



The Correlation between Critical Thinking Tendencies and Sporty Attitudes of Music Teacher Candidates

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Abstract

Critical thinking is a different thinking method than other thinking methods and an important element of all academic disciplines and professional fields. It is a way of deciding whether a assertion is true, partially false, or true and a process that leads to skills that can be learned, mastered and used. Besides, it is known that physical activity / sport is also a very important for psycho-social skills like communication skill, problem solving skill, empathy skill, etc. People, who give importance to sport, are interested in sport, work out, play sports, do physical exercises, go to the gym; have definite sporty attitudes and are healthier than other people who don't do physical exercises.

It has been proved that critical thinking or physical activity tendencies have many applications in many fields and that they have positive effects in education. But it was seen that research in the field of all education in Turkey lacked the focus on correlation between critical thinking and sporty attitude. Therefore, the aim of this study is to investigate of the correlation between critical thinking tendencies and sporty attitudes of music teacher candidates. In light of this aim, 92 arbitrary music teacher candidates who study at Muğla Sıtkı Koçman University, Faculty of Education, Department of Fine Art Education, Music Education Program, have been participated in this research. The Turkish versions of the "California Critical Thinking Test" [1] and "Sporty Attitude Scale" [2] have been applied to all 92 students that have participated in the research and the correlation between them has been analyzed by authors.

As a result, statistically significant relationship was not found between critical thinking tendencies and sporty attitudes of music teacher candidates but sex differences have been found. This study, for the future of education, may be applied to different groups of education, to widen its scope.

1. Introduction

The intellectual roots of critical thinking can be traced back to Socrates over 2,500 years ago, with the help of a probing questioning technique, showed that people could not rationally justify their confident claims to knowledge. The age of Socrates was followed by Plato (his student), Aristotle, Greek skeptics, and other thinkers such as Aquinas, Machiavelli, Cole, Erasmus, Moore, Bacon, Descartes, Hobbes, Locke, Boyle, Newton to name but a few [3].

Critical thinking is sometimes used interchangeably with creative thinking, problem-solving and decision-making. Yet, these terms are not conceived as synonymous, but complementary elements of general cognitive processes by some authors. [4, 5, 6]

Critical thinking skills, help learners connect knowledge as they use information from many different sources and experiences to gain broader perspectives and deeper understanding. Besides, it is a different thinking method than other thinking methods and an important element of all academic disciplines and professional fields. It is a way of deciding whether an assertion is true, partially false, or true and a process that leads to skills that can be learned, mastered and used.

Most reviewers agree that this thinking method is more than the powerful use of the right cognitive skill in an appropriate context. For instance, a person might possess critical thinking skills, but tends not to use them, which indicates that the individual possesses little critical thinking disposition. Thus, it also



includes dispositions, certain attitudes and behaviours, and characters of intelligence, which are all essential to the effective use of aforementioned critical thinking skills and abilities in real settings [3]. According to Kurfiss [7] who is an educator, critical thinking is defined as “a rational response to questions that cannot be answered indefinitely and for which all the relevant information may not be available. Critical thinking is an investigation, whose purpose is to explore a situation, a phenomenon, a question, or a problem to arrive at a hypothesis or a conclusion. In critical thinking, all assumptions are open to question, divergent views are aggressively sought, and the inquiry is not biased in favour of a particular outcome”.

It is known that physical activity / sport is also a very important for psycho-social skills like communication skill, problem solving skill, empathy skill, etc. People, who give importance to sport, are interested in sport, work out, play sports, do physical exercises, go to the gym; have definite sporty attitudes and are healthier than other people who don't do physical exercises.

A student with a good sporting habit can be defined as someone who maintains a pattern of regular participation over many years by quickly getting back into the routine each time it gets interrupted. Schwager and Labate [8] argued that some physical education teachers indirectly foster critical thinking in their students by having them focus on the formulation of decisions that may lead to successful skill performance.

