

Relationship between Perceived Parenting Styles and Critical Thinking with Cognitive Learning Styles

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ABSTRACT

Introduction: Understanding parenting styles and its possible relationship with the ability of critical thinking and cognitive learning styles has been less considered. The purpose of this study was to investigate whether perceived parenting styles and ability of critical thinking are associated with the cognitive learning styles of field-independence and field-dependence.

Materials & Methods: 350 girl university students studying for BA and MA were choosing by stratified random sampling. Research instruments consisted of Perceived Parenting Style Questionnaire, The California Thinking Skills Test-B, and Witkins' Group Embedded Figures Test. Data were analyzed using canonical correlation and multiple regression analysis.

Findings: In this research field independence and field dependence variables, respectively play the most important roles in the creation of first and second canonical correlation. Regression analysis revealed that inductive reasoning, analysis, and inference were the most significant for predicting of field-independence ($R^2=0.279$) and field-dependence ($R^2=0.208$).

Discussion & Conclusion: There was statistically significant relationship between perceived parenting styles and ability of critical thinking with the cognitive learning styles of field-independence and field-dependence.

KEYWORDS: Perceived parenting style, Critical thinking, Cognitive learning styles, field-independence, field-dependence

INTRODUCTION

Parent and child relationship and also other family members could be considered as a system with interactions among them. This system whether directly or indirectly affects variable parenting styles and methods in children. Most of the psychologists as Bowlby (1969), Freud (1964), Mize and Pettit (1997), without considering the doctrine in which they believe in, recognize parent and child interactions as a sentimental evolution base. They have defined parenting styles as: collection of the behaviors declaring parent and child interactions in variable vast conditions. It is assumed that could cause a wide space of interaction (Pourabdoly and et al, 2008). Another definition of Berk Laura says: combination of parent behaviors which appears in plenty conditions and leads to a lasting parenting (Shahamat and et al, 2003).

The objective of all parenting styles is forming the psychological character and also strengthening their competencies. Emphasizing on these two objectives and notifying two parental behavior features: acceptance versus rejection and being authoritative versus permissive have caused the researchers discuss parenting styles and the influence on child growth and consequently present various patterns. (Khajepour & Attar, 2007). Almost all the patterns summarize in these parenting styles: Authoritative parents, Permissive parents, Authoritarian parents and Neglectful parents. Authoritative parents are controller, demanding and also very responsive and receptive.

Behaving with authority and power leads emotional, social and cognitive growth in child in a positive affective way. Results found by experience have shown that in authoritative parents, behavior relates with greater levels of adaption and compatibility, mental maturity, psycho social competence, self regard and educational success. Permissive parents apply for demand and control in a very lower level and responding and acceptance in a higher level. In them, the great permissive and dissimilar discipline causes an uncontrolled pulsed behavior growth in children. Authoritarian parents are great demanding and controllers while reflect for the reception and responding in a low level and are oblivious for their child requests. For these parents mental and educational operation in children is often very weak and they suffer loss of creativity, leadership and self regard in their relationships with other children of the same age. Neglectful parents are apathetic and demonstrate a great low level of demand, control, respond and reception. Child of such a family is irresponsible sociologically, not matured enough mentally, and quite weak in education and self respect. (Rezvankhah, 2009)

The best known studies in the perception of parent child relationships are related to the parenting styles of Baumrind (1968). Years later McKoby & Martin (1983) extended Baumrind researches defining parenting styles in two fields of request and respond and further by conflation of these themes they based four methods of parenting styles of authoritative, authoritarian, permissive and indistinct (Lerner & Steinberg, 2004). According to Baumrind theory, parenting styles act as an intermediate between their normative variables and children sociability. In other place Baumrind states that dictator parents put cold relationships with sever control on their children. Authoritative parents have their control on the children with a cozy responding behavior. Whereas permissive parents have little expectation of their children and have no control nor respond on them. Dixon & et al (2008) in a research about respect for parental authority and parenting styles discovered that higher levels of maternal discipline and better communication with girls, has a relation with less conflict among mothers and girls. Muris &

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et al (2000) have reported an affected positive relation between disturbing or excluding behaviors in parents and creating concern in children. Those children who found their parents disturbing or excluding, demonstrate a greater anxiety or anguish. Yonkers, especially in girls, growing up with the love of their parents seeks social support, comforting thoughts and feeling expression while facing the problems. But those Yonkers who find their parents excluding frequently apply for passive coping strategies as depression and blaming themselves. Paulson & Sputa (1996) showed that both Yonkers and parents know mothers as better demanding and responsive than fathers.

