

Rethinking Education: The Role of Critical Thinking in Schools

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ABSTRACT

In the rapidly evolving landscape of global education, critical thinking has emerged as a cornerstone skill for the 21st century, essential for informed decision-making, democratic engagement, and effective problem-solving. Despite widespread acknowledgment of its importance, the integration of critical thinking into school curricula remains sporadic and underdeveloped. This paper examines the historical, pedagogical, and systemic dimensions that influence critical thinking education. Drawing from philosophical foundations and current educational frameworks, it defines critical thinking as reflective, open-minded, and purposeful reasoning that involves metacognition, analysis, and evaluation. The paper critiques current educational practices—dominated by rote learning and exam-centric methods—that hinder the cultivation of analytical skills. It highlights how technology, while offering tools for collaboration and learning, also presents challenges, such as misinformation and cognitive echo chambers. Through case studies, cross-disciplinary approaches, and cultural reflections, the paper illustrates effective strategies for embedding critical thinking across subjects. It emphasizes the role of teacher preparation, inclusive pedagogy, and formative assessment in fostering reflective learners. Ultimately, the study advocates for systemic reform that reimagines schools as incubators of independent thought, equipping students to navigate complexity in an increasingly interconnected world.

Keywords: Critical Thinking, Educational Reform, Reflective Thinking, Metacognition, Curriculum Design, Teacher Training, 21st-Century Skills.

INTRODUCTION

As educators, it has become highly prioritized to cultivate critical thinking skills in students. There is a strong consensus that critical thinking should be the lynchpin of education. Governments and academic institutions alike foster a broad range of critical thinking skills at schools and universities, though the effectiveness of such methods is still in question. Previous studies have proposed various ways to encourage critical thinking in humanities and science courses. However, without a specific pattern to gauge and develop the three crucial methodologies, most recommendations stay abstract. Rethinking education is of particular importance to the current age. Though long treated solely as a repository of knowledge and skills, schools and universities should also function as facilitators of students' ability to think critically. Rote-learning and rote-reviewing, which reflect traditional teaching methods, dominate classroom activities, encouraging students to become passive recipients of information. Many students emerge from traditional schooling systems as zombies, lopsided in their learning capacity, the weaknesses of such an outmoded method of education becoming self-evident. They are ordinarily incapable of the prosperous application of critical thinking skills either in their academic pursuits or personal lives. Therefore, teachers should rethink their pedagogical techniques and should put more focus on inductive, reflective, and argumentative approaches to teaching, assisting students in meta-cognitively understanding sophisticated ideas and making their knowledge and worldviews become more discerning and reflective. The incorporation of critical thinking skills with correct beliefs and moral values will endow students with the capability to discern and withstand imbecilic fads, bigotry, and all forms of demagoguery, indoctrination, or deceptive propaganda. However, the nature and development of critical thinking is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited

thinking has been an area of conflict among some educators. Like human virtues, critical thinking can be viewed from a moral or cognitive perspective. From the latter standpoint, it is construed as an assembly of skills used to scrutinize, evaluate, and devise arguments. Notwithstanding how it is defined, since the Socratic method has been practiced for more than two millennia, dialectical reasoning has customarily been at the core of educational institutions. Despite this, many school curriculums abandon debate and provide few suggestions of it. Indeed, most language and philosophy curriculums are based on essay-writing skills orders, over-prioritizing the form to the expense of the content. A principled framework is offered to transcend this deadlock [1, 2].

