

## Relation between Hidden Curriculum and Critical Thought of Secondary Education Students of Schools for Boys, Sari

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### ABSTRACT

This study was conducted to investigate the relation between hidden curriculum and the critical thought of secondary education students of schools for boys in Sari. This study is of quantitative and correlative type using descriptive method. The statistical society of the study is all the male students of secondary education of Sari in the academic year 2014-2015 who were 4750. The volume of the sample under study using simple random method considering Morgan table was 357 students and 80 teachers (divided by each class). To collect data, the materialized questionnaire of hidden curriculum and critical thought of Watson and Glaser (1995) were used and to analyze data at the descriptive statistics level, average statistical methods and criterion deviance and at inferential statistics level, the statistical methods of Pearson Correlation Coefficient and multiple regression were used. The results were as follows: Increased variable of hidden curriculum also increases the critical thought variable. Also by studying the relation between dimensions of hidden curriculum and critical thought, it was found out that there is counter reaction and inference. There is also a social atmosphere with inference and eventually there is a relation between physical structure and the parameter to identify the students' assumptions.

**KEY WORDS:** Hidden Curriculum, Critical thought, students, schools

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### 1. INTRODUCTION

What is prepared by designers and planners at macro level is the official and clear curriculum. This program is designed based on special elements and is aimed at achieving educational goals. It means that it is implemented and assessed in educational centers to clarify the degree of access to goals. However, as you now know, the other factors which are not part of the curriculum and might remain hidden from the view and observation of the planners and the ones in charge of education affect the learner's thoughts, emotions and the behavior and they will perform in most cases more effective than the clear and anticipated curriculum.

Bloom believes that hidden curriculum in many aspects is far more effective than obvious curriculum. The lessons of this plan will remain in the students' mind for a long time because they are present everywhere and have similar educations. The students experience the lessons of this program every day and learn it very well (Mosallanejad et al, 2014).

Hidden curriculum consists of all the ideas that students learn passively and directly from the existing present and absent environment and things around them (Hubert, 2000). The hidden curriculum consists of knowledge, beliefs, approaches, behaviors and rules that students internalize both as intended and unintended (Dekle, 2004, Dong Strait Vashn, 1993)

The hidden performances have deep effect that could affect the method of learners' learning a lot. Considering the goals that are considered for education, hidden curriculum can have positive effect in materializing most of these goals. Many hidden performances of the educational system in our country are in a way that its effects create conflict in the educational body. However, what is really the reason for this conflict. Why our educational structure is in contradiction with the needs of the young generation. It seems that one of the reasons for such situation in the educational system is the distance between society expectations and functions of schools. Retardedness of the educational system from the social developments is one of the issues of education. The society and its necessities are regularly changing, and the schools unfortunately deal with the life needs when the conditions and requirements change and when some of them abolish. To adjust the effects of school retardedness and the created distance between functions of school and the expectations of the society, some solutions should be sought and attention to identifying the hidden curriculum specify the necessity to pay attention to the issue more than in the past (Saeidi Rezvani, 2001).

There is no doubt that the current human society requires a type of education where the learners achieve basic skills (Digaran, 2010). The ability to use learnings, peaceful living with what is considered to be their living environment is to accept the change and to acquire running the anticipated conditions, but the strategy to reach such an education is not always through official education such as classes and books, but in some instances when people are free from official education and reduced volume and variety of textbooks, they grow

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in the shadow of group activities. Now considering the importance of the educational system in the new millennium upon which the development of humans' lives is dependent, it is necessary to adopt logical and fundamental solutions and one of the main issues for this purpose is teaching critical thinking to the students.

Nowadays the educational experts agree that critical thought should not only be one of the goals of education, but also it should be the integral part of education at every level because critical thought is a thought that establishes analysis, assessment, selection and application of the best solution to human being and this is what required by the world of today (Forst, 1997).

Critical thought is the product of trans-modernism thought of human being that criticizes the existing conditions and the operators of the educational system should change their views before preparation of textbooks and believe that the educational system should be amended in a way that the students experience it through observation and ongoing participation and interaction. In an educational environment, the student should research freely and should take steps toward advancing teachings (McDonald and Wolfson, 112). Critical thought is a skill that gives courage to human being not to be afraid of different conditions including D 1823 as quoted by Hashemi et al and not to take risk or select it by asking questions and or accepting its responsibility, but in the official educational system, the children are driven toward correct answers and raising questions is not that much of an interest and the student has to only find the outcomes and consequences among the large number of information and spend most of his time in the class to transfer data and information of the textbooks. One of the methods that create thought in students is to raise a scientific topic in the classroom. In the first step, the teacher should specify a fundamental issue and express the issue of discussion for the students by raising one or several questions. In this method, the teacher has the role of a guide and the student learns the fundamental skills such as correct comprehension of the issue, comparing the theories, and understanding of relations of topics, inference, argument and assessment (Shariatmadari, 2013).

