

The relationship between Iranian Intermediate EFL learners' listening comprehension ability and their critical thinking skills.

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Introduction

In this age of information, critical thinking is considered crucial for people, specially educated people, to cope with a rapidly changing world. Many educators believe that for tomorrow's workers and citizens the ability to learn and make sense of new information will be more important than knowing specific knowledge (Akyuz & Samsa, 2009).

What do we mean by "critical thinking"? Socrates started the basic movement of critical thinking. He planned a method of asking meaningful questions in order to call baseless old established beliefs to question and challenge the ideas of authorities (Paul & Elder, 1997).

So far many different definitions of critical thinking have been provided and all of them have tried to define critical thinking as well as possible. Richard Paul (1993) defined critical thinking as reaching to a conclusion on the basis of observation and knowledge. Norris (1991) argued that getting relevant and reliable knowledge about the world is all that critical thinking matters.

P.A. Facion (2006) offered a definition of critical thinking that contained the core skills of critical thinking. These skills are analysis, interpretation, inference, evaluation, explanation, and self-regulation. Analysis is a person's ability to find the relation between statements and to examine alternative approaches to a problem. Interpretation happens when a person understands the meaning of different experiences and distinguishes the main ideas from subordinate ideas, and is able to categorize a problem without bias. Inference refers to a person's ability to construct meaning and to recognize the implication of a particular position. Evaluation is a person's skill to consider the credibility of ideas and to compare the strengths and weakness of alternative views and beliefs. Explanation means the ability of stating results, justifying procedures, and presenting arguments and self-regulation is self-examination and self-correction.

In recent years, critical thinking has become an important element of life success and an important topic in the world of education (Huitt, 1998) and Facion (2006) believes that one of the most important elements in education is learning to think.

According to Roy & Macchiette (2005), John Dewey (1910) in his book named "How We Think" argued that an educational system that targets constructing thinking skills and critical thinking would be helpful not only for an individual learner, but also for the society. He believed that students must be taught to examine,

question, and reflect on what they learn and schools should place a higher emphasis on critical thinking, instead of memorization.

Willsen (1997, as cited in McGuire, 2010) noticed the lack of emphasis on thinking at schools. He noted that memorization, drill, homework, the three Rs and a quiet classroom were admired, while inquiries, reflections, and finding alternative ways of tackling a problem were usually ignored. He discussed the necessity of abandonment of traditional attempts to teach our people what to think. He argued that these attempts cannot prepare people for the real world that they must encounter. Instead, we must focus on teaching ourselves how to think so that we could think critically, fair-mindedly, and deeply in order to cope with this rapidly changing and complex world.

Sternberg (2003) criticized the educational system in the United States. He stated that educational institutions instead of teaching students how to think critically or in another word how to make sense of new information they have so much emphasis on rote memorization. As the result they may tend to act based on their prejudices and fears rather than a reasoned judgment.

Johnson (2007) in his research about the impact of the instruction of critical thinking on the music listening abilities of students in the fifth grade found that subjects with Critical Thinking Instruction (CTI) were more successful in music, affective, associative, and the whole result of pretest to posttest in comparison with the learners of Activity-Based Instruction (ABI). According to Johnson in his study, listening instruction should include the opportunities for critical thinking for being better listeners of music.

Listening Comprehension Problems

Comprehension of spoken English is difficult for foreign language learners (FLLs), in part because their first language has great dominance over most of their comprehension in the target language. Moreover, limited amount of exposure to the native language is another problem for FLLs. FLLs also confront some difficulties in comprehension of listening including limited vocabulary, unfamiliar topical knowledge, fast speech rates, unfamiliar accent (Chiang & Chang, 2007).

As Dunkel (1991) has argued “Although listening is very important at the beginning level, its importance does not diminish as the learners progress to more advanced levels of language proficiency. Practicing listening at all stages of learning not only develops this skill but also expands and consolidates other elements of language knowledge, such as vocabulary, grammar and intonation” (p. 437).

Brown (2007) maintains that first language listeners have an immense advantage over second/foreign language listeners in that they are able to decode most first language input automatically, without spending much processing energy identifying words and phrases. Moreover, they also are familiar with many aspects of local culture, ways of talking about the world, expressing opinions and so on. He further added that listening is paying consistent degree of attention to speaker who may sometimes talk along turn of speech, like a lecture or a conference talk (p. 11). In these situations even native speaker of any language cannot pay full attention to all

details and all parts of messages. Therefore, in this case when they are under some form of informational load, they try to ignore the task.

He further added that when foreign language learners listen to authentic passages but because of fast rate of speech, majority of unknown vocabulary items, and complex syntax they cannot process all input and therefore, they are under heavy informational load. These are pressures that even second language listeners confront. As Rost (1994) points out” listening is vital in the language classroom because it provides input for the learner. Without understanding input at the right level, any learning simply cannot begin. Listening is thus fundamental to speaking” (p. 2).

Statement of the Problem

According to the findings of the American Educational System, most students at different levels are not able to think effectively. They cannot understand challenging listening passages or complex issues; their reasoning is often illogical and they do not argue critically; they solve problems in static and formulaic ways rather than through creative strategies that are based on sound analyses, and their decisions reflect one-sided evaluation that are against the norms of rationality (Porter & Mckibbin, 1988).

