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## DEVELOPING CRITICAL INTERCULTURAL COMPETENCE IN SECOND LANGUAGE TEACHER EDUCATION

*Research article*

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### Abstract

This study aims to explore the impact of critical thinking skills on promotion of intercultural competence among student teachers of an English language teaching program. The participants were 34 student teachers studying English language teaching at BA level. They were equally assigned to two groups as treatment (n=17) and non-treatment (n=17). The student teachers recruited for the experimental group received a 10-week teacher training on the cultivation of critical thinking skills in intercultural contexts. The data were collected through online tests, rating scales, and a set of reflections. The statistical differences between the experimental and the control groups were confirmed with appropriate effect size calculations to scrutinize the effect of the training. How critical thinking skills and intercultural competence exert an impact on the personal and professional development of teacher candidates were analysed and reported qualitatively through the content analysis of the reflections. According to statistical analysis and student teachers' reflections, critical thinking skills played a complementary and crucial role in fostering intercultural knowledge, awareness, and sensitivity in second language teacher education.

*Keywords:* critical thinking, intercultural competence, teacher education, intercultural sensitivity

### 1. Introduction

Critical thinking and intercultural competencies are fundamental phenomena that should be accentuated in all levels of education, including higher education. These separate but interrelated competencies help students develop vital life skills, such as processing a large amount of information and thus build effective, proactive global citizenship. Critical thinking skills advocate thinking which without fail is unbiased, fair, and serves for humanity; similarly, intercultural competence intends to cultivate skills and traits in order to overcome intercultural distortions, narrow-mindedness, and unfairness like ethnocentrism.

In the present study, the promotion of intercultural competence is dealt in line with critical thinking skills, criteria, and virtues to increase the consciousness, integrity, and consistency. With this framework, intercultural competence is referred to as critical intercultural competence (C-IC) for student teachers. However, the criteria for framing a well-structured curriculum especially for second language teacher education are still vague (Hemming, 2000), despite several studies related to critical pedagogy and intercultural competence (Bradshaw, Bishop, Gens, Miller, & Rogers, 2002; Murray, 2006; Vidoni & Maddux, 2002).

## 2. Conceptual Framework

Developing intercultural competency in foreign and second language education encompasses a number of sub-points or competencies such as having certain skills, knowledge, attitudes, or awareness. The knowledge aspect of the model C-KAS (Critical/Knowledge-Awareness-Sensitivity) refers to the general knowledge about social structure, political-economic factors, interactional behaviors, basic norms, and taboos of both own culture and target cultures (Fantini & Tirmizi, 2006). Based on Deardoff's (2006b) pyramid model of intercultural competence, intercultural knowledge involves profound knowledge of culture which encompasses not only own culture but also artifacts, behaviors, lifestyles, and world views of other cultures and people. The awareness dimension includes the recognition and consciousness of similarities and differences between own culture and other cultures and developing the ability of evaluation of this diversity based on some critical criteria (Byram et al., 2002; Fantini & Tirmizi, 2006). From Hanvey's (1987) view, intercultural awareness consists of three levels like awareness of not only apparent but also deep and noteworthy cultural traits that significantly different from one's culture, and lastly, it includes the development of awareness from the point of view of the member of that culture. Lastly, sensitivity is to have personal attitudes to be ready and willing to deal with cultural diversity, stereotypes, personal or cultural biases, and having an appreciation and paying attention to learn new cultures, employ different roles, and engage with different cultures and people of these cultures (Byram et al., 2002; Fantini & Tirmizi, 2006). Intercultural sensitivity is the ability to develop a deep understanding and appreciation of cultural variety (Chen & Starosta, 1997). According to Bennett (1984), intercultural sensitivity refers to the developmental process which leads to positive affective, cognitive, and behavioral change from ethnocentric stages to ethnorelative stages; which includes the appreciation and acceptance of cultural differences through developing positive intercultural image (Hammer et al., 2003, p. 422). Intercultural sensitivity with its broadest sense comprises a number of dimensions like fair-mindedness, empathy, self-esteem, respect, curiosity, and so forth.

