Investigating the Relationship among Gender, Critical Thinking and Meta-Cognitive Awareness Listening Strategies

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Abstract
This study aimed at investigating the difference between male and female Iranian Upper-Intermediate EFL learners in terms of critical thinking, meta-cognitive awareness listening strategies, and selection of meta-cognitive listening strategies. To this end, one hundred and fifty language learners (including males and females with average age of 26.5) were selected through homogenised process to take part in this study. As a further step, the participants answered CTQ and MALQ questionnaires, which were 5-point Likert-type questionnaires. The results showed that there was no significant difference between males and females critical ability but there that was a significant difference between them in awareness and selection of meta-cognitive listening strategies. In other words, women were more aware than men in meta-cognitive listening strategies. Also a significant difference was found only in ‘planning’ and ‘directed attention’ but not in ‘problem solving’, ‘meta translation’, and ‘person knowledge’ between the male and the female Iranian Upper-Intermediate EFL learners. The results have some implications.

Keywords: critical thinking, awareness, selection, meta-cognitive listening strategies

INTRODUCTION
Recent research demonstrating the critical role of language input in language learning (e.g., Dunkel, 1991) provides support for the primacy of listening comprehension in instructional methods. This convinced Dunkel to claim that the study of listening comprehension has played an increasingly important role in the SLA theory building, research, and pedagogy. According to Coakley and Wolvin (1997), listening comprehension in SL is the process of receiving, focusing attention on, and assigning meaning to aural stimuli. It comprises a listener who brings knowledge of the topic, linguistic knowledge, and cognitive processes to the listening task, the aural text and the interaction between the two. According to Rubin (1994), while second language strategy research has expanded in recent years the number of studies in listening comprehension is relatively small, and the research base for listening strategies is even more limited.

Comprising one of the three main categories in O’Malley and Chamot’s (1990) general classification of strategies, with cognitive and socio/affective strategies being the other two, meta-cognitive strategies is defined as thinking about one’s own thinking (Flavell, 1979), or the individual’s level of consciousness (Wenden, 1998) and performs a considerable role in the cognitive processes of language as a means of communication. According to Vandergrift, Goh, Mareschal, and Tafaghodtari (2006), during listening there are five factors underlying the meta-cognitive awareness strategies consisting of problem-solving, planning and evaluation, mental translation, person knowledge, and directed attention. Problem-solving includes a group of strategies listeners employ to make inferences (guess what

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they do not understand) and to monitor these inferences. Planning and evaluation are used as preparatory stages for listening, and evaluating the outcome of the listening efforts (Richards, 1990). Mental translation consists of those strategies that listeners must learn to avoid if they try to become skilled listeners (Vandergrift, 2003). Person knowledge includes listeners’ perceptions concerning the difficulty involved in L2 listening and their self-efficacy in L2 listening (Sparks & Ganschow, 2001), and finally, directed attention represents strategies that listeners use to concentrate and stay on task, e.g., getting back on track when losing concentration or focusing harder when having difficulty understanding (Rost, 2002).

In S/FLA context, especially in listening comprehension, researchers like Bacon (1992), O’Malley & Chamot (1990), and Vandergrift (2003) have focused on S/FL learners’ use of meta-cognitive strategies for dealing with difficulties and enhancing comprehension. Studies have showed the impact of raising meta-cognitive awareness on students listening performance (e.g., O’Malley & Chamot, 1990; Vandergrift, 2003, 2005). Purpura (1999) discovered that meta-cognitive strategies have an important, positive, and direct effect on cognitive strategies so it is the most influential in developing learners’ listening comprehension. Goh and Yusnita (2006) advocate the positive and direct impact of listening strategies on listening performance. Goh (2000) found that more skilled listeners own a higher degree of awareness of their listening problems. Researchers have studies in the EFL context that have explored the correlation between meta-cognitive listening awareness and listening self-efficacy (Vandergrift, 2005), learning style (Shirani Bidabadi & Yamat, 2010), and motivation (Sutudennama & Taghipur, 2010).

