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| RESEARCH ARTICLE

Investigating Teachers' Use of Reading Materials to Cultivate Moroccan EFL Learners' Critical Thinking Skills and Dispositions: Towards a new classroom pedagogy

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| ABSTRACT

The study addresses the insufficient focus on critical thinking implementation and instruction in reading lessons in Moroccan EFL high school classrooms, emphasizing its critical role in improving learners' analytical skills. In today's rapidly evolving world, the ability to think critically has become more vital than ever. With a deluge of information bombarding us from various sources, it is imperative for learners to develop the skills necessary to analyze, evaluate, and interpret information objectively. Critical thinking empowers individuals to make informed decisions, solve complex problems, and engage in meaningful discussions, enriching both personal and professional lives. The primary objective of the current study is to explore teachers' perceptions towards the use of supplementary reading materials to cultivate learners' critical thinking skills and dispositions. The study was conducted with 292 public Moroccan high school teachers from different regions. The quantitative data was analyzed using frequencies, means and standard deviations of EFL high school teachers' responses to the questionnaire with SPSS software program (ver. 20.0), As for the qualitative side of the data, the researcher used thematic analysis. The present study found that teachers held positive opinions about the value of teaching critical thinking and use of reading materials to cultivate these skills. However, the results revealed that teachers have inadequate knowledge about critical thinking skills and dispositions. Also, the vast majority of the respondents reported that they do not develop or select reading materials that enhance critical thinking skills and dispositions. The study yields various pedagogical implication both for pedagogical purposes and further researcher .

| KEYWORDS

Critical Thinking Skills and Dispositions, Moroccan EFL High School Teachers, Reading Materials development and selection

| ARTICLE INFORMATION

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1. Introduction

1.1 The Statement of the Problem

Children naturally progress through various levels of thinking as they grow, yet Nickerson (1988, as referenced by Nagappan, 2000) argues that students often fail to reach their full thinking potential. Nagappan emphasizes that educators should aim to enhance students' thinking quality, helping them think more deeply, consistently, and productively. He also points out that in our technologically advanced world, critical thinking is essential for true literacy, not just the ability to read (Nagappan, 2000). Similarly, Brady (2008) agrees, stressing that students need to move beyond rote memorization to develop a comprehensive set of thinking skills necessary to tackle the complex challenges they face. He concludes that students must adapt to an ever-changing reality by utilizing higher-order thinking skills.

Critical thinking empowers individuals to make informed decisions, solve complex problems, and engage in meaningful discussions, enriching both personal and professional lives. This suggests that every teacher is supposed to evaluate different

reading materials that are responsive to their learners' needs and interests, adapt them, and supplement them in a way that is appropriate to the context in which they will be implemented. Reading materials serve as a gateway to new ideas, perspectives, and knowledge. When carefully selected, they can inspire critical thinking by presenting information in a way that sparks curiosity and encourages deeper exploration.

Many scholars have emphasized the need to teach critical thinking skills and dispositions since these are essential skills for students to achieve academic success at college and in their professional careers and social lives. Critical thinking allows students to:

– Analyze and evaluate information effectively.

– Make informed decisions based on evidence.

– Develop innovative and creative ideas.

– Solve complex problems.

– Understand and evaluate arguments.

– Communicate effectively

Additionally, Teachers have started to recognize the importance of materials in maximizing students' language learning. In other words, things have started to change due to teachers' awareness of the importance of engaging students in decision making about materials to be used in teaching in terms of the way learners would like to learn and what they want to learn in today's world. This suggests that materials development will help teachers improve their pedagogical practices (Tomlinson, 1998). As they develop materials to meet the different learning styles, and different cultural backgrounds, they become more effective practioners.

However, as a researcher who conducted a preliminary classroom observation before, I noticed that many teachers stick to the use of the textbook as if it is the only material that can be used to facilitate language teaching and learning. They take it for granted that commercial textbooks supply what is needed to meet both learners' and teachers' expectations. However, materials developers as well as teachers should analyze carefully the needs of learners and the context in which the materials are going to be implemented. In this regard, Tomlinson (2003) pointed out that "teachers throughout the world need little training, experience, and support to become materials developers who can produce imaginative materials of relevance and that can appeal to their learners" (Tomlinson, 2003, p. 4). This suggests that teachers do not have to rely blindly on the textbook. Instead, they should bring materials that are appropriate to their learners' styles, linguistic backgrounds, ages, needs and educational settings so that they can help them develop their critical thinking skills. Teachers are the only ones who really know how to assess their learners' needs. For this reason, teachers should be encouraged to use supplementary reading materials besides the textbook. In this sense, Nunez and Tellez (2008) concluded that there is no complete textbook that can fulfill both learners' and teachers' expectations.

In the context of this study, it is important for teachers to design systematic reading materials that are consistent with the vision to improve students' ability to explore knowledge independently and to develop their thinking skills with. Teachers are supposed to facilitate a learning activity based on critical thinking and creative thinking skills as described by Agusta & Noorhapizah (2019) that just 39,5% of teachers in Banjarmasin realize that a lesson plan should contain critical thinking and creative thinking and about 60,5% elementary school teachers in a Banjarmasin city do not have a good understanding of the concept of critical thinking and creative thinking. Teachers should encourage students to ask questions and reflect on what they have read in their reading classroom. This shows that there is a need to help second language learners in their reading classroom so that critical thinking skills will improve.

2. Literature Review

2.1 Definition of critical thinking

Critical thing has long been considered as one the primary skills needed for students to succeed in college life and in the workplace. It has been much given attention and consideration by researchers and ELT practitioners, but it is worth mentioning that there are plenty of views on the nature of critical thinking and what it really means. This shows that there is lack of agreement among scholars with regard to the nature and definition of CT (Lai, 2018).

