

Beyond Critical Thinking: Integrating Critical and Creative Thinking in Moroccan Education

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Abstract

One of the main characteristics of the teaching of critical thinking in Morocco is that it does not appear to have undergone sufficiently rigorous research to evaluate its current status, practices, and underlying educational philosophy. More research is therefore needed to examine how critical thinking is currently understood, taught, and assessed in Moroccan education.

Critical thinking has not yet been fully established as a systematic educational practice. It is often included within the teaching of reading and writing, particularly through questions asked about a text as part of other subjects. In Morocco, there is not necessarily a dedicated critical-thinking class across educational levels in which critical-thinking skills are independently taught and assessed.

Therefore, critical thinking is not consistently taught as a subject with clear methodologies, theoretical foundations, systems, and structured exercises. It is also often taught separately from creative thinking, assuming that creative thinking and critical thinking have different methods and serve different purposes.

The main proposal is to combine critical thinking and creative thinking by asking students to question the assumptions, reasoning, and evidence before asking them to consider new ways of looking at the ideas presented. We suggest ten ways of combining critical thinking and creative thinking and propose questions that fulfil the two functions: questioning ideas and suggesting, and even designing, new ones.

Therefore, instead of treating critical thinking and creative thinking as two separate skills, we propose developing a single-question framework in which critical thinking becomes the starting point for creative production.

1. Introduction

Critical thinking is one of the most discussed topics among educators, higher education ministry officials, thinkers, and educational development researchers. However, in the case of Morocco, it can be seen that critical thinking has not been sufficiently identified, explained, investigated, or used in a systematic manner. This may be due to the fact that educators in general, and curriculum designers in particular, do not always see critical thinking as a scientific skill that can be systematically taught in the same way that mathematics and language are taught.

In fact, critical thinking is often treated as an embedded skill within the subjects taught. In Morocco, some practices are generally considered to promote critical thinking, such as asking students open-ended questions, asking them to give their opinions, or asking them to evaluate a particular text. However, these practices are mainly found in reading and writing activities.

McPeck (1981) discusses critical thinking in relation to education and emphasizes the importance of understanding the relationship between critical thinking and the subject matter in which it is practiced.

A study on the effects of task-based learning (TBL) in chemistry experiment teaching on promoting high school students' critical-thinking skills found that TBL had an effect on improving critical-thinking skills among chemistry students.

Bailin, Case, Coombs, and Daniels (1999), in their discussion of common misconceptions of critical thinking, analyze three widely held conceptions of critical thinking: critical thinking as one or more skills, as mental processes, and as sets of procedures. They argue that these conceptions are misleading or, at best, unhelpful. According to the authors, such conceptions have contributed to the view that critical thinking is best taught simply by practising it. They therefore propose alternative approaches to the teaching of critical thinking.

The aim of this article is to shed light on the methodology that can be used to improve critical-thinking skills in Moroccan schools. The main question that the study tries to answer is: How can we move from an unsystematic way of teaching

critical thinking to a systematic way of teaching it? Several studies have examined how Morocco deals with this topic.

2. Literature Review

Eddimani and Brigui (2024) address the lack of emphasis on critical-thinking instruction and implementation in Moroccan reading classes. Their study examines teachers' use of reading materials to cultivate Moroccan EFL learners' critical-thinking skills and dispositions and points toward the need for new classroom pedagogies.

Ouahani and Hiba (2023) highlight the importance of critical thinking in Moroccan higher education and discuss the challenges it faces. The authors also propose ways to improve critical-thinking practices. They argue that the practice of critical thinking is limited in Morocco and is mainly practiced through reading and writing. This suggests that critical thinking is not always taught as a separate subject or systematically developed across different areas of learning.

Chouari (2016) primarily aimed to investigate students' perspectives on critical thinking in Moroccan higher education. The study addressed three research questions: What are university students' perceptions and attitudes toward the critical-thinking course in Morocco? To what extent are Moroccan students satisfied with the course content and the teacher's pedagogy? What are the views of Moroccan university students about the critical-thinking examination?

Aouaf, Azzouzi, and Housni (2023) carried out a study to identify the barriers that stand in the way of teaching critical thinking in two Moroccan universities from the students' point of view.

Van Gelder (2005) proposes several guidelines that can be used for teaching critical thinking. Although he recognizes the importance of theoretical knowledge, he emphasizes that practice remains a critical component of teaching critical thinking. He also argues that the transfer of critical-thinking skills needs to be practised.