Critical thinking as one of the factors influencing the process of learning is a cognitive ability in human being which influences the process of thinking. According to Paul, Fisher, and Nosich (1993) critical thinking is that mode of thinking about any subject, content or problem in which the thinker improves the quality of his or her thinking by skilfully taking charge of the structures inherent in thinking to claims and arguments. Halpern (1996) considers critical thinking as the use of cognitive skills or strategies that raise the probability of desirable results. Also he adds that critical thinking is a purposeful, reasoned, and goal directed process. It is the kind of thinking involved in solving problems, formulating inferences, calculating likelihoods, and making decisions. According to Kabilan (2000) to be proficient in a language, learners need to be able to think critically and creatively as they use target language. However, Pica (2000) highlights the fact that in typical school environment the combination of language and thinking has been peripheral.

In Postmodernist school, gender has an absolutely different notion and it is not a biological fact at all. Every society has a distinguished gender identity and any member of the societies may or may not comply with the presumed gender identity. Jiménez-Catalán (2000) points out that personal differences such as learning style, motivation, age, and aptitude are very-well emphasized in most SLA studies, but gender is often deemphasized or even ignored. According to Ehrlich (1997) and Sunderland (2000), even in studies where gender was involved into research, it was seen in an oversimplified way. Ellis (1994) in his noticeable work The Study of Second Language Acquisition’ dedicates only a few pages to gender and points out “Women might be better at L2 learning than men as they are likely to be more open to new linguistic forms in L2 input and they will be more likely to rid themselves of interlanguage forms that deviate from target-language norms” (p. 202). Significance of the present study is that it endeavors to explore the unexplored relationship among gender, meta-cognitive awareness listening strategies, and critical thinking of Iranian Upper-Intermediate EFL learners.

Research Questions and Hypotheses
Given what was mentioned earlier and keeping up with the objectives of this study, the following research questions are formulated:

Q1. Is there any significant difference between the critical thinking ability of male and female Iranian Upper-Intermediate EFL learners?

Q2. Is there any significant difference between the meta-cognitive awareness listening strategies of male and female Iranian Upper-Intermediate EFL learners?

Q3. Is there any significant difference between male and female Iranian Upper-Intermediate EFL learners’ selection of meta-cognitive listening strategies?

Based on above mentioned questions and their plausible answers, the related null hypotheses can be about the lack of any significant differ-
ence between the male and female upper-intermediate Iranian EFL learner’s on any of the variables mentioned.

**METHOD**

**Participants**

To accomplish the purpose of the research a convenient community sample of 150 Upper-Intermediate EFL learners took part in this research. To meet the “Gender” variable, the sample included 75 males and 75 females. They were all undergraduate university students of different English-related majors consisting of English Teaching and English Translation at Islamic Azad University (IAU) South-Tehran Branch and EFL learners of different branches of Kish English Language Institutes in Tehran, the capital city of Iran. The sample included Junior and Senior students of BA course of universities and EFL learners of institutes who were enrolling for winter 2013-2014. Their age varied from 19 to 35 with an average of 26.5 and their English proficiency was Upper-Intermediate level. These university and different branches of the institute were selected based on feasibility and credibility criteria since the researcher herself, had classmates and professors in fore-mentioned university and institute. To assume the confidentiality of the results, the researchers selected the participants based on their agreement to take part in the study.