With these respects, the pioneering scholars that mainly guide this study for critical theory are the scholars of Delphi Report (1990); Dr. Peter A. Facione and other experts, and the founders of the Foundation for Critical Thinking Dr. Richard Paul and Dr. Linda Elder (2015). Delphi report sets a number of questions that try to determine the skills and dispositions included in critical thinking and the practical considerations to teach critical thinking. The other important outcome of the Delphi Report is the consensus that a critical thinker needs to be equipped with several dispositions like being inquisitive, open-minded, being sincere to face own biases, stereotypes, and being willing to base the information-seeking process on some intellectual criteria; in other words, the critical thinker can only be a whole person with critical cognition and spirit (Facione, 1990). In defining CT, cognitive perspective emphasizes thinking process generated by cognitive skills like "conceptualizing, applying, analyzing, synthesizing, and evaluating" (Scriven & Paul, 1987), the more effective perspective, on the other hand, makes a great contribution to the literature through putting forward the importance of cultivating affective dispositions like having "a probing inquisitiveness, a keenness of mind, a zealous dedication to reason" (Facione, 1990). The other scholars that work for excellence in thought are Dr. Richard Paul and Dr. Linda Elder. According to Paul and Elder (2008), thinking can be unfair, vague, and narrow-minded. They believe that with systematic education, self-direction, discipline, monitor, and correction in the development of critical thinking a person can be trained and can jump from the first level of an unreflective thinker to master thinker, who is consistently reflective and natured with good characteristics of thought (Paul & Elder, 2008). In parallel with the cognitive skills

suggested by Facione (1990), for the founders of Foundation for Critical Thinking (Paul & Elder, 2008), the elements of reasoning are purposes, questions, inferences, points of view, information, inference, concept, implication, and assumption. In the process of critical thinking, these elements need to be standardized on a number of standards like clarity, precision, accuracy, significance, relevance, completeness, logicalness, fairness, breadth, and depth (Paul & Elder, 2008). Like in Delphi Report (1990), in an affective sense, it is necessary for an individual to be emotionally programmed to be a critical spirit with intellectual virtues like intellectual autonomy, courage, humility, fair-mindedness, empathy, integrity, and perseverance (Paul & Elder, 2008). Alongside the cognitive maturity and cognitive thinking skills, the development of affective dispositions is important to have “critical spirit” (Facione, 2010). As a part of holistic learning, besides cognitive engagement, the cultivation of dispositions also enables the fulfillment of affective involvement of learners. According to Halpern (1999) employing “the right skill” when it is needed cannot be enough to conceptualize critical thinking, rather you also need to develop an attitude or disposition to “recognize when a skill is needed”. Critical thinking entails creativity in order to provide reasons to support or contradict an idea or produce alternative explanations.

## **2.1. Rationale behind the Study Design**

The present study adopts a mixed-method research design, which provided “multiple ways of seeing and hearing” (Greene, 2007, p.20). The use of tools is mainly concerned with designing a good mixing of quantitative and qualitative research methods that they can be exploded to see both viewpoints and to reach “breadth and depth of understanding and corroboration” (Johnson et al., 2007, p.123). In this research design, while the independent variable is the use of the cognitive and the dispositional skills of the critical thinking, the dependent variables are teacher candidates’ intercultural competence levels in three aspects; namely, intercultural knowledge, awareness, and sensitivity. In order to gain a deeper insight into these research foci, a mixed-method study design is adopted (Creswell, 2007). Mixed-method research refers to the design which includes the collection, analysis, and interpretation of quantitative and qualitative data related to research focus (Leech & Onwuegbuzie, 2009). While the quantitative facet of this research deals with the deductive, objective and numerical measurements of the data, the qualitative facet concerns with more inductive, subjective and contextual data (Lingard et al., 2008). The four ways of triangulation (Brannen, 2005) are elaboration or expansion, initiation, complementarity, and contradiction. With the use of elaboration or expansion and initiation, we aimed to add more understanding and gain thorough insights and open a new path for research foci on critical thinking and intercultural competence in second language teacher education.

### **2.1.1. Sample**

The participants were 34 student teachers of an English language teaching program, and they were equally assigned to two groups as treatment (n=17) and non-treatment (n=17). The recruitment of the samples in groups was firstly based on non-random probability techniques, such as convenience and purposeful samplings. Hence, more accessible and volunteer subjects with fewer dropouts, a familiar setting for the application of the adopted course and more “information-rich case” with “good informants” were secured (Creswell, 1994; Morse, 1991; Patton, 2002). While the experimental group was exposed to a 10-week teaching intervention, the control group was not put into any critical thinking treatment process.

## 2.1.2. Research Tools

### 2.1.2.1. *Critical Thinking Basic Concepts Online Test*

This online test was used to base the critical thinking teaching process on some concrete criteria, such as the elements of thoughts, standards, and intellectual traits as included in thinker's guide developed by scholars of critical thinking, Elder and Paul (2008). Additionally, the assessment of student teachers' both initial and after training levels in critical thinking was carried out with the "International Critical Thinking Basic Concepts and Understanding Online Test" designed following the aforementioned elements, standards, and traits. In the test, these points are categorized under five aspects as (cited in Foundation for Critical Thinking, 2015):

- the analysis of thought
- the assessment of thought
- the dispositions of thought
- the skills and abilities of thought
- the obstacles or barriers to critical thought

Commonly addressed as one of the most notable tools for measuring critical thinking, the test is mainly designed to measure the essential concepts of critical thinking and to make people "think critically about critical thinking itself" (cited in Foundation for Critical Thinking, 2015) by focusing broadly on these concepts, related dispositions, and other related obstacles.