The literature indicates that the concept of critical thinking has its origins mainly in the disciplines of philosophy, psychology, and education (Lewis & Smith, 1993; Stenberg, 1986). As a result, these three fields have each developed distinct frameworks and understandings of what critical thinking entails. Philosophical perspectives often focus on the logical and analytical aspects of critical thinking, emphasizing reasoning and argumentation. In contrast, psychological approaches tend to explore the cognitive processes and mental habits associated with critical thinking, such as problem-solving and decision-making. Educational

perspectives, on the other hand, frequently emphasize the application of critical thinking skills within teaching and learning contexts, highlighting how these skills can be cultivated and assessed in students. Each of these viewpoints contributes uniquely to our comprehensive understanding of critical thinking, and the following sections will delve into these disciplinary perspectives in greater detail.

2.1.1 Philosophical perspective

According to the philosophical approach, there are certain standards of intellectual thinking which include relevance, accuracy, clarity, consistency, depth, and breadth (Paul (1995). To put it differently, critical thinker engages in emotional and cognitive processes that guide them to find out about their real beliefs. It is clear that the focus here is on the features that characterize a critical thinker, rather than the actions that are expected to be performed by a thinker. In addition, the philosophical approach has traditionally focused on the application of formal rules of logic (Lewis & Smith, 1993; Sternberg, 1986).

A number of philosophical definitions of critical thinking emerged from the philosophical tradition. As a case in point, Dewey (1910) defined critical thinking as "active, persistent, and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and the further conclusion to which it tends" (p. 9). This suggests that critical thinking is about developing problem solving skills rather than the memorization of facts . In the same vein, Ennis (1985) described CT as "reflective and reasonable thinking that is focused on deciding what to believe or do" (p. 45). Another definition was provided by (Facione, 1990) in which he defined CT as the "purposeful, self-regulatory judgment which results in interpretation, analysis, evaluation, and inference, as well as explanation of the evidential, conceptual, methodological, criteriological, or conceptual considerations upon which that judgment is based" (p. 3).

To sum up, critical thinking is a multifaceted cognitive process that involves reflective and reasonable thinking, aimed at deciding what to believe or do. It encompasses the propensity and skill to engage in activities with reflective skepticism, facilitating good judgment through reliance on criteria, self-correction, and sensitivity to context. Critical thinking is goal-directed and purposive, characterized by disciplined, self-regulatory judgment that results in interpretation, analysis, evaluation, and inference. It emphasizes the importance of meeting standards of adequacy and accuracy, and making judgments in a reflective way. Ultimately, critical thinking exemplifies the perfections of thinking appropriate to specific modes or domains of thought, enabling individuals to make informed decisions based on a thorough examination of evidential, conceptual, methodological, and criteriological consideration

2.1.2 Critical thinking from a psychological perspective

Unlike the philosophical approach, the cognitive psychological approach focuses on the process of thinking and its role in the development of individual's knowledge and skills instead of giving attention to the logical reasoning and perfection of thinking relying on empirical research. (Lai, 2011; Lewis & Smith, 1993). Critical thinking within this frame, can be defined with reference to the higher order thinking skills that result in thinking critically. In this regard, Willingham (2007) describes CT as "seeing both sides of an issue, being open to new evidence that disconfirms your ideas, reasoning dispassionately, demanding that claims be traced by evidence, deducing and inferring conclusions from available facts, solving problems, and so forth". (P.8). Critical thinking can be viewed as the set of cognitive skills that can help in connecting events with their causes, and the ability to make inferences and deduce conclusions as well as the ability to take into account all parts of an issue and to be open minded about it. Cognitive and developmental psychologists, neglected the fact of giving attention to the manner and conditions under which thinkers should think, and they were more interested in how individuals think, act and behave (Sternberg, 1986).

Definitions of critical thinking that have emerged from the cognitive psychological approach include:

- "the mental processes, strategies, and representations people use to solve problems, make decisions, and learn new concepts" (Sternberg, 1986, p. 3).

- "the use of those cognitive skills or strategies that increase the probability of a desirable outcome" (Halpern, 1998, p. 450); and

- "Seeing both sides of an issue, being open to new evidence that disconfirms your ideas, reasoning dispassionately, demanding that claims be backed by evidence, deducing and inferring conclusions from available facts, solving problems, and so forth" (Willingham, 2007, p. 8).

2.1.3 Critical thinking from an educational perspective

Educational professionals and specialists have also contributed and engaged in the discussion and conceptualization of critical thinking. As a case in point, Benjamin Bloom and his colleagues developed a taxonomy of information processing in 1956. It is considered to be one of the most widely used frameworks used by teachers and ELT practitioners for teaching and assessing higher

order thinking skills. Numerous scholars refer to bloom's taxonomy to describe critical thinking" (Dam and Volman). It is worth mentioning that the taxonomy is hierarchical in nature identifying two levels of thinking: lower-level skills and higher-level skills. Lower-level skills include knowledge, comprehension, and application, while higher-level skills include analysis, synthesis, and evaluation. These levels are hierarchical in the sense that learners cannot reach the highest levels of thinking unless they go through the lower-level skills. This implies that educators should take into consideration this fact when developing learning materials that can help reach the learning outcomes.

Bloom's taxonomy was revised by Anderson et al (2014) to include two significant dimensions: the knowledge domain, and the cognitive domain. The first involves four kinds of knowledge: factual, conceptual, and meta-cognitive. The other domain, on the other hand, involves remembering, understanding, applying, analyzing, evaluating, and creating.

