Developing Critical-Thinking Dispositions in a Listening/Speaking Class

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Abstract

Studies on critical thinking (CT) in education have been of paramount importance in recent decades to help individuals develop skills such as analyzing, synthesizing, higher-order thinking, and assessing. In line with such studies, this study aims to examine aspects of critical thinking dispositions of Turkish adult learners of English in a listening/speaking class ($N = 17$) based on the inventory developed by The California Critical Thinking Dispositions Inventory (CCTDI). The study was in nature idiographic and phenomenographic with content analysis. The findings show that the participants were better in developing the aspects of being inquisitive, truth-seeking, open-minded and confident, while the aspects of systematicity, analyticity, and cognitive maturity were less developed by the participants. These developed skills included the main features of the seven aspects of critical thinking dispositions.

Keywords: critical thinking disposition, listening, second language, speaking

1. Introduction

Critical thinking has been a formulaic phrase in learning and teaching settings in recent decades, therefore, this critical approach needs to be handled with care. Gaining skills of critical thinking is multi-layered and functional in helping learners express their ideas, attitudes, and feelings. Although a wide range of definitions have been presented in the literature, it is almost impossible to give a precise and concise definition of critical thinking (Cromwell, 1992; Ennis, 1985; Facione, Sanchez, & Facione, 1993; Grosser and Lombard, 2008; Lun et al., 2010). 'Reflective and reasonable thinking that is focused on deciding what to believe or do' is one definition of critical thinking put forward by Ennis (1985). Similarly, Chaffe (2002) defines critical thinking (therefore CT) as an organization of experience, construction of knowledge and development of a philosophy of life. Paul (1990) maintains that critical thinking entails being open-minded to diversity of truths and perspectives. Brookfield (1987) depicts critical thinking as a process of identification and questioning of certain assumptions, being skeptical of one's own ideas, striving to find new alternatives and debating the given context. An inclusive definition of critical thinking was prepared by a group of researchers (Jones et al., 1995) who refer to critical thinking as interpretation, analysis, evaluation, inference, presenting, arguments, reflection, and dispositions. Another comprehensive definition was given by a group of researchers conducting Delphi report supported by American Psychological Association (APA, 1990).

"We understand critical thinking to be purposeful, self-regulatory judgment which results in interpretation, analysis, evaluation, and inference, as well as explanation of evidential, conceptual, methodological, criteriological, or contextual considerations upon which that judgment is based. CT is essential as a tool of inquiry. As such, CT is a liberating force in education and a powerful resource in one's personal and civic life. While not synonymous with good thinking, CT is a pervasive and self-rectifying human phenomenon." (Facione, 1990, p. 3.)

However, Ennis (1996) states that developing mere critical thinking ability is insufficient. Rather, it is critical thinking dispositions that need to be questioned and promoted. Perkins, Jay & Tishman (1993) emphasize that sufficiency of critical thinking disposition can be fulfilled with inclination, sensitivity, and ability. Features of critical thinkers have been defined in different ways. One of the first attempts to define an ideal critical thinker was made in Publication Manual of the American Psychological Association. This definition refers to those who can be 'inquisitive, honest, open-minded, skeptical, flexible and well-informed' while evaluating a topic and an

issue by questioning, finding convincing ideas and seeking related information, evidence or data (APA, 1990, p. 3).

In line with this definition, Facione, Sanchez, Facione, and Giancarlo (1995) found seven dispositions of critical thinking including truth-seeking, open-mindedness, analyticity, systematicity, self-confidence, inquisitiveness, and cognitive maturity. In this present study, the aspects of these seven dispositions will be taken into consideration.

As for use of CT in language teaching, teachers as practitioners have started to use CT to help learners not only discuss and negotiate meaning of words, grammar, dialogues and discourse but also analyze, synthesize, assess, question and become skeptical of topics, data and evidence brought into classroom environment (Bedir, 2013). In this sense, CT is not only about acquisition of knowledge including grammatical constructions and a list of words or collocations but about 'a complex set of abilities and a process of dealing with ideas' (Cromwell, 1992, p. 39). In this sense, CT language teachers can apply thought-provoking tasks that may push learners to come up with articulate and evidence-based ideas. Thus, conventional teaching methods may be superseded by critical teaching approach that may be assessed as a product of post method approaches. Instead of doing the repetitive tasks for the sake of syllabus given by textbooks and teachers, CT language teachers may tempt learners to approach tasks in a critical fashion.

In this study, aspects of critical thinking dispositions based on the inventory developed by The California Critical Thinking Dispositions Inventory (therefore, CCTDI) were examined including seventeen Turkish adult learners studying English as a second language in a listening/speaking class through online google group discussion platform.