### 2.1.2.2. *Intercultural Knowledge and Awareness Scales*

Intercultural competence is a multifaceted and lifetime long process-oriented concept; thereby, the evaluation of its development entails a "multi-method and multi-perspective" assessment (Deardoff, 2006a). Therefore, the dimensions of intercultural competence were arranged around the top three dimensions as critical intercultural knowledge, awareness, and sensitivity (C-KAS). Cross-Cultural Awareness scale (Neuliep, 2014) was carried out to assess the dimensions of knowledge and awareness. The original version of the first scale consisted of 15 items regarding intercultural knowledge related to different cultures. In order to cover more intercultural knowledge aspects, the statements were designed around the topics of collectivism, individualism, and power distance, use of non-verbal signals, sex-role differences, politics, and economy, and the number of statements increased to 28 with 13 extra statements.

### 2.1.2.3. *The Intercultural Sensitivity Index (ISI)*

The Intercultural Sensitivity Index (ISI) applied was developed by Olson and Kroeger (2001) in accordance with the Development Model of Intercultural Sensitivity of Milton Bennett (1993) and global competency. In addition to the questions for demographic information, a 5 point-Likert scale was used for other 48 items indicating the levels of intercultural sensitivity. Correlated with the stages of the Development Model of Intercultural Sensitivity (DMIS), the survey has two main dimensions as ethnocentrism and ethnorelativism. Olson and Kroeger (2001) emphasize Bennett's definitions (1993) which explain ethnocentrism as centralizing own world view and culture over all other cultures within the stages of denial, defense, and minimization and they define ethnorelativism as the

cultural judgment of other cultures within their own norms. On the other hand, according to Olson and Kroeger (2001), in ethno relativist stage, the individual starts to experience a change in his/her sensitivity related to differences caused by cultures. They no longer perceive these differences as a threat to their world view of their own culture. The whole questionnaire was taken as a “sensitivity scale” generally based on development levels of intercultural sensitivity.

#### *2.1.2.4. Reflection-in-Action and Reflection-on-Action Guides*

The reflections applied in this research study served a number of functions. Two reflection papers concerning CT and IC functioned as content-based scaffolding and meta-cognitive approach to the participants’ reflection. In content-based scaffolding which aimed to increase learners’ understanding of the course concepts, themes, messages, and ideas given in it through moving from the familiar topics to new ones (Grossman, 2009). In other words, it worked as a measurement for the student teachers’ basic knowledge concerning critical thinking and its function in intercultural competence. The other important purpose that the reflection process possessed was to hearten the participants to enjoy meta-cognitive reflection that was to take action to assess honestly own thinking and develop self-regulation mechanisms to be cognitively, behaviorally, and emotionally fair in cultural issues both during and after the learning process. The reflection tools were based on the critical thinking cognitive skills interpretation, analysis, inference, evaluation, explanation, and self-regulation (Facione, 1990). Based on their intercultural topics, student teachers were expected to conduct a search, analyze, evaluate, and synthesis their assignment through reflecting in action. In other words, they were led to think about their performance concerning the critical thinking skills via the reflective questions for each dimension of CT cognitive skills depicted by Facione (1990). The second type of reflection papers dealt with the intellectual traits in intercultural competence. The intellectual virtues, such as intellectual integrity, fair-mindedness, courage, confidence in reasoning, intellectual humility, autonomy, perseverance, and intellectual empathy are framed by Elder and Paul (2008), which are incorporated with the critical thinking dispositions (Facione, 1990).

#### *2.1.3. Data Analysis*

Several statistical procedures and interpretation techniques were applied during quantitative data analysis. The data collection procedure included the success tests applied before and after the training interventions. Based on the hypotheses regarding integration of critical thinking skills into intercultural competence in second language teacher education, student teachers were asked to take online critical thinking basic concept tests, intercultural knowledge tests, and complete intercultural awareness and sensitivity surveys both before and after the experimental treatment. The raw data were analyzed with the use of MS Excel and SPSS. Initially, the independent samples t –test was utilized to calculate the differences between the experimental and control group regarding critical intercultural competence development based on the dimensions of critical thinking skills, knowledge, awareness, and sensitivity. The obtained test results indicated that there were significant differences between the treatment and non-treatment group that critical thinking integration into intercultural competence positively and significantly affected the participants’ intercultural development. For the homogeneity of variances and normal distribution between two groups for each research focus were tested with the Two-Sample Kolmogorov-Smirnov test.