2.2 Critical Thinking skills

Skill	Experts' consensus description	Subskills
Interpretation	Comprehend and express the meaning or significance of a wide variety of experiences, situations, data, events, judgements, conventions, beliefs, rules, procedures or criteria.	• Categorisation • Decode significance • Clarify meaning
Analysis	Identify the intended and actual inferential relationships among statements, questions, concepts, descriptions or other forms of representation intended to express beliefs, judgements, experiences, reasons, information, or opinions.	• Examine ideas • Identify arguments • Identify reasons and claims
Evaluation	Assess the credibility of statements or other representations that are accounts or descriptions of a person's perception, experience, situation, judgement, belief, or opinion; and to assess the logical strength of the actual or intended inferential relationships among statements, descriptions, questions or other forms of representation.	• Query evidence • Conjecture alternatives • Draw logically valid or justified conclusions
Inference	Identify and secure elements needed to draw reasonable conclusions; to form conjectures and hypotheses; to consider relevant information and to reduce the consequences flowing from data, statements, principles, evidence, judgements, beliefs, opinions, concepts, descriptions, questions, or other forms of representation.	• Assess credibility of claims • Assess quality of arguments using inductive and deductive reasoning
Explanation	To state the results of one's reasoning; to justify that reasoning in terms of the evidential, conceptual, methodological, criteriological and contextual considerations upon which one's results were based; and to present one's reasoning in the form of cogent arguments.	• State results • Justify procedures • Present arguments
Self-regulation	Self-consciously to monitor one's cognitive activities, the elements used in those activities, and the results educed, particularly by applying skills in analysis and evaluation to one's own inferential judgements with a view toward questioning, confirming, validating, or correcting either one's reasoning or one's results.	• Self-monitor • Self-correct

Adapted from Facione (1990)

Table 1: Critical thinking skills adapted from Facione (1990)

The table above shows that the cognitive skills and mental abilities included in CT are: interpretation, analysis, evaluation, inference, and self-regulation. This implies that critical thinkers judge the meaning of a statement, identify relationships, make correct and valid inferences from the data, and interpret the results and arguments on the basis of the given text.

2.3 Critical thinking dispositions

Although many researchers working on critical thinking did not agree on a specific conceptualization, they all believe that critical thinking involves both skills and dispositions (Facione, 1990). Facione (2000) defines critical thinking dispositions as "consistent internal motivations to act toward or respond to persons, events, or circumstances in habitual, yet potentially malleable ways" (p. 64). They are important and need to be paired with critical thinking skills to achieve the goal of having a well-rounded critical thinker (Abrami at al., 2015). Yet, abilities and dispositions are two different entities. According to (Reichenbach, 2001), "A disposition is a tendency to act or think in a certain way" (p.14). This implies that dispositions are attitudes, habits, and willingness to perform tasks under different conditions. In addition, (Facion, 200) defines dispositions as "consistent internal motivations to act toward or respond to persons, events, or circumstances in habitual, yet potentially malleable ways" (p. 64). Davies & Barnett (2015), suggest a taxonomy of critical thinking dispositions into three different categories: dispositions arising in relation to the self, in relation to others, and in relation to the world.

Dispositions arising in relation to self	Dispositions arising in relation to others	Dispositions arising in relation to world	Other
✓ Desire to be well-informed ✓ Willingness to seek or be guided by reason ✓ Tentativeness ✓ Tolerance of ambiguity ✓ Intellectual humility ✓ Intellectual courage ✓ Integrity ✓ Empathy ✓ Perseverance Holding ethical standards	✓ Respect for alternative viewpoints ✓ Open-mindedness ✓ Fair-mindedness ✓ Appreciation of individual differences ✓ Skepticism	✓ Interest ✓ Inquisitiveness ✓ Seeing both sides of an issue	✓ Mindfulness ✓ Critical ✓ spiritedness

Table 2 : Critical thinking dispositions CTD

Generally, researchers listed a set of dispositions of critical thinking which include the following:

- Open-mindedness (Bailin et al., 1999; Ennis, 1985; Facione 1990, 2000; Halpern, 1998);
- Fair-mindedness (Bailin et al., 1999; Facione, 1990);
- The propensity to seek reason (Bailin et al., 1999; Ennis, 1985; Paul, 1992);
- Inquisitiveness (Bailin et al., 1999; Facione, 1990, 2000);
- The desire to be well-informed (Ennis, 1985; Facione, 1990);
- Flexibility (Facione, 1990; Halpern, 1998); and
- Respect for, and willingness to entertain, others' viewpoints (Bailin et al., 1999; Facione, 1990).

2.4 Developing Critical Thinking through Reading Materials

Developing learners' critical thinking skills and dispositions is crucial for academic success and personal growth. One effective way is through engaging with appropriate reading materials that meet their interests, language proficiency, age, and cultural background. This will help captivate students while fostering analytical skills. These materials provide valuable insights into relevant topics, encouraging students to evaluate arguments and understand different perspectives (Facione, 2015).

Reading materials play a vital role in fostering critical thinking skills and dispositions. By providing structured content, promoting analytical and evaluative thinking, and encouraging synthesis of information, these materials help learners develop

essential cognitive skills. Additionally, materials that challenge students to consider diverse perspectives, engage in inquiry, and evaluate evidence foster dispositions such as open-mindedness, curiosity, and skepticism, which are essential for critical thinking. As education continues to evolve, the thoughtful design and use of learning materials will remain crucial in preparing students for the complexities of the modern world.