Critical thought leads to discovery and learning in trial and error situations and requires patience and is not restricted to special time and place to write books in a short time and to make children protect it. This opportunity should be provided for students, particularly the primary school ones to experience critical thought beside one another using games and entertainments. Critical thought creates self-setting of students and learning in the environment together with resolving the issues (Coburn, 1880, 2, quoted by Hashemi).

Among these, the teacher has a fundamental role in critical thinking. The remarkable point is that development of thoughts of others requires understanding the identity of thinking by the trainer. The main point here is the teacher's method. To establish development in educational methods, the teacher or in fact the role of teacher should be rebuilt and reconstructed and the most fundamental issue in this relation is changing his approach toward education of thought and particularly critical thought. In this process, the teacher should find out that students need challenges to reinforce their power of thinking and not easy situations because mental involvements will develop thoughts in them and encourages them to progress (Sha'abani Verki, 1995).

Former researches:

Brookover et al, 1979 found out in their studies that the students' feeling of self-alienation and scientific uselessness is identified as a negative hidden learning resulting from the school atmosphere. This feeling reduces educational progress and leads to failure of students and they thought that failure and or success of students are not important for teachers because some success faces punishment. In the schools where the teachers treat students honestly and respectfully, the students' morale not only increases, but also they show better scientific performance and have higher self-confidence (Silver and Alexander, 1993).

Carvall, 1995 studied the existing values in the hidden curriculum of students of secondary education centers using quality research method. The researcher acquired the following findings by observing and interviewing the students, teachers and educational team. A recreation of cognitive value that indicates the attitude to devalue the values is not only spotted by the students, but also impliedly by the educational team as the hidden curriculum. Social inequalities as the integral part of the school are reinforced by the teachers and the school management. In addition, the devaluated aspects and other strong aspects were discovered and these aspects create serious obstacles for education of values (Saeidi, 2001).

Frazer and Savker, 1975 found out in their study that the schools deliver different hidden messages regarding gender to students. Most of the studies found out that the norms, values, expectations, school experiences reinforce wrong gender beliefs and hidden curriculum works in the direction of reinforcing democratic relations and restricting the educational experiences of women (Skelton quoted by Alikhani, 2004).

Garner and Nalton, 1997 started clarifying the hidden curriculum through extracurricular activities. They found out that social interaction and shared behaviors of students of secondary education in the above activities lead to many positive and negative hidden consequences.

They believed that the above extracurricular activities lead to self-confidence, self-setting, self-control, ethics and suitable behavior, feeling of attachment, cooperation and responsibility of students if they are designed well and if they are not designed and controlled well, undesirable consequences and anti-values will be the outcomes for the students.

Sakari Ahola, 2000 in a study under the title of 'hidden curriculum in higher education' in Finland studied the main question, what the students learn in practice at universities and how they learn all these.

This study was conducted by open response questionnaire, interview and observation in three different expertise areas for all the students and the following findings were achieved.

The students have to learn the unofficial cultural regulations of academic life and open academic regulations to succeed at university.

In the current higher education atmosphere, educational progress and competition is very important. Students should learn to differentiate among learning objectives and performance goals. Acquiring information to start studying at university is necessary and it seems that this information is rare. The specialist power, self-control and scientific-research orientation in university is of high importance. Studies showed that prominent individuals rarely use their school and teachers as effective factors in growing their abilities and creativities.

Other studies show that often the creative students are less obedient and coordinated with the group of people and their behavior is not predictable, thus some teachers think that they are trouble making students. Their several unexpected questions and the solutions invented by them cause them to be less welcomed by the teachers. The teachers usually like obedient, intelligent and less creative students (Gatzels and Jackson, 1962, Torense, 1965 quoted by Hosseini, 1999).

Rezvani, 2001 prepared the hidden curriculum of Islamic thought lesson of the secondary education in his PhD dissertation and presented strategies to be used in this program for a more effective religious education. In this study, quality methods and semi-organized interviews were used to collect data. The hidden curriculum under the title of 'unwanted value load resulting from students facing open curriculum' was as follows:

- To feel that lesson of Islamic thought to be official (lack the educational load).
- To create negative approach toward Islamic thought lesson.
- To create and or reinforce absent relation between religious teachings and real life.
- To create and consider the feeling of separation of religion and politics.

Alikhani, 2004 conducted the study in question at two stages. In the first stage, 400 testable cases were selected randomly among the society of students of governmental and non-for-profit high schools of Isfahan using 'descriptive method'. It was identified through the questionnaire made by the researcher about social atmosphere of schools and was divided using the differentiating approach of schools into two 'open and closed' groups. The validity of the questionnaire using Cronbach's Alpha method was 88 and the validity of its content approved by 8 experts was calculated using indicators of descriptive statistics, independent t statistic and test and multi-variable variance analysis for data analysis. At the second stage to define the hidden consequences and to respond to the research questions using quality method, semi-organizational interview was made (with 57 students of open and closed schools). Data analysis, validity and credibility of tools and results at this stage corresponded with the quality methods. To add validity and to confirm the results and strategies in addition to attention to correspondence of data from the questionnaires and interviews, the collective views of experts and elites of education throughout the country were also sought.