Table 1. *Two-Sample Kolmogorov-Smirnov Test for Normality*

	<b>Kolmogorov-Smirnov<sup>a</sup></b>
	Sig.
Critical Thinking	.454
Intercultural Knowledge	.734
Intercultural Knowledge Awareness	.240
Intercultural Sensitivity	.454

The results showed that there was not a statistically significant ( $p > 0.05$ ) deviation from normality. Therefore, we can conclude that the data are normally distributed with a good fit with the normal distribution. However, due to small sample size condition, the Wilcoxon signed-rank test, which is a non-parametric counterpart of the dependent t-test, was applied to measure the difference between the pre and post scores of the same group. These repeated measurements signified that there were changes in the scores within the groups. In addition to calculating the magnitude of any signs of differences and to see the effect size of this difference, effect size calculation or formula for Wilcoxon signed-rank test suggested by Pallant (2007) was carried out. To compare the means of the pre and post-test scores of two different groups to check whether the acquired significant differences have small or large effect sizes Cohen's d calculation for Independent samples t-test was applied for pre and post-test mean differences (Cohen, 1988). The gathered data in that part was reported in a number of ways like frequency distributions, percentage of responses, and central tendency like the use of mean. After the analysis of each category of data, the findings were displayed in charts, graphs, and tables. In terms of reliability concerns that aim to provide consistency in test results, the value of Cronbach's alpha for the intercultural knowledge questionnaire was  $\alpha=0.70$ ; for the intercultural awareness survey was  $\alpha=0.91$ , and lastly for the intercultural sensitivity survey was  $\alpha=0.86$ . These calculations revealed that the questionnaire surveys had internal consistency and reliable scores ranging between acceptable and excellent levels.

Based on the qualitative research, the data were transcribed verbatim and made ready for coding. Regarding the student teachers' reflections, the emerged coding units were identified and recorded on MS Word for the tally and quantification process. As a content analysis, a conceptual analysis was carried out since the purpose of the analysis was simply to identify and quantify the occurrence and the frequency of the terms or expressions articulated by the participants. Through open coding, the data were analyzed to elicit possible concepts or code units.

### 3. Results

Without giving any speculative interpretation which was left for the next discussion chapter, the findings and any related statistical analysis and results gone through the data analysis stage were given in a detailed account based on the principles of accuracy and conciseness.

Table 2. Independent samples t-test analysis of CT post test scores between groups

	Group	N	Mean	Std. Deviation	Std. Error Mean
CT Post-test Scores	Control G.	17	44.2353	5.61838	1.36266
	Experimental G.	17	77.8824	6.99001	1.69533
Mean Difference	95% CI Lower	95% CI Upper	t	Df	Sig.(2-tailed)
-33.64706	-38.07755	-29.21657	-15.469	32	.000
Effect Size/ Cohen's d : 5.30					

There is a significant difference (see Table 2) in the scores of experimental group (M=77.88, SD=6.99) and control group (M=44.23, SD=5.61);  $t(32) = 15.46$ , with  $p$  value = .000 ( $< 0.05$ ). The mean difference between the two groups was MD=33.64. Cohen's  $d$  with 5.30 indicated a large effect size between the mean differences.

Table 3. Independent samples t-test analysis of CT post test scores between groups in 5 sections

Between Groups (Post-test Analysis)	Control & Experimental Gr.
Basic Critical Thinking Insight	.000
Element or Component Part of Thought	.000
Intellectual Standard	.000
Intellectual Trait	.000
Obstacle to Critical Thinking	.000

Based on the analysis of the pre and post-test of CT test which was divided into 5 main parts (see Table 3), the score differences between the control and experimental group in each dimension had a significant value of .000. The training group with the impact of the intervention and explicit focus on CT and its sub-dimensions showed significant changes in all aspects.

Table 4. Post and pre scores of each group in main three parts of CT test

	Part One and Part Two: On the Nature of Critical Thinking Average out of 100		Part Three: On Recognizing Important Distinctions in Critical Thinking Average out of 100		Average Scores Out of 100 (%)	
	Pre	Post	Pre	Post	Pre	Post
Control G.	44	45	34	40	41	44
Experimental G.	48	70	33	86	41	78

Table 4 shows the average scores obtained by the participants of both control and experimental groups on the CT test in accordance with its three main parts. Based on these scores while groups did not display a higher difference in their pre scores as for the control group they were M=44(Part1&2), M=34(Part3); for the experimental group, they were M=48(P1&2), M=33(P3). The means of the post scores for the control group were



M=45(Part 1&2), M=40(Part 3); on the other hand, for the experimental group they reached to M=70(Part 1&2), M=86(Part 3), which indicated that engaging students with critical thinking concepts and training them within a formal instruction helped them develop critical thinking skills, let them think consciously about critical thinking, and prepare them to pass from the concept stage to the practice and application stage.