1.1 Present Study

Although studies on developing critical thinking skills in EFL classes have gained momentum, research into CT in listening and speaking classes in Turkey has been inadequate. It is not clear what aspects learners develop when they are exposed to a critical thinking teaching environment. Additionally, a large body of studies uses uniform questionnaires to obtain external validity rather than examines the process to obtain internal validity. However, the manner in which aspects of critical thinking are formed by learners may be subjective and depend on sociocultural context. In this study, an idiographic and phenomenographic research method was applied to 17 participants in an EFL listening/speaking class during 2015-2016 academic years. Some elicitation tasks were used to extract and explore aspects of critical thinking skill. Therefore, any study considering this issue is thought to develop theory and practice in this field.

1.2 Research Questions

This study is idiographic and phenomenographic in nature. According to Marton (1986), phenomenography is an empirical research tradition to answer questions about thinking and learning, especially for educational research. Exploration of how people experience, conceptualize, realize and understand various aspects of phenomena in the world around them is a qualitative research method (Bowden et al., 1992). In line with this research method, the main purpose of this study is to unearth aspects of critical thinking of Turkish language learners of English by using questions to elicit categories used by the participants. In the light of this purpose, answers to the following questions were sought:

Research Question 1: What aspects can be elicited through critical thinking-skill based tasks based on CCTDI?

Research Question 2: Which aspects are used more by language learners in a critical thinking teaching environment?

2. Method

2.1 Participants

The study was composed of 17 participants studying English intensively with an emphasis on four core skills in a preparatory program, Translation and Interpreting department during 2015-2016 Academic years. Their age ranged between 19 and 21. The homogeneity of the participants was formed based on a national exam.

2.2 Coding

Aspects of CT dispositions composed of truth-seeking, open-mindedness, analyticity, systematicity, self-confidence, inquisitiveness, and cognitive maturity were determined. Basic definitions and features of these aspects were identified and coded by two independent researchers. Each participant's written sentences were coded in accordance with the content of each aspect formed by CCTDI (Facione et al., 1995).

2.3 Procedure

Elicitation tasks were used to extract aspects of critical thinking through online google group discussion platform. The study lasted 10 weeks with 40 hours in total. Each participant watched 10 TED semi-academic talks and 4 RSA animate videos and was asked to reflect upon the tasks composed of teacher performance, classroom interaction, peer evaluation and self-criticism each week. They were also asked to reflect upon grammar, vocabulary, pronunciation of TED TALK speakers, the speaker's presentation style, main ideas and supporting examples, arguments presented such as weaknesses, strengths, facts and data. Based on these criticisms, each participant also presented a topic on PowerPoint individually and syndicate within 15 minutes. After each presentation, the same process above was repeated. Their discussion essays were composed of 300-400 words and written in English. As a result of these processes, the data for the analysis was collected.

2.4 Data Analysis

Qualitative data is in nature non-linear (Dörnyei, 2007; Cresswell et al., 2003). Content analysis of the data collected from the participants was conducted. To analyze the qualitative data, aspects of critical thinking were extracted and coded by two researchers to provide objectivity related to the data. Descriptive statistics of the data was given to understand similar and different aspects used by the participants. Therefore, frequencies and percentages of specific aspects were presented.

3. Results

This study intended to examine aspects of critical thinking used by the participants. The aspects extracted from the data show that the participants developed various tendencies towards critical thinking in the process after a ten-week study. The participants were observed to exhibit aspects of CT dispositions (Facione, et.al, 1995) consisting of truth-seeking, open-mindedness, analyticity, systematicity, CT confidence, inquisitiveness, and cognitive maturity. The content analysis of the essays was coded and categorized. The descriptive statistics of the aspects is shown in Table 1.

Table 1. Descriptive statistics of aspects developed by participants

Aspects	f	%
Truth-seeking	14	82.3
Open-mindedness	13	76.4
Analyticity	8	41.1
Systematicity	10	58.8
Confidence	14	82.3
Inquisitiveness	15	88.2
Maturity	7	41.1

CT Aspects Observed

Truth-seeking

One of the most important features of truth-seeking aspect is asking questions to reach truth. 82.3% of the participants asked a lot of questions about the data given by TED and RSA speakers as well as by their peers. They tended to ask detailed questions about each topic ranging from grammar to discourse.

Open-mindedness

One of the most discussed and developed aspects was open-mindedness because 76.4% of the participants showed respect and tolerance to each other in each step of the process. They stated that they learned to show tolerance to various ideas argued in the classroom environment and developed considerable understanding related to other's different beliefs.

Analyticity

When compared to the other aspects, analyticity was the latest developed feature in 41.1% of the participants, which shows that it may take a lot of time and efforts to improve this skill since this aspect may entail conceptual and practical background. However, some participants showed the power of analyticity since they may have

made some personal efforts to develop their theoretical and conceptual features.

Systematicity

Another aspect that was developed by 58.8% of the participants was systematicity. They tended to present their ideas, discussions and data in a disorganized fashion. Their organization of the discussion about a certain topic was partially orderly and linear. 42.2% of the participants stated that they had difficulty organizing their arguments in an organized and focused fashion.

Confidence

82.3 % of the participants presented reasoned judgements while discussing the ideas in the class. They tended to act rationally by giving data and evidence, which required reading more scientific articles. However, the present study results show that developing confidence does not entail the development of analyticity and systematicity.

