Teaching Critical Thinking in Moroccan Higher Education: Challenges and Opportunities

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Abstract
To respond to the challenges of the 21st century, most universities had to make radical modifications in their systems. In Morocco, the recent modifications made at the level of modules brought some promises as teachers were also involved in decision-making. However, Moroccan students' voices went largely ignored during this process. Therefore, the main aim of this study was to understand students' opinions about one of the most important courses they studied after the last reform: "Critical Thinking". Three research questions were used: What are university students' perceptions and attitudes toward the critical thinking course in Morocco? To what extent are Moroccan students satisfied with the course contents and the teacher's pedagogy? What are the views of Moroccan university students about the critical thinking exam they took at the end of the semester? Semi-structured interviews were used to collect the data from 10 respondents. Qualitative content analysis was used through coding and classifying emerging patterns and themes. The results showed that although the students were generally satisfied with the course contents, they bitterly complained about different issues such as the theory-practice gap. The results, also, revealed that implementing any change in higher education without taking into consideration students' needs and interests might be detrimental to the teaching-learning operation. Ultimately, this study offers university teachers of critical thinking a toolkit of skills and competencies for effective teaching.
Keywords: critical thinking, effective teaching, logic, student-centeredness

Introduction

The twenty-first century is marked by quick change, pitiless economic competition, and unprecedented amounts of information. To respond to such challenges, people today are supposed to be more knowledgeable, well-informed, and good autonomous thinkers. The international job market requires degree-holders who are quick decision-makers, risk-takers, problem-solvers, and competent critical thinkers. Court (1991), for instance, reasons that

For tomorrow's world, which is just around the corner, we need creative, questioning individuals, well informed and literate, who can work together to devise solutions to many problems that face us. These individuals should not be schooled in value-free reasoning but should be taught basic values of respect for persons and for the earth and all its creatures (1991, p. 119).

Thus, to cater for the demands of the twenty-first century, educational organizations in different countries of the world are now trying to offer quality education to their students (Bell, Stevenson, & Neary, 2009). This quality can be seen at different levels of these organizations but more precisely at the level of the courses they offer. A quick examination of university courses, mainly in the West, shows that the critical thinking course is one of "the primary" items in the "educational agenda" of these institutions (Court, 1991).

Statement of the Problem

The recent modifications made at the level of modules and their contents in Moroccan education seem to have brought some promises and solutions as teachers were given more freedom to decide what courses to teach and what content to include. However, if teachers have been involved in the new reform in Moroccan higher education, it seems students – who are the main concern of the teaching-learning operation – are still largely ignored. So far, Moroccan students have no say in what they learn or study, and their voices usually go unheard.

The absence of Moroccan students in decision-making in Moroccan higher education can but lead to (1) lack of understanding of the learning objectives, (2) decrease in student motivation in the classroom, (3) resistance, and (4) harsh criticism of the education they receive. Thus, this study is a remedy to the above situation. More precisely, the main aim here is to give the floor, though at a small scale, to the Moroccan students to voice their opinions about one of the most important courses – that is, the critical thinking course.

Objectives of the Study

This study has different objectives. First, it aims at understanding Moroccan students' perceptions, attitudes, and opinions about the critical thinking course within Moroccan university. The second objective is to spot the main challenges and obstacles that teachers of the critical thinking course face today at the university level in Morocco. The third objective is to suggest a set of teaching skills, competencies and insights that may make pedagogical practices more effective in the Moroccan educational context in general and at university in particular.

Research Questions

In this study the following questions were investigated:

RQ 1: What are university students' perceptions and attitudes toward the critical thinking course in Morocco?

RQ 2: To what extent are Moroccan students satisfied with the course contents and the teacher's pedagogy?

RQ3: What are the views of Moroccan university students about the critical thinking exam they took at the end of the semester?

Literature Review
A Historical Overview of Critical Thinking
Scholars generally agree that critical thinking is not a new discipline as it can be traced back to the Greek era (about 2,500 years ago). Greek philosophers, such as Socrates and Plato, discovered its importance long time ago and made use of it in their long and complex debates and dialogues. In skepticism and formal logic, for example, critical thinking skills were the main tools when arguers wanted to make a point or questioned social, philosophical and political issues (Inch & Warnick, 2011).

During the Renaissance, critical thinking came to the fore. Then in the 17th century, scholars – such as Francis Bacon – used critical thinking in their scientific endeavor and made it the main tenet of scientific research (Cohen, Manion, & Morrison, 2000). However, it was in the nineteenth century that critical thinking was given its due right as a discipline in several Western countries such as England and the United States.

In the beginning of the twentieth century, critical thinking received full attention in the field of education. Scholars such as Dewey (1933) started writing about the importance of using critical thinking skills in education by both teachers and students. The importance of critical thinking in education increased in the second half of the twentieth century with Bloom's (1956) book *Taxonomy of Educational Objectives*.