Table 5. *Wilcoxon signed ranks test analysis of intercultural knowledge within groups*

	Control G. Pre-Post Scores	Experimental G. Pre-Post Scores
N		Mean
	17	8.9412
	17	13.8824
Z	-2.236 <sup>a</sup>	-3.819 <sup>a</sup>
Asymp. Sig. (2- tailed)	.025	.000
Effect size /Pallant-r	.38	.65

a. Based on positive ranks.

Wilcoxon Signed-Ranks Test indicated that the pre-post scores within control and experimental groups were statistically significant with  $Z=2.23$ ,  $p=.025$  and  $Z=3.81$ ,  $p=.000$  respectively. While the mean difference for control group was  $MD= 5$  (rounded) it was  $MD=45$  for experimental group. The effect size scores  $r$  indicated that while the difference within the control group had medium effect size with  $r= .38$ , the difference within the experimental group also has larger effect with  $r=.62$ . However, the mean difference for the experimental group showed that the given training for the knowledge development significantly and quantitatively nine times outnumbered the scores of the control group.

Table 6. *Wilcoxon signed ranks test analysis of intercultural awareness within groups*

	Control G. Pre-Post Scores	Experimental G. Pre-Post Scores
N		Mean
	17	2.4782
	17	2.7465
Z	-1.726 <sup>a</sup>	-3.621 <sup>a</sup>
Asymp. Sig. (2- tailed)	.084	.000
Effect size/Pallant-r:	.29	.62

a. Based on positive ranks.

A Wilcoxon Signed-Ranks Test showed that pre-post scores within control group were statistically not significant  $Z=1.72$ ,  $p=.084$ ; on the other hand, the post test scores of the

experimental group are significantly higher than pre-test scores of the same group with  $Z=3.62, p=.000$ . The mean difference for this group is 2.21. The effect size scores  $r$  indicated that while the difference within the control group had small effect, the difference within the experimental group had larger effect. In terms of promoting intercultural awareness which involves the understanding and recognition of both own culture and other cultures, cultural beliefs and values, in addition to similarities and differences between own culture and other cultures, overtly supporting learners with intercultural education increased learners' intercultural awareness more than implicit education.

Table 7. Wilcoxon signed ranks test analysis of intercultural sensitivity within groups

	Control G. Pre-Post Scores	Experimental G. Pre-Post Scores
N	17	17
Mean	3.1471	3.3606
Mean		3.8218
Z	-2.666 <sup>a</sup>	-3.433 <sup>a</sup>
Asymp. Sig. (2- tailed)	.008	.001
Effect size /Pallant-r	.45	.58

a. Based on negative ranks.

Wilcoxon Signed-Ranks Test indicated that pre-post scores within the control and experimental groups were statistically significant with  $Z=2.66, p=.008$  and  $Z=3.43, p=.001$  respectively. While the mean difference for control group was  $MD=.21$ , it was  $MD=.65$  for experimental group. The effect size scores  $r$  revealed that while the difference within the control group had medium effect with  $r=.45$ , the difference within the experimental group had larger effect with  $r=.58$ . The findings showed that with being exposed to intercultural issues implicitly or explicitly may cause change in the individual's intercultural sensitivity level; however, adapting an explicit, integral, and critical approach in intercultural competence development had more impact on intercultural sensitivity development and facilitates the process of change from ethnocentrism to ethnorelativism, which includes the sensitivity towards cultural diversity, developing empathy with the people of other cultures, being open to different worldviews, having willingness to learn and engage with different cultures, and having intercultural humility to face with own stereotypes.

Table 8. Independent samples t-test analysis of C-KAS post test scores between groups

Between Groups (Post Analysis)	Control & Experimental Gr.
Intercultural Knowledge	.000
Intercultural Awareness	.000
Intercultural Sensitivity	.000

Test analysis for Knowledge Test showed that there was significant difference with  $p$  value=.000. Cohen's  $d$  effect size =5.59 for Knowledge Test indicated the mean differences between the groups had a larger effect size. Thinking the effects of globalization on individuals, cultures, and intercultural relations, building cultural and intercultural awareness

within critical thinking skills criteria is inevitable. Even though informal attempts, coincidentally engagements, and learning may cause some change in the awareness level of the people, equipping learners with the developed insight of cultural beliefs, values, and behaviors through a planned and formal education in a certain period of time had more impact on the process of building intercultural awareness, which saved time and minimized any incidence of false awareness development. Regarding Awareness pre-post scores, with  $p$  value=.000 and the larger effect size of Cohen's  $d= 3.04$ , building intercultural awareness through training was successful. For the last dimension, Sensitivity which aimed to develop a positive attitude toward cultural diversity and otherness within the intellectual virtues of critical thinking like intellectual humility, integrity, empathy, courage, perseverance, and confidence in reason also yielded positive outcomes on the side of treatment group with significant difference ( $p$  value=.000) and large effect size (Cohen's  $d=1.45$ ).