**Instrumentation**

To carry out the research investigation, four different instruments were employed in the present study:

**The Babel English Language Placement Test**

In order to homogenize the participants’ level of proficiency, Babel English Language Placement Test was used to select the Upper-Intermediate level students. The test items have been trailed and pretested on more than 500 testees and benchmarked using standard correlation statistical methods to IELTS and Cambridge testing suite tests. This gives some assurance regarding level benchmarks. In addition, the test has undergone stringent facility value, statistical calculations, and assures a wide spread of scores from beginner levels to advanced students. A large population sample (some 5000 tests carried out) gives some assurance of reliability of these calculations. The Babel English Language Placement Test consists of four tests of equal difficulty [designated Test A, Test B, Test C & Test D]. Each test contains four sections of 25 reading, grammatical & lexical items. Each section is in ascending difficulty. The tests are in multiple-choice format [to ensure rapid marking] and consist of items measuring the recognition of correct responses to reading prompts, grammatical forms, and lexical choices in context. Participants were asked to do the test in 60 minutes and on the basis of the test score, those who achieved a score of 52 to 80 took part in this research as Upper-Intermediate.

In this research the test validity was ensured by presenting it to a panel of institute’s teachers of English and English supervisors who had expertise in teaching English to learners at different language proficiency levels. They were asked to indicate the comprehensiveness of the test, its appropriateness for participants' linguistic and general background knowledge, and clarity of instructions. The test reliability was established .91 by using KR-21.

**Meta-Cognitive Awareness Listening Questionnaire (MALQ)**

In order to provide the required data, MALQ, a 19 item questionnaire developed by Vandergrift et al. (2006), was used. It was designed for researchers and instructors to measure the extent to which language learners are aware of and can regulate the process of L2 listening comprehension. MALQ comprises of five mate-cognitive factors; the first factor, “Planning and Evaluation”, includes five items about how listeners prepare themselves for listening and assess the results of their listening performance (items 1, 10, 14, 18, & 19). The second factor, “Problem Solving”, consists of six items on inferencing on what is not recognized, and monitoring those inferences (items 5, 7, 9, 13, 16, & 17). The third “Directed Attention”, includes four items on how listeners concentrate, stay on task, and focus on their listening tasks (items 2, 6, & 12). The fourth factor, “Meta Translation”, includes three items about the ability to use mental translation (items 4, &11) and finally, “Personal Knowledge” includes three items to elicit listeners’ perceptions concerning how listeners’ learn best, the difficulty caused by L2 listening and their self-efficacy in L2 listening (items 3, 8, & 15).

The format of the questionnaire was designed according to guidelines outlined by Brown (2001), Dornyey (2003), and Gilham (2000). Students were asked to respond items in 20 minutes using a 5-
point Likert scale ranging from never (1 point), seldom (2 points), sometimes (3 points), often (4 points), to always (5 points). According to Vandergrift et al. (2006), learners select a scale without a neutral point so that answers cannot hedge.

Vandergrift et al. (2006) used a large number of statistical processes to validate the items with a large sample of respondents (N: 966) in different countries, in various learning contexts and at different levels of language proficiency. In this study, the Persian version of this questionnaire which was translated and validated by five experienced translators in the related fields was employed.

The reliability of subscales was estimated via Cronbach alpha (Internal Consistencies) to be 0.74 for problem solving, 0.75 for planning and evaluation, 0.78 for translation, 0.74 for person knowledge, and 0.68 for directed attention respectively. In this research the reliability of MALQ (21 items) questionnaire was calculated with 30 learners similar in characteristics to target participant by using the Cronbach alpha coefficient and it was estimated to be .77. After piloting the original MALQ which consisted of 21 items was reduced to 19 items because of low characteristics of two items (including 16 & 18).

Critical Thinking Questionnaire (CTQ)
Developed by Honey (2000), this questionnaire aims at evaluating the three main skills of comprehension, analysis, and evaluation of the participants. This questionnaire is a Likert-type questionnaire with 30 items which allows researchers to investigate the respondent’s ability in note-taking, summarizing, questioning, paraphrasing, research, inferencing, discussing, classifying, outlining, comparing and contrasting, distinguishing, and synthesizing, inductive and deductive reasoning.