The outcomes of the study at the first stage showed that:

There is a significant difference between atmosphere of 'open' and 'closed' schools for girls and boys and governmental and non-for-profit schools.

The atmosphere of the schools for boys was described to be more closed than the schools for girls.

The atmosphere of non-for-profit schools was described to be more closed than the governmental schools.

The atmosphere of schools owned by higher economic/social classes was described to be more closed than the ones of other classes.

At the second stage, the main hidden consequences of schools that had closed atmosphere were as follows:

-Reinforcement of the obedience and admittance morale instead of critical thought, innovation and creativity of students.

-Reinforcement of individual competition and negative approach toward group activities in students.

-Reinforcement of negative self-belief and weakened self-confidence of students.

The effect of unintended consequences on the students of schools for boys and girls is different. Obedience and lack of willingness to cooperate with group activities in the schools for boys is more than the schools for girls and the weakened self-confidence in the students of schools for girls is more than the one in the students of schools for boys.

The effect of unintended consequences on the students of different social/economic classes is different.

Obedience and lack of inclination to cooperate with a group in the students of higher economic and social classes is higher and weakened self-confidence in the students of lower social/economic class is higher (Alikhani, 2004).

Study was conducted by Haddad Alavi, Abdollahi and Ahmadi, 2007 under the title of 'hidden curriculum: a study in implied learning of school, scientific morale case'. In this study, the interactive approach of reaction and the analytical theory of reaction system by Parsons were used to create definition and identify the sociological dimensions of hidden curriculum. This study was conducted using the quality methods, deep and

group observations and interviews in junior high school (exemplary governmental, ordinary and non-for-profit) schools for girls. The research findings showed that the students learn hidden curriculums at the same time they learn schools and this is in opposite direction to the parameters of scientific morale including creation and reinforcement of morale to imitate and obey innovation, curiosity, creativity and establish and reinforce morale of passiveness and fear instead of critical attitude, creation of negative competition for score instead of participation and group work (Taqvaei Yazdli, 2013).

Other study was conducted by Izadi and Qorbani Qahreman, 2007 under the title of 'descriptive study of the role of secondary education and hidden curriculum in the approach toward globalization and reinforcement of national identity'. It was conducted at the level of governmental and Shahed Secondary Education Centers of Mazandaran province in 2007. The findings of the study indicated the role of hidden curriculum of schools to reinforce national identity in a way that about half of the students and staff expressed the role of hidden curriculum of schools in reinforcement of high and very high national identity and the students played a more effective role than the staff in hidden curriculum to create an attitude toward globalization (quoted by Mosallanejad *et al.*, 2014).

Another study was conducted by Sheikhi, 2009 under the title of 'study of civil education in hidden curriculum of theoretical secondary education system from the viewpoint of teachers of Ahwaz'. The achievements of this study show that:

1. One of the most important counter effects of human workforce resulting from hidden curriculum on civil education is for the school staff to observe order and rules.

2. Also the most important effective factors resulting for organizational structure of hidden curriculum on civil education is to hold events.

3. One of the other most important effective factors resulting from physical structure and educational tools show that despite spending remarkable financial and human costs to prepare growth journals that are provided and distributed aiming at encouraging culture and strengthening and deepening values and religious and ideological beliefs of students, these journals could not find their actual place yet as one of the important tools of educational materials.

4. In a general analysis, it could be said that although it is possible for the teachers' views to be affected by the general approaches and views governing the society and the educational system and their views cannot be found correct considering the views of the elites and experts of civil education and curriculum regarding the factors resulting from the hidden curriculum effective on civil education, it is necessarily correct to look at this group as the experts of the educational system and the main operators of the curriculum and to look at their views to a large extent as the reference (Sheikhi, 2009).

-Seratink studies, 1983 showed the fact that there are still many teachers who spent most of their time of class for speaking or asking questions that require nothing more than recollection of simple scientific facts and only 1% of the class time is allocated to the questions that require intellectual responses. The teachers often disappoint the students by giving them a short chance to respond to the questions of the students instead of presenting intellectual views. This situation prevails most of the classes (quoted by Sha'abani, 2011).

The analysis made by Silver, 1986 regarding the results of the entrance exam of universities that was assessed by NAEP (National Assessment of Educational Progress) consisted of convincing samples that showed how the students with educational and scientific obligations act by machines and without using their brain (Marzino *et al.*, 2011).

One of the issues under study was designed by the international society of assessing mathematics and sciences progress (TIMSS) (The biggest and most important study that has ever been conducted by IEA society). It was the ability to analyze and think critically regarding the issues and to make theories. Although these issues were taken into account at a minimal level in the content of the sciences of all counties, but compilers of educational books of sciences in Iran and Scotland were completely ignorant about them (quoted by Hashemian Nejad, 2001).