Although it seems parents may find their parental behavior at the same level but their children in a different way (Khouinejad et al, 2007). There is a meaningful relationship between parental styles and affective or negative behaviors in children, and that is because of the important role of parents (Zareie, 2010). There is also an affectively meaningful correlation between self-concept and cozy supportive family environment (Mazidi & Alborzi, 2009).

Bagherpourekamachali & et al (2007) have studied the relation of parenting styles with psycho health and educational success. Hence they found out that psycho health and educational success in children growing up with the pattern of authority and self regard are much greater than in those with the pattern of dictatorship or permissive.

Critical thinking is one of the discussions followed by the philosophers of the century which in their opinion might lead to different conclusions as cultural-philosophical results. In the opinion of these philosophers, the modern world of today needs a critical thinking. Because for those who live in a modern society there are frequently suggested various ideas, opinions and modes and the one living in the mentioned society needs to pick one of them out and study or criticize that, meanwhile throwing some away to have the best choice (Sadeghi & Anvari, 2006). One of the affective mental abilities which should be achieved by children at school is to assess various statements, readings, thoughts and believes which they encounter in life and therefore make a logical decision about them. This valuable ability names critical thinking (Seyf, 2010). Thinking skill education is considered as the main preference in educational schedules of the training centers. Critical thinking education leads to a motive of learning and problem solving skills, decision making and creativity (Mirmolaie & et al, 2004). Critical thinking does not only relate with education, but it concludes life activities as inter-personal and work relationships. Critical thinking is a positive activity and in fact critical assessment of situations and conditions is an essential and affective process for the growth and complementary within the organizations and societies (Hassanpour & et al, 2005).

In the studies of Rudd, Baker & Hoover (2000) the relationship of learning style and critical thinking was confirmed. Torres & Cano (1995) studying learning styles of 92 final semester university students of agriculture found out that learning strategy predicts 9 percent of critical thinking variances. Hence, they offered learning strategy as a meaningful variety in order to promote critical thinking. Fashion (1990) during his researches defined a list of themes related with skills and exact issues as truth-seeking, open-mindedness, analyzing, systematicity, self-confidence, inquisitiveness and maturity (Hosseini, 2009). Barkhordari & et al (2009) studied the relationship between critical thinking and self confidence and found a meaning relationship between them, so that students with greater self confidence had a more favorable interest in critical thinking.

Badri and Fathiazar (2007) in the study of "Teaching Influence of Grouping Problem Solving and Traditional Education on Critical Thinking in Teachers' Training Students" have got the conclusion that in some issues interest in critical thinking in those groups who were trained by grouping problem solving was much more than in those who were trained by traditional ways.

One of the matters being paid enough attention since the 7th decade of the 20th century in educational researches was training concept styles in students. In this case, field-dependence and field-independence cognitive styles considering their increasing daily applications have specified a plenty amount of researches to itself (Homayouni & et al, 2006). These two mentioned style state that personal judgments of some learners are influenced by the learning subject theme, whereas for some other learners this influence probably is faint or even does not exist. People having the style of field-dependence are named Holistic and those who follow field-independence styles are called Analyst. Because members of the first group see shape and field in a general combination with each other and it is difficult for them to separate shape of the field. But the second group looks shape and field as individual matters and therefore could easily distinguish them. Danieli & Reid (2004) have achieved an inverse correlation in people's ability of solving chemistry problems and field-dependence cognitive style. Abraham (1985) in a research of English learning concluded that field-independence learners compared to field-dependence students have better executions in learning a second language. Canelos, Taylor & Gates found out field-independents have more problems in learning concepts being though summarily and abstractly than field-dependents. Witkin & Goodenough (1977) have observed that university environment for field-independent students are more oriented to abstract and analytic courses as science, mathematics, architecture and engineering. While field-dependent students are usually more interested in courses related to society and human and pay more attention to the matters dealing with social relationships as teaching or social services (Homayouni & Abdollahi, 2003).

Abdollahpour & et al (2005) in the study of relations between cognitive styles and cognitive and ultra cognitive ways with educational promotion concluded that field-independent students have better improvement in mathematics but there was not shown a great difference among field-dependent students and field-independent students in courses like social studies. Meanwhile field-independent students act better in applying cognitive and ultra cognitive ways. Agahiesfahani & et al (2004) in a study of relationships between dependency-independency cognitive styles with creativity found out there is a meaningful correlation between creativity and cognitive style in students.