Reading books, articles and listening tracks are inseparable from the area of education and a deep and correct understanding of these things requires sound reasoning, logic, and critical thinking ability on the part of the listeners. Apart from the realm of education, any person in this age of information needs to listen and read; needs to listen not only to acquaint themselves with new findings and ideas, but also to evaluate and judge them based on facts, evidence, and their own experiences and believes in order to make use of the information in the best possible way. This cannot be done by simple listening comprehension skills. It requires critical listening that is the result of using critical thinking skills while we are listening something.

Significance of the Problem

In this age of information having good listening skills is inevitable. According to Gray (1948), the nature of the listening process is neither a simple mechanical skill nor a specific academic tool, it is a thoughtful process. Foreign language learners (FLL) do not have easy access to sufficient exposure to comprehensible input of the target language Also FLLs have problems with processing all the language input at one time. Therefore, teachers have to be concerned about finding ways to develop this skill among students so that students could enjoy and make sense of the information and ideas that they encounter in listening. It might be possible that the listening comprehension of students is developed by improving their thinking skills especially by increasing their critical thinking skills.

Research Questions

To fulfill the objective of this study this research question is posed:

1. Is there any significant relationship between Iranian Intermediate EFL learners listening comprehension ability and their critical thinking skills?

2. Is there any statistically significant difference between Iranian Intermediate EFL learners with high and low critical thinking ability and their listening comprehension ability?

Critical Thinking

Although there is no compromise on critical thinking's definition, Kadir (2007) conserves the need of agreement in describing critical thinking is associated with special point of views of thinking and psychology. In fact, theorist pays attention to the concept of critical thinking, whereas psychologists pay attention to the concept of critical thinking abilities. The most generally accounted definitions are predisposed to be extensive, signifying that critical thinking is a rational, thoughtful process linking both skills and dispositions (Ennis, 1987).

Paul, Elder, and Bartell (1997) claim that the historical roots of critical thinking are prehistoric and return to the training performance and vision of Socrates 2500 years ago. Socrates was the one who recognized a technique of examining and inquiring for their authentications to facts. Plato, Aristotle, and the Greek doubters pursued Socrates' performance. They thought that stuffs are often diverse from what they look to be, and only the knowledgeable brain is capable to observe the authenticity of stuffs. Consequently require to think methodically appeared from this prehistoric Greek custom. Throughout the Renaissance, numerous researchers in Europe began to think critically regarding diverse issues like as religious conviction, painting, human being environment, and so on, through the faith that the majority of the dominances of human being living required exploration, examination, and analysis. In the 20th century, the important require for critical thinking in living and schooling was recognized. At the present; the importance of critical thinking and its authority have turned out to be increasingly more obvious.

Huitt (1980) states that thinking plays an important role in people's life. He further adds that the movement toward the information age has changed attention to good thinking as a main element of life successes. So, this new trend has paved the way for critical thinking to be the main focus of schooling. In this regard, academically successful students are not defined as persons who memorize facts and learn fixed routines and procedures; instead as individuals who can mix their intellectual knowledge to think critically especially when they face difficulties or when they are learning something (Chaffee, 1992).

The aim of critical thinking is to evaluate information and to enable us to make informed decisions. Students who exercise critical thinking not only use real life skills of defining, summarizing, retrieving, analyzing, and synthesizing information (Gomez, 2010), but also try to adequately evaluate relevance and reliability of information that they receive from the changing outside world.

De Boo (1999) and Gardner and Jewler (2000) pointed out that critical learners are successful in problem-solving activities. Similarly, Villavicencio (2011), studied critical thinking in relation to achievements, reported that critical thinking significantly positively correlate with learners' proficiency.

Halpern (2003) also believes critical thinking is an everyday activity and is a vital necessity for the citizens of current century. Critical thinking enables individuals to tackle problems, penetrate into them, analyze them and finally find solutions. These abilities have

helped societies to develop an age of technology which was one of the ambitions and dreams of their ancestors (Bassick, 2008).

Myers and Dyer (2006) considered the consequence of students' learning style on critical thinking ability. In order to perform this study, 135 learners participating in the cultivation and living sciences guidance classes at the University of Florida were chosen. The Gregorc Style Delineator was managed to assess the favored learning styles of every learner. To find out the critical thinking abilities of every learner, the Cornell Critical Thinking test was employed. No distinctions were created between the critical thinking abilities of male and female learners. But, learners with very fixed theoretical chronological learning styles favorites demonstrate considerably upper critical thinking scores. No distinctions in critical thinking ability were between learners of other learning styles.

Recently, a large number of studies have focused their attention on critical thinking and different skills and aspects of language learning. Kamali and Fahim (2011) investigated the relationship between critical thinking ability and reading comprehension of texts, including some unknown words. Nikoopour (2011) did a study investigating the relationship between critical thinking and the use of direct and indirect language learning strategies by Iranian learners. In another study, the relationship between critical thinking and lexical inference of EFL learners was examined by Mirzaie (2008).

In Feriere's (1973) word language is a thinking process that allows students to learn and grow. Critical thinking, a rapidly growing concept in education has stimulated a flood of recent research and publications. Nowadays, critical thinking is one of the major concepts under consideration in education.