The participants were asked to indicate each category they used on a 5-point Likert scale, ranging from never (1 point), seldom (2 points), sometimes (3 points), often (4 points), to always (5 points); therefore, the ultimate score was computed in the possible range of 30 to 150. The participants were allocated 20 minutes to complete the questionnaire. In this study, the Persian version of this questionnaire which was translated and validated by Naении (2005) was employed. The reliability of the critical thinking questionnaire was estimated to be .80 with 30 subjects similar in characteristics to target subjects using the Cronbach alpha coefficient which demonstrated a reasonable degree of reliability.

Procedure
The study was conducted in some classes at Islamic Azad Universities (IAU), South-Tehran Branch and different classes of Kish English Language Institutes between December 2013 and March 2014. The four instruments mentioned above were administered among 150 participants in two sessions. To receive the reliable data and to avoid “retaliation” in case of not doing well the Babel Test, CTQ, MALQ, the researchers were present in all administration sessions and explained the purpose of administering the test, and the questionnaires to assure the participants that no one except the researchers will have access to the related information. The researchers emphasized the importance of participants' correct and honest responses to the questionnaire and they were encouraged to ask any questions to eliminate any ambiguity. Generally, endeavor was made to observe the confidentiality and anonymity considerations.

The participants were devoted ample time, nearly 60 minutes for Babel Placement Test in the first session and 20 minutes for CTQ and 20 minutes for MALQ in the second session. Moreover, to obtain the “Gender” variable, the participants were asked to have the options to mention their full names or just first names. If they showed disposition not to write their names, they could write “F” as female and “M” as male.

In the homogenizing phase in the first session 220 students took part in the placement test. A large number of them were from English Institutes and a few number from fore mentioned university. One hundred and fifty students were selected to fill out the CT and MALQ questionnaires. So the scores of 150 participants were employed to reach the answer of the research questions of present study. The items were codified and entered into SPSS software version 19 for further analysis.

DATA ANALYSIS
Reliability Statistics
Babel English Language Placement Test, Meta-Cognitive Awareness Listening Questionnaire and Critical Thinking Questionnaire used in this study were piloted to estimate their reliability. The results in Table 1 show that these three tests were piloted with 30 EFL upper-intermediate learners having similar characteristics with the participants of the current study. The reliability of Babel English Language Placement Test was estimated .91 through
KR-21; the reliability of the Meta-Cognitive Awareness Listening Questionnaire was estimated .77 through Cronbach Alpha; and the reliability of Critical Thinking Questionnaire was estimated .80 through Cronbach Alpha.

Table 1
Reliability Statistics of Babel Placement Test, Meta-Cognitive Awareness Listening and Critical Thinking Questionnaire

<table>
<thead>
<tr>
<th>Test</th>
<th>Number of Participants</th>
<th>Number of Items</th>
<th>Reliability Index</th>
<th>Reliability Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Babel Test</td>
<td>30</td>
<td>100</td>
<td>.91</td>
<td>KR-21</td>
</tr>
<tr>
<td>MLAQ</td>
<td>30</td>
<td>19</td>
<td>.77</td>
<td>Cronbach Alpha</td>
</tr>
<tr>
<td>CTQ</td>
<td>30</td>
<td>30</td>
<td>.80</td>
<td>Cronbach Alpha</td>
</tr>
</tbody>
</table>

Homogeneity Process
Babel Placement Test was administered to 200 participants to select the homogeneous Upper-Intermediate learners. The descriptive statistics of the participant’s scores on Babel showed that the mean, median and mode obtained on placement scores were 66.60, 67, and 68 respectively, with SD = 13.7. These central parameters were to a large extent the same, though mode was a bit larger which meant the scores were normally distributed. The distributions of the Babel Placement Test scores on a normal curve are displayed in Figure 1.