Historical Context of Education

Critical thinking has arguably always been a perennial core concern for those preoccupied with education as educators consider how best to guide thinking and reflection in young minds. In the late 19th and early 20th centuries, there was a surge of interest in the subject by thinkers such as John Dewey and Bertrand Russell. However, as the 20th century turned into the 21st, concern for the lack of good thinking did not diminish among intellectuals. Various events that transpired over the final two decades of the 20th century served to underline a widespread lack of engagement with critical thinking: the 'fall' of the Berlin Wall in 1989; Gulf War 1 in 1991; the Holocaust denials of French academic Robert Faurisson; the publication of the Report of the Royal Commission on Aboriginal Peoples in 1996; and the Reena Virk murder on Vancouver Island in 1997. With many school systems implementing or weighing specific approaches to teaching critical thinking, it has become an even more pressing global issue, particularly in history and social studies where students are expected to interpret, integrate social data, evaluate a range of information, and construct persuasive arguments. Among the stated aims in social studies education in BC are the goals that students "develop and use the following intellectual tools— awareness of bias, reflective judgment, critical analysis, problem solving." There is also an expectation with the last major revision of the social studies IRPs that students will use a great deal more historical thinking. While it may be an indictment of the field of education in general that these tools have to be 'taught', it does not necessarily follow that they are. It was with this background that the initial research on critical thinking in education was conceptualized. One of the first things to become apparent, and what guided the methodology of this study, was that 'critical thinking' was a problematic term, with a myriad of definitions offered for it. The absence of a consistent taxonomy hampered efforts to measure the phenomenon. With some of these obstacles in mind, several salient questions were addressed: (1) What do pre-service (social studies) teachers know about critical thinking? (2) What would they have learned about critical thinking, and to what extent did they begin thinking critically about critical thinking, in their K (1-12) educations? (3) What sort of obstacles would pre-service social studies teachers envisage to the teaching of critical thinking? [3, 4].

Defining Critical Thinking

In order to understand the role of critical thinking in schools, there should be a clarification regarding what critical thinking is. This discussion might be unnecessary because everyone already knows what critical thinking is. It is "good" thinking; it is thinking that is active, clear, coherent, purposeful, reasoned, and reflective. One must have a common notion of what good thinking embodies to teach it skillfully and successfully. That understanding would include metacognition, dispositions, skills, strategies, and environmental conditions that foster and support the development of good thinking. At its best, in most settings, critical thinking is "active" rather than "passive" and "open-minded" rather than "narrow-minded". Critical thinkers habitually ask questions; they look for evidence, not just listening to the think and reason carefully. Good thinking or reasoning does not necessarily give a sensible solution or follow a solution algorithm. Reasoning involves the cognitive process of invoking logic and making inferences so that a more believable solution can be achieved. Substantial empirical work examining problem-solving has been conducted in order to determine precisely how people go about solving problems. These studies tend to complement and support one another, making such phenomena as problem-solving ability, expertise, and evaluation of difficulty, particularly amenable to empirical investigation. This research enlightens educators on how good thinking occurs in order for them to teach and model critical and creative thinking for their students. It finds it entirely necessary to define critical and creative thinking in a way that can meaningfully be laced upon the objectives and practices of a particular classroom. This need is exemplified by the problem of the term problem-solving, a phrase often employed as a synonym for creative and critical thinking that carries no less than 11 other meanings [5, 6].

The Importance of Critical Thinking in Education

Critical thinking is a unique and highly valued cognitive skill essential for the 21st century, characterized as one of the “four Cs” alongside communication, collaboration, and creativity. It transcends mere memorization, fostering a deeper understanding of different perspectives and personal values while highlighting the implications of decisions. By engaging in self-reflection, critical thinkers improve their clarity, accuracy, and applicability to real-world situations while also recognizing gaps in their knowledge and questioning widely held beliefs. This skill cultivates analytical capacities, enabling students to synthesize diverse viewpoints and resolve conflicts in innovative ways. Graduates proficient in critical thinking can critically assess public policy and develop a richer comprehension of various fields, such as science, history, and economics, driving societal progress. Moreover, critical thinking enhances judgment and decision-making, emphasizing the importance of applying facts thoughtfully. The necessity of these skills has led to widespread agreement among educators that critical thinking is a cornerstone of effective education and democracy in the modern era. Recent discussions among educational advocates underscore the importance of inclusive curricula that prepare all students for a complex and dynamic environment, fighting against social inequities that hinder this goal. Efforts to improve critical thinking instruction have sparked significant debate, with advocates citing overwhelming evidence that students can learn this complex process. A surge of literature, workshops, and programs has emerged around teaching critical thinking. Concerns persist, however, regarding the adequacy of knowledge and the influence of social issues on education, suggesting that merely exposing students to different viewpoints is insufficient. Students often feel pressured to prioritize grades over critical inquiry, mistakenly believing that questioning established knowledge detracts from their academic responsibilities. Maintaining a robust understanding of critical thinking's role is crucial for personal and professional success. As students learn to evaluate ideas and their relevance to their beliefs, they recognize that meaningful engagement with concepts requires careful reflection. Internalizing and articulating complex emotions and ideas necessitates recognizing their nuances and contexts, which is essential for cultivating effective communication and understanding in a diverse world. [7, 8].