As for the analysis and interpretation of the qualitative data that were obtained via reflection papers, Table 9 illustrates a representative distribution of the student teachers' views and interpretations of critical intercultural cognitive development. The representative statements indicate how the training sessions exert an impact on student teachers' cognition and conceptualization of the phenomena.

Table 9. *Student teachers' reflections about critical intercultural cognitive development*

INTERPRETATION	<p>"The general message given in my sources was about the findings related to intercultural competence and personal traits that people need to have to develop this competence"</p> <p>"The social significance was all cultures were different, you need to know these cultures and you need to develop a strong empathy towards different cultures"</p>
ANALYSIS	<p>"The arguments in the passages were linked to each other with cause and effect relation"</p> <p>"It compared and contrasted the gestures used in different countries and emphasized how these differences might cause misunderstandings"</p>
EVALUATION	<p>"I tried to collect information from researches done by well-known scholars in this field"</p> <p>"To check the accuracy of my readings, I cross-checked a number of sources and confirm the acceptability of stated arguments before using them in my writing"</p>
INFERENCE	<p>"For me, most of the people are aware of their poor communication competence and they know how this badly affects their intercultural competence but unfortunately they do not do at all to change this situation"</p> <p>"Culture is the mirror of our society. Being familiar with other cultures helps us to be familiar with our culture also."</p>
EXPLANATION	<p>"I designed graphics to explain the collected information"</p> <p>"I drew a mind-map to organize information and used some photos to them more clear"</p>
SELF-REGULATION	<p>"I think change and development depend on the person herself/himself. For this reason, people first of all need to start with themselves."</p>

Considering all aspects, student teachers equipped with the cognitive skills of interpretation and analysis can divide the main content into sub-parts, similar and different

points between two points, and can provide grounded reasons and evidence which may back or disapprove claims or other arguments (Table 9). For example reflections, learners indicated that the relationships between the ideas were given within causal relationships and the comparing and contrasting technique was another sub-skill used in analyzing small parts of the entire part of the main content. Effectively, evaluation entails the skill of searching the accuracy, reliability, and validity of information sources and other all possible cases through being open to alternatives. Regarding this dimension, students stated how they checked the accuracy and trustworthiness of the information collected from a wide range of sources and scholars. They also indicated how they managed the contextual relevance and logic between the claims and arguments. The next thinking skills were inference and explanation which mean to draw logical conclusions and construct reasonable hypotheses based on the information, evidence, experiences, notions, examples, definitions, and statements, and also to present the reader the most coherent and justifiable explanation considering the used evidence, methodology, criteria, and the followed procedures. Teacher candidates concluded that while developing intercultural communication competence, people needed to consider that it was a demanding process, and they stated that personal awareness and endeavour were essential requirements for getting positive results in personal development in intercultural competence. The last category is self-regulation part is self-monitoring or meta-cognition stage which includes self-assessment of one's cognitive skills, own motivation, or interests and the correction of the problematic parts. Concerning self-assessment, correction, and meta-cognitive change, students pointed out that people could change themselves but it depended on the person himself or herself and their effort.

Based on the reflections that focus on the role of critical thinking dispositions in developing intercultural affective domain, for the disposition of intellectual humility in critical intercultural knowledge, some of the students stated that making mistake was the nature of human beings but the important point was to develop awareness and be aware of the fact that they could also have inaccurate or limited knowledge; therefore, awareness should be used to develop intellectual spirit in intercultural competence.

- “Making mistakes is inevitable. We can make a mistake and I have this awareness. I believe that it is easier to get along with the people who have this awareness.”
- “We should not comment on the topics about which we have inaccurate or limited information.”

The second critical intercultural disposition is having intellectual courage in intercultural issues, which is to face with own early acquired negative prejudices or cultural stereotypes that may block our sensitivity in fairly dealing with different beliefs or viewpoints. Possessing this moral virtue of courage is directly related to the honest recognition of the intercultural related personal preconceptions that are not supported by logic or any reason. Related to avoiding intellectual cowardice, one of the students highlighted the significant point of applying objectivity in breaking down the prejudices related to their own culture and other cultures, and added that using intellectual standards as reference was an effective way to achieve that goal.

- “We try to avoid the situations that we do not like and the more we try to escape, the more we have stereotypes about them and start to lose our objectivity. Therefore, we need to face ourselves with objectivity so that we could have an intellectual standards-based search.”
- “I mostly felt uneasy in situations that I did not like and judgments were based on stereotypes. But now, I start to break my stereotypes and try to get rid of these.”

Related to developing intercultural empathy based on the principle of critically putting oneself in others' places to have logical and fair reasoning about other peoples' beliefs, behaviors, and cultural orientations, some learners indicated that empathy was the link between people and cultures.

- “I realized that through empathizing with people I could have more healthy relationships. Empathy is like a bridge between you and other people.”
- “I try to understand people by putting myself into their shoes regardless of their beliefs, ethnicity, lifestyles or languages that they speak.”