Hosseini et al. (2012) considered the correlation between critical thinking, reading comprehension and reading strategies of English university students. The participants were 70 randomly selected junior and senior EFL students, majoring in English Literature and English Translation at Arak University and Shahrekord University. The data was collected through the TOEFL (Test of English as a Foreign Language) reading comprehension test, a critical thinking ability test and Reading Strategy Inventory. The findings reveal that there was a significant positive relationship between Iranian English as a Foreign Language (EFL) readers' critical thinking ability and reading strategy use. Moreover, a significant positive correlation was observed between critical thinking and reading compensation. Results also revealed that cognitive and affective strategies along with critical thinking ability act as the best predictors of reading.

According to Ennis (2011) critical thinking is the ability to think clearly and rationally. It includes the ability to engage in reflective and independent thinking; the ability to decide what to do or what to believe. Halpern (1999) defines critical thinking as the use of cognitive skills or strategies that increase the probability of a desirable outcome. He argues that critical thinking is purposeful, reasoned, and goal-directed. It is the kind of thinking involved in solving problems, formulating inferences, calculating likelihoods, and making decisions.

Magno (2010) studied the role of meta-cognitive skills in increasing critical thinking. In order to perform the purpose of this study, the Watson-Glaser Critical Thinking Appraisal and the meta-cognitive Assessment Inventory were given to 240 Freshmen College students who were taking their first year in college in Philippines. In order to discover the effect of

meta-cognition on critical thinking, the Structural Equation Modeling (SEM) was engaged. The Pearson Product Moment correlation process discovered that the aspects of meta-cognition are significantly associated with the aspects of critical thinking.

So far there have been so many scholars who have tried to define critical thinking in the best possible way. One reason that there is not a single definite definition of critical thinking is that critical thinking is related conceptually to thoughtful judgment, problem framing, higher order thinking, logical thinking, decision making, problem solving, and scientific method (Giancarlo & Facione, 2001).

Halpern (1993) defined critical thinking as a type of thinking that is purposeful, reasoned, and goal oriented. He added that critical thinking is a kind of thinking that is involved in solving problems, making inferences, calculating probabilities and making decisions. Ennis (1989) defined critical thinking as a reflective thinking that focuses on deciding what to do or what to believe.

Norris (1991) says critical thinking is thinking in the right way to get the relevant and reliable knowledge about the world. Paul (1993) argues that critical thinking is the art of thinking about thinking while you are thinking so that you can make your thinking more clear, precise, accurate, relevant, consistent, and fair. He believes that critical thinking is a unique kind of purposeful thinking in which the thinker systematically and habitually applies criteria and intellectual standards to thinking, takes charge of the construction of thinking, guides the construction of thinking according to the standards, and assesses the effectiveness of thinking according to the purpose, criteria, and standards.

Beyer (1995) presents the simplest definition of critical thinking. He argues that critical thinking is making reasoned judgments on statements, new ideas, arguments, and researches. He also states that critical thinking is based on standards such as, clarity, accuracy, relevance, and logic and these standards are used consistently to create a kind of thinking that is self-correcting. He adds that critical thinking is the ability of asking right questions. He believes what is important is asking questions at the right time and place in order to develop our own ideas about new information and views.

Scriven and Paul (2001) considered critical thinking as conceptualizing, applying, analyzing, synthesizing, and evaluating information gathered from or constructed by observation, experience, reflection, reasoning or communication as a guide to belief and action.

According to Beyer (1995), a critical thinker has a healthy cause and effect evaluation, logical inferring, the ability to recognize and disprove the logical fallacies, the ability to judge based on evidence, the ability to avoid misleading arguments, and the ability to reach at a relevant conclusion.

As Facione (1990) argued the ideal critical thinker is naturally inquisitive, well-informed, open-minded, flexible, fair-minded in evaluation, honest in facing personal biases, wise in making judgments, and persistent in seeking results.

Perkins, Jay, & Tishman (1994) believed that critical thinkers question well-established ideas, look for alternative perspectives, and analyze them open-mindedly. Critical thinkers require evidence for claims, attempt to question hypotheses, discourage hasty

conclusions, and provide reasons and evidence for their own claims. Likewise, Scriven and Paul (2001) argued that critical thinkers are well-cultivated thinkers. They raise important questions and problems, precisely gather and assess relevant information, use abstract ideas to interpret them effectively, reach at logical conclusions and solutions, test them against relevant criteria and standards, and communicate effectively with others in an attempt to find solutions to complex problems.