Kuhn (2010) proposes developing science education in terms of argumentation. The concept of science as argument, and the view that engaging in scientific argumentation should play a key role in science education, has become widely endorsed. Kuhn argues that this objective can be enhanced by developing a broader understanding of the nature of argument skills and their patterns of development. This includes considering the cognitive challenges that students face and the skills they need to acquire in order to successfully engage in scientific argumentation.

Barta et al. (2022) compared traditional methods of teaching critical thinking with concept mapping. Their meta-analysis found that concept mapping can contribute to the development of students' critical-thinking abilities and dispositions.

3. Research Methodology

Regarding the methodology of the research, the study examines the current situation of critical thinking in Morocco by reviewing existing practices and arguing for the development of practical steps to improve critical-thinking skills. This study argues in favor of developing specific methods to make its teaching more systematic, rather than leaving it as an embedded and unsystematic skill. Such methods could make critical-thinking instruction more effective in Moroccan schools. These steps are presented in a framework that could help teachers develop the teaching of critical thinking. This idea is centered around the proposition that critical thinking should be combined with creative thinking to make learning more useful and informative.

4. Proposed Theoretical Framework for Teaching Critical Thinking by Combining It with Creative Thinking

4.1 Combining Critical Thinking and Creative Thinking

In critical thinking, students need to learn to question the assumptions, premises, and reasoning in a text and then assess whether claims are sufficiently supported (Song et al., 2020). They are also expected to learn the distinction between fact and opinion. This can be considered one of the more systematic steps because it requires

students to deal with a text through clear concepts and criteria. Students can be asked to identify claims, determine whether evidence is provided, and examine whether the evidence supports the claims being made.

Combining critical thinking and creative thinking means moving beyond simply asking students what they think and toward teaching them how to think creatively about what they read, hear, and write. This study proposes that the teaching of critical thinking can also be developed through creative-thinking methods. Such an approach could help students become not only better critical thinkers but also more systematic, scientific, and creative thinkers.

4.2 Ten Ways of Combining Critical Thinking and Creative Thinking

4.2.1 Uncovering the Assumption and Substituting It with Another

What assumptions underlie the statement? Suggest a new assumption and present your argument.

4.2.2 Prediction

What does the speaker mean by this statement, and what do you think the speaker would say next?

4.2.3 Fixing

Explain what could be wrong with it, then propose your own solution or conclusion.

4.2.4 Opposition

Highlight what is positive and negative, but consider what could be more important than the positive and negative aspects.

4.2.5 Substituting, Transforming, or Modifying

How can you change the idea in connection with a new set of criteria or a different point of reference?

4.2.6 Functioning

Recognize the criticism, but put it into use from a different point of view or highlight a different aspect.

4.2.7 Perspective Shifting

Students analyze the same situation but add different viewpoints or perspectives.

4.2.8 Unexpected Analogy

Students analyze an idea critically and then reconsider it through an unexpected comparison or create their own metaphors.

4.2.9 Transforming

Students transform, combine, or reinterpret the question.

4.2.10 Connecting

Students, after analyzing an idea, connect it with new words, concepts, and associations.

Conclusion

This study has proposed a new model for teaching English critical thinking to students, particularly in my own classes, with a specific focus on reading and writing. The model follows a series of structured steps drawn from philosophical thinking, analysis, and systematic reasoning in order to help students become more methodical in their analysis of texts. Rather than relying solely on imagination, this approach equips students with practical tools that can make their critical thinking more systematic, methodical, and advanced.

In the Moroccan educational context, critical thinking is often reduced to open-ended questions tied directly to the reading or writing text. These questions, while open in nature, may leave students feeling that they need to rely mainly on intuition or imagination. This may be one reason why both students and teachers are not particularly enthusiastic about teaching or learning critical thinking. It is not always treated as a distinct subject, but rather as a loose extension of existing text-based activities, often limited to critiquing an author's ideas in a non-systematic way.

What this study proposes, instead, is to make critical thinking more systematic by introducing clear rules, tools, and methods that balance creativity with scientific reasoning. In other words, the model seeks to combine creative thinking and systematic analysis to produce a more structured form of critical thinking.

Admittedly, this study is only a preliminary proposal. A comprehensive scientific analysis would require broader investigation, and further work is needed to fully explore the teaching of critical thinking in Morocco. The current research is limited in that its proposed solutions are drawn from a relatively narrow set of sources. More extensive studies should therefore be conducted to refine and expand these proposals. Nevertheless, this paper offers an initial framework that may help clarify the future of critical-thinking instruction by making it more explicit and accessible to students and teachers, as well as to educators and curriculum developers more broadly.

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