They also reflected that having this ability to share the feelings of other people was a way of giving importance to the human being.

#### 4. Discussion and Conclusion

To develop interculturally competent individuals in this increasingly interconnected and diverse world is “an on-going, future-oriented, multidimensional, interdisciplinary” (Ellingboe, 1996, p.199) process which entails the endeavors of all stakeholders. In a general sense, it is the acquisition of the ability of “effectively and appropriately” dealing with ethnicity, race, and religion by using own “intercultural knowledge, skills, and attitudes” (Deardoff, 2006b; Fantini, 2000, p.34-51). In a foreign language education context, a learner is expected to play the “mediator” role between own and other cultures through the effective and appropriate use of target language (Risager, 1998). Regarding the components of intercultural competence adopted in this research, to check the effectiveness of criticality in fostering intercultural competence, the components were determined as critical knowledge, awareness, and sensitivity. The research findings related to all dimensions indicated that the experimental group having explicit exposure to intercultural knowledge with the intellectual criteria of critical thinking skills outperformed the control group at the end of the training. Before the training stage, it was noted that most of the students had poor intercultural knowledge and they lacked familiarity with socio-political aspects, behavioral patterns, and values of the target culture and their culture. Thus, participants were encouraged to search, analyze, evaluate, and create their own synthesis related to intercultural aspects. While writing and presenting their own synthesis, they were required to fulfill the intellectual standards such as clarity, accuracy, precision, relevance, depth, breadth, logic, significance, and fairness. By deeply engaging with the values, beliefs, and behaviors of their culture and other cultures, they both quantitatively and qualitatively demonstrated a higher level of intercultural awareness and sensitivity. According to Nugent and Catalano (2015), foreign language education curriculum integrating critical cultural awareness, and thereby, sensitivity creates a learning environment in which learners have the opportunity of transferring their classroom learning to the real world while practicing their critical thinking skills.

Based on the course outcomes, participants articulated that they had a considerable understanding and gained insight in intercultural situational variables like role expectations, the hierarchical structure of the societies, differences related to power distance, and verbal or non-verbal communication styles, and so forth. Some of the participants stated that before the course, they had not given much importance even to the culture itself; but with explicit training, they accepted that they could have articulated their culture more effectively and they could have established deeper relationships with different cultures.

Promoting intercultural sensitivity in second language teacher education and to empower teacher candidates to be more intercultural sensitive has become a natural outcome of the critical development of both intercultural knowledge and awareness. Feeling more

comfortable living with the people who have different cultural backgrounds, appreciating and acknowledging cultural differences, feeling less threatened about losing own cultural values, giving more chance to socialize with people having different cultural values and behaviors, being braver in facing with own prejudices and stereotypes related to own culture, nation, and other cultures were some of the positive changes recorded and reflected by the teacher candidates. In this respect, the findings of the study indicate an acute call for reimagining the content and context of teaching not only the dispositions of critical thinking skills as a core competency of an intellectually mature English teacher but also intercultural competences in second language teacher education programs.

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## References

- Bennett, M. J. (1984). *Towards ethno relativism: A developmental model of intercultural sensitivity*. Paper presented at the Annual Conference of the Council on International Exchange, Minneapolis: Minnesota.
- Bennett, J. M. (1993). Cultural marginality: Identity issues in intercultural training. In R.M. Paige (Ed.), *Education for the intercultural experience* (pp. 109–135). Yarmouth, ME: Intercultural.
- Bradshaw, A. C., Bishop, J. L., Gens, L. S., Miller, S. L., & Rogers, M. A. (2002). The Relationship of the World Wide Web to thinking skills. *Educational Media International*, 39,275-284.
- Brannen, J. (2005). *Mixed methods research: A discussion paper*. NCRM Methods Review Papers NCRM/005. Southampton, UK: National Center for Research.
- Byram, M. Gribkova, B., & Starkey, H. (2002) Developing the intercultural dimension in language teaching – a practical introduction for teachers. *Language Policy Division*. Council of Europe, Strasbourg.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Earlbaum Associates.
- Chen, G. M., & Starosta, W. J. (1996). Intercultural communication competence: A synthesis. In B. Burleson (Ed.), *Communication yearbook 19* (pp. 353-383).
- Creswell, J. W. (1994). *Research design: Qualitative and quantitative approaches*. Thousand Oaks, CA: SAGE.
- Creswell, J.W. (2007). *Qualitative inquiry and research design: Choosing among five approaches* (2nd ed.). Thousand Oaks,. CA: Sage.
- Deardorff, D.K. (2006a). Assessing intercultural competence. In *New Directions for Institutional Research*, Wiley Periodicals, Inc. Published online in Wiley Online Library (wileyonlinelibrary.com)
- Deardorff, D.K. (2006b). The identification and assessment of intercultural competence as a student outcome of internationalization at institutions of higher education in the United States. *Journal of Studies in International Education*, 10(3), 241-266.
- Elder, L., & Paul, R. (2008). *The Miniature Guide to Critical Thinking Concepts and Tools*. Foundation for Critical Thinking Press.
- Ellingboe, B. J. (1996). *Divisional Strategies on Internationalizing Curriculum: A Comparative Five-College Case Study of Deans' and Faculty Perspectives at the University of Minnesota*. Unpublished master's thesis, Department of Educational Policy and Administration, University of Minnesota.
- Facione, P. A. (1990). *Critical thinking: A statement of expert consensus for purposes of educational assessment and instruction—The Delphi report*. Millbrae, CA: California Academic.
- Fantini, A. E. (2000). Assessing intercultural competence: A YOGA form. In *SIT Occasional Papers Series*, Brattleboro, VT: The School for International Training.
- Fantini, A. E., & Tirmizi, A. (2006). Exploring and assessing intercultural competence. Available at [http://www.sit.edu/publications/docs/feil\\_research\\_report.pdf](http://www.sit.edu/publications/docs/feil_research_report.pdf)
- Greene, J. C. (2007). *Mixed methods in social inquiry*. San Francisco: Jossey-Bass.