Related Studies

There are some studies in relation to critical thinking and language skills. Fahim and Sa'epour (2011) conducted a study intending to investigate the impact of teaching critical thinking skills on reading comprehension ability and the influence of using debate on critical thinking of EFL learners. They concluded that including critical thinking skills in language classroom is vital to improve language teaching and learning. In another study, Fahim and Azarniushi (2011) tried to find whether there is any relationship between the critical thinking ability of language learners and their performances by using rule-driven or discovery learning approaches to teach grammar. The results of their study showed that there was a positive correlation between the critical thinking ability of the learners and their grammar test scores if the inductive teaching method is used. However, for the deductive teaching method, no specific relationship could be discovered between the critical thinking ability of the learners and their grammar test scores. According to Khorasani and Farimani (2010), the reason we have both critical thinkers and non-critical thinkers in the Iranian setting is that, the whole educational agenda is more of a teacher-dependent character. Everything in the classroom is defined and explained by teachers. A majority of teachers are themselves brought up by this old view of education and view education mainly as filling their students' memory banks with information, so they cannot take their students beyond of what they themselves are (Pishghadam, 2008). Kamali and Fahim (2011) investigated the relationship between resilience, critical thinking ability and reading comprehension of texts including unfamiliar vocabulary items. The conclusion showed that there is a significant relationship between critical thinking ability, resilience, and L2 reading comprehension. Behdani (2009) has done a research investigating the relationship between critical thinking ability, autonomy, and reading comprehension of the Iranian EFL learners. The results displayed that a significant relationship between learners' autonomy and their performance on reading comprehension exists. In another study, the relationship between critical thinking and lexical inference of EFL learners was examined by Mirzaie (2008). Here, the researcher found out a relationship between critical thinking levels and lexical inference of learners. Hiber (1992) says that in many Arab countries, the education systems put emphasis on writing for test taking. In this respect, some studies in the Arab world and a few Egyptian studies were conducted offering different approaches and remedial programs to overcome the decontextualisation of writing and to develop students' EFL essay writing skills. According to Hassani (2003, as cited in Alifatemi, 2008), the following problems exist in the Iranian language learning environment: a) old methods of teaching, b) unqualified teachers, c) differences in cultures, d) lack of audiovisual facilities, e) non-authentic materials, f) the lack of native speakers, g) lazy pupils, and h) the lack of English channels to watch related English language programs. In addition, some part of the writings of Iranian learners may appear to be a word for word translation of the Persian language grammatical structure into

English. In the writing process, learners may make errors rooted in their mother tongue (Yarmohammadi, 2002 as cited in Alifatemi, 2008).

Moon (2008) states that critical thinking and its relationship to the educational process has become a central issue and it is time to explore the term. She believes that since critical thinking is a process which is involved in any research activity: it can be considered as a principal concept in education, especially at higher levels. In fact it is a fundamental goal of learning. Critical thinking is also important in relation to disciplines (e.g. management or social sciences) or professions (e.g. medicine or social work) or master levels and undergraduate levels. That is to say, critical thinking can be considered as an important facilitator of what students expected to achieve at the end of a level in higher education program. For instance, at the higher education level students should have critical evaluation abilities, provide logical and reliable suggestions, and investigation contradictory information; all these capabilities require well-developed way of thinking critically.

There are many reasons that could be given here to support that critical thinking in society is as important as in educational and professional contexts. Moon (2003) states that critical thinking is the actual meaning of being a developed person living in a democratic society or moving toward democratic societies.

Facione (2000) argues that getting good grade or getting started in a good job are but not the main goals of college education. A main purpose, if not the main purpose, of the academic experience is to achieve what people have called a "liberal education". Not liberal in the sense of talking foolish about this and that for no particular purpose but liberal in the sense of "liberating". That is, learners are to be liberated from dependence on professors so that they are no longer just receivers of authorities' opinion. In fact, this is exactly what the professors want; students with an amount of capacity to challenge, question, and dissent. They want their students to excel on their own; to go beyond what is currently known, to make their own contribution to knowledge and to society. Being a professor is a curious job, the better you are, less you are needed. Bayer (1995) says that "specialists today appear to agree that critical thinking is the assessing of the authenticity, accuracy and/or worth of knowledge claims and argument's' (p.271).

Smith (1986) stated that in the western countries in the 1950s because of the postwar fears of communism, rapid advancement of technology and strong threats from mass communications like radio and television, teaching critical thinking skills was considered necessary to prepare children to live in a more complex world.

No one would claim that critical thinking is useable across a range of disciplinary areas, but there is little consensus about whether it is a set of generic skills that is used across subject domains like engineering, arts, and science (generalist view) or whether it depends on the subject domain and context in which it is taught (specialist view) (Ennis, 1989). If critical thinking is generic, then it should be taught in specialized courses that focus on critical thinking skills. If critical thinking depends on subject matter, then it should be learned by dealing with concrete problems in specific disciplines (Halliday, 2000). Abrami *et al.*, (2008) tried to summarize available empirical evidence for the effects of implicit and explicit instructions on the development of critical thinking skills. The findings of this study indicated the fact that improvement in student's critical thinking skills cannot be a matter of implicit instruction. However, the findings were not uniformly positive and they found some evidence

of negative effects. After all they concluded that educators must take steps to make critical thinking objectives explicit in courses and also include them in both pre-service and in-service training and faculty development.

Burk and Williams (2008) also aimed to investigate the effectiveness of teaching critical thinking skills explicitly to eleven- and twelve-year-old students through including critical thinking skills in the curriculum. There were three groups: collaborative, individual, and control groups. In the collaborative group students worked together and in the individual group each student practiced critical skills alone.

The findings of the research showed that when thinking skills were taught explicitly, participants learned them either individually or collaboratively improved in terms of critical thinking skills. However, the students practicing the critical thinking skills collaboratively scored slightly higher than the students who practiced critical thinking skills individually.