![Figure 1 Babel Placement Test scores](image)

Table 3
Descriptive Statistics for Male and Female’ Responses to Critical Thinking Questionnaire

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Range</th>
<th>Mean score</th>
<th>Mean rank</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>75</td>
<td>88</td>
<td>101.45</td>
<td>75.24</td>
<td>104.00</td>
<td>88</td>
<td>18.16</td>
</tr>
<tr>
<td>Female</td>
<td>75</td>
<td>59</td>
<td>102.72</td>
<td>75.76</td>
<td>102.00</td>
<td>90</td>
<td>12.61</td>
</tr>
</tbody>
</table>

We used One-Sample Kolmogorov-Smirnov Test of normality to test the normal distribution of Babel Test scores. The normality test results in Table 2 indicate that p value, .90 was more than .05 denoting normal distribution.

Table 2
One-Sample Kolmogorov-Smirnov Test of Normality for Babel Test Scores

<table>
<thead>
<tr>
<th>N</th>
<th>Mean</th>
<th>Kolmogorov Smirnov Z</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>60</td>
<td>66.60</td>
<td>.566</td>
<td>.906</td>
</tr>
</tbody>
</table>

Those students who scored within one standard deviation, 13.77 below and above the mean of 66.60.02 on Babel Test were chosen as homogeneous upper-intermediate participants for this study. Consequently 150 (75 male & 75 female) students who scored from 52 to 80 were chosen.

Table 4.5
Non-parametric Mann Whitney U Test to Compare Male and Female Participants’ Critical Thinking Ability

<table>
<thead>
<tr>
<th>Mann-Whitney U</th>
<th>Wilcoxon W</th>
<th>Z</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2793.00</td>
<td>5643.000</td>
<td>-.073</td>
<td>.942</td>
</tr>
</tbody>
</table>
Investigating Research Question Number Two

The second research question of the current study asked whether there is any statistically significant difference between male and female Iranian Upper-Intermediate EFL learners’ meta-cognitive awareness listening strategies. Table 4 shows that the number of male and female students who responded to the questionnaire was 75 each. The average mean rank for the male students was 64.58 with the standard deviation of 8.34, but it was 86.42 for the female ones with the standard deviation of 6.62. The mean rank of the females is considerably more than the mean rank of the males. Moreover, the median and mode for males was to be 63 and 65. However the median and mode were 66 and 68 for female students.

Table 4
Descriptive Statistics for Male and Female’ Responses to Meta-Cognitive Awareness Listening Strategies Questionnaire

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Range</th>
<th>Mean score</th>
<th>Mean rank</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>75</td>
<td>45</td>
<td>61.13</td>
<td>64.58</td>
<td>63.00</td>
<td>65</td>
<td>8.34</td>
</tr>
<tr>
<td>Female</td>
<td>75</td>
<td>25</td>
<td>65.17</td>
<td>86.42</td>
<td>66.00</td>
<td>68</td>
<td>6.62</td>
</tr>
</tbody>
</table>

In order to compare male and female’ meta-cognitive awareness listening strategies, Mann Whitney U Test was used. It detected a statistically significant difference in the listening strategies between males’ (Md = 104, n = 75) and females’ (Md = 102, n = 75) with (U = 1993.50, Z = -3.084, p = .002, p < .05), in which the p value was well lower than .05; accordingly, the null hypothesis as there is not any statistically significant difference between male and female Iranian Upper-Intermediate EFL learners’ meta-cognitive awareness listening strategies is rejected, and with high degree of confidence, it can be claimed that there is a statistically significant difference between male and female Iranian Upper-Intermediate EFL learners’ meta-cognitive awareness listening strategies. In fact, the female students outperformed the male ones regarding meta-cognitive awareness listening strategies performance.

Table 4.7
Non-parametric Mann Whitney U Test to Compare Male and Female Participants’ Meta-Cognitive Awareness Listening Strategies

<table>
<thead>
<tr>
<th></th>
<th>Mann-Whitney U</th>
<th>Wilcoxon W</th>
<th>Z</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1993.500</td>
<td>4843.500</td>
<td>-3.084</td>
<td>.002</td>
</tr>
</tbody>
</table>

Investigating Research Question Number Three

The third research question of this study asked whether there is any statistically significant difference between male and female Iranian Upper-Intermediate EFL learners’ selection of meta-cognitive listening strategies. In order to answer this research question, Non-parametric Mann Whitney U Test was employed. Before performing this analysis, the related descriptive statistics were computed and provided in Table 5 showing clearly that the mean rank, mean score, and median of the female students are larger than those of the male ones.

