



Comparison of Principals' Critical Thinking of the Elementary School, Guidance and High School for Girls in Islamshahr City

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ORIGINAL ARTICLE
Received 15 Dec. 2013
Accepted 22 Feb. 2014

ABSTRACT: The general objective of this study is comparison of managers' critical thinking of the elementary school, guidance and high school for girls in Islamshahr city. The statistical society of this study is formed all school principals in elementary school, guidance and high school of the ISLAMSHAHR city that their number is 140 people. The samples size of the study included 103 people who were selected classical randomly. To collect information was used 34 questions questionnaires of the California Critical Thinking Skills Test (Form B) (CCTST). This research is a descriptive study and is considered the element of survey plans assumptions. In present study the validity of the questionnaire was calculated using Cronbach's alpha. The mentioned questionnaire has been implemented on sample group and has been done by analysis of One-way variance (Anova) and (Tukey) test and the results of data analysis showed that the critical thinking among elementary and high school principals in the field of analysis, there are significant differences.

Key words: critical thinking, analysis, evaluation, inference, deductive reasoning, inductive reasoning

INTRODUCTION

Critical thinking is recognized as an essential skill for equitable participation in a democratic society and in the today's modern world is required a skill that more as the ability of individuals be perceived to challenge ideas, these abilities are required that they develop their benchmarks and criteria to analyze and evaluate their use those ideas and standards for development of quality of their thinking commonly. By examining the historical evolution of teaching critical it can be said critical thinking has been a part of the teaching method of Socrates (Paul and Elder, 2006). Paul and Elder (2006) believe that the best solution for the fostering critical thinking is questions and answers of Socratic Method. The way of thinking, is very important issue, because "life philosophy" of every person is designed based on it (Shamlou, 2006). Critical thinking always has been present throughout history, because human uses logic and reasoning to address their questions and hypotheses. By examining the historical evolution of critical thinking can be said that critical thinking teaching is a portion of Socratic teaching method.

Today, more than ever, the teaching approaches have gone to critical thinking; rely on memory and pure using the subjective memories is faded in the educational system and much get noticed students' abilities to analyze and evaluate and interpret the content, so that we encounter to the terms such as "critical literacy" and "critical learning" in the field of education. In the field of Job activities also Critical thinking helps individuals in their job to be having reactive behaviors and to be attend to subtle interpretations in professional issues and to be making right decision through of the evaluation of evidence, relationships, and information in his job and occupation. Unfortunately today, schools have been

focused their attention more to information and facts transfer due to advances in science and technology and based on some of psychological approaches, and go away from education of thoughtful and creative humans. (Shabani, 2003) In educational process should with boost the criticizable morale of the teachers be create conditions investigation and examination of students (Mayers, 2004).

According to conducted research there is a significant and positive relationship between critical thinking and academic achievement (Alivandi Vafa, 2005). If participatory activity fields and educational opportunities be exist for learners and they have any opportunity to think, is will fostered the critical thinking skills and recipients in learners (Daniel 2006).

Therefore, we concluded that entering a brief lesson to critical thinking of learners cannot be lead to significantly improvement of their critical thinking skills (Griffin and Everett 2002) and educational strategies in this regard should be extended in all curricula.

To apply this theme means strengthening of critical thinking, have essential role in all curricula of educational managers. Managerial actions in the fields of education requires cognitive functions and is linchpin of management in the educational fields, decision making, planning, organizing, directing and evaluating which all are based on management thinking. Managers should be able to enjoy new ways of thinking and in this way provide desirable organizing to all training fields. Critical thinking of managers as one of the pillars of the educational Management has considered that in addition to examining the strengths and weaknesses pay to the separation of the core elements with each other and to of a holistic model pot.

Therefore, in this study, is investigated and studied managers' critical thinking of elementary, guidance and high school. The default of critical thinking components of this research includes analysis, evaluation, inference, deduction and induction.

Research Objective

The aim of this study has been comparison of critical thinking in managers of elementary, guidance and high school.