Inquisitiveness

One of the most developed aspects during this process was inquisitiveness. 88.2% of participants showed intellectual curiosity and desire to learn and search for new things and data to support their ideas. Therefore, it can be interpreted that they gained the habit of being inquisitive about the topics discussed in the classroom environment. They also showed tendency for perusing related topics to come up with stronger evidence.

Cognitive Maturity

Another aspect in the study was cognitive maturity which necessitates finding some flaws in the lectures watched by 41.1% of the participants. In line with the aspects of systematicity and analyticity, cognitive maturity entailed a lot of efforts to find some methodological problems in the discussions presented to them. 58.9% of the participants seem to have had difficulty developing their cognitive maturity aspect.

4. Limitations and Implications

The study had several limitations. First, the participants were not given any questionnaire or inventory since the study was idiographic and phenomenographic in nature. However, in order to overcome this obstacle, the features of CT aspects were coded by two independent researchers. Second, the number of the participants was limited to only 17 students. In this sense, a convenience sample had to be used due to the feasibility and practicality of the study. Third, the study included only online google group discussion platform. Third, causal relationships via triangulation were not taken into consideration. Fourth, another flaw in the study was that it did not control external effects into the study since the participants may have been affected by confounding factors as well. Fifth, the study did not include Perkins, Jay and Tishman's (1993) classification of and Ennis' (1987) taxonomy of critical thinking dispositions and was restricted to a particular sample, which does not allow generalizability of the findings and did not take gender factor into consideraiton. Therefore, nomothetic and idiographic data could be used to provide internal and external validity of the studies regarding critical thinking. A quasi-experimental study can be conducted in the future so that clearer findings can be obtained. Further studies may include both phenomenographic and quantitative research methods to have a more holistic view. In addition, research taking gender roles into consideration may be developed in future studies.

5. Discussion and Conclusion

The aim of this study was to explore the aspects of critical thinking. In line with this purpose, a critical thinking teaching environment was formed on google group discussion platform by giving various tasks to the participants. The results showed that the participants were better in developing the aspects of being inquisitive, truth-seeking, open-minded and confident, which was an answer to the research questions, whereas the aspects of systematicity, analyticity, and cognitive maturity were less developed by the participants. Therefore, the seven aspects of critical thinking can be assessed on a continuum by taking the percentages into consideration. Similarly, in line with the findings of this present study, Facione, Sánchez, Facione, and Gainen (1995) found that these dispositions may interact with each other and that specific combinations of these dispositions may emerge. The participants stated that they made a great effort to approach each topic discussed in the class and that each task in this sense was formidable for them. These statements allow us to interpret that analyzing discussions and data in a critical thinking environment requires hard work and efforts (Black, 2005). In addition, the participants indicated that they developed empathy, tolerance, the skills of coping, of giving constructive feedback, opportunity to learn new things, analyzing, synthesizing, categorizing and organizing. These developed skills included the main features of the seven aspects of critical thinking disposition. In addition, these elements and dispositions are personal constructs of what they think about the class, tasks, their peers and teacher (Sanberk, 2016).

It can be concluded from these findings that a critical thinking teaching environment could help foreign language learners gain awareness of academic discussions by bringing different perspectives into learning environment and questioning data and evidence presented by speakers discussing various semi-academic topics (Petek & Bedir, 2015). Similarly, Clark and Biddle (1993) maintain that a teacher cannot foster critical thinking strategies and skills in a class using traditional methods. Paul (1990) maintains that a class with active interaction between agents of learning and tasks may promote critical thinking dispositions. Similarly, Browne and Freeman (2000) state that both teachers and learners need to take risks by reflecting on classroom interaction with a critical eye by letting students constantly ask questions, handling tension arising out of questioning, interpreting conclusions on a continuum and helping learners learn actively.

It has been often stressed that using critical thinking teaching leads to acquisition of higher order thinking skills in evaluation of various topics and that lecturing and non-communicative teaching methods do not lead to development of critical thinking skills because lack of effective and efficient negotiation, discussion cooperation and collaboration in class ends in lack and loss of analyzing, assessing, synthesizing and integrating information and discussions. Therefore, learners' active involvement in classroom activities has been supported to promote critical thinking skills as well (Bedir, 2013; Paul, 1990).

Developing materials and organizing classroom environment to promote critical thinking disposition entails hard work for both teachers and learners so that learners can analyze, synthesize, integrate and assess learning items in a critical way (Bedir, 2013). Therefore, teachers as practitioners should often find new ways to create differentiation in classroom setting. Since development of critical thinking skills necessitates a never-ending process, both teachers and learners need to be alert not to be fossilized and not to lose skepticism. Emergence of fossilization and repetition of the same tasks in a critical thinking teaching environment can be viewed as the main risks. Therefore, in order to do away with these risks, activities and tasks that bring differentiation into discussion environment need to be constantly updated and developed to promote critical thinking skills and dispositions.

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