Birjandi and Bagherkazemi (2010) investigated the relationship between EFL teacher's critical thinking ability and their student-evaluated professional success. To this end, the critical thinking ability of 67 Iranian EFL teachers was measured through the Persian version of Watson-Glaser critical thinking Appraisal. The teacher's professional success was also gauged through the successful Iranian EFL Teacher Questionnaire (SIETQ). The results of correlation and regression analyses showed a statistically significant relationship between the two sets of measures. As Oxford (1993) defined "Listening is a complex problem solving skill" and it is more than just perception of sounds. Listening includes comprehension of meaning bearing words, phrases, clauses, sentences and connected discourse. She also points out that listening is usually a hard skill to master in one's own language and more difficult you find it in second or foreign language." So, learning from the difficulties can help us to diagnose some techniques to overcome them. Anderson and Lynch (1998) mentioned five factors which make listening difficult. First one is the organization of information, second is the familiarity of topic, and third is the explicitness and sufficiency of the information. And the fourth one is the type of referring expressions used, and the last is whether the text describes a static relationship. Another idea about the issues making difficulty for listening was presented by Brown and Yule (1983) as speaker factors, listener factors, the content and support. According to Dunkel (1991; Richard 1983; Ur, 1984; Cited in Brown 2001) these four characteristics of spoken language make listening difficult. However one problem about strategies is that there is still some confusion over their definition, which has varied widely, from broad, almost meaningless definition that could have almost anything to do with language learning—such as that suggested by Wenden (1987) for example to more specific characterizations, as provided by Oxford and Cohen (1992). As the latter point researchers often disagree about whether strategies are conscious or unconscious. Their own conclusion is that 'strategy use involves some degree of conscious awareness on the part of the learner' Oxford and Cohen 1992). In a recent state-of-the-art article on learner strategies, MC Donough (1999), among other recommendations calls for further investigation into the relationship between proficiency and learning strategies in the skill areas, (specially speaking and listening) and a need to flesh out the concept of the skilled learner. It has been argued that awareness of strategies and other variables in learning can have positive influences on language learners listening development (e.g., Bolitho *et al.*, 2003; Victory and Lockhart, 1995; Wilson, 2003)

Participants

Among 120 university students at Takestan Islamic Azad University who will be given the Standardized Test of English as a Foreign Language (TOEFL), 50 male and female students in an intermediate level are to be randomly chosen with the same level of proficiency.

Instrumentation

In this study, the California Critical Thinking Skills Test is going to be applied to evaluate the learners' critical thinking. This questionnaire includes 34 items and is consisted of five subtests: a) Inference b) Recognizing Unstated Assumptions c) Deduction d) Interpretation e) Evaluation of Arguments. To evaluate listening comprehension ability of participants, some samples of TOEFL are used. The type of these samples is multiple choices

Standardized TOEFL Listening Test: The 10 standardized listening test of TOEFL will be administered to university students who are studying English as a foreign language at Takestan Islamic Azad University.

TOEFL listening comprehension tests which will have been taken from TOEFL Test will be used to test Participants' listening comprehension ability. Participants' critical thinking skills are to be measured by the California Critical Thinking Skills Test. It is trusted as a valid, objective, and reliable measure of core reasoning and critical thinking skills. The California Critical Thinking Skills Test, one score each, in each item a situation is described and the participants have to choose the best answer according to the statements in the question and to see which item is true or best suits the statements. Critical thinking has five parts, that is, analysis, inference, evaluation, deductive and inductive reasoning.

Procedure

First, Critical Thinking Questionnaire and then TOEFL Listening Comprehension Test were administered to the participants. The participants were demanded to choose the proper responses to the questions. The questionnaire and the test organization seized about 30 minutes. After, gathering the done questionnaire, and test sheets, researcher examined the information throughout utilizing the Statistical Package for Social Sciences (SPSS). While this study planned to discover the correlation between critical thinking and listening comprehension ability, Pearson Product- Moment Correlation was employed.

Results

Research Question One

1. Is there any significant relationship between Iranian Intermediate EFL learners listening comprehension ability and their critical thinking skills?

Correlation analysis is used to describe the strength and direction of the linear relationship between two variables. There are a number of different statistics available from SPSS; Pearson product-moment coefficient is designed for interval level (continuous) variables. It can also be used if you have one continuous variable and one dichotomous variable.

Pearson correlation coefficients (r) can take on only values from -1 to $+1$. The sign out the front indicates whether there is a positive correlation (as one variable increases, so too does the other) or a negative correlation (as one variable increases, the other decreases). The size of the absolute value (ignoring the sign) provides an indication of the strength of the relationship. A perfect correlation of 1 or -1 indicates that the value of one variable can be determined exactly by knowing the value on the other variable.

How do you interpret values between 0 and 1 ? Different authors suggest different interpretations; however, Cohen (1988) suggests the following guidelines:

$r=.10$ to $.29$ or $r=-.10$ to $-.29$ small

$r=.30$ to $.49$ or $r=-.30$ to $-.49$ medium

$r=.50$ to 1.0 or $r=-.50$ to -1.0 large

These guidelines apply whether or not there is a negative sign out the front of your r value. Remember, the negative sign refers only to the direction of the relationship, not the strength. The *strength* of correlation of $r=.5$ and $r=-.5$ is the same. It is only in a different *direction*. In this study there is a large correlation between the two variables suggesting quite a strong relationship between critical thinking and listening comprehension ability.

Assessing the Significance Level

The next thing to consider is the significance level (listed as Sig. 2 tailed). This is a very ‘messy’ area, and should be treated cautiously. The significance of r is strongly influenced by the size of the sample. In a small sample (e.g. $N=30$), you may have moderate correlations that do not reach statistical significance at the traditional $p<.05$ level. In large samples ($N=100+$), however, very small correlations may be statistically significant. Many authors in this area suggest that statistical significance should be reported but ignored, and the focus should be directed at the amount of shared variance.