Research Questions

1. How is critical thinking situation of managers of elementary, guidance and high school of Islamshahr city for girls in the area of analysis?
2. How is critical thinking situation of managers of elementary, guidance and high school of Islamshahr city for girls in the area of evaluation?
3. How is critical thinking situation of managers of elementary, guidance and high school of Islamshahr city for girls in the area of inferential reasoning?
4. How is critical thinking situation of managers of elementary, guidance and high school of Islamshahr city for girls in the area of inductive reasoning?
5. How is critical thinking situation of managers of elementary, guidance and high school of Islamshahr city for girls in the area of deductive reasoning?

MATERIAL AND METHODS

The statistical population of research is consist of for girls of elementary, guidance and high school of Islamshahr city that their numbers has been 140 people and number of statistical samples is 103 persons using a stratified randomly sampling. The research method has been descriptive and a research tool has been Form B of California critical thinking skills test. Reliability of this test has been calculated between 0.78 and 0.80 using Kodor Richardson's formula. The used statistical tests in this study are these two tests: (TUKY & ANOVA)

RESULTS

1. How is critical thinking situation of managers of elementary, guidance and high school of Islamshahr

city for girls in the area of analysis? According table 1, and with considering the sig value, the values that are lower than 0.05 are significant differences in the analysis test that are marked with *in the table. Given the above information, the analysis revealed a significant difference in the area between the base of primary and secondary schools respectively. Given the above information, has seen a significant difference between primary and high schools in the area of analysis. Therefore is identified using TUKEY test that the mean of analysis of elementary school has significantly different mean of it in high school. Well guidance schools degree has not significant different in any of the degrees.

2. How is critical thinking situation of managers of elementary, guidance and high school of Islamshahr city for girls in the area of evaluation? As shown in Table 2, the value of sig between all degree s is more than 0.05 therefore concluded that does not exist any significant difference between the three degrees of study in the field of evaluation.

3. How is critical thinking situation of managers of elementary, guidance and high school of Islamshahr city for girls in the area of inferential reasoning? As shown in Table 3, the value of sig between all degree s is more than 0.05 therefore concluded that does not exist any significant difference between the three degrees of study in the field of inference.

4. How is critical thinking situation of managers of elementary, guidance and high school of Islamshahr city for girls in the area of inductive reasoning? As shown in Table 4, the value of sig between all degree s is more than 0.05 therefore concluded that does not exist any significant difference between the three degrees of study in the field of inductive reasoning.

5. How is critical thinking situation of managers of elementary, guidance and high school of Islamshahr city for girls in the area of deductive reasoning? As shown in Table 5, the value of sig between all degree s is more than 0.05 therefore concluded that does not exist any significant difference between the three degree s of study in the field of deductive reasoning.

Table 1. TUKY examination of analysis field

degree (I)	degree (J)	Mean difference (I-J)	Standard error	Sig.	Confidence interval 95%	
					upper bound	Lower bound
elementary	Guidance	-.55882	.28614	.129	-1.2397	.1220
	high school	-.82353*	.28614	.013	-1.5044	-.1427
guidance	elementary	.55882	.28614	.129	-.1220	1.2397
	high school	-.26471	.28614	.626	-.9456	.4161
high school	elementary	.82353*	.28614	.013	.1427	1.5044
	guidance	.26471	.28614	.626	-.4161	.9456

Table 2. TUKY examination of evaluation field

degree (I)	degree (J)	Mean difference (I-J)	Standard error	Sig.	Confidence interval 95%	
					upper bound	Low bound
elementary	Guidance	-.26471	.33310	.707	-1.0573	.5279

guidance	high school	-.29412	.33310	.652	-1.0867	.4985
	elementary	.26471	.33310	.707	-.5279	1.0573
high school	high school	-.02941	.33310	.996	-.8220	.7632
	elementary	.29412	.33310	.652	-.4985	1.0867
	guidance	.02941	.33310	.996	-.7632	.8220