In the 1980s, informal logic gained much interest both in the field of research and education. Critical thinking, hence, became part and parcel of the curriculum in developed countries in Europe and North America (Sternberg, 1985).

At the outset of the twenty-first century, the role of critical thinking in education became pivotal. Thus, most countries of the world (including developing countries) started implementing critical thinking in their curricula and at different levels of education (Inch & Warnick, 2011).

Critical Thinking in Morocco
In Morocco, critical thinking is a new concern in the field of education. In 2003, when the Ministry of Higher Education launched a large educational reform, the hallmark of that reform was the adoption of the modular system. Although many voices at that time expressed the need for implementing critical thinking in Moroccan universities, no module included critical thinking as an independent course. Now, after a decade or so, the Ministry of Higher Education introduced a second reform in the Fall Semester of 2014 to remedy to some of the ills that infested university education. This time, some universities seized the opportunity and implemented critical thinking in the curriculum. A good example here is that of the Faculty of

Arts and Humanities in Meknes (University of Moulay Ismail) where critical thinking is now taught as an independent course in the Department of English Studies. The intended learning outcomes of this critical thinking course at this faculty are as follows:

- Understand the importance of critical thinking in their academic and professional life.
- Identify the difference between an argument, a pseudo-argument, and a non-argument.
- Recognize underlying assumptions and implicit arguments.
- Understand the difference between inductive and deductive reasoning.
- Identify logical fallacies in an argument.
- Find and evaluate sources of evidence.
- Understand features of critical, analytical writing.
- Use MLA/APA styles for in-text citations.
- Use MLA/APA style to format reference lists.
- Identify a topic worthy of academic research.
- Find, evaluate, and make notes from a variety of academic sources.
- Write a critical, analytical research paper.
- Deliver an oral presentation based on library research. (Ministère de l'Enseignement Supérieur, 2014, p. 124)
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Related Literature

The literature on teaching critical thinking is so huge and varied. However, it can be broadly divided into three main categories.

First, extant literature on critical thinking shows that the concept has been extensively studied and defined by different scholars from various disciplines such as psychology, philosophy, and education (Dunn, Halonen, & Smith, 2008).

Second, there is a substantial body of studies on how to teach and test critical thinking in different educational areas (Dunn, Halonen, & Smith, 2008). Court (1991) upholds that there are at least five approaches to teaching critical thinking: (1) the process or skills approach, (2) the problem-solving approach, (3) the logic approach, (4) the information-processing approach, and (5) the multi-aspect approach (p. 115). Paul (1989), on the other hand, thinks that there are two approaches to academic instruction: a traditional and dominant approach based on a "didactic theory of knowledge, learning, and literacy"; and a new approach based on "emerging critical theory of knowledge, and learning and literacy" (p. 200). In a study by Bensley, Crowe, Bernhardt, Buckner, and Allman (2010), the findings show that there is a significant difference between students who learnt "explicit critical thinking skills" and those who "received no explicit critical thinking instruction" (p. 91).

The third category focuses on the obstacles and failures in teaching critical thinking in various parts of the world (Ennis, 1993; Sternberg, 1985, 1987). Paul (1989) argues that the heavy reliance on the "outmoded didactic lecture-and-drill-based, model of instruction" (p. 225) has led to poor critical thinking skills and little learning in the United States and Europe. Sternberg (1985) explains that "what school programs are doing to develop critical thinking have little relation to one another" (p. 194). Similarly, Kaplan (1991) directs a bitter attack on the critical thinking movement in America and concludes that it was a failure. Kaplan (1991)

concludes that "the critical thinking course tends to teach political conformity rather than political autonomy" (p. 4).

Unfortunately, in spite of the big importance of critical thinking in preparing students for their future life, reviewing the literature on critical thinking shows that there is a serious paucity of studies and research in developing countries like Morocco.

Methods
Sampling Procedure
Ten students from the Department of English Studies at the Faculty of Arts and Humanities (University of Moulay Ismail, Meknes) took part in this study. The participants came from two groups in semester five (S 5). It should also be noted here that all the participants in the sample had the same teacher and took the same exam. The sample was composed of 5 boys and 5 girls who got different grades in the final exam.

As far as the sampling procedure is concerned, "purposeful sampling" was adopted in the selection of the sample. Creswell (2003) argues that "purposeful sampling" can be used if the individuals selected in the sample have already experienced the central phenomenon under study. Accordingly, all the participants in this study experienced critical thinking for a whole semester as students in semester five at Moulay Ismail University.