SPSS will calculate two types of correlation for you. First, it will give you a simple bivariate correlation (which just means between two variables), also known as zero-order correlation. SPSS will also allow you to explore the relationship between two variables, while controlling for another variable. This is known as partial correlation. In this chapter the procedure to obtain a bivariate Pearson product-moment correlation coefficient is presented

Table 1

Descriptive Statistics

	Mean	Std. Deviation	N
critical	22.14	2.969	50
listening	12.40	1.818	50

Table 1 shows the related descriptive statistics for critical thinking ability and listening comprehension ability. According to the Table 1, the mean score of the participants on the critical thinking questionnaire was 22.14, with the SD of 2.969. The mean score of them on the TOFEL listening comprehension test was 12.40, with the SD of 1.818. To find

out whether there is a correlation between critical thinking and learners' listening comprehension ability Pearson Product-Moment Correlation was employed. Now, for computing Pearson r , critical thinking has been considered as an independent variable and listening comprehension as the dependent variable. According to Table 2, by computing the relationship, researcher discovered a positive and significant relationship between critical thinking ability and listening comprehension ability. Results signified that listening comprehension were significantly associated with critical thinking, with the observed value of Pearson $r = 0.541$ at the 0.01 level of significance. This strong positive and significant value of Pearson r signifies that learners' critical thinking ability has a positive and significant relationship with their listening comprehension.

Table 2

Correlation between Critical Thinking and Listening Comprehension

		critical	listening
critical	Pearson Correlation	1	.541**
	Sig. (2-tailed)		.000
	N	50	50
listening	Pearson Correlation	.541**	1
	Sig. (2-tailed)	.000	
	N	50	50

** . Correlation is significant at the 0.01 level (2-tailed).

This strong positive and significant value of Pearson's r can imply that the critical thinking ability of learners is strongly and positively related to their listening comprehension ability.

Research Question Two

2. Is there any statistically significant difference between Iranian Intermediate EFL learners with high and low critical thinking ability and their listening comprehension ability?

Table 3 shows the related descriptive statistics for learners with high and low critical thinking ability and their listening comprehension ability. In this table N indicates the number of participants took part in this research. By observing the means it can be seen that those participants with high critical thinking scores got high listening comprehension scores and those with low critical thinking scores had low listening comprehension marks, but this difference may not be significant. To ascertain if this result is significant or due to chance the independent samples test table must be examined. The Std. Deviation shows that high critical thinking participants had a lower spread of scores than low critical thinking.

Table 3

Descriptive statistics of learners with high and low critical thinking ability (50)

critical thinking	N	Mean	Std. Deviation	Std. Error Mean
listening high c	19	13.63	1.535	.352
low c	31	11.65	1.561	.280

According to the Table 3, the mean score of the participants on the critical thinking questionnaire with high score was 13.63, with the SD of 1.535 and the mean score of the participants on the critical thinking questionnaire with low score was 11.65, with the SD of 1.561. The number of participants with high critical thinking score were 19 and the number of participants with low critical thinking number were 31. To find out if the difference between the learners with high and low critical thinking ability and their listening comprehension ability is significant, a t-test was employed. As you see Table 4 presents the results.

Independent Sample t Test

The independent samples t test is undertaken when the samples are unrelated, with different participants in each sample, such as the high critical thinking score and low critical thinking score. The test is also called the unrelated t test or the independent measures t test.

Table 4

Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper

listen	Equal												
ing	variances	5	.03	3	.85	4.	48	.000	1.986	.452	78	1.0	2.
	assumed					395							895
	Equal												
	variances	not				4.	38.	.000	1.986	.450	76	1.0	2.
	assumed					413	713						897

The p value (.000) in an Independent samples test table is for a two-tailed hypothesis shown in the column Sig. (2-tailed).

It can be seen from the above table that two lines of values are generated by SPSS: Levene's Test for Equality of Variances indicates which should be used. One of the criteria for using a parametric t test is the assumption that both populations have equal variances. If the test statistics F is significant, Levene's test has found that the two variances do differ significantly, in which case we must use the bottom values. In this study it can be seen that $F=0.035$, $p < 0.05$, therefore, as the variances are significantly different, we can accept the equal variances not assumption and use the bottom line values.

As Table 4 shows, there was a significant difference between learners with high and low critical thinking ability and listening comprehension ability, (sig. = .000, sig. = .000), $t(4.413) = 0.035$, $p < 0.05$. This indicates that learners with high and low critical thinking ability have different listening comprehension abilities and the difference between learners with high and low critical thinking ability and listening comprehension ability is significant.

Discussion

Critical thinking is the ability which individuals make use of to analyze facts, produce and organize ideas, defend opinions, make comparisons, draw inferences, evaluate arguments and solve problems (Chance, 1986, p.6). The findings of this study appear to verify the important position of critical thinking ability in listening comprehension ability. In this research we tried to develop participants' critical thinking skills and investigate its result on their listening comprehension, and their performance at the California Critical Thinking Skills Test.