The incorporating of diverse reading materials into the educational process is a powerful strategy for developing learners' critical thinking skills. By engaging with a variety of texts and employing effective methods of interaction, educators can foster a generation of critical thinkers equipped to navigate the complexities of the modern world. In fact, the ability to think critically is not just an academic skill; it is a vital life skill that prepares learners for informed citizenship and thoughtful participation in society. Through intentional integration of reading materials, educators can significantly contribute to the development of these essential skills, empowering students for lifelong success.

In the context of this study, it is important for teachers to design systematical reading materials that are consistent with the vision to improve students' ability to explore knowledge independently and to develop their thinking skills with. Teachers are supposed to facilitate a learning activity based on critical thinking and creative thinking skills as described by Agusta & Noorhapizah (2019) that just 39,5% of teachers in Banjarmasin realize that a lesson plan should contain critical thinking and creative thinking and about 60,5% elementary school teachers in a Banjarmasin city do not have a good understanding of the concept of critical thinking and creative thinking. Teachers should encourage students to ask questions and reflect on what they have read in their reading classroom. This shows that there is a need to help second language learners in their reading classroom so that critical thinking skills will improve.

2.5 Reading Materials Development in the Moroccan EFL classroom: Curriculum guidelines and Strategic vision of reform 2015-2030

Materials development is a field of study which has recently acquired significant importance in the Moroccan context because it helps teachers improve their teaching practices. However, materials development in Morocco is governed by the guidelines of teachers of English as well as the strategic vision. This section sets out to shed light on how these two official documents affect teachers' development of materials for their learners.

Since the dependence of Morocco in 1956, Morocco has been trying to adapt and implement different educational reforms with the aim of improving the quality of education. One of the reforms the country launched years ago was the strategic vision to take place 2015-2030. This vision addresses problems that have not been addressed in previous reforms. Among these problems is educational quality which is considered as one of the main priorities of this vision. This vision sets out to establish a new school set on three major pillars; equity and equality for opportunities, education quality for all , and the promotion of individuals and society . As shown in the following figure, the new school has five major functions.

Figure 1: The main functions of the new school (Strategic vision of reform 2015- 2030)

3. Methodology

3.1 Objectives of the study

The present study seeks out to cast light on the use of reading materials in Moroccan EFL classrooms and their effect on the development of learners' critical thinking skills and dispositions. It seeks, mainly, to gain insights into teachers' knowledge of the basic concepts related to critical thinking. Moreover, it intends to identify the major challenges that teachers face when adopting and adapting their own reading materials. In addition, the study tries to elicit teachers' perceptions about reading materials in general to find out whether they create materials that are responsive to the context in which they teach.

3.2 Research Questions

Based on the above objectives, the present study attempts to answer the following questions:

1) What is Moroccan EFL high school teachers' knowledge regarding critical thinking skills?
2) What are the perceptions of Moroccan EFL high school teachers regarding critical thinking skills and dispositions instruction?
3) Do Moroccan EFL high school teachers develop reading materials that promote learners critical thinking?
4) What challenges do Moroccan EFL high school teachers encounter when developing reading materials that promote learners' critical thinking skills?

3.3 Participants

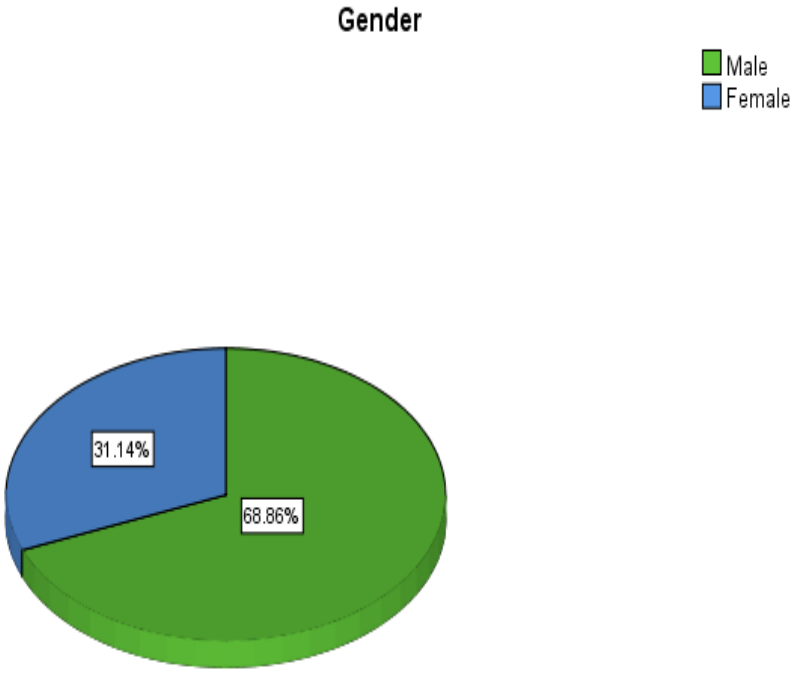

Figure 2 : Gender distribution of the participants

The present study included 292 public high school teachers from various regions across Morocco, ensuring a diverse sample representative of different educational contexts within the country. Out of the total participants, 68.86% were male, and 31.14% were female. This distribution illustrates a higher proportion of male teachers.