McBride who proposed an initial model of critical thinking in physical education, has recommended that it is viewed as an active process of organizing information, using that information to develop a strategy to solve a problem and applying it in a movement situation [9].

Critical thinking does have a place in the psycho-motor domain. Physical education and sport environments can provide a supportive environment for individuals to learn how to think critically. The practical nature of physical activity allows the individual to apply a new strategy, attempt a new movement and evaluate the worth of the response almost immediately [10].

It has been proved that critical thinking or physical activity tendencies have many applications in many fields and that they have positive effects in education. But it was seen that research in the field of all education in Turkey lacked the focus on correlation between critical thinking and sporty attitude. Therefore, the aim of this study is to investigate of the correlation between critical thinking tendencies and sporty attitudes of music teacher candidates.

2. Methodology

In this research, 92 (44 male, 48 female; 21,62±3,517) arbitrary music teacher candidates who study at Muğla Sıtkı Koçman University, Faculty of Education, Department of Fine Art Education, Music Education Program, have been participated. The Turkish versions of the “California Critical Thinking Test” [1] and “Sporty Attitude Scale” [2] have been applied to all 92 students that have participated in the research and the correlation between them has been analysed by authors. The data were analysed by such techniques as the frequency, percentage, arithmetic mean, independent samples t-test and correlation.

3. Findings

Table 1. Number of Candidates and Means of Age According to Sex

	n	%	Mean(Age)±Sd	Min.-Max.
male	44	47,8	22,01±4,367	18-29
female	48	52,2	21,27±2,499	18-27
total	92	100,0	21,62±3,517	18-29



Table 2. Critical Thinking Differences of Students According to Sex

	Mean	St.D.	t	p
male	4,333	±,39847	-,276	,783
female	4,357	±,42194		

Table 3. Sporty Attitudes Differences of Students According to Sex

	Mean	St.D.	t	p
male	3,02	±,25286	4,811	,000*
female	2,75	±,27465		

*p<,01

Table 4. Correlation between Critical Thinking Tendencies and Sporty Attitudes of All Students

	CT	SA	p
CT	-	,016	,882
SA	,016	-	

Table 5. Correlation between Critical Thinking Tendencies and Sporty Attitudes of Male Students

	CT	SA	p
CT	-	,418	,005*
SA	,418	-	

*p<,01

Table 6. Correlation between Critical Thinking Tendencies and Sporty Attitudes of Female Students

	CT	SA	p
CT	-	-,274	,059
SA	-,274	-	

4. Results and Discussion

In total 92 students who study at Muğla Sıtkı Koçman University, Faculty of Education, Department of Fine Art Education, Music Education Program had participated in this study. Male students were 44 (47,8%) and mean of their ages was 22,01±4,367 years. Female students were 48 (52,2) and mean of their ages was similarly 21,27±2,499 years (Table 1.)

Critical thinking tendencies means of male and female students were nearly balanced. Therefore, this situation was not statically significant (Table 2.).

In 2008, Saçlı [11] showed that there was no significant difference between male and female students regarding students' critical thinking scores. In conclusion of this research, it can be said that although there was no significant difference regarding gender, critical thinking levels of students attending physical education and sport teacher, coaching and recreation training programs differ from each other regarding programs, grade levels and the score types of university entrance examination.

In 2008, in the study of Ay and Akgöl [12] showed that It can be concluded that the female students have more critical thinking abilities than male students and as students get older, the critical thinking ability increases.



Piji Küçük and Uzun [13] in 2013, presented that critical thinking tendencies of music teacher candidates not being differentiated according to the gender and class variable, teacher candidates graduated from general high school having a higher critical thinking tendency than the ones graduated from Anatolian Fine Arts High School were determined.

Şen [14] was studied with Turkish teacher candidates in 2009. According to this research conclusion, in terms of critical thinking ability, they are in middle level. Also, conclusions showed that their attitudes are not impressed by their gender, age, school, parents' education, yearly income, high school type, reading book and newspaper.