Current Educational Practices

Critical thinking involves the ability to engage in reflective and independent thinking. It is also a component skill of problem-solving, decision-making, and devising strategies to investigate and explore physical and conceptual spaces. While it is increasingly being recognised that the learning and teaching of critical thinking should be a legitimate objective at all stages of education and in some areas of the curriculum, little has been done to measure it and assess difficulties in specific contexts. This article presents an analysis of current educational practices with a view to assess their critical thinking engagement. Various teaching methods have been employed to facilitate the acquisition of critical thinking skills, including project-based work, group discussions, and open-ended questions. These inquiry-based methods tend to help students to question, analyze, and evaluate information, phenomena, or arguments, as well as to generate new information. However, there is growing evidence to indicate that across all levels of education, in virtually all cultures, the prevalent method used to promote teaching and learning is one where the learner receives knowledge to memorize, with the main intellectual testing instruments being one of recalling and recognizing that same knowledge. This is made apparent by the use of completely or partly open book multiple choice questions in most of the examinations. This and the time constraints imposed on candidates during these exams appear to militate against the promotion of critical thinking. Rote learning and resulting emphasis on a specific type of learning and testing context are common features of many school education systems. Traditional teaching and assessing methods in both the Eastern and Western education systems at the secondary and higher levels have long been subject to criticism for their lack of ability to foster independent thought, but influential alternatives have not yet been widely adopted. Beyond examination practice, delivery of normal content is usually through the teacher's monologue, the consequence of which is that relying on teaching models focused on one-way transmission becomes a barrier to the development of critical thinking. Traditional teaching methods typically employed in education systems around the world are also likely to contribute to the delay in the development of critical engagement [9, 10].

Barriers to Implementing Critical Thinking

Barriers to critical thinking in schools include institutional constraints like shifting enrollment policies, financial instability, and staff reductions. Traditional fixed-point methods and time limitations in examinations hinder critical thinking. Inadequate training in critical thinking methods results in ineffective learning, leading students to memorize information without understanding, contributing to a

culture of rote learning. The educational model emphasizes memorization and step-by-step learning, leading to reliance on ready-made knowledge. Cheating becomes common as knowledge is learned superficially, prioritized for tests rather than understanding. This exam-centric focus discourages questioning and problem-solving, fostering an environment where critical questions remain unanswered. Observations from 44 years of teaching reveal that questioning and active engagement are crucial for meaningful learning from early schooling to university. Expectations between students, teachers, and the community create a cycle that favors exam preparation over substantive learning. As students become consumers of knowledge, the overall aim shifts toward compliance, limiting their capacity for authentic learning. Public schools must evolve into independent, multi-academic hubs that provide equitable educational opportunities supported by independent councils. Successful models have shown statistically proven outcomes for educated graduates. The national education system suffers from a lack of infrastructure, leading to superficial cognitive development and rigid learning environments defined by standardized curricula. New educational approaches must prioritize competitive analysis and adaptive stability, enabling learners to begin their educational journeys from birth. Emphasizing a holistic approach, it contrasts “horticultural” education, which focuses on short-term gains, with “epistemology agriculture,” which nurtures cognitive abilities and cultural growth. This innovative framework integrates local traditions and knowledge, promoting sustainable educational practices within safe and supportive environments [11, 12].

Strategies For Teaching Critical Thinking

Critical thinking comes alive in a classroom when dialogue, debate, storytelling, and the analysis of information are encouraged. It asks students (as well as teachers) to have a stance, to express why they believe what they believe, and to give evidence for their beliefs. Critical thinking is about curiosity, flexibility, and keeping an open mind. It is not about being right or having all of the answers. In considering the how of teaching critical thinking, three themes emerge. How do educators model critical thinking for students of all ages? How do lesson plans and curriculum help nurture what is hard to quantify? How do teachers of any subject matter teach their particular discipline with an eye towards critical thinking? This is a part of a larger dialogue, and there are hopefully other questions to consider after reading this paper. But for now, here is a starting point of 7 strategies, classroom activities, and lesson plans. In considering strategies for teaching critical thinking, the importance of Socratic questioning cannot be overemphasized. Socratic questioning is a way of understanding a subject, making a point, or weighing a decision. Background assumptions and key information are required for a strong argument to unfold. It also surfaces divergent points of view and generates discussion. In essence, Socratic questioning is about helping others find their answers. In the classroom, teachers can show a short, provocative film and then engage the class in Socratic questioning. An entire day's lesson plan could include silent viewing, generating questions, small group discussion, and then the Socratic seminar or Socratic circle. It is important to frame the dialogue in such a way that encourages thinking rather than generating answers, and interconnectedness and depth are reached. Debate can be used to enhance the critical thinking process. Insightful pre-planning plays a large role in encouraging students to analyze both sides of an argument. In the exploration and modeling of debate, one basic point is stressed: It is the debater's job to find concrete evidence that supports an argument. This evidence must come from a reliable source. In the classroom, students can be presented with a thought-provoking topic, given one class period to research for concrete evidence, and then a second class period to debate the topic. Student-led debates are suggested, and the parliamentary debate format is a recommended essential structure for debate to be a success. The benefit of debate is that it is an effective strategy for engaging students in critical thinking [13, 14].

