. In such a new time of flux and transformation, educators should adopt a qualitatively new theorization of CT and its education that emphasizes self-critique, relational interdependence, socio-cultural inclusiveness, and systematic reform and improvement (Yuan & Liao, 2023). Philosophical ideas from critical realism, post-colonialism, and critical theories have been drawn to undergird the call for a more critical engagement with CT education at the curricular scale. Furthermore, these studies suggest innovative and potentially effective curricular practices for extending students' CT into critical actions conducive to bettering personal and public goods. These include setting criticality cultivation as a prominent and central goal, integrating criticality into concrete subject-matter contents, leveraging critical pedagogy to empower and facilitate student learning, and tailoring CT curriculums to critically mirror and transform their situated educational, socio-cultural, and ideological contexts.

## The ways forward

To further advance transformative CT curriculums in a time of flux and transformation, we propose several topics and related research questions worth exploring in future studies.

### *Influence of artificial intelligence (AI) on CT education*

- How does the integration of AI technologies impact the foundational principles and frameworks of CT education?
- In what ways can AI be leveraged to enhance students' criticality through innovatively configured curricular frames, interventions, and supports?
- How do ethical considerations surrounding AI intersect with the cultivation of criticality?

### *Indigenous theorizations of CT education in marginalized/underrepresented contexts*

- How does CT manifest within indigenous knowledge systems, and what can we learn from these perspectives to inform CT curriculum development?
- What strategies and approaches can be employed to foster students' CT in underrepresented and marginalized communities, taking into account their unique cultural and historical contexts?
- How can the inclusion of indigenous epistemologies enhance the transformative potential of CT education?

### *Values and roles of hidden, informal, and null curriculums in CT education*

- How do hidden curriculums, informal learning environments, and non-traditional educational settings influence the development of CT?
- What are the implications of null curriculums (i.e. the knowledge and skills not explicitly taught) on the cultivation of CT?
- How can educators intentionally leverage the hidden, informal, or null curriculums on CT to foster students' criticality?

### *Studies from more pluralized research methodologies*

- How can the integration of diverse research methodologies, such as arts-based research, narrative inquiry, participatory action research, and self-studies, contribute to a more comprehensive understanding of CT and its educational implications?
- What insights can be gained from the inclusion of multiple voices and perspectives in CT research, particularly those traditionally marginalized or underrepresented?
- How can researchers navigate the challenges and opportunities associated with pluralized research methodologies in the study of CT?

The questions listed above are tentative and exploratory, and we hope they can help inform scholarly discussions, policy formulations, curriculum designs, and instructional practices related to CT education, ultimately fostering criticality and empowering learners to navigate the complexities of a changing world.

## Note

1. Due to a publishing error, this article has been published in a previous issue (i.e., Volume 55, Issue 13). We apologize for any confusion caused.

## Disclosure statement

No potential conflict of interest was reported by the author(s).

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