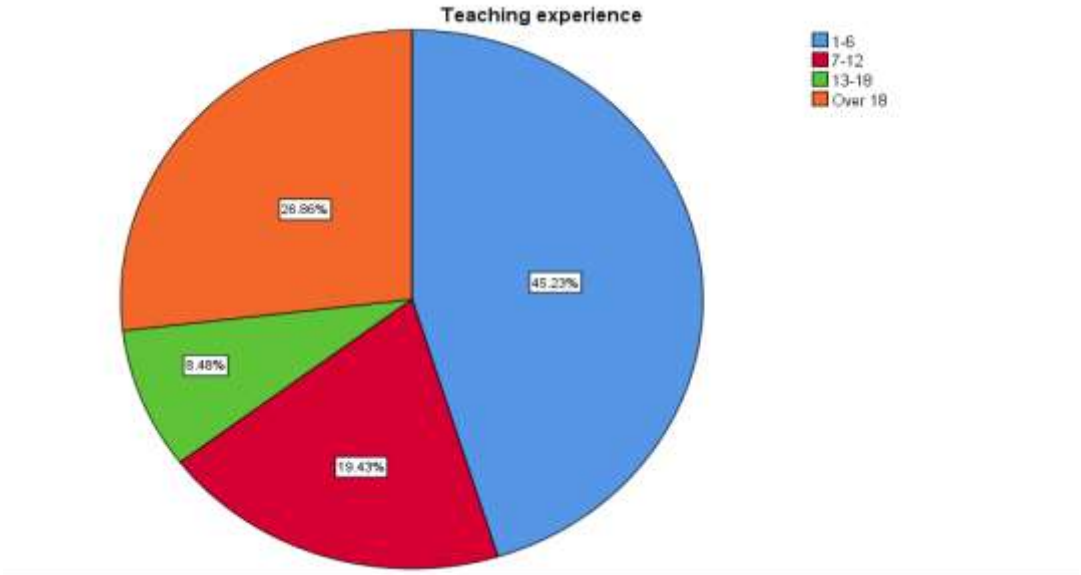

Figure 3: The distribution of participants' teaching experience

The participants in this study reflected a diverse range of teaching experience. A substantial portion, 45.23%, had between 1 and 6 years of teaching experience, representing early-career educators who bring fresh perspectives and recent training. Teachers with 7 to 12 years of experience comprised 19.43% of the sample, positioned in mid-career stages where practical experience has enhanced their teaching methods. Those with 13 to 18 years of experience made up 8.48% of participants, indicating a smaller yet significant group of teachers with extensive classroom practice. Lastly, 26.86% of participants had over 18 years of experience, representing highly seasoned educators with deep expertise. This distribution provides a comprehensive view across different stages of professional development, enriching the study with insights from both newer and more experienced teachers.

As for the educational background, the vast majority of the respondents hold a BA degree representing (55,96) of the participants. Moreover, 34,66 of the participants hold a master' degree degree. Another 9,39 of the public high school teachers who responded to the questionnaire hold a doctorate degree. The chart below shows the distribution of the educational background of the public high school teachers who responded to the questionnaire.

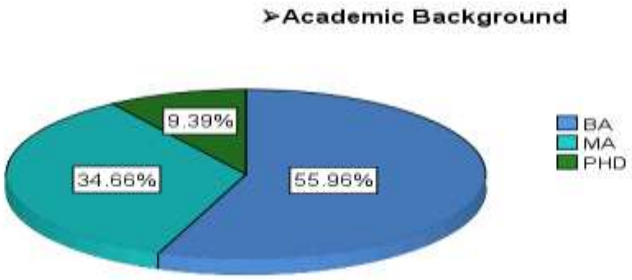

Figure 4: The distribution of participants' academic background

3.1 Research Instrument

The researcher used a questionnaire as an instrument of data collection. Thomas (1998) defined the questionnaire as "a series of questions people answer about their life condition, beliefs, or attitudes" (p.162). In other words, the questionnaire can serve the purpose of eliciting teachers' perceptions about certain issues, or about their practices, and it may also serve the aim of identifying the challenges that they encounter in their teaching practices. In other words, the questionnaire can serve the purpose of eliciting teachers' perceptions about certain issues, or about their practices, and it may also serve the aim of identifying the challenges that they encounter in their teaching practices.

In relation to the advantages of a questionnaire, Thomas (1998) argues that they are reliable, presenting honest results as they are anonymous, they are time and money saving and they can be answered at a convenient time for respondents. In addition, it is potentially informative if it is well used. Moreover, considerable care needs to be taken with regard to the wording of the questions and their format to obtain the type of responses hoped for. However, the questionnaire has a number of shortcomings. For instance, the respondents may not take it seriously, and therefore, the results cannot be reliable. The most difficult part of a questionnaire may be in obtaining a sufficient number of representative responses back. Other obvious problems with questionnaires are their length which affects their practicality, and the possible misinterpretations of the questions by the respondents.

Questionnaires may contain different types of questions depending on the way they are phrased. Thus, questions may be identified as closed or open-ended. Closed questions may take formats such as yes/no questions or numerical scales like the Likert scale.

The questionnaire used in this study comprises open ended and close-ended questions. In addition, a five-point Likert scale was used for the measurement of teachers' dis/agreement on the following variables: perceptions, challenges they face when developing/ selecting reading materials that enhance critical thinking skills and dispositions and the criteria they take into account when developing/selecting materials for their learners. Open-ended questions, on the other hand, were mainly concerned with teachers' perceptions about reading materials and the challenges they face, and also whether they are satisfied with the reading materials they are using or not. The questionnaire of the current study is divided into three sections. The first section contains questions related to the respondents' background information. For instance, the subjects are asked to identify their gender (male / female), their academic background (BA/MA/ PHD), and whether they had training in critical thinking development. The second section, on the other hand, contains Yes-No questions which aim to test teachers' understanding of some basic concepts related to critical thinking. Also, this section, a five-point Likert scale (strongly agree, agree, neutral, disagree, and strongly disagree). It is a scaling method that measures either positive or negative responses to a statement. In contains ten statements that aim to determine how Moroccan EFL teachers perceive reading materials. That is to say, the scale sets out to find out the different views that teachers hold toward the use of reading materials to enhance critical thinking skills and dispositions. The last section contains Yes-No questions and open-ended questions which aim to find out whether teachers are satisfied with the reading materials they use in EFL classrooms, the criteria they take into account when developing materials, and the challenges they face when engaged in this process.