Table 5
Descriptive Statistics of Male and Female’ selection of Meta-Cognitive Awareness Listening Strategies

<table>
<thead>
<tr>
<th>Selection of Strategies</th>
<th>Gender</th>
<th>N</th>
<th>Mean Rank</th>
<th>Mean Score</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning</td>
<td>Male</td>
<td>75</td>
<td>65.13</td>
<td>11.95</td>
<td>12.00</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>75</td>
<td>85.87</td>
<td>13.24</td>
<td>14.00</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>150</td>
<td>70.00</td>
<td>12.59</td>
<td>13.00</td>
</tr>
<tr>
<td>Problem solving</td>
<td>Male</td>
<td>75</td>
<td>71.78</td>
<td>20.80</td>
<td>21.00</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>75</td>
<td>79.22</td>
<td>21.43</td>
<td>22.00</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>150</td>
<td>75.45</td>
<td>21.11</td>
<td>21.00</td>
</tr>
<tr>
<td>Directed attention</td>
<td>Male</td>
<td>75</td>
<td>64.99</td>
<td>10.73</td>
<td>11.96</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>75</td>
<td>86.01</td>
<td>11.00</td>
<td>12.00</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>150</td>
<td>75.46</td>
<td>11.35</td>
<td>12.00</td>
</tr>
<tr>
<td>Meta translation</td>
<td>Male</td>
<td>75</td>
<td>71.10</td>
<td>5.91</td>
<td>6.31</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>75</td>
<td>79.90</td>
<td>6.00</td>
<td>7.00</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>150</td>
<td>75.50</td>
<td>6.11</td>
<td>6.00</td>
</tr>
<tr>
<td>Person knowledge</td>
<td>Male</td>
<td>75</td>
<td>75.05</td>
<td>8.69</td>
<td>8.69</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>75</td>
<td>75.95</td>
<td>9.00</td>
<td>9.00</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>150</td>
<td>75.95</td>
<td>8.69</td>
<td>9.00</td>
</tr>
</tbody>
</table>
Non-parametric Mann Whitney U Test was performed to compare male and female participants’ selection of meta-cognitive listening strategies. The results of this analysis in Table 6 indicate that Mann-Whitney U Test found a significant difference only in ‘planning’ (U = 2035.0, Z = -2.946, p = .003, p < .05), and ‘directed attention’ (U = 2024.50, Z = -3.008, p = .003, p < .05). However, It did not find any significant difference in ‘problem solving’ (U = 2533.50, Z = -1.054, p = .292, p > .05), ‘meta translation’ (U = 2482.50, Z = -1.261, p = .207, p > .05), and ‘person knowledge’ (U = 2779.00, Z = -.129, p = .898, p > .05) between male and female Iranian Upper-Intermediate EFL learners. Accordingly, the null hypothesis as there is not any statistically significant difference between male and female Iranian Upper-Intermediate EFL learners’ selection of meta-cognitive listening strategies is partially rejected, and we can claim that there is a statistically significant difference between male and female Iranian Upper-Intermediate EFL learners’ selection of some of the meta-cognitive listening strategies but not others.

Table 6: Non-parametric Mann Whitney U Test to Compare Male and Female Selection of Meta-Cognitive Listening Strategies

<table>
<thead>
<tr>
<th></th>
<th>Planning</th>
<th>Problem Solving</th>
<th>Directed attention</th>
<th>Meta translation</th>
<th>Personal knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mann-Whitney U</td>
<td>2035.00</td>
<td>2533.50</td>
<td>2024.50</td>
<td>2482.50</td>
<td>2779.00</td>
</tr>
<tr>
<td>Wilcoxon W</td>
<td>4885.00</td>
<td>5383.50</td>
<td>4874.50</td>
<td>5332.50</td>
<td>5629.00</td>
</tr>
<tr>
<td>Z</td>
<td>-2.946</td>
<td>-1.054</td>
<td>-3.008</td>
<td>-1.261</td>
<td>-.129</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.003</td>
<td>.292</td>
<td>.003</td>
<td>.207</td>
<td>.898</td>
</tr>
</tbody>
</table>

Figure 2 below graphically illustrates the related results.