In a study that was conducted by Sha'abani, 2001 under the title of 'effect of solving the problem in form of a workgroup on critical thought and educational progress of students of the fourth grade of primary school in Tehran, the results of the study showed that the method to solve the problem in form of a group activity has a valuable role in the method of critical thought skills. In this study, among the critical thought skills, the three important characteristics, i.e., comparison, identification and justification were selected and put into action.

In another study conducted by Jahani, 2008, he criticized and studied the philosophical bases of 'model of education of critical thought'. The most important finding of this study was that critical educational thought was exclusively possible through research processes. The teachers and operators, paying attention to this point should develop the spirit of research and growth of the thinking ability of students.

In another study by Hashemiannejad, 2001 under the title of 'presentation of theoretical framework regarding curriculum based on critical thinking in primary course stressing on the curriculum of social studies', eight skills as follows were taken into account for critical thought: 1. asking question, 2. analyzing, 3. assessing,

4. linking, 5. arguing, 6. organizing the relevant scientific concepts, 7. using critical wordings and 8. Meta-knowing for critical thought.

## 2. RESEARCH HYPOTHESES

1. There is generally a relation between hidden curriculum separated by aspects and critical thought of students separated by aspects.
2. There is a significant description between aspects of hidden curriculum and students' critical thought.
3. There is a significant description between aspects of hidden curriculum and students' inferential ability.
4. There is a significant description between aspects of hidden curriculum and students' ability to identify the assumptions.
5. There is a significant description between aspects of hidden curriculum and students' inferential ability.
6. There is a significant description between aspects of hidden curriculum and students' interpretation ability.
7. There is a significant description between aspects of hidden curriculum and students' ability to make assessment of logical arguments.

## 3. RESEARCH METHOD

The current study is of descriptive-correlative type. The statistical society of the study is all the male secondary education students of Sari who were 4750 in the academic year 2014-2015. The sampling was conducted using simple random sampling method because the samples were selected using random method and in this study it was equal to 357 according to Morgan's table as well as 80 teachers (divided by each class).

### Research tools

Two questionnaires are used to collect data in this study:

#### Questionnaire of hidden curriculum

To measure the understanding of teachers of the hidden curriculum in schools under study, a 42-item questionnaire was used. This questionnaire takes four dimensions including organizational structure, counter reaction, social atmosphere and physical structure into consideration. According to Likert's five-option responding spectrum, it is designed based on figures 1, 2, 3, 4 and 5 (from very much to not at all) and made available to the teachers to express their agreement with each item and according to it, the hidden curriculum in the schools under study was determined.

The reliability coefficient was calculated using Cronbach's Alpha in the current study to be 0.83 and the validity is the tool approved by the teachers and experts.

#### Watson and Glaser Critical Thought questionnaire

To assess the students' critical thought in schools, 80-item questionnaire was used. This questionnaire consists of five dimensions including, inference, and identification of assumptions, deduction, interpretation and assessment of logical arguments.

The reliability coefficient was calculated using Cronbach's Alpha in the current study to be 0.72 and the validity is the tool approved by the teachers and experts.

## 4. STATISTICAL METHOD

Average and criterion deviance were used out of descriptive statistical indicators and Pearson correlation coefficient and multiple regression were used out of inferential statistical methods.

### Research findings

Description of the demographical specifications of the sample

Description of age variable

Table 1: Distribution of teachers according to age

Valid percentage	Percentage	Abundance	
3.1	3.1	3	Less than 25 years old
1.5	1.5	2	26-30 years old
13.8	13.8	10	31-35 years old
43.1	43.1	29	36-40 years old
38.5	38.5	26	More than 41 years old
100.0	100.0	70	Grand total

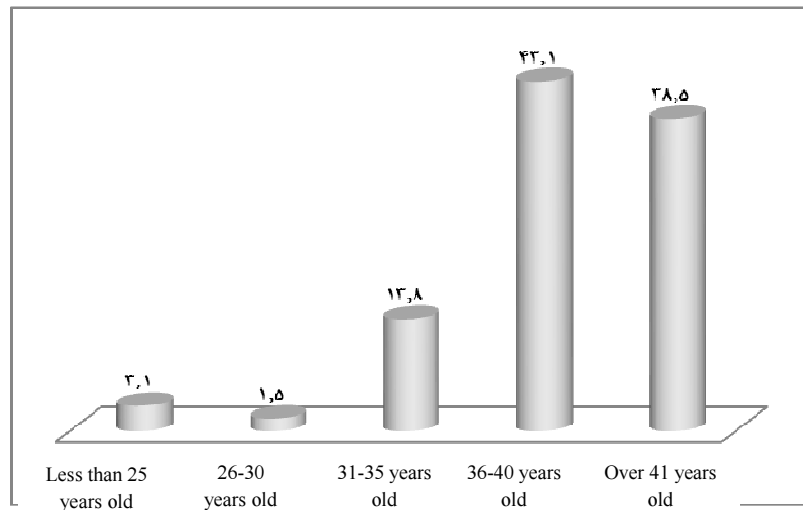


Chart 1: Chart of teachers' distribution according to age

The data of the table and chart 1 show that 43.1% of the teachers are between 36 and 40 years old, 38.5% of them were 41 years old and above, 13.8% of the teachers were between 31 and 35 years old, 3.1% of them were less than 25 years old and 1.5% of them were between 26 and 30 years old.