3.1 Data Collection Procedures

The data collected through the questionnaire using a website called Qualtrics. The latter gave the researcher the chance to design an online questionnaire that can be directly linked to SPSS, which facilitates the process of analyzing the data. The reason behind using an online survey is that it is very useful and practical for both the participants and the researcher. Creswell (2012) points out that a mailed questionnaire can facilitate "quick data collection, often in as little time as 6 weeks from the first mailing to the conclusion of data collection. A mailed questionnaire is economical because it involves only duplication mailing expenses." (p.383).

The questionnaire was uploaded to the internet with the site address as an online submission form and made available for teachers to access and complete for a period of two months. It is worth nothing that the link was also shared with Moroccan ELT supervisors who played a vital role by asking the teachers under their supervision to complete the survey. In addition, the survey was emailed individually to high school teachers. The researcher kept reminding and insisting on teachers who might have forgotten to fill in the questionnaire. A total of **292** responses to the online survey were completed.

4. Results and Discussion

The study assessed teachers' knowledge of critical thinking through a series of statements, revealing varying levels of agreement and understanding. Teachers strongly agreed that "Critical thinking is useful in Western cultures as well as Eastern ones" (M = 1.06, SD = .238), indicating recognition of its universal applicability. Similarly, there was notable agreement on the belief that "Critical thinking enables one to think more deeply" (M = 1.01, SD = .092), suggesting a solid grasp of its cognitive benefits. However, moderate agreement on statements such as "As people grow older, they naturally develop as critical thinkers" (M = 1.25, SD =

.435) and "If a statement is unclear, we benefit by asking what our purpose is in saying it" (M = 1.45, SD = .399) reflects some uncertainty about the relationship between age and critical thinking, as well as the importance of clarity in communication. Teachers expressed strong views that "Critical thinking is self-disciplined" (M = 1.18, SD = .381) and that it plays a crucial role in reading comprehension (M = 1.05, SD = .212), indicating an understanding of the effort and importance associated with critical thinking. However, the statement "Implications are conclusions you come to in a situation" received the lowest agreement (M = 1.61, SD = .489), suggesting a significant gap in understanding this critical aspect of the thinking process. Additionally, while teachers moderately agreed that "Critical thinkers use subjective standards to assess thinking" (M = 1.24, SD = .430), the belief that "Critical thinkers learn to ignore their emotions when making important decisions" (M = 1.04, SD = .193) suggests a misunderstanding of the role emotions can play in rational decision-making. Overall, these findings indicate that while teachers possess a foundational knowledge of critical thinking, there are specific areas, particularly concerning implications and the interplay of emotions in decision-making, that require further development to enhance their effectiveness as educators.

Based on the findings of the study, it seems that teachers lack knowledge about critical thinking. This reinforces Lauer's (2005) statement purporting that teachers may not have all the tools necessary to incorporate critical thinking into their courses. When taking into consideration that none of the questions in the survey were answered correctly by all participants, one may believe that training institution need more instruction when it comes to critical thinking. In both objectives there were different consistencies in the answers. One statement in section one of objective one "Critical thinking enables one to think more deeply," was answered false when it is actually true. Statements like this were often answered incorrectly. Likewise, the perception of critical thinking is often different then what is actualized and this is reflected in Rhoades et al. (2008) comment that every teacher thinks they are teaching critical thinking.

The findings suggest that teachers have inadequate knowledge about critical thinking skills. The present results are in line with some previous studies (Lauer, 2005; Alazzi, 2008; Stedman & Adams, 2012; Qing et al., 2012 Alwadai, 2014) that found teachers to have unsure knowledge about critical thinking. Moreover, Alwadai's (2014), concluded that Saudi teachers failed to teach critical thinking skills to their students due to their own lack of knowledge of critical thinking skills, and how to apply them in their classrooms.

Table 3: Moroccan EFL high school teachers perceptions towards critical thinking instruction

Statement	Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
11. Critical thinking is a method of thinking which would help students enjoy the learning process.	46,64%	44,39%	7,17%	1,35%	0,45%
12. Critical thinking should always include a reflective component.	37,22%	55,16%	4,93%	1,79	0,90%
13. As a teacher, I am aware when students use critical thinking in my courses.	29,15%	51,57%	14,35%	4,48	0,45%
14. I look for specific evidence of critical thinking by students in my courses.	19,73%	49,78%	23,32%	6,28	0,90%
15. I have the skills necessary to promote critical thinking by students in my courses.	13,90%	39,46%	30,04%	15,25	1,35%
16. I think that students have barriers to critical thinking, regardless of the strategies I use.	19,28%	48,43%	20,18%	10,76	1,35%
17. If required, I could implement critical thinking strategies into my courses.	33,18%	58,74%	5,38%	0,90	1,79%
18. In order for me to fully implement critical thinking into my courses I would need additional support.	37,22%	47,53%	6,28%	7,62	1,35%

The survey responses reflect teachers' perceptions and self-assessed skills related to fostering critical thinking in their classrooms. For **Statement 11**, "Critical thinking is a method of thinking which would help students enjoy the learning process," a high level of agreement (46.64% strongly agree, 44.39% agree) indicates that teachers generally believe critical thinking enhances students' engagement and enjoyment in learning. This highlights a positive perception of the role of critical thinking in fostering an interactive learning environment.