The Instrument
The semi-structured interview questionnaire was used in this study to collect qualitative data from the participants. As a "conductive methods", the semi-structured interview is considered an effective method to get as much information as possible from the informants (Paton, 2002). Gillham (2005) argues that this type of instrument has several qualities such as "flexibility", "quality of data", "clarity of stages", and "superiority". He summarizes these advantages in the following:

The semi-structured interview is the most important way of conducting a research interview because of its flexibility balanced by structure, and the quality of the data obtained. The costs are high largely due to the amount of preparation involved and the level of analysis, interpretation and the presentation of the interview material required. The stages are clear but, essentially, there are no short-cuts. (Gillham, 2005, p. 70)

The interview was divided into two major parts. The first part was a warm-up and was meant to make the participants more relaxed through demographic questions. The second part was about the main concern of the interview and included several questions such as: "What were your expectations of the critical thinking course before you started the lessons?", "What are some of the activities the teacher used?", "Did the teacher use a textbook?", "Did the teacher give assignments?", (6) "What do you think of the end of the term exam?", etc. The interviews took place in the period between March 18 and March 21, 2015. Each interview was recorded and lasted around forty-five minutes.

Data Analysis

After recording the interviews, they were transcribed for data analysis. Qualitative content analysis was used through coding and classifying emerging patterns and themes. The patterns and themes were, then, developed and grouped based on the interviewees' responses (Patton, 2002).

Findings

This section presents the results obtained through the interviews conducted with 10 university students. The results presented here are related to the three research questions raised at the beginning of this study.

R.Q 1: What are university students' perceptions and attitudes toward the critical thinking course?

The majority of the interviewees in this study admitted that before taking the critical thinking course, they had either no expectations or just a very vague idea about it. Expressions such as "I was confused", "I had no idea", or "it is a new subject to me" were widely used by most of the respondents. The absence of clear and precise expectations is explicitly expressed by one of the interviewees when she said: "The only question that I had in mind was why in S 5, and not in S 4 or S 2. I said to myself it might be an amazing subject, we did not have any, any idea about it" (Interview 5).

Yet, when asked about their attitudes toward the course, the 10 respondents unanimously expressed their positive attitudes. All the respondents expressed their satisfaction with the course in general as they used positive adjectives like "useful", "helpful", fruitful", "important", and "beneficial". Most importantly, 50 % of the respondents admitted that the critical thinking caused a change in them as it made them see things differently. According to one of the respondents, "Critical thinking makes us change in how to see things. In real life, it is a means to deal with problems inside and outside the faculty" (interview 10). This view is similarly shared by another respondent when she said, "Critical thinking helps you see things from different sides and to think of things and how they are going" (interview 8).

RQ 2: To what extent are students satisfied with the course contents and the teacher's pedagogy?

Students' responses throughout the interviews show that there is a positive satisfaction with the contents of the course. More precisely, all the respondents said they were totally satisfied with the theoretical side of the course since the teacher relied on chapters from a book on critical thinking and communication. For one of the interviewees,

The teacher used just one book. This book has everything: texts, activities, exercises, stories … many things. I have no idea about the title of the book, the teacher gave us chapters, and not the book. In each chapter we had concrete examples. (Interview 1)

Still, the majority of the respondents (8 students) expressed their dissatisfaction with (1) the practical side of the course, and (2) the lack of compatibility between the contents of the course and those of the course description accredited by the Ministry of Higher Education in Morocco. Indeed, the dissatisfaction was not with all the practical side of the course, but more precisely with the types of exercises the teacher gave after presenting the theoretical

part. The absence of real life situations made the students feel unable to put into practice what they had learnt theoretically in the classroom.

Generally, all the respondents are satisfied with the pedagogy the teacher used in the classroom. The responses of the interviews showed that the teacher adopted specific roles and relied on the following procedures and activities during the lectures (Table 1):

Table 1. *Pedagogy Used in Teaching Critical Thinking in Morocco*

Procedures and activities	Teacher roles
- Lecturing - Reading: Chapter from the same textbook and comprehension questions (oral). - Written exercises (based on recognition). - Videos from YouTube (+ oral Discussion and analysis and evaluation of the arguments). - Short texts to read in the classroom followed by questions and discussion. - Reading assignments at home.	- Frontal teaching based on lectures: teacher here is the center. - Controller: mainly during the lectures. - Organizer.

All 10 interviewees recognized that what their teacher did was "great" and "informative", but they expressed their desire for more involvement and active participation in the lesson.

Yet, some respondents suggested that the lessons would have been more beneficial if other activities had been used by the teacher. One of the respondents suggested the following:

Why not using a debate by students in the classroom? It is amazing. If the students are good in applying what an arguer and what a receiver can do in an arguments, that's good; it is better than just going through the sheets without applying anything. How can a teacher tell what we mastered and what we did not in the classroom? (Interview 4)

RQ 3: *What are students' opinions about the critical thinking exam they took at the end of the semester?*

The 10 respondents explicitly said that they liked the exam they sat for at the end of the semester. This favorable attitude is due to the fact that the exam was both appropriate and similar to what they expected and were trained for. The students explained that the exam was made up of four questions. The exam questions were as follows:

(1) In one paragraph, provide a definition of critical thinking. Your answer should be personal. Plagiarized answers will be sanctioned.