-Description of the sample is according to the students' GPA

Table 2: Distribution of students according to GPA

Valid percentage	Percentage	Abundance	
3.8	3.7	14	Less than 13
15.1	1408	65	Between 13.1 and 16
81.1	79.4	257	Between 16.1 and 20
-	2.1	327	Grand total

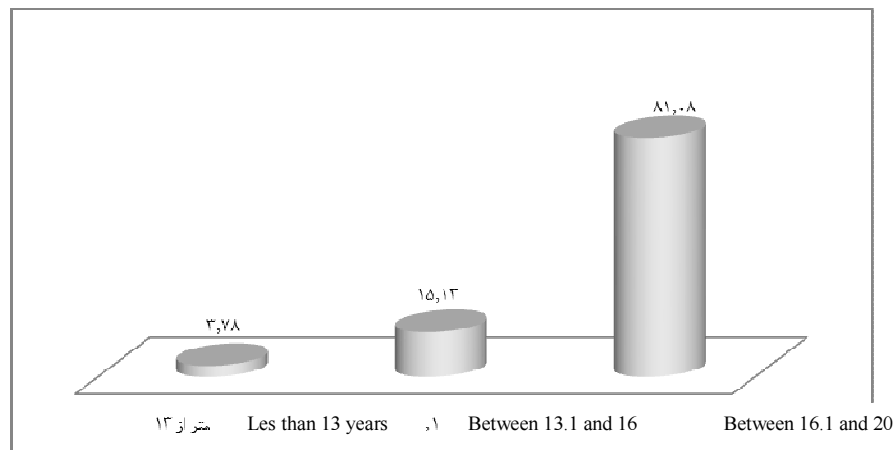


Chart 2: Chart of students' distribution according to GPA

Table and chart 4.2. show that 81% of the students have GPA of 16 and above, 15.13% of them have GPAs between 13 and 16 and only 3.78% of them had GPAs under 13.

Description of the sample is according to the teachers' level of education.

Table 3: Distribution of teachers according to level of education

Valid percentage	Percentage	Abundance	
15.4	15.4	10	Associate's degree
72.3	72.3	47	Bachelor's degree
12.3	12.3	8	Master's degree
100.0	100.0	65	Grand total

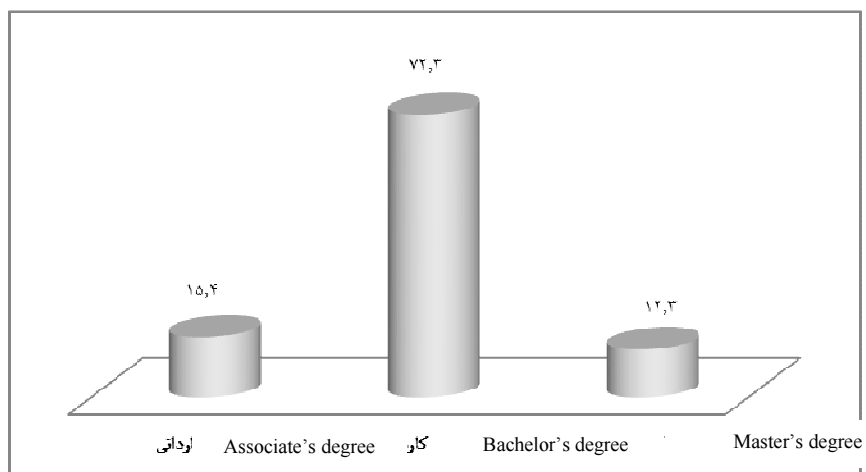


Chart 3: Chart of teachers' distribution according to level of education  
(Associate's degree/Bachelor's degree/Master's degree)

Data of table and chart no. 3 show that 72.3% of the teachers hold Bachelor's degree, 15.4% of them hold Associate's degree and 12.3% of them hold Master's degree.