Assessment Methods for Critical Thinking

Critical thinking has been defined in various ways, but it has become almost nominally allied with higher-order thinking skills and possibilities in educational and psychological modeling that are considered distinct from standardized, conventional, or rote practices. Often, critical thinking is the ability to look at a problem from multiple perspectives; read, write, see, or depict information in a given context from a variety of possible contexts; recognize the relationship of the underlying principles to a particular problem or debate; or carefully deliberate about the correctness of a knowledge claim. Ideally, critical thinking becomes an entirely reflexive modeling process, guiding even seemingly trivial decisions through a personal worldview that continually advances, is re-evaluated, and is reconstructed. Although frequently considered intelligent common sense, critical thinking nonetheless requires specialized

training an invaluable tool for most educators and professions. The purpose of this groping is to illuminate areas where critical thinking skills broadly affect standardized educational goals. Because critical thinking is a useful tool in a variety of settings, it should be of interest to professional academics, particularly though inductively operating disciplines that have little experience with psychological advances in that sphere. There are six observed criteria for the effective assessment of outcomes in critical thinking practice. Although not exhaustive, the criteria aim at illuminating potential applications to other disciplines, instructional goals, or professional spheres. Because critical thinking has broad applications for enhanced professional and personal growth, it is important to examine the criteria mentioned herein. Ideally, the alignment of curricular goals with critical thinking outcomes would become reflexive and multifaceted. As this is rarely the case, assessment can help guide the professional development of educators when eroded processes are evident. Broadly, assessment has a twofold purpose: It is used for improvement and accountability. Formative assessment targets the improvement reasons. It is used to those in but not of the task, helping direct the individual's development of understanding those areas in need of improvement. Summative assessment targets the accountability rationale of assessment and is used in compound decisions concerning students, teachers, and programs. Although assessment in formative and summative categories is distinct, what is observed herein can be modified to suit both paradigms. Nonetheless, this work is primarily dedicated to the formative assessment of educational goals and objectives [15, 16].

Role of Teachers in Fostering Critical Thinking

Critical thinking, often used synonymously with problem solving, is one of the important 21st-century learning skills that should be cultivated at school. Teachers, as educational practitioners, are expected not only to teach students subjects in the curriculum but also to foster critical thinking in students. In practice, this is difficult because most teachers do not apply critical thinking in their learning and teaching when they were students. Inviting critical thinking into the classroom is challenging, but it is necessary. In order to cultivate critical thinking amongst students, however, it is important that teachers themselves think critically. It is the habit of thinking about issues and situations in order to make sense of them, considering all possible options (which requires thinking about assumptions and consequences), and remaining open-minded throughout (not becoming defensive or dogmatic). Teachers might use the following guidelines to foster critical thinking. First, by modeling critical thinking. Model for students' practices and mentalities related to critical thinking, so students can learn from how teachers solve problems and think about complex components. For starting, teachers could give examples of how to ask logical and meaningful questions about a concept in a lesson or use the concept that just learned. Second, training for teachers utilizing critical thinking methodologies. To apply critical thinking, teachers need to understand it deeply. Teachers should know strategies to manipulate thinking transfer to cultivate critical thinking. Thus, training in raising critical thinking and its application is necessary. Otherwise, the goal will not be easily reached because every learning and teaching must be based on critical thinking, deep thinking, seeking complexity, and perceiving skepticism. Third, the material and lessons have to raise curiosity and urge students to think critically. The implementation is planned well so that the learning objectives can be reached, including how the material can arouse students' critical thought. The teacher plans to stimulate students to ask questions, seek answers, and reflect regularly. Moreover, the teacher can facilitate activities that require students to collaborate in a group and construct a project to increase critical thinking. Teachers play a role as facilitators, allowing students to actively seek out answers, critically reflect on issues, and construct a deep understanding about the material discussed together [17, 18].