Table 3. TUKY examination of inference field

degree (I)	degree (J)	Mean difference (I-J)	Standard error	Sig.	Confidence interval 95%	
					upper bound	Lower bound
elementary	Guidance	-.29412	.35284	.683	-1.1337	.5455
	high school	-.58824	.35284	.223	-1.4278	.2513
guidance	elementary	.29412	.35284	.683	-.5455	1.1337
	high school	-.29412	.35284	.683	-1.1337	.5455
high school	elementary	.58824	.35284	.223	-.2513	1.4278
	guidance	.29412	.35284	.683	-.5455	1.1337

Table 4. TUKY examination of inductive reasoning field

degree (I)	degree (J)	Mean difference (I-J)	Standard error	Sig.	Confidence interval 95%	
					upper bound	upper bound
elementary	Guidance	.35294	.38731	.635	-.5687	1.2745
	high school	-.47059	.38731	.447	-1.3922	.4510
guidance	elementary	-.35294	.38731	.635	-1.2745	.5687
	high school	-.82353	.38731	.090	-1.7451	.0981
high school	elementary	.47059	.38731	.447	-.4510	1.3922
	guidance	.82353	.38731	.090	-.0981	1.7451

Table 5. TUKY examination of deductive reasoning field

degree (I)	degree (J)	Mean difference (I-J)	Standard error	Sig.	Confidence interval 95%	
					upper bound	upper bound
elementary	Guidance	-.97059	.42585	.063	-1.9839	.0427
	high school	-.82353	.42585	.135	-1.8368	1.1898
guidance	elementary	.97059	.42585	.063	-.0427	1.9839
	high school	.14706	.42585	.936	-.8662	1.1604
high school	elementary	.82353	.42585	.135	-.1898	1.8368
	guidance	-.14706	.42585	.936	-1.1604	.8662

DISCUSSION

first finding of the present study represents that maximum mean of critical thinking among educational degree s have been seen in high school and minimum value of the mean is in primary school and because the amount of sig is 34% and is less than 05% it can be concluded that there is significant difference between different groups and degree s and we can reach to this conclusion that this difference is not random and is result of variation in the degree.

The second finding of this study represents that there is significant difference in amount of the critical thinking of elementary and high school degrees in areas of analysis. In reply to another questions citing the findings of the study can be concluded that except analysis field had not seen significant differences in none of the components of critical thinking among of degrees.

In general it can be said what most experts agree it, is that critical thinking skills grow in the best way

when discussing and exchanging of ideas and problem solving (Shabani, 2006). Critical thinking is the process whereby a person evaluates ideas, information and provider resources of information and regularly and logically regularize it and correlate with other information and ideas, and also considers the resources and be assessed the implications (Andolina, 2001).

If manager can to behave according to the rules associated with geniality that can be confidant of colleague and be trusted friend for students and can provides growing conditions of talent students with practical methods can be guaranteed that the system will follow the development.

The benefit of having critical thinking for managers can be outlined as follows:

1. Equipping managers to the critical thinking skills cause to they aware to this issue that scientific discoveries and advances, not alone directs the community, Even, the society and its people must

controls and directs discoveries and scientific advancements in best way.

2. Critical thinking enables managers to achieve, evaluate and organize information through books study, the Internet and university about popular theories, criteria or used existence standards and methods effectively and be realizes to amount of accurate, valuable and their credit, through reasoning method, and thus able to capture them.

3. The critical thinking Led to the development of research ability, problem-solving, decision-making, benefit the different perspectives and life-long learning of managers. All of these features led to managers to be able to solve national, scientific and practical problems.

4. Critical thinking led to managers not only have sufficient knowledge or information about the social expertise but also, closer decision-making about social, political, ethical issues and challenges of the changing world of daily life in today's complex world and be action to presentation and development of the right solutions.

5. Critical thinking cause managers to understand how affects different norms on minds of them, and how reviews and utilize their ideas on the basis of arguments and reviews purely.

Therefore, critical thinking skills led to the development of scientific literature of managers to better understand of world.

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