![Graph](https://example.com/image)

**Figure 2** Male and female' selection of metacognitive awareness listening strategies

**Discussion**

Concerning the investigation of relationship among the variables, the outcomes of the present study seem to corroborate with some of the reviewed research. It was found in this study that there was no difference between males and females critical thinking in Upper-Intermediate level. This finding is in contradictory with other studies. A reason which can be postulated for this is that in this context, a large number of the participants were from the similar educational background, proficiency level, socioeconomic status, and age. By considering these factors, it can be posited that the effect of gender was dwarfed by the collective effect of factors mentioned. Researchers like Case (2005) and Kennedy, Fisher, Ennis, (1991) regard background knowledge as a necessary but not sufficient condition for critical thinking. However, for Willingham, (2007) background knowledge plays a crucial role in this regard. This might be the reason why in the present study the role of gender was marginalized by this factor and no significant difference was seen between male and female participants in their critical thinking. Apart from the background knowledge in general, domain-specific knowledge seems to play a role too. Bailin, Case, Combs, and Daniels (1999) argue that domain-specific knowledge is indispensable to critical thinking because the kinds of explanations, evaluations, and evidence that are most highly valued vary from one domain to another. Facione (1990) believes that although critical thinking skills is above and beyond specific subjects or disciplines, learning and applying these skills in many contexts necessitates domain-specific knowledge which entails understanding methodological principles and competence to engage in norm-regulated practices that are at the core of reasonable judgments in those specific contexts. There is more to critical thinking than simply generating a list of logical operations or regarding main-specific knowledge simply as an aggregation of information. Therefore, based on the result, one might add that besides specific subjects or disciplines, critical thinking might trans
The study showed that females were significantly more successful than males in terms of using meta-cognitive listening strategies among Upper-Intermediate learners. This finding seems to be in the same line with studies, including Sy (1994) and Watanabe (1990) who found similar results in that females surpassed males in the amount of language learning strategies they employed. Boyle (1987) came up with similar findings in his study in which females outscored males. Optimal use of strategies can be one the features of successful language learners used, as Wenden and Rubin (1987) point out, most of language learning strategies research focused mainly on finding out the steps taken by good language learners while learning a second or foreign language.”

This fact proposes an insight into the overall low language learning strategies by males. As Vandergrift (2003) emphasizes, this difference can be attributed to learners’ motivation. If males do not have specific purposes or sources of motivation, they seem to spend less effort in language learning. Griffiths (2008) also states “Due to generally lower motivation, male students also need continuous and concrete reminders regarding the advantages of foreign language study for their future careers” (p.79). Still another piece of evidence supporting the finding of the present study on the supremacy of female over male in strategy use comes from Cesur (2008) who found that females were superior to males in terms of language learning strategy use and they were more successful in learning English. Also Oxford and Nyikos (1989) found that females reported significantly more frequent use of conversational input elicitation strategies relating to social interaction. In their study women reported to use general study strategies and formal rule-related practice strategies significantly more than men.

Another finding of the present study was that males and females owned different degrees of awareness of different meta-cognitive listening strategies. It was evident that female learners had higher awareness of direct attention and lower amount in person knowledge which is exactly in opposition with male learners. Males employed more person knowledge and lower direct attention compared to females. Different studies found different outcomes about the preference of the strategies among male and female learners. This difference can be attributed to learners motivation, (Vandergrift, 2003), self-efficacy (Vandergrift, 2005), language listening skillfulness (Vandergrift, 2003), and their level of anxiety in L2 listening (Sparks & Ganschow, 2001). As mentioned before the person knowledge is closely related to self-efficacy which might be cherished by the male-dominant social structure in Iran which in turn can be a possible reason for female students’ low strategy use of person knowledge scores in this context.