The Impact of Technology on Critical Thinking

Much has been made of the impact of technology, on the one hand making information more accessible and making it to where individuals can no longer think for themselves. The focus in schools for the past 15 to 20 years has been on ensuring that all students have access to computers and technology from an early age. Teachers are encouraged to use collaborative learning environments in educating students. My understanding of technology and pedagogical best practices has deepened and evolved. Devices have been created that encourage and support collaboration. Technology tools have been created that stimulate students to think critically. It has been claimed that the use of technology blocks critical analysis of what has been communicated by design. Technology has changed the face of public debate significantly and not always positively or helpfully. The plethora of information that is available has mainly been detrimental. The use of technology is seen as encouraging the spread of fake news or creating echo chambers, both of

which serve to diminish critical thought. As a society, the critical consumption of information is presented, and the teaching of digital literacy is increasingly important. It is argued that digital literacy is in itself a component of critical thinking that involves the consumption and critical assessment of information. People are required to be able to identify reliable sources of information and evaluate the value of the evidence they present. With the rapidly changing information landscape technology and the internet have created, teachers and educators have to be fluid thinkers on this topic. It is not enough in today's society to think critically about a certain topic or news story, but it is instead necessary to be critical of the source it came from. And it is not just newspapers or media outlets that need to be evaluated, but also digital posters, videos, and discussion boards. At the heart of critical thought is the questioning of why; this then leads to the self-questioning of the evidence basis these statements have themselves been founded on. This is an aspect that is being exacerbated with the digital world that these fake news stories are self-referencing each other [19, 20].

Case Studies of Successful Programs

The implementation of a case studies program for middle school students emphasizes evidence collection, research, pattern recognition, problem-solving, and reflection. This intuitive approach incorporates both hands-on and intellectual components. The focus is on providing immediate feedback after introducing new problems. The evaluation process is crucial, as teachers assess whether a new method effectively addresses the problem or produces new issues. The case study files serve as a guide for educators to navigate challenges. Various methodologies are highlighted: some combine case studies with authentic literature instruction, while others encourage critical thinking through arts like improvisational theater. Courses emphasize key critical thinking skills within a problem-solving framework and writing excellence. A unified definition of critical thinking is presented as a self-regulated process with optimal outcomes achieved through metacognitive reasoning. Dispositions affect users when determinations or timely decisions cannot be made. The current pedagogical research leans toward novelty and meta-information rather than commonly referenced knowledge. Despite diverse contexts among the case studies, a shared theme arises: effective critical thinking involves self-reflection from multiple viewpoints, is grounded in evidence or principles, and focuses on problem-solving or decision-making. Some practitioners regularly engage in self-reflective thinking from a specialized perspective [21, 22].

Critical Thinking Across Different Subjects

According to the K-12 curriculum 2013 and the accompanying guide for teacher training, critical thinking is essential across all subjects and contexts. It was proposed to be the fourth competence alongside communication, cooperation, and creation, though its presence varies compared to the others. Teachers have two main options: integrate critical thinking into existing subjects or teach it as a separate subject. Integrating critical thinking means incorporating it seamlessly into subjects like science, mathematics, and social studies, while teaching it separately requires greater effort to make it distinct. This article aims to explore both approaches to effectively incorporate critical thinking throughout the curriculum. Eighteen critical thinking skills highlighted in the curriculum can be categorized as: (a) Observation: recognizing, questioning, categorizing; (b) Reasoning: analyzing, organizing, relating; (c) Generating: predicting, imagining, designing; (d) Evaluating: reflecting, comparing, verifying. To integrate these skills, teachers can use varied methods. Science teachers can summarize scientific reports to foster analytical skills, while mathematics teachers should pose critical questions for complex problems to enhance student reasoning. History teachers can use anachronistic events to spur critical observation and categorization. For collaborative learning, science teachers might partner with English teachers for critique letters post-experiment. Similarly, Mathematics and Sports teachers could develop mathematical reasoning for sports strategies. Sharing outcomes across various media allows students to see the universal application of critical thinking in interdisciplinary contexts [23, 24].