Sporty attitudes mean of male students was higher than female students' and this situation was statically significant (Table 3.).

Correlations between critical thinking tendencies and sporty attitudes of all students were not statically significant (Table 4.). But when variables had analysed according to sex, significant differences have found. Correlations between critical thinking tendencies and sporty attitudes of male students were statically significant. Critical thinking tendencies score increased with increasing sporty attitudes score of male students and this situation were statically significant (Table 5.). Besides, Critical thinking tendencies score increased with decreasing sporty attitudes score of female students and this situation were not statically significant (Table 6.).

As a result, statistically significant relationship between critical thinking tendencies and sporty attitudes of music teacher candidates was not found for all students but sex differences have been found. This study was an assessment for the future of education and may be applied to different groups of education, to widen its scope.

References

- [1] Kökdemir, D. (2003). Decision making and problem solving under uncertainty. Unpublished doctorate thesis, Ankara University, Institute of Social Sciences, Türkiye.
- [2] Şentürk, H.E. (2013). Sporty Attitude Scale: Development, Reliability and Validity. 55th ICHPER*SD Anniversary World Congress December 19 - 21, 2013 in Istanbul, Türkiye.
- [3] Kanik, F. (2010). An Assessment Of Teachers'conceptions Of Critical Thinking And Practices For Critical Thinking Development At Seventh Grade Level. Doctoral Dissertation, Middle East Technical University, Ankara, Türkiye.
- [4] Beyer, B. K. (1988). Developing a scope and sequence for thinking skills instruction. *Educational Leadership*, 45(5), 26-30.
- [5] Marzano, R. J., Brandt, R. S., Hughes, C. S., Jones, B. F., Presseisen, B. Z., Rankin, S. C., & Suhor, C. (1991). Dimensions of thinking: A framework for curriculum and instruction. In A. L. Costa (Ed.), *Developing minds: A resource book for teaching thinking* (pp.89-93). Alexandria, Virginia: Association for Supervision and Curriculum Development.
- [6] Patrick, J.J.(1986). Critical thinking in the social studies. Bloomington, In ERIC Clearinghouse for Social Studies/Social Science Education. (ERIC Document Reproduction Service No. ED272432)
- [7] Kurfiss, J. G. (1988). *Critical Thinking: Theory, Research, Practice, and Possibilities*. ASHE-ERIC Higher Education Report No. 2, 1988. ASHE-ERIC Higher Education Reports, The George Washington University, One Dupont Circle, Suite 630, Dept. RC, Washington, DC 20036-1183.
- [8] Schwager, S., & Labate, C. (1993). Teaching for critical thinking in physical education. *Journal of Physical Education, Recreation and Dance*, 64(5): 24-26.
- [9] McBride, R.E. (1991). Critical thinking : An overview with implications for physical education. *Journal of Teaching in Physical Education*, 11: 112-125.
- [10] Walkuski, J. J. (1997). Critical thinking in physical education. *Teaching and Learning*, 18(1), 83-92.
- [11] Saçlı, F. (2008). A Determination and Comparison of Critical Thinking Levels of Students In The Physical Education and Sport Teacher, Coaching, and Recreation–Training Programs. Unpublished Master of Science Thesis. Hacettepe University, Institute of Health Sciences. Turkey.



- [12] Ay, Ş., & Akgöl, H. (2008). Eleştirel düşünme gücü ile cinsiyet, yaş ve sınıf düzeyi. Kuramsal Eğitimbilim, 1(2), 65-75.
- [13] Piji Küçük, D., & Uzun, Y. B. (2013). Müzik Öğretmeni Adaylarının Eleştirel Düşünme Eğilimleri. Journal of Kirsehir Education Faculty, 14(1).
- [14] Şen, Ü. (2009). Türkçe öğretmeni adaylarının eleştirel düşünme tutumlarının çeşitli değişkenler açısından değerlendirilmesi. Zeitschrift für die Welt der Türken/Journal of World of Turks, 69-89.