PEDAGOGICAL IMPLICATIONS
Because of the prominent role of critical thinking in improving effective language learning, it requires to be promoted among EFL learners. As a result, facilitating and advancing learners’ critical thinking can be considered as one of the language teachers’ responsibilities. Teachers’ manipulation and mediation of students’ cognitive capacities can enhance learners’ critical thinking. It will be easily accomplished by asking challenging questions which raise students’ critical awareness. Fisher (2003, as cited in Jarvis, 2005) proposes seven types of questions that can attract learners’ critical thinking: Contextual, temporal order, particular events, intentions, choices, meaning (meta-discourse message), and telling. For example “Debate” is a vital activity which presupposes freedom of speech as one of the preconditions for investigation and judgment about contemporary problems.

This study recommends EFL teachers to cultivate learners’ awareness of listening strategy use and their critical thinking skills simultaneously because their integration will contribute to better listening comprehension and also better language learning. EFL teachers can employ the findings of this study as a guide to determine the strategies with the potential effects on improving learners’ learning. They can prepare instruction and activities for upper-intermediate learners in using meta-cognitive awareness strategies while listening. Focusing on application of listening meta-cognitive strategies will aid learners to better listening comprehension and also to decode English input and to achieve greater success in English learning. EFL learners should be urged to avoid word-for-word or keyword translation through listening tasks. According to Calis and Dikilitas (2012), literal translation, a commonly used practice in EFL classrooms, is probably attributed to learners’ efforts to compensate for the shortage of the shortage of exposure to S/FL in authentic communication.
Numerous descriptive studies, especially theses and dissertations have addressed the Iranian EFL learners’ language learning. Although some teachers are now becoming aware of the need to recommend particular strategies to their students, little attention is often given to the individual differences. These variables or factors (i.e., individual differences) are really important, and in some studies significant relationships have been found between these variables and language learning. For example, Tannen (1990) regards gender-linked variations as potential sources of bias across gender. To avoid such failure, teachers should know those sociolinguistic variables which vary based on gender. Knowledge of gender-linked differences such as learning styles and strategies can help teachers to gain a better insight into the world of learners of different genders in order to enhance and improve learners’ communication.

After the initiation of post method in the field of language learning, there has been a prominent shift towards the learning and teaching processes with a greater emphasis on learners and learning rather than on teachers and teaching (Kumaravadivelu, 2008). As a result, not only language teachers, but also language learners are expected to play their role to enhance and advance the language learning process. Therefore, the outcomes of the present research have applications for language learners too. These findings encourage male and female learners to be more critical about their learning processes. It is wished that the findings of this study would make EFL learners more critical thinkers and also more aware of their meta-cognitive listening strategies.

Undoubtedly, the result of the current research could be useful not only for the EFL/SL teachers and learners, but also for syllabus designers who are concerned with the EFL learners’ improvement of listening comprehension. Materials developers should advance and expand the information base about the effective methods and materials of teaching listening comprehension to Elementary, Intermediate, Upper-Intermediate, and Advanced learners. Some of the investigations should directly probe the effect of learning strategies especially meta-cognitive strategies which can guide learners to be good language learners.

Materials developers are expected to appreciate the immense value and great potential of critical thinking and meta-cognitive strategies to facilitate the learning process and to make active, intelligent learners. It is strongly suggested to materials developers to incorporate meta-cognitive awareness strategies and critical thinking tasks into EFL materials in which planning, evaluation, problem-solving, directed attention, meta-translation, person knowledge, identifying the problem, defining the context, enumerating choices, analysing options, listing reasons explicitly, and self-correct are valued.

References


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