Statement 12, "Critical thinking should always include a reflective component," garnered strong support (37.22% strongly agree, 55.16% agree), suggesting that teachers recognize the importance of reflection as an essential part of critical thinking. This alignment with educational theory indicates a sound foundational knowledge of critical thinking among the teachers.

In **Statement 13**, "As a teacher, I am aware when students use critical thinking in my courses," 29.15% strongly agreed and 51.57% agreed, yet 14.35% were neutral, indicating that while most teachers feel able to recognize critical thinking, a significant portion may not be fully confident in identifying it consistently. Similarly, in **Statement 14**, "I look for specific evidence of critical thinking by students in my courses," while 19.73% strongly agreed and 49.78% agreed, 23.32% were neutral, suggesting that not all teachers actively seek concrete evidence of critical thinking, which may point to a gap in assessment practices.

For **Statement 15**, "I have the skills necessary to promote critical thinking by students in my courses," there is less certainty, with only 13.9% strongly agreeing and 39.46% agreeing, while 30.04% were neutral. This indicates that a significant number of teachers are unsure of their own ability to promote critical thinking, possibly due to a lack of confidence or adequate training in effective techniques.

In **Statement 16**, "I think that students have barriers to critical thinking, regardless of the strategies I use," a majority agreed (19.28% strongly agree, 48.43% agree) that obstacles exist, indicating that many teachers perceive external or internal barriers to students' critical thinking, which they may feel are beyond their control. This perception could affect teachers' motivation or strategy use in promoting critical thinking.

Statement 17, "If required, I could implement critical thinking strategies into my courses," received strong agreement, with 33.18% strongly agreeing and 58.74% agreeing, showing teachers' confidence in their potential to incorporate critical thinking strategies when necessary. However, **Statement 18**, "In order for me to fully implement critical thinking into my courses I would need additional support," also received high agreement (37.22% strongly agree, 47.53% agree), revealing a recognized need for further support, resources, or professional development to implement critical thinking comprehensively.

In summary, the data suggest that while teachers are generally positive about the role and importance of critical thinking, with most believing they could incorporate it if required, there is variability in their confidence levels around assessment practices, necessary skills, and the ability to overcome perceived barriers. This reflects a foundational understanding of critical thinking, coupled with a need for additional resources and targeted training to empower teachers to effectively integrate and assess critical thinking skills in their classrooms.

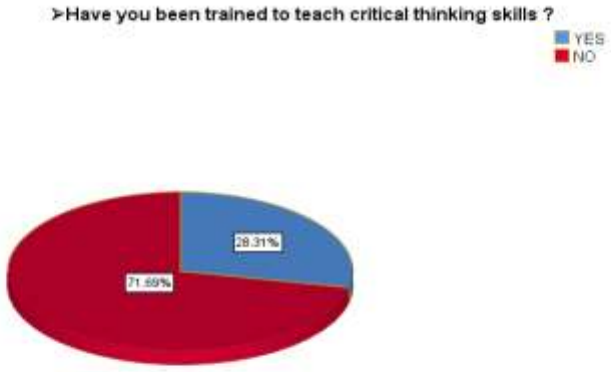

Figure 5: Teachers' training on critical thinking instruction

The data reveals that only 28.31% of teachers reported having received training in critical thinking, while the majority, 71.69%, indicated they had not. This substantial gap suggests that the majority of educators may lack formal preparation in this critical area, potentially affecting their ability to effectively promote and assess critical thinking skills in their students.

Another key factor is time limitations; 80% of respondents reported that time constraints significantly impacted their ability to incorporate critical thinking with their students. This suggests that, due to the pressure to cover all required content, teachers often lack the time needed to design reading materials that engage students in critical thinking

The low percentage of trained teachers points to a systemic issue, where professional development in critical thinking may not be sufficiently emphasized or accessible. This imbalance has significant implications, as teachers without training might feel less confident in implementing critical thinking activities or in assessing these skills in the classroom. Conversely, the 28.31% who have received training likely possess more strategies and a stronger foundation, which may positively influence their instructional practices.

The results reveal several obstacles that hinder Moroccan EFL high school teachers from incorporating critical thinking into their classrooms. The lack of effective integration was attributed to challenges such as large class sizes, the pressure to cover extensive content, students' focus on achieving high grades, insufficient critical thinking activities, time constraints, lack of training provided by the school, and limited administrative support. These findings align with Snyder and Snyder (2008), who identified four major barriers to integrating critical thinking in teaching: "(1) lack of training, (2) lack of information, (3) preconceptions, and (4) time constraints" (pp. 92-93). Additionally, the current study's findings are consistent with Kenney (2013), who…

The present study found that teachers held positive opinions about the value of teaching critical thinking. Moroccan EFL high school teachers were found to strongly agree that critical thinking engages students' higher order thinking, and supports them to become independent thinkers, and active learners. They argued that critical thinking would allow students a better understanding of course topics, enjoy the learning process, and achieve better learning outcomes.