Since in our former studies there has been little attention in perception of parenting styles accompanying related issues and studying its probable relations with the critical thinking ability and cognitive learning styles; therefore, the current loss of

research and studying achievements in this fields is a great excuse to do this research. Hence, the researcher looks for the respond of the following questions:

- Is there a relationship between perceived parenting styles and critical thinking ability with the mentioned cognitive learning styles?
- Is there a relationship between perceived parenting styles and critical thinking ability with the mentioned cognitive learning styles of field-independence?
- Is there a relationship between perceived parenting styles and critical thinking ability with the mentioned cognitive learning styles of field-dependence?

Procedure

The current research is of the sort of correlation. Information analysis by accounting Pearson correlation coefficient, canonical correlation and multiple regressions was done step by step. Statistical society of the current research includes all the female students of Azad University of Tonekabon, being educated during the years of 1389-1390 at B.A. and M.A. Sampling was the type of random classified. And since the total amount of female students was achieved (N=4831), the total amount of B.A. (N=3584) and M.A. (N=1247) was signified, and then using Morgan table, the sample amount (N=350) was defined.

Instruments

- Perceived Parenting Style Questionnaire: this questionnaire was prepared by Kigan, according to Schiffer's studies and has 77 matter which assesses control-freedom and affection-rejection in the relationships between parent and child. The permanent coefficient of this questionnaire is reported 0.87 by its creator. The understandability of the questions was confirmed at least by two master experts of the University of Shiraz (Sedaghati, 2010).
- The California Critical Thinking Skills Test, form B (CCTST-B): the test has 34 multiple reply questions with only one correct answer in the five field of critical thinking cognitive skills (Analysis, Assessment, deduction, inductive reasoning and inference reasoning). This questionnaire was first created by Fashion in 1990 and now is one of the most applicable scientific assessment tools of critical thinking skills. Saiedozakerin & et al (2007), have reported the internal correlation coefficient of this test for analytical subscales ($r=0.77$), assessment ($r=0.77$), deduction ($r=0.71$), inductive reasoning ($r=0.77$) and deductive reasoning ($r=0.71$). Also its content validity was known at least for 80 percent and maximum for 96.87 percent. Mehrinejad (2007), using half method signified the permanent according form of the test as 0.78 and using Kronbach α coefficient signified for assessment skill (0.79), for analysis skill (0.75), for deduction skill (0.91) and for the total test (0.83). Khalili & Soleimani (1382) declared the validity coefficient as (0.62).
- Group Embedded Figures Test (GEFT): this test was made by Withkin, Oltman & Raskin (1971) in order to assess field dependence-independence cognitive style. The test includes 25 complicated features. In each feature the tested is asked to find the simple geometric picture out as the sample from inside a complicated feature and bold it with a pencil. Permanency of this test based on the model of half method is reported 0.89 and after three years on the base of retesting was also 0.89. In 1996 Wakro & colleagues by using the model of half method have reported the permanency as 0.86 for this test. Mousavi (1999) using the model of Kronbach α reported the internal homology coefficient as 0.87. Arthur & Day (1991) reported the concurrent validity coefficient of this test as 0.62 using Rion intellectual test (Kajbaf & Khalili, 2003).

FINDINGS

Explanatory components of research variables with their correlations were brought in table 1.

Tablet 1: explanatory components of perceived parenting, critical thinking and cognitive learning styles in students.

Perceived parenting styles		critical thinking						cognitive learning styles	
	Control-freedom	affection-rejection	analysis	inference	assessment	deductive reasoning	inductive reasoning	FID	FD
M	33.71	76.62	2.55	4.36	3.42	5.38	3.882	7.89	2.22
SD	22.58	44.66	1.56	1.72	1.689	2.352	1.588	7.12	2.921
1	1	.597**	-.037	.143**	.359**	-.317**	.084	-.184**	.085
2		1	.068	.295**	.051	.009	.289**	.107*	-.141**
3			1	.227**	.242**	.505**	.316**	.395**	-.363**
4				1	.342**	.611**	.802**	.292**	-.230**
5					1	.784**	.416**	.423**	-.328**
6						1	.431**	.454**	.337**
7							1	.318**	-.309**
8									-.814**

* = $P \leq .05$ ** = $P \leq .01$

FID= field independence

FD= field dependence

Conclusions of tablet 1 shows that there is an affective correlation between control-freedom with inference and assessment. There is also a negative meaningful correlation between deductive reasoning and field-independence. It is also seen that there is an affective meaningful correlation between affection-rejection with assessment and inductive reasoning; and

this correlation is negative with field-dependence. There is a meaningful correlation between analysis, assessment, inference, deductive reasoning and inductive reasoning with field-independence and field-dependence.