Description of teaching history

Table 4: Distribution of teachers according to teaching history

Valid percentage	Percentage	Abundance	
3.1	3.1	2	Less than five years
14.1	13.8	9	Between 6 and 10 years
14.1	13.8	9	From 11 to 16 years
39.1	38.5	25	From 16 to 20 years
23.4	23.1	15	From 21 to 25 years
6.3	6.2	4	More than 26 years
100.0	1.5	1	Unanswered
	100.0	65	Grand total

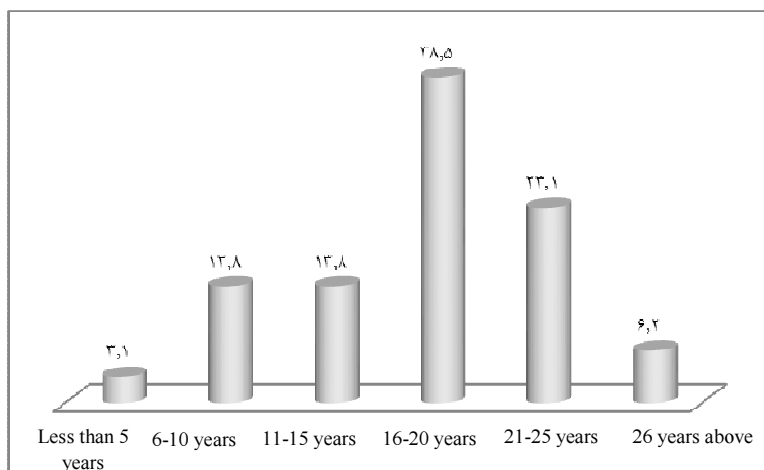


Chart 4: Chart of teachers' distribution according to teaching history

Data of the table and chart no. 4 shows that 38.5% of the teachers had between 16 and 20 years teaching history, 23.1% of them had between 21 and 25 years teaching history, 13.8% of them had between 6 and 15 years teaching history, 6.2% of them had 26 years and above teaching history and 3.1% of them had less than 5 years teaching history.

-Descriptive analysis of hidden curriculum

Table 4: Average and criterion deviance of hidden curriculum and its aspects

Valid number	Criterion deviance	Average	Aspects of hidden curriculum
242	.40	1.90	Organizational structure
242	.38	2.04	Counter reaction
242	.48	1.88	Social atmosphere
242	.71	2.23	Physical structure

Data of table 4 show that the minimum average is concerning social atmosphere (1.88) and the maximum average is concerning physical structure parameter (2.23).

Table 5: Average and criterion deviance of critical thought and its aspects

Valid number	Criterion deviance	Average	Aspects of critical thought
357	.32	3.52	Inference
357	.24	1.75	Identification of assumptions
357	.14	1.61	Deduction
357	.57	1.75	Interpretation
357	.14	1.59	Assessment of logical arguments

The data of table 5 show that the least average is concerning assessment aspect of logical arguments (1.59) and the maximum average is concerning the inference parameter (3.52).

Table 6: Cronbach's Alpha amounts of hidden curriculum and critical thought

Cronbach's Alpha coefficient	Name of questionnaire	Item
0/83	Hidden curriculum	
0/72	Critical thought	

The calculated Cronbach's Alpha amount for the two questionnaires of hidden curriculum and critical thought are 0.83 and 0.72 that showed a good level of reliability of these questionnaires.

According to the received statistics, the number of male students of the secondary education of Sari was determined to be 4750 and referring to Morgan table, 357 of the sample were selected randomly.

Inferential analysis of data and response to research questions

In this part, the research questions are answered and considering the statistical indicators proportionate to the questions, they will be studied and analyzed.

Responding to the first question of the research

1. There is generally a relation between hidden curriculum separated by aspects and critical thought of students separated by aspects.

Table 7: Degree of relation between hidden curriculum and critical thought of students in general and separated by aspects

Assessment of logical arguments	Interpretation	Deduction	Identification of assumptions	Inference		
-.017	-.007	.159	.004	.091	Correlation	Organizational structure
.888	.955	.189	.977	.454	Level of significance	
.197	.117	.226	.092	.147	Correlation	Counter reaction
.108	.341	.044	.454	.232	Level of significance	
-.097	-.127	.249	-.075	.244	Correlation	Social atmosphere
.425	.293	.038	.535	.042	Level of significance	
.188	.172	.187	.207	.138	Correlation	Physical structure
.119	.155	.120	.046	.255	Level of significance	

Table 8: Degree of correlation and its significance between hidden curriculum and critical thought

Critical thought	Correlation	Dimensions
.271	Level of significance	Hidden curriculum
.048		

The data from the above tables show that the aspects of hidden curriculum have generally positive and significant correlation with critical thought. The intensity of the relation is 0.27. This means that increase of hidden curriculum variables (as the general parameter) also increases the critical thought variable. Also to study the relation between the aspects of hidden curriculum and critical thought dimensions, the outcome was that



there is a relation between counter reaction and deduction ( $r=0.22$ ) and this means that increased counter reaction increases deduction. Also the social atmosphere with inference ( $r=0.22$ ) means that increased social atmosphere also increases inference and deduction ( $r=0.24$ ). Eventually there is also relation between physical structure and the parameter to identify the students' assumptions ( $r=0.207$ ). This means that increase of physical structure increases the identification parameter of assumptions. This was not the case in other parameters.