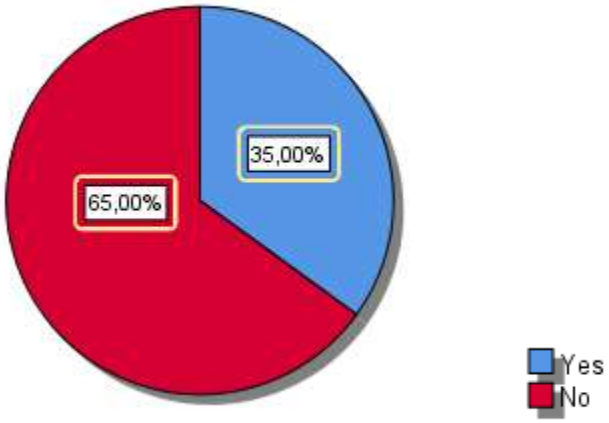

Figure 6: Teachers' development and selection of reading materials that enhance critical thinking

The results reveal that 65% of the teachers in the sample neither select nor develop reading materials that support critical thinking development. This significant percentage highlights a prevalent gap in instructional practices related to fostering critical thinking in Moroccan EFL classrooms. The findings align with those of other studies, such as Snyder and Snyder (2008), which identified barriers like limited training, time constraints, and lack of resources as common obstacles teachers face when trying to incorporate critical thinking activities. Similarly, research by Kenney (2013) indicated that teachers often lack both the knowledge and support needed to implement materials that encourage critical thinking, attributing this gap to insufficient professional development and institutional support.

The results of the study found out that Moroccan EFL high school teachers face a number of challenges when developing or selecting reading materials that enhance critical thinking skills. One of the most significant barriers is a lack of knowledge about the specific critical thinking skills and subskills needed to foster analytical thinking in students. Many teachers feel unprepared to effectively integrate these skills into their teaching due to a gap in understanding what these skills entail and how to cultivate them. This knowledge gap makes it difficult for teachers to select or create materials that promote critical thinking effectively.

Another major challenge identified by teachers is time constraints. With the pressure to cover the full curriculum within limited time frames, teachers find it difficult to dedicate the necessary time to research or develop reading materials that encourage critical thinking. The focus on completing the required syllabus leaves little room for teachers to explore or implement materials that may foster deeper, more analytical thought among students.

A further obstacle is the lack of suitable materials that can be directly used to promote critical thinking. Teachers often report difficulties in finding ready-made resources that align with their teaching goals and the specific critical thinking skills they wish to develop. This scarcity of materials not only makes it more challenging for teachers to implement critical thinking effectively but also forces them to spend additional time adapting materials or creating their own, further compounding the time and effort required.

Financial constraints also present a significant challenge. Teachers mentioned the costs associated with printing materials, especially when they need to create or adapt resources themselves. This is a particular issue in environments where resources are limited, and teachers are forced to work within tight budgets. The financial burden of printing and distributing materials often detracts from the time and energy teachers would ideally spend on instructional activities aimed at fostering critical thinking.

Overcrowded classrooms add another layer of difficulty. With large numbers of students in each class, teachers find it harder to implement critical thinking exercises that require individualized attention and feedback. The classroom environment becomes less conducive to engaging students in deep, reflective thinking, as managing such large groups limits opportunities for meaningful interaction and personalized guidance.

In addition to logistical and resource-based challenges, student disinterest is another issue that hampers the promotion of critical thinking. Teachers report that some students are not engaged with activities designed to develop critical thinking skills, which makes it harder for teachers to motivate and sustain interest in these types of exercises. Without student buy-in, even the best-designed activities may fail to have the intended impact on developing critical thinking.

Finally, many teachers adhere strictly to the official syllabus, which is set by the Ministry of Education. As a result, they are often reluctant to seek or design additional materials that go beyond the prescribed curriculum. This strict adherence to the syllabus limits the flexibility that teachers have in selecting materials that could better promote critical thinking, further constraining their ability to implement strategies that support higher-order thinking.

5. Conclusion and Implications

To address the limited knowledge and lack of training in critical thinking among teachers, a series of targeted pedagogical recommendations can be made to support the development of critical thinking in Moroccan EFL classrooms. First, schools and educational authorities should implement professional development programs specifically focused on critical thinking, covering foundational concepts, practical classroom strategies, and methods for assessing students' progress. Also, there is a need for workshops that will equipe teachers with necessary skills needed to select and design effective reading materials that encourage critical thinking would be invaluable; these should guide teachers in identifying texts that promote analysis and in designing materials that go beyond surface-level comprehension to foster deeper engagement. Additionally, integrating reflective practices, such as student journals and collaborative learning activities, would help build critical thinking dispositions by encouraging students to evaluate diverse perspectives and justify their ideas. Cultivating a supportive school culture that values critical thinking is essential, and administrators can play a role by providing curriculum time for these activities and recognizing teachers' efforts in this area. Establishing a resource bank of curated reading texts, lesson plans, and questioning templates would further assist teachers by offering practical, ready-to-use materials. Moreover, critical thinking should be embedded across the curriculum, with language teachers collaborating with colleagues in other subjects to create a cohesive approach to skill development across disciplines. Finally, encouraging teachers to engage in regular reflection and feedback, through peer observations and self-assessment, would foster continuous growth in their ability to teach critical thinking effectively. By embracing these recommendations, schools can create a supportive framework that empowers teachers to cultivate critical thinking skills and dispositions in their learners, thus enhancing educational outcomes.

6. Limitations of the Study

While this study has provided valuable insights, it is important to acknowledge its limitations. One of the limitations is the research design that was implemented, which typically involves a small sample size. As a result, the findings may not be representative of the larger population. Additionally, the study did not conduct an experiment in real classrooms, which could have provided a more comprehensive understanding of the benefits and limitations of implementing critical thinking skills and dispositions in reading classes. Including student feedback on the effectiveness of the implementation of critical thinking could have provided insight into the practical implications of the findings.

Based on the limitations identified in this study, further research is needed to gain a more comprehensive understanding of the implementation of critical thinking instruction in reading classes. Specifically, more research is needed to explore students' beliefs about the impact of reading materials on their critical thinking skills and dispositions. Methodologically, a mixed approach based on triangulation could provide more valid and reliable results to enrich materials development and critical thinking domain. Further research is necessary to address these important questions and to build upon the findings of this study

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