(2) Write an argumentation according to the narrative pattern to explain how traditional schooling is boring.

(3) Read this letter and write a short analysis of its claim, evidence, reasoning, and sphere.

(4) Read the information provided in this ad and explain the main goal of the arguer. Then explain if this argument would be effective in the Moroccan context.

However, all the 10 respondents said that question 4 was problematic to all the students because they found it hard to understand. According to all the interviewees, the difficulty was at three levels: the language used in the advertisement, the lack of clarity of the picture, and the cultural aspect of the advertisement. The difficulty of question 4 was highly emphasized by one of the interviewees when she said:

At the beginning, I did not understand the question, but I asked professor X about the car. So, he told me that it does not exist in Morocco. From there I got the idea that it is another culture. I did not know about the brand of the car. (Interview 5)

Discussion

In this study, qualitative data were collected on the basis of 3 research questions. The results, thus, fall into three categories:
- ➢ Students' attitudes toward their critical thinking course and its contents in general.
- ➢ Students' satisfaction with the activities and the teacher's pedagogies.
- ➢ Students' opinion about the end of the term exam on critical thinking.

As far as the first category is concerned, the findings show that students started the course with different but vague expectations. In other words, it seems there is a clear absence at the level of communication between the three components of the university: teachers, administration, and students – let alone the ministry of education. Most of the students reasoned that if the course had been introduced in S 2 or S 4, they could have become more familiar with the concepts used in critical thinking. Also, although the findings show that students have a positive attitude toward the contents of the course, mainly the theoretical side, it is obvious that the students' views were not taken into consideration. Indeed, the Moroccan Ministry of Education did not conduct any students' needs analysis before implementing the new reform. What is worse, due to the amount of information and the time allotted to prepare the new contents of the courses, each course description was conducted by only one teacher before the accreditation process. In other words, the contents and objectives of each course were prepared by only one teacher, without opening the floor for more voices and more evaluation.

As regard the issue of the teacher and the pedagogies used in teaching critical thinking, there seems to be a general agreement among the interviewees that the course was successful and the teacher was effective and competent. The findings show that the teacher used a variety of activities that targeted "lower" and "higher" order thinking skills such as analysis, synthesis, and evaluation (Bloom, 1956).

Yet, the interviewees thought that their teacher relied heavily on lectures and deductive teaching. Some of the remarks made by the students clearly show that using a student-centered approach can yield better results and help students become "autonomous learners" and better "intellectual thinkers" (Kaplan, 1991). Also, the scarcity of real life situations in the classroom reduced the chance for the students to develop "citizenship competence" (Ten

Dam & Volman, 2004). Above all, it seems that teaching critical thinking is not an easy task as it requires extra skills and competencies in comparison to other courses. For example, one of the interviewees remarked: "You know, teachers do not really apply critical thinking. They should really have some kind of training for this course, and then teach it" (Interview 4).

Conclusion

This study aimed to address the challenges and promises of teaching critical thinking in Moroccan universities. The results revealed some major findings related to teaching critical thinking in Morocco. Firstly, although the students were satisfied with the theoretical side of the course, they felt that it had little impact on their daily life. Secondly, the students had positive attitudes toward that test they took at the end of the module. Yet, the findings showed that in designing critical thinking tests, teachers should take their students' cultural background into consideration. Finally, the findings indicated that any attempt to implement any change or any course without taking into consideration students' needs and interests might lead to serious threats to the promises of whatever reform in higher education.

General Implications

This study has several implications for the existing body of knowledge on teaching critical thinking in higher education. First, teachers should have some training on teaching critical thinking to develop the required skills and competencies. Second, teaching should focus more on using the student-centered approach. Activities such as problem-solving, real life situations, scenarios, and debates can yield better results as they develop students' intellectual autonomy. Focus should also be on the "co-orientational model" of critical thinking and on inductive teaching since Moroccan culture tends to be more of a "high-context" culture (Hall, 1956; Hall, 1976). Moreover, explicit critical thinking skills instruction can also be beneficial in different contexts (Bensley, et al., 2010). Finally, tests are better when they cover different aspects of critical thinking; otherwise, teachers should consider using performance tests with "real life situations" (Ennis, 1993).

Limitations of the Study

As with any study, this research paper has some limitations. The first limitation is that the sample was relatively small which did not allow for generalizing the results. The second limitation is that the data were gathered from a sample of students taught by the same teacher – that is, the voices of other students from other teachers were not included. The third limitation is related to the research method used in this study. Undoubtedly, using more than one method can yield more insights about the issues of this study.

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