Research question number one attempted to answer the question of whether there is any significant relationship between Iranian Intermediate EFL learners listening comprehension ability and their critical thinking skills. As stated previous to, the findings of data analysis showed that there were an important positive correlation between critical thinking and listening comprehension ability, $t(4.413) = 0.035$, $p < 0.05$, (see Table 4,2 above). This signified that critical thinking ability of Iranian students was strongly correlated with their listening comprehension ability and those who thought more critically had better listening comprehension; those who had superior critical thinking ability gained high listening comprehension ability scores. This result can emphasize the significant position of critical thinking in education and is in concurrence with previous studies as stated in review of literature.

In some previous studies the importance of critical thinking and its correlation and effects have been considered with language learning and its skills. Our findings in this study are cautiously in line with some previous studies.

Kamali and Fahim (2011) inspected the correlation between critical thinking skill, resilience, and reading comprehension of texts containing unknown vocabulary items. Result of study discovered that (a) the ranks of critical thinking had a considerable consequence on the participants' scores on the resilience level, (b) the ranks of critical thinking had an important consequence on the participants' understanding of texts with unfamiliar vocabulary items, and (c) the ranks of resilience had a considerable consequence on the participants' understanding of texts with unfamiliar vocabulary items. Results of this study is in line with the finding of the current research. In this study, result also indicated that there is a high and positive correlation between critical thinking skills and listening comprehension ability of language learners. This research showed that those who has got a higher mark in critical thinking test perform better in listening comprehension.

Another study that is in direction of the current research belong to Bagherkazemi and Birjandi (2010). They investigated the correlation between EFL teachers' critical thinking skill and their student-evaluated professional success. They concluded that there were statistically significant relationship between teacher's critical thinking skill and their student- evaluated professional success.

The current research also support the claim of Ghaemi and Taherian (2011) that studied the correlation between EFL teachers' critical thinking and their teaching success. They indicated that there is a significant relationship between EFL teachers' critical thinking and their teaching success. According to them the improvement of EFL teacher's critical thinking skill is paralleled to improvement of their teaching success.

Modirkhamene and Rezazade (2012) examined the probable relationship between Gardner's eight intelligence types and listening comprehension. In addition, of the eight intelligences, visual and interpersonal intelligences demonstrated a powerfully positive relationship with the listening test scores of both males and females. It was concluded that intelligences-based EFL instruction granted chances to determine, value and improve the abilities of EFL learners in better undertaking language learning.

Barjasteh and Vaseghi (2012) attempted to explore the role of critical thinking skills on EFL learners' reading comprehension performance using Bloom's taxonomy. Thus, the role of critical thinking strategies training across two language proficiency levels, high and low was considered. Then the difference between females and males concerning their critical thinking was studied. The findings offer empirical support for the facilitative effect of critical thinking strategy training on reading comprehension performance of EFL learners.

Our findings are also cautiously compatible with Alizadeh, Jahandar, and Khodabandehlou (2013) that examined the relationship between critical thinking ability of Iranian EFL learners at B.A. level and their selected strategies of listening skill and the effect of gender variable on them. The result of this study showed that there was no significant relationship between gender and strategies the students select for their listening improvement via critical thinking ability. Based on the findings of the study, the rate of critical thinking ability seems to play an important role in selecting listening strategies.

Like most of the previous studies, Tabatabaei and Parsafar (2012) considered the effect of self-directed learning on critical thinking of Iranian EFL learners. The computerized statistical analysis of the results indicated that teaching self-directed learning led to the improvement of the participants' critical thinking. Implications of the findings were discussed for language teachers, learners, and curriculum developers.

By evaluating results of previous studies and the current study, it can be cautiously maintained that there is a positive correlation between critical thinking skills and learning skills. Critical thinking skills seem to be a significant skill for students to enhance their language learning skills and perform successfully in their language learning.

Research question number two attempted to answer the question of whether there is any significant difference between Iranian Intermediate EFL learners with high and low critical thinking ability and their listening comprehension ability. The analysis of the results showed that the learners with high critical thinking ability ($M = 13.63$, $SD = 1.535$) and learners with low critical thinking ability ($M=11.65$, $SD=1.561$) were different also in their listening comprehension abilities (see Table 3). The results of an independent-samples t-test also showed that the difference between the learners with low and high critical thinking ability and their listening comprehension abilities were significant. So, the researcher concluded that the participants who are more critically in their thoughts are more successful in their listening comprehension abilities and also by improving their listening comprehension abilities they can improve their language learning skills and also improve their way of learning. Also, critical thinking develops understanding by serving students examine the reasonable organization of the textbooks.

Critical thinking is an important ability that should be focused on from the very begging of students' educational life. In this age of information, critical thinking is considered important for people, specially educated people, who live in this changing world. According to Akyuz & Samsa (2009), for people and specially students, the ability to learn and the ability to make sense of new information are more important than knowing specific knowledge. About the necessity of having critical thinking skills Lau & Chan (2004) argue that critical thinking enhances language and presentation skills. Thinking clearly and systematically can improve the way we express our opinions. They also believe that critical thinking increases creativity and a creative person tries to find new and innovative solutions to old and persisting problems. This study tried to improve the experimental group's critical thinking skills through encouraging the participants to make evaluation, synthesis, and analysis questions that we call them higher level question.