Tablet 2: Summary of step by step analysis of multiple regressions of inductive reasoning, analysis and inference.

Step	predictor variables	R	R ²	ΔR^2	standard error
1st	inductive reasoning	.473	.223	.221	6.9878
2nd	inductive reasoning,& analysis	.507	.257	.253	6.154
3rd	inductive reasoning, analysis,& assessment	.528	.279	.273	6.072

Conclusions of tablet 2 shows that critical thinking skill coefficient (inductive reasoning) is able to explain 22.3% variance of cognitive learning style (field-independence) ($R^2=0.223$). By adding the coefficient of critical thinking skill (analysis) to the coefficient of critical thinking skill (inductive reasoning) in the second model the variance has been increased to 4% ($R^2=0.257$) and this way it is able to explain the approximate 52.7% variance of cognitive learning style (field-independence). By adding the coefficient of inference to the coefficients of critical thinking (inductive reasoning) and critical thinking skill (analysis) in the second model the variance has been increased to 3% ($R^2=0.279$) and this way it could explain almost 27.9% variance of cognitive learning (field-independence).

Tablet 3: Summary of step by step analysis of multiple regressions of analysis, inference and inductive reasoning.

Step	predictor variables	R	R ²	ΔR^2	standard error
1st	analysis	.363	.132	.130	2.725
2nd	analysis,& assessment	.439	.193	.188	2.632
3rd	analysis, assessment,& inductive reasoning	.456	.208	.201	2.611

Conclusions of tablet 3 shows that critical thinking skill coefficient (analysis) is able to explain 13.2% variance of cognitive learning style (field-dependence) ($R^2=0.132$). By adding the coefficient of critical thinking skill (inference) to the coefficient of critical thinking skill (analysis) in the second model the variance has been increased to 6% ($R^2=0.193$) and this way it is able to explain the approximate 19.3% variance of cognitive learning style (field-dependence). By adding the coefficient of critical thinking skill (inductive reasoning) to the coefficients of critical thinking (inference) and critical thinking skill (analysis) in the third model the variance has been increased to 2% ($R^2=0.208$) and this way it could explain almost 20.8% variance of cognitive learning (field-dependence).

RESULTS AND CONCLUSION

Research results presents there is a clear relation between perceived parenting styles and critical thinking skills with cognitive learning styles. Torres & Kanoe (1995) in a study of learning style of last semester students of agriculture found out that learning style predicts 9% of variances in critical thinking. Therefore, they introduced learning style as a meaningful variable for critical thinking skill promotion. In researches done by Rod & colleagues (2000) the relationship between learning styles and critical thinking was confirmed. These results are parallel to the conclusions of the current research. Research results of Abdollahpoor & et al (2005) also showed that field-independents have better operations in applying cognitive and ultra cognitive solutions whereas these results have conflict with the research of Agahiesfahani & et al (2004). Each of the specific training models individually can perform a significant role in forming the character and identity of the infant. So that growing up in a friendly cozy family environment is affectively related to the healthy psycho growth of the child during the youth period. Behaving with authority improves the positive sentimental, social and cognitive growth in children. This kind of behavior is related with the higher levels of adaption, psychological maturity, psycho-social efficiency, self-confidence and educational success. Authoritarian parents are more interested in absolute and punitive discipline without interacted relationship. Child of this family has weak social skills and low self-confidence. Those who have critical thinking skill have also problem solving skills. These people are able to analyze comparisons, making issues, classification of components in the correct form, recognizing related information creating and understanding valid deductive reasoning, presumption tests, signifying and explaining the events. Researchers have tried their best to recognize factors which might be predicted by their correlation with critical thinking. One of these factors was learning style. Critical thinking is well-related to problem solving, creative thinking, logical thinking and ultra cognitive. Creative problem solving helps the growth of critical thinking skills. Sort of cognitive style affects information analysis. Cognitive style states peoples' interests in information analysis and relationships with the environment in order to modify the operation. Also students with authoritarian or permissive parents can use problem solving models in anxious situations. Field-dependents are holistic and are more interested in social matters. Field-independents are less influenced by others opinions and are more internally strengthened. Since authoritative parents let their children independency and thinking freedom and encourage them, while authoritarian parents are more interested in absolute and punitive discipline without interacted relationship there is the chance to understand the relationships between parenting styles and cognitive styles in children. Also field-independents can analyze information using critical thinking skills.

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