Investigation of Pre Service Teachers’ Critical Thinking Tendencies in Terms of Different Variables

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Extended Abstract

Purpose

Mankind’s most important tool to understand and make sense of life and world is thinking. Thinking act directs many characteristics even it seems so ordinary. Speaking, discussion, making a choice or a judgement are all under the control of thinking activity. All people think inherently. But they think prejudicedly, deficiently, incorrectly and based on inexpedient information if they don’t gain effective thinking skills. However, today, information society whose improvement based on information and communication technology demands autonomous individuals who try to understand knowledge which he/she faces inquiringly, can make free decisions without taking hold of others and can take different approaches to events. At this point in the 21st century, mankind should constitute their own elimination system for the acquired information. The mental process fulfill logical filter duty that is required by mankind can be stated by critical thinking. Critical thinking is defined by the skill of taking the responsibility of his/her own ideas. Besides, critical thinking tendency is the intrinsic motivation of thinking critically when someone faces a problem to solve, an idea to analysis or a situation to judge.

The subject of this study is critical thinking tendencies of pre-service teachers and therefore the main problem of the study was stated like below:

Is there a significant difference between critical thinking tendencies of pre-service teachers in terms of some variables?

Beside this main problem, the sub-problems of the study listed below:

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1. What is the level of critical thinking tendencies and sub-dimensions (truth-seeking, open-mindedness, analyticity, systematicity, self-confidence and inquisitiveness) of pre-service teachers?

2. Is there a significant difference between critical thinking tendencies and sub-dimensions of pre-service teachers in terms of gender, field, department and grade level?

**Method**

In this study, with the aim of researching pre-service teachers’ critical thinking tendencies in terms of gender, department, field (social, science) and grade level, the research has been conducted with 278 pre-service teachers who studied at Afyon Kocatepe University, Faculty of Education 1st and 2nd grades during the 2013-2014 academic year. In this research general screening model which is one of the descriptive research models was used and sample of the study was chosen from the population via stratified sampling method. To determine the critical thinking tendencies of pre-service teachers, The California Critical Thinking Disposition Inventory (CCTDI-T) which is developed by Facione and Giancarlo (1998) and adapted into Turkish by Kökdemir (2003) was used as a means of data collection in the study. The inventory have six sub dimensions; truth-seeking, open-mindedness, analyticity, systematicity, self-confidence and inquisitiveness. Cronbach alpha reliability coefficient of The California Critical Thinking Disposition Inventory was found to be .84.

**Results**

As a result, critical thinking tendency and sub-dimensions level of pre-service teachers’ was found positively. Some significant differences were found between critical thinking tendency, analyticity and open-mindedness sub-dimensions in terms of gender; between critical thinking tendency, truth-seeking and systematicity sub-dimensions in terms of field variable. No significant difference was found in terms of grade level. A significant difference was found between critical thinking tendency and self-confidence, truth-seeking and systematicity sub-dimensions in terms of the department variable.

**Discussion and Conclusion**

As a conclusion, critical thinking tendency and sub-dimensions level of pre-service teachers’ who participated in survey was found positively. Gedik (2013), Coşkun (2013), Argon & Selvi (2011), Wangensteen, Johansson, Björkström & Nordström (2010), Beşoluk & Önder (2010), Walsh & Hardy (1999) and Facione, Giancarlo, Facione & Gainen (1995) found that pre-service teachers’ have positive critical thinking tendency. In spite of that, Sağlam & Büyükuysal (2013), Şenlik, Balkan & Aycan (2011), Tümkaya (2011), Acun, Demir & Göz (2010), Genç (2008), Dutoğlu & Tuncer (2008), Gülveren (2007) ve Çubukcu (2006) found that pre-service teachers have low critical thinking tendency. Pre-service teachers who have high critical thinking tendency are most in inquisitiveness sub-dimension.
However, pre-service teachers who have low critical thinking tendency are most in open-mindedness sub-dimension. In the light of this information, pre-service teachers have higher tendency to acquire new knowledge and learn without a benefit expectation; only self-oriented. Although, they have lower tendency to care others’ views and be sensitive to self thinking errors when they make a decision. As a result of Mann Whitney U test, some significant differences were found between critical thinking tendency and analyticity and open-mindedness sub-dimensions in terms of gender. In the literature, there is some studies that support this result (Arslan, Gülveren & Aydın, 2014, Güneş, Barış & Kırbaşlar, 2013, Yüksel, Uzun & Dost, 2013, Çetinkaya 2011). On the contrary, some studies did not find a significant difference (Bayrak, 2014, Gedik, 2013, Karalı, 2012, Emir, 2012, Gök & Erdoğan, 2011). Some significant differences were found between critical thinking tendency and truth-seeking and sistematicity sub-dimensions in terms of field variable. No significant difference was found between critical thinking tendency and sub-dimensions in terms of grade level. Bayrak (2014), Güneş, Barış & Kırbaşlar (2013), Yüksel, Uzun & Dost (2013) and Tümkaya (2011) did not find a significant difference in terms of grade level, too. Despite this, Arslan, Gülveren & Aydın, 2014, Kuvaç ve Koç (2014), Karalı (2012) and Zayif (2008) found some significant differences in terms of grade level variable. As a result of Kruskal Wallis test, a significant difference was found between critical thinking tendency and self-confidence, truth-seeking and systematicity sub-dimensions in terms of the department variable. In the literature, there is some studies that support this result (Emir, 2012, Karalı, 2012, Zayif, 2008, Genç, 2008, Güven & Kürüm, 2007, Gülveren, 2007 and Kürüm, 2002). On the contrary, some studies did not find a significant difference (Ricketts & Rudd, 2004, Walsh & Hardy, 1999, Özdemir, 2005 and Şenlik, Balkan & Aycan, 2011).