Theoretical Implications

This research investigated the significant role of critical thinking ability in the listening comprehension of Iranian EFL learners. It signified that critical thinking generally is related to language learning and specifically to the development of listening comprehension. The result of this research demonstrated that those who were more critical thinkers improved better their listening comprehension ability and finally were more successful in listening comprehension. Listening is the most frequently used language skill in the classroom (Ferris, 1998; Murphy, 1991; Vogely, 1998). Both instructors (Ferris & Tagg, 1996) and students (Ferris, 1998) recognize the significance of listening comprehension for success in academic settings. Many studies specified that efficient listening skills were more important than

reading skills as a factor contributing to academic success (Coakley & Wolvin, 1997; Truesdale, Nour Mohammadi, E., & Zare, Z. 1990). The findings of the present study revealed that critical thinking of Iranian EFL learners positively and significantly correlated with the listening comprehension ability. Iranian EFL learners' critical thinking should be increased because their way of thinking associated with their actions while listening comprehension ability. So, Iranian EFL learners should pay more attention to critical thinking rather than just using learning strategies. According to Fahim and Komijani (2010), when critical thinking becomes part of the ongoing education, it makes students become more successful and helps them successfully integrate with their society. Considering these benefits, it is important to provide some opportunities for the promotion of critical thinking skills.

Pedagogical Implications

According to Ku (2009), an important purpose of modern education, is to teach the elements of critical thinking. Critical thinking provides students with the competency necessary to deal quickly and effectively with ever accelerating changes of the new world. To develop such competency, students must go beyond textbook-knowledge absorption and learn to build up flexible intellectual skills concerned with information-valued judgment, evidence-based evaluation, and reason-driven argument. Critical thinking is not only essential for students to perform well in school, but also needed in future workplaces, social and interpersonal contexts where appropriate decisions are to be made carefully and independently on a daily basis. The pedagogical implication of the present study may be practical, applicable and useful for syllabus designers, materials developers and language teachers and learners.

The findings of this study showed that critical thinking ability of Iranian EFL learners positively and strongly related to the listening comprehension ability. Paul and Elder (2005) relate learning and thinking by stating that "the only capacity we can use to learn is human thinking (p.10)". It can be concluded that the employment of critical thinking skills would help EFL learners learn listening comprehension more efficiently and profoundly. This study encourages syllabus designers, materials developers and language teachers to consider critical thinking as one of the effective elements for academic and career success. In order to have educated students who are able to efficiently apply critical thinking skills, syllabus designers and material developers are recommended to make course books that consider critical thinking as one of the efficient elements for academic and career success. Designing courses which particularly focus on prompting students_ critical thinking and increasing their strategic intent will result in educating educated students with analytical abilities that aid them to carry out successfully. Also, the present courses can be reorganized to challenge students to apply critical thinking skills to achieve academic success.

As language teachers seek to make the language classroom an effectual milieu for learning, it has become noticeable that "teaching learners how to learn" is important. Since it has been understood that critical thinking is significantly related to the listening comprehension, this study has some implications for teachers. In this way, they are suggested to teach critical thinking skills openly. Halpern (1999) points out that "there are identifiable critical thinking skills that can be taught and learned, and when students learn these skills and apply them appropriately, they become better thinkers" (p. 70). He also considers that college

students should get precise instruction in how to think. So, teachers of listening courses should focus on critical listening while giving priority to this aim in their teaching: teaching learners critical thinking skills to develop their ability to think critically. Teachers should know that the encouragement of the learners' critical thinking will develop the success of their listening comprehension. Finally, the researcher considers the results got from the present study may be practical for those concerned with language teaching to assist language learners develop their way of thinking, think more critically, and listen more purposefully.

Conclusion

This study was accomplished to find out if there is any statistically significant relationship between critical thinking ability and listening comprehension ability of Iranian EFL learners. The differences between the relationship between critical thinking ability and listening comprehension ability of Iranian EFL learners with high and low critical thinking ability and their listening comprehension were also investigated. The conclusion of the study showed that there was a strong positive and significant correlation between critical thinking ability and listening comprehension ability. It indicates that learners who thought more critically elaborate better listening comprehension ability. Additionally, the results indicated that differences between learners with high and low critical thinking ability and their listening comprehension were significant. It revealed that learners with higher level of critical thinking ability had better listening comprehension ability. The gained strong positive relationship between critical thinking and listening comprehension ability can sustain the results of numerous preceding studies that examined relationship between critical thinking and language learning's achievement in development of learner's learning. According to review of literature, numerous additional studies there are that confirm the relationship between critical thinking and diverse features of language learning (e.g. Myers & Dyer, 2006; Fahim et al., 2010; Kamali & Fahim, 2011; Mango, 2010).

As a conclusion, since of the important function of critical thinking ability in enhancing learning, it is necessary to promote critical thinking ability among language learning. Therefore, increasing learners critical thinking is one of tasks of language teachers, course developers and educations planners. Present study suggests teachers develop critical thinking of learners and learners' consciousness of listening ability concurrently since their incorporation should lead to an improved listening comprehension.

Suggestions for Further Studies

The limitation of this study was the number of the participants. The majority of the participants in this study were men and the factor of gender was not taken into account, so hereafter researches can raise this question; if there is a relationship between gender and critical thinking ability. As it was mentioned before critical thinking skill has different components and some of them are evaluation, analysis, synthesis, deductive, and inductive reasoning. Future studies can focus on these different components one by one and find out how good men and women can be at these different components.

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