- Grossman, R. (2009). Structures for Facilitating Student Reflection, *College Teaching*, 57:1, 15-22, DOI: 10.3200/CTCH.57.1.15-22
- Halpern, D. F. (1999). Teaching for critical thinking: Helping college students develop the skills and dispositions of a critical thinker. *New Directions for Teaching and Learning*, 80, 69-74. doi:10.1002/tl.8005
- Hammer, M. R., Bennett, M. J., & Wiseman, R. (2003). Measuring intercultural sensitivity: The intercultural development inventory. *International Journal of Intercultural Relations*, 27, 421-443.
- Hanvey, R.G. (1987). Cross-culture awareness. In L.F. Luce & E.C. Smith (eds.), *Toward internationalism*. Cambridge, MA: Newbury, 13-23
- Hemming, H. (2000). Encouraging critical thinking: "But...what does that mean?" *McGill Journal of Education* 35(2), pp.173-186
- Johnson, R. B., Onwuegbuzie, A. J., & Turner, L. A. (2007). Toward a definition of mixed methods research. *Journal of Mixed Methods Research*, 1(2), 112-133. doi: 10.1177/1558689806298224
- Leech, N.L., & Onwuegbuzie, A.J. (2009) A typology of mixed methods research designs. *Quality & Quantity*, 43, 265-275.
- Lingard, L., Albert, M., & Levinson, W. (2008). Grounded theory, mixed methods, and action research. *British Medical Journal*, 337, 459-461
- Morse, J. M. (1991). Strategies for sampling. In J. M. Morse (Ed.), *Qualitative nursing research: A contemporary dialogue* (pp. 127-145). Thousand Oaks, CA: Sage.
- Murray, R. (2006). WebQuests celebrate 10 years: Have they delivered? *Action Research Exchange*, 5(1). Retrieved from [http://teach.valdosta.edu/are/vol5no1/Thesis%20PDF/MurryR\\_ARE.pdf](http://teach.valdosta.edu/are/vol5no1/Thesis%20PDF/MurryR_ARE.pdf)
- Neuliep, J. W. (2014). *Intercultural communication* (6 th ed.) Thousand Oaks Ca: Sage.
- Nugent, K., & Catalano, T. (2015). Critical cultural awareness in the foreign language classroom .Faculty Publications: Department of Teaching, *Learning and Teacher Education*. 194. <http://digitalcommons.unl.edu/teachlearnfacpub/194>
- Olson, C. L., & Kroeger, K. R. (2001). Global competency and intercultural sensitivity. *Journal of Studies in International Education*, 5, 116-137.
- Patton, M.Q. (2002). *Qualitative research and evaluation methods*. 3rd Sage Publications; Thousand Oaks, CA
- Paul, R., & Elder, L. (2008). *The thinker's guide to the nature and functions of critical & creative thinking*. Dillon Beach, CA: Foundation for Critical Thinking
- Risager, K. (1998). Language teaching and the process of European integration. In M. Byram & M. Fleming (Eds.), *Language learning in intercultural perspective* (pp. 242-254): Cambridge University Press.
- Scriven, M., & Paul, R. (1987). *Defining critical thinking*. [Online] Available: [http://www.criticalthinking.org/aboutCT/define\\_critical\\_thinkng.cfm](http://www.criticalthinking.org/aboutCT/define_critical_thinkng.cfm).
- Vidoni, K. L., & Maddux, C. D. (2002). Web Quests: Can they be used to improve critical thinking skills in students. *Computers in the Schools*, 19, 101-117.