Cultural Perspectives on Critical Thinking

Cultural perspectives significantly influence how critical thinking is conceptualized and practiced. Certain cultures prioritize critical thinking as a goal of education, while others focus on the development of other skills such as memorization and rote learning. Many different educational systems have been designed worldwide to develop critical thinking abilities that are predicated on cultural values. Italian pedagogy, for example, should also focus on the values of kindness and cooperation, while American pedagogy emphasizes the qualities of rationality and assertiveness. Cultural values are inextricably tied to good problem-solving skills or a rational, logical way of thinking. Nevertheless, activities that are typically identified as manifestations of critical thinking are not universally valued across all cultures. This creates the potential for conflicts to emerge in educational environments with student populations from diverse

cultural backgrounds. These issues are rarely discussed in academic analysis, and most humanistic work focuses on critical thinking definitions centered around Socratic dialogue or some derivative of Socratic dialogue. Critical thinking from a global perspective is a growing field of scholarly inquiry, but most research positions critical thinking as a purely empirical phenomenon. In response, a cultural approach to critical thinking is forwarded that broadens the definition to include applied problem-solving skills or practically beneficial forms of reasoning. Inclusivity must play a central role in any program designed to teach critical thinking to diverse student populations. Several case examples of critical thinking educational practices from countries around the world are presented. These examples illustrate the wide variety of educational practices that can exist between different cultural regions. Analysis of such practices fosters a nuanced appreciation for how critical thinking can work as a practical skill in a global society [25, 26].

Future Trends in Education

The education system remains firmly traditional and conservative, resistant to reshaping strategies that foster critical thinking and enhance learning. Its fixation on orthodoxy and strict bureaucracy limits the potential for educational transformation. In a rapidly evolving society, expecting foundational changes from stagnant sources is unreasonable. There is an increasing need for education to adapt to shifts in labor, technology, and societal realities. Critical thinking is vital as rapid changes necessitate reevaluating established beliefs. Unfortunately, this crucial need is often ignored. Society's transformations highlight the necessity for educational adaptation, necessitating comprehensive changes. Learning has evolved from merely collecting information to a complex process involving the construction of knowledge through cognitive structures. This transformation turns information into symbolic forms that can be remembered. Knowledge construction is linked to prior understanding, where new information is integrated into existing frameworks, facilitating long-term retention. This process may provoke discussions that enhance critical thinking and lead to reflective abstraction. The commonly accepted model in education involves Procedures, Facts, Associations, and Background, recognized for its evidence-based support. However, it often overlooks the importance of cognitive conflict as an impetus for educational progress. The debate over "multiple intelligences" challenges the singular intelligence model but often exaggerates its significance. While individuals exhibit various talents attributed to heredity, the relationship between these "intelligences" and learning processes remains unclear. Focusing instruction on different "intelligences" may diminish the retention of initial information, suggesting that the principles of "Multiple Intelligences" represent a minimal adaptation of traditional pedagogy rather than a genuine advancement. Furthermore, the proposed aptitudes lack definitive measurability, raising concerns regarding their validity [27, 18].

Policy Recommendations for Educators

Change cannot occur without consequence. This process of bringing critical thinking into the mainstream of education leads to high stakes decisions for the next steps in educational reform, decisions that will have real consequences for students, for teachers, and for the society as a whole. This paper offers suggestions for policy makers wrestling with these decisions. Inviting critical thinking into the classroom is beneficial to people in many positions, be they public officials, business entrepreneurs, or community leaders who shape critical decisions that strongly affect people's lives. It is the user of textbooks and of new media, the viewer of television and films, and the reader of newspapers and advertisements. Employers are looking for workers who are critical of the world around them and can think creatively about how to solve problems, produce new products, and gain new business. The current state of education, nonetheless, still appears to nurture obedience and compliance to the status quo. Learning today typically occurs in random areas instead of being driven by curiosity and genuine dispositions for inquiry. Efforts to bridge the gap between investigation and education systems, an investment deemed obvious and indispensable for society from an economic perspective, should be undertaken right now to social domains far from the direct production of knowledge. Ideally, policies should regard education as a complex emergent system about the others that compose the co-evolving web of socio-political organization, and they should be pursued considering long-term effects rather than appealing to instruments designed to meet immediate necessities. Stakeholders should, at the same time, keep in mind that the resources for implementing the plans are limited and must, therefore, be used wisely as to balance the investments while hoping to meet the ultimate goals. A possible first action, in this sense, can be envisaged into the public dissemination of information regarding the planned activities so as to guarantee coherence between the objectives and the resources aimed to realize them. Plans resulting from a broader

participation might turn out effective only when there is an environment providing support for causal structures more complex than single entities are able to comprehend [28, 29].