Responding to the second question of the research

2. There is a significant description between aspects of hidden curriculum and students' critical thought.

Table 8: Input variables in regression model

Regression method	Eliminated variables	Input variables	Model
Standard (simultaneous input of variables)	0	Physical structure, social atmosphere, counter reaction, organizational structure	1

Considering table 8 and the type of used analysis in this regard, multiple regression analysis is of standard type. In doing regression analysis, the standard of variables is inserted simultaneously into the regression equation and then their effect is assessed. The result of the test consists of 4 outputs: The first output is the inserted independent variables, the eliminated variables and show the used method to determine the regression.

Table 9: Summary of regression model

Dubrin-Watson statistic	Standard error of estimation	Adjusted determination coefficient	Determination coefficient	Multiple correlation	Model
2.19	450.	124.	176.	419.	1

The second output considering table 9, multiple correlation coefficients, determination coefficient and adjusted determination coefficient, Durbin-Watson statistic and estimation criterion error are shown respectively. In this output, Durbin-Watson statistic amount (DW) is 2.19 and since this amount is between 1.5 and 2.5, thus the assumption of lack of correlation among errors (independence of errors) is not rejected and regression can be used. The amount of multiple regression coefficient is 0.41 and the amount of determined coefficient is 0.17. This means that for every unit of change in the four input independent variables (aspects of hidden curriculum), the dependent variable is given as 0.17, i.e., predictability of the critical thought variables by four independent variables is 0.17.

Table 10: Regression variance analysis to study linearity of variables

Level of significance	F	Average square	Degree of freedom	Total squares	Model
.015	3.36	.682	4	2.729	Regression
		.203	63	12.785	Balance
			67	15.514	Total

The third output consists of regression variable analysis in order to study the definite existence of linear relation between variables. Since the level of significance is less than 0.05 ( $\text{sig}=0.015$ ), the linear assumption of the model is confirmed.

Table 11: Tolerance coefficients and inflation factor to study linearity of variables

Co-linearity determining statistics		Level of significance	T	Non-standardized coefficients		Model
VIF	Tolerance			Standard error	Amount of regression coefficient	
		.000	8.526	.247	2.108	Constant amount
2.446	.409	.097	-1.685	.177	-.298	Organizational structure
2.787	.359	.049	2.851	.157	.291	Counter reaction
1.354	.738	.037	2.136	.082	.175	Social atmosphere
2.390	.418	.108	1.630	.110	.180	Physical structure

In the fourth output and in b column, regression coefficient and the fixed amount are presented. Thus the regression model is as follows:

$$(0.17 \times \text{social atmosphere}) + (0.29 \times \text{counter reaction}) + 2.18 = \text{critical thought}$$

In the standardized beta column the coefficients show that the degree of changes in dependent variable and one criterion deviance in the independent variable. In this hypothesis, the counter reaction variable has the highest effect on critical thought. t statistic and significant level show each of the coefficients of column B with zero to test the equal assumption. Since the amount of significance level of the test of equal regression coefficients and the constant with zero amount is less than 0.05 (there are only two significant variables), the assumption for equality of regression coefficients and the constant is rejected with zero amount and there is no need to take these two insignificant variables (organizational structure and physical structure) out of the regression equation. In other words, 2 variables of counter reaction, social atmosphere and fixed amount affect the dependent variable (critical thought). In the same output, the tolerance and variance inflation factor (VIF) are mentioned. The lower the amount of tolerance is, the lower the relevant information to the variables will be and the problems to use the regression will be caused. The Variance Inflation Factor is opposite to tolerance and its high amount shows the inappropriateness of the regression model for anticipation. Tolerance factor should be less than 1. In this hypothesis, all the tolerance amounts are less than 1. VIF should not also be more than 10. In this example, the amounts are all less than 1, thus regression model is suitable for prediction.

Table 12: Identification of colinearity of independent variables

Indicator of situation	Special amounts	Aspects	Model
1.000	4.847	Constant	1
8.370	.069	Organizational structure	
10.102	.047	Counter reaction	
15.191	.021	Social atmosphere	
17.526	.016	Physical structure	

In the last output the linearity of independent variables was studied. In this output, there are special amounts and situation index. The special amounts near zero show high internal correlation of predictions and the small changes in the amounts of data lead to huge changes in estimation of coefficients of regression equation. The situation indicators with the higher amounts of 15 show the possible co-linearity among the independent variables (in this hypothesis, the two physical structure variables and social atmosphere are higher than 15) and the amount more than 30 indicates serious problem in using the regression in its existing situation. In the mentioned output, all the special amounts is big, thus there is no possibility of internal correlation among variables. On the other hand, only the two variables of organizational structure and counter reaction have higher indicators than 15 which show the unlinearity of correlation among variables.

