




Research Paper

Correlation of Components of Child-Parent and Student-Teacher Relationships with Tendency to Critical Thinking in Sixth-Grade Students

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Abstract

Aim: The aim of this study was to investigate the correlation of components of child-parent and student-teacher relationships with the tendency to critical thinking in sixth grade students. A sample of 217 students was selected by convenience sampling method. Parents and teachers respectively filled out Critical Thinking Disposition Scale, Pianta's Child-Parent Relationship Scale, and Pianta's Student-Teacher Relationship Scale. The results revealed a significant positive correlation between children's critical thinking and variables of closeness and conflicts in child-parent relationship. There was also a positive correlation between children's tendency to critical thinking and variables of student-teacher dependence and closeness. According to the regression results, student-teacher closeness was the strongest predicting variable for critical thinking. Parents with an associate diploma and bachelor's degree were more likely to have children with critical thinking. Also, teachers with master's degree had more students with critical thinking than teacher with bachelor's and associate diploma.

Keywords: *Critical Thinking, Parent-Child relationship, Teacher-Child relationship*

Introduction

Critical thinking is one of the most basic constructs and the foundation of thinking, and the key to creative thinking (Paul and Alder, 2019). Critical thinking is a purposeful and decisive judgment that leads to interpretation, analysis, evaluation and inference (Abrami et al., 2015). Students with critical thinking skills manage their thinking systems, become more self-aware, analyze and evaluate ideas more effectively, and have more control over learning, values, and life (Paul & Elder, 2019). Parents emotionally and psychologically encourage their children to develop critical thinking self-regulation (Seroussi & Yaffe, 2020). The quality of parent-child relationship is positively related to the critical thinking of female adolescents (Karimi & Fatemi, 2019). Students with close relationships with teachers have better cognitive skills in language and math (Peisner-Feinberg et al., 1999). According to Summers et al. (2017), the effectiveness of teachers in classroom was based on their relationship's closeness with students. Hernandez et al. (2017) showed that teacher-student relationship closeness was related to academic achievement. The aim of this study was to investigate the correlation between critical thinking of sixth grade elementary students and variables of child-parent and student-teacher relationships. In addition, students' critical thinking was examined based parents' and teachers' level of education.

Methodology

The method of the present study was descriptive-correlation. The study population consisted of all sixth-grade students of Oshtorinan, Boroujerd City (N=499). Among them, 217 students were selected by convenience sampling as the sample using the Cochran's formula (99 girls and 118 boys). Data collection tools were: 1. *Critical Thinking Disposition Scale*: This scale was developed by Sosu (2013) with 11 items to assess the tendency to critical thinking and is completed by teachers. The responses are based on a five-point Likert scale (1=totally disagree to 5=totally agree). Cronbach's alpha coefficient of the whole scale was 0.715 and its content and construct validities have also been reported as desirable (Rezaee Sharif, 2015). 2. *Pianta's Child-Parent Relationship Scale*: This scale was developed by Pianta (1992; cited in Pour Mohammad Reza Tajrishi et al., 2015) with 33 items to measure parents' perceptions of their relationship with their child. This scale has three dimensions: closeness, dependence, and conflict. Responses in this scale are based on a five-point Likert scale (1=definitely true to 5=definitely not true). Cronbach's alpha coefficient of conflict, closeness, and dependence domains was 0.82, 0.77, and 0.73, respectively (Pour Mohammad Reza Tajrishi et al., 2015). 3- *Pianta's Student-Teacher Relationship Scale*: This scale was developed by Pianta (1992; quoted by SepahMansour et al., 2016) with 15 items to measure teachers' perceptions

of their relationship with their students in three dimensions of closeness, dependence, and. Responses are based on a five-point Likert scale (1=definitely true to 5=definitely not true). The reliability of the conflict, closeness, and dependence have been reported to be 0.92, 0.86, and 0.64, respectively (SepahMansour et al., 2016).

Results

The results of Pearson's correlation coefficient revealed a positive correlation between parent-child closeness and critical thinking and a negative correlation between parent-child conflict and critical thinking ($p < 0.05$). There was also a positive relationship between children's critical thinking and variables of closeness and dependence of student-teacher relationship ($p < 0.05$). However, there was no correlation between teacher conflict and critical thinking. The results of multivariate regression showed that student-teacher positively predicted critical thinking (Table 1).

Table 1. Summary of the Pearson's correlation coefficients for relationship between tendency to critical thinking and variables of child-parent and student-teacher interaction in sixth grade students

Predictive variables		Criterion Variables (critical thinking)	
		Correlation (r)	p
Child-parent interaction	Closeness	0.21	0.002
	Dependence	0.11	0.16
	Conflicts	-0.152	0.025
Student-teacher interaction	Closeness	0.399	0.001
	Dependence	0.211	0.002
	Conflicts	0.023	0.73

The results of one-way ANOVA and LSD *post hoc* test showed that parents with an associate diploma and bachelor's degree had children with more tendency to critical thinking than parents with high school education ($p < 0.05$). The results also showed that teachers with bachelor's and master's degrees had more students with tendency to critical thinking than teachers with associate diploma ($p < 0.05$).

Discussion and conclusion

Our results revealed a positive correlation between closeness of child-parent relationship and critical thinking and a significant negative relationship between child-parent conflict and critical thinking. These findings are in line with the findings of Karimi and Fatemi (2019). Therefore, parents who

closely interact with their children allow them to express their opinions. Such a positive and close child-parent interaction helps children not to reject or criticize anything without argument. But if parents have a conflict with their children, not only will they prevent their children from commenting, but they will also deprive them of the right to choose and criticize, and this will reduce their critical thinking.

The results showed that there was a significant positive correlation between student's critical thinking and variables of student-teacher closeness and dependence. This result is consistent with the research of SepahMansour et al. (2016). Teacher's closeness to students creates positive feelings in the classroom and students can express their opinions without stress. If students are dependent on their teachers, they try to prove themselves to their teachers and achieve positive outcomes. As such, they may act more critically than others in the classroom and most likely increase their critical thinking.

The results showed that parents with an associate diploma and bachelor's degree had children with more tendency to critical thinking than parents with high school education. Parents with higher education have a better understanding of their children and are likely to allow their children to criticize and provide them opportunities to develop critical thinking. Given that teachers with bachelor's and master's degrees had students with more tendency to critical thinking, it can be said that teacher's higher education led them to accept their students' views more often, which increased students' tendency to think critically.

One of the limitations of the research was that the sample was limited to sixth grade elementary school students. The use of the teacher form of Critical Thinking Disposition Scale was another limitation. Based on the results it is recommended that workshops and in-service programs be held for parents and teachers to enhance students' critical thinking.

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