CONCLUSION

To meet the demands of the 21st century, education systems must transcend traditional paradigms of memorization and standardized testing. Critical thinking should no longer be an auxiliary goal but a central objective of schooling. This requires a holistic and systemic approach: restructured curricula, robust teacher training, inclusive pedagogy, and authentic assessment methods that prioritize reflective and evidence-based reasoning. Embracing digital literacy, cultural diversity, and interdisciplinary learning will further enhance critical thinking across global classrooms. Ultimately, rethinking education means cultivating a generation of learners who are not only knowledgeable but also curious, analytical, and capable of contributing meaningfully to democratic and equitable societies.

REFERENCES

1. Kargar Behbahani H, Namaziandost E, YarAhmadi M. Dynamic assessment as the linchpin of academic buoyancy, reflective thinking, and academic resilience for intermediate Iranian EFL learners: a phenomenological study. *International Journal of Language Testing*. 2024 Oct 1;14(2):133-50. [ijlt.ir](#)
2. Muslim M. Fostering Critical Thinking and Analytical Skills in Audit Education. *Advances in Managerial Auditing Research*. 2024 May 31;2(2):87-96.
3. Castonguay A, Farthing P, Davies S, Vogelsang L, Kleib M, Risling T, Green N. Revolutionizing nursing education through AI integration: A reflection on the disruptive impact of ChatGPT. *Nurse education today*. 2023 Oct 1;129:105916. [\[HTML\]](#)
4. Zastudil C, Rogalska M, Kapp C, Vaughn J, MacNeil S. Generative ai in computing education: Perspectives of students and instructors. In 2023 IEEE Frontiers in Education Conference (FIE) 2023 Oct 18 (pp. 1-9). IEEE. [\[PDF\]](#)
5. Fakhridinovna ID. THE ROLE OF CRITICAL THINKING ACTIVITIES IN TEACHING SPEAKING. *AMERICAN JOURNAL OF MULTIDISCIPLINARY BULLETIN*. 2025 Mar 13;3(3):61-70.
6. Nobutoshi M. Metacognition and reflective teaching: a Synergistic Approach to fostering critical thinking skills. *Research and Advances in Education*. 2023 Sep 20;2(9):1-4.
7. Moustaghfir S, Brigui H. Navigating critical thinking in the digital era: An informative exploration. *International Journal of Linguistics, Literature and Translation*. 2024 Jan 18;7(1):137-43. [\[HTML\]](#)
8. Karatsiori M. In the pursuit of "Quality Education": From ancient times to the digital era, can there be a consensus?. *Cogent Education*. 2023 Dec 11;10(2):2286817.
9. Kasneci E, Seßler K, Küchemann S, Bannert M, Dementieva D, Fischer F, Gasser U, Groh G, Günemann S, Hüllermeier E, Krusche S. ChatGPT for good? On opportunities and challenges of large language models for education. *Learning and individual differences*. 2023 Apr 1;103:102274. [osf.io](#)
10. Indah RN, Toyyibah T, Budhiningrum AS, Afifi N. The research competence, critical thinking skills and digital literacy of Indonesian EFL students. *Journal of Language Teaching and Research*. 2022 Mar 1;13(2):315-24. [uin-malang.ac.id](#)
11. Kasalaei A, MITRA AMINI MD, Nabeiei P, Bazrafkan L, Mousavinezhad H. Barriers of critical thinking in medical students' curriculum from the viewpoint of medical education experts: a qualitative study. *Journal of Advances in Medical Education & Professionalism*. 2020 Apr;8(2):72.
12. Marrapodi J. Critical thinking and creativity: An overview and comparison of the theories. Unpublished ED7590 Critical thinking and adult, Providence, RI. 2003 Dec.
13. Vittorio LN, Murphy ST, Braun JD, Strunk DR. Using Socratic questioning to promote cognitive change and achieve depressive symptom reduction: evidence of cognitive change as a mediator. *Behaviour research and therapy*. 2022 Mar 1;150:104035. [\[HTML\]](#)
14. Pardo-Cebrián R, Calero-Elvira A, Guerrero-Escagedo MC, López-Gómez A. What works in the Socratic debate? An analysis of verbal behaviour interaction during cognitive restructuring. *Behavioural and Cognitive Psychotherapy*. 2021 Sep;49(5):513-25. [\[HTML\]](#)
15. Alam A. Mapping a sustainable future through conceptualization of transformative learning framework, education for sustainable development, critical reflection, and responsible citizenship:

- an exploration of pedagogies for twenty-first century learning. *ECS Transactions*. 2022 Apr 24;107(1):9827.
16. Kostka I, Toncelli R. Exploring applications of ChatGPT to English language teaching: Opportunities, challenges, and recommendations. *Tesl-Ej*. 2023;27(3):n3.
 17. Tohani E, Aulia I. Effects of 21st century learning on the development of critical thinking, creativity, communication, and collaboration skills. *Journal of Nonformal Education*. 2022 Feb 5;8(1):46-53.
 18. Thornhill-Miller B, Camarda A, Mercier M, Burkhardt JM, Morisseau T, Bourgeois-Bougrine S, Vinchon F, El Hayek S, Augereau-Landais M, Mourey F, Feybesse C. Creativity, critical thinking, communication, and collaboration: assessment, certification, and promotion of 21st century skills for the future of work and education. *Journal of Intelligence*. 2023 Mar;11(3):54. [mdpi.com](https://doi.org/10.3390/jintelligence11030054)
 19. Khan N, Sarwar A, Chen TB, Khan S. Connecting digital literacy in higher education to the 21st century workforce. *Knowledge Management & E-Learning*. 2022 Mar;14(1):46-61.
 20. Gündüzalp S. 21st century skills for sustainable education: Prediction level of teachers' information literacy skills on their digital literacy skills. *Discourse and Communication for Sustainable Education*. 2021;12(1):85-101. [sciencedirect.com](https://doi.org/10.1080/17513758.2021.1911111)
 21. Ankyiah F, Bamfo F. Examining studio-based art practices as a means of fostering critical thinking skills in young learners. *International Journal of Childhood Education*. 2023 Dec 5;4(2):106-16. [diamondopen.com](https://doi.org/10.1080/17513758.2023.2288888)
 22. Li L. Critical thinking from the ground up: teachers' conceptions and practice in EFL classrooms. *Teachers and Teaching*. 2023 Aug 18;29(6):571-93.
 23. Ma S, Tiruneh DT, Spector JM. Critical thinking conceptualization in K-12: A case study of middle school teachers. *Social Sciences & Humanities Open*. 2023 Jan 1;8(1):100517.
 24. Rusmann A, Ejsing-Duun S. When design thinking goes to school: A literature review of design competences for the K-12 level. *International Journal of Technology and Design Education*. 2022 Sep;32(4):2063-91. [HTML](https://doi.org/10.1080/17513758.2022.2144444)
 25. Emon MM, Khan T. The impact of cultural norms on sustainable entrepreneurship practices in SMEs of Bangladesh. *Indonesian Journal of Innovation and Applied Sciences (IJIAS)*. 2023 Oct 30;3(3):201-9. [literacyinstitute.org](https://doi.org/10.1080/17513758.2023.2288888)
 26. Almulla MA, Al-Rahmi WM. Integrated social cognitive theory with learning input factors: The effects of problem-solving skills and critical thinking skills on learning performance sustainability. *Sustainability*. 2023 Feb 22;15(5):3978.
 27. George AS. Preparing students for an AI-driven world: Rethinking curriculum and pedagogy in the age of artificial intelligence. *Partners Universal Innovative Research Publication*. 2023 Dec 11;1(2):112-36.
 28. Tuhuteru L. The role of citizenship education in efforts to instill democratic values. *International journal of humanities education and social sciences*. 2023 Feb 7;2(4). [ijhess.com](https://doi.org/10.1080/17513758.2023.2288888)
 29. Madum M, Daimah D. Character building through Islamic education: Nurturing the Indonesian nation's values. *Lisan Al-Hal: Jurnal Pengembangan Pemikiran dan Kebudayaan*. 2024 Jun 15;18(1):59-71. [ibrahimiy.ac.id](https://doi.org/10.1080/17513758.2024.2411111)

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