Responding to the third question of research

3. There is a significant description between aspects of hidden curriculum and students' inferential ability.

Table 13: Summary of regression model

Durbin-Watson statistic	Standard error of estimation	Adjusted determination coefficient	Determination coefficient	Multiple correlation	Model
2.27	.360	.224	.256	.541	1

Considering table 13 we found out that the amount of Durbin-Watson statistics (DW) is 2.27 and since this amount is between 1.5 and 2.5, the assumption of absence of correlation among errors (errors independence) is not rejected and regression can be used. The amount of multiple correlation coefficient is equal to 0.54 and the amount of determination coefficient is 0.25 and this means that for every unit of change in independent variables (aspects of hidden curriculum), the dependent variable depends on 0.25. It means that predictability of inference parameter by 4 independent variables is equal to 0.25.

Table 14: Regression variance analysis to study linearity of variables

Significance level	F	Average square	Degree of freedom	Total squares	Model
.005	8.31	.644	4	3.78	Regression
		.320	63	14.225	Balance
			67	18.195	Total

To study the absolute existence of linear relation among variables, the results of regression variance analysis show that the significance level is less than 0.05 (sig=0.005), thus the linear assumption of the model is confirmed.

Table 15: Tolerance coefficients and inflation factor to study linearity of variables

Co-linearity determining statistics		Level of significance	t	Non-standardized coefficients		Model	
VIF	Tolerance			Standard error	Amount of regression coefficients		
		.000	6.302	.210	3.04	Constant	1
3.16	.529	.047	9.025	.193	.182	Organizational structure	
4.70	.411	.049	2.851	.167	.322	Counter reaction	
2.142	.621	.007	4.11	.094	.214	Social atmosphere	
3.210	.505	.108	1.630	.090	.140	Physical structure	

To form the regression equation, the existing amounts in column B are required. On this basis, the regression equation is as follows:

$(0.18 \times \text{organizational structure}) + (0.214 \times \text{social atmosphere}) + (0.32 \times \text{counter reaction}) + 3.04 =$   
Inference

In the standardized beta column the coefficients show that the degree of changes in dependent variable and one criterion deviance in the independent variable. The higher the total amount of this figure, the stronger relation between independent and dependent variables exists. In this hypothesis, the counter reaction variable has the highest effect on inference variables. Social atmosphere and organizational structure follow it. t statistic and significant level show each of the coefficients of column B with zero to test the equal assumption. Since the amount of significance level of the test of equal regression coefficients and the constant with zero amount is less than 0.05 (there are only three significant variables), the assumption for equality of regression coefficients and the constant is rejected with zero amount and there is no need to take these two insignificant variables (physical structure) out of the regression equation. In other words, 3 variables of counter reaction, social atmosphere and organizational structure and fixed amount affect the dependent variable (inference). In the same output, the tolerance coefficients and variance inflation factor (VIF) are mentioned. The lower the amount of tolerance is, the lower the relevant information to the variables will be and the problems to use the regression will be caused. The Variance Inflation Factor is opposite to tolerance and its high amount shows the inappropriateness of the regression model for anticipation. Tolerance factor should be less than 1. In this hypothesis, all the tolerance amounts are less than 1. VIF should not also be more than 10. In this example, the amounts are all less than 1, thus regression model is suitable for prediction.

Table 16: Identification of colinearity of independent variables

Indicator of situation	Special amounts	Aspects	Model
1.000	4.847	Constant	1
18.370	.084	Organizational structure	
14.102	.012	Counter reaction	
13.151	.031	Social atmosphere	
14.22	.022	Physical structure	

The special amounts near zero show the high internal correlation of the predictions and the small changes in the amounts of data to the big changes to estimate the coefficients of the regression equation. In the mentioned output, all the special amounts are big, thus there is no internal correlation among variables. On the other hand, only three variables of organizational structure, social atmosphere and counter reaction have less situation indexes than 15 that show non-linearity of the correlation among variables.

Responding to the fourth question of the research

4. There is a significant description between aspects of hidden curriculum and students' ability to identify the assumptions.

Table 17: Summary of regression model

Durbin-Watson statistic	Standard error of estimation	Adjusted determination coefficient	Determination coefficient	Multiple correlation	Model
2.11	.622	.156	.167	.443	1

Like the former hypotheses, multiple regression was also used in this hypothesis. The results of the test are as follows:

The amount of Durbin-Watson statistic (DW) is equal to 2.11 and since this amount is between 1.5 and 2.5, the assumption regarding absence of correlation among errors (errors independence) is not rejected and regression can be used.

The amount of multiple correlation coefficient is equal to 0.44 and the amount of determination coefficient is 0.16. This means that for each unit of change in independent variables (aspects of hidden curriculum), the dependent variable is 0.16.

Table 18: Regression variance analysis to study linearity of variables

Significance level	F	Average square	Degree of freedom	Total squares	Model
.000	13.443	.724	4	4.21	Regression
		.471	63	11.03	Balance
			67	15.24	Total

It means that the degree of predictability of the variable of students' identification of assumptions by 4 independent variables is equal to 0.16. To study the definite existing linear relation among variables, the regression variance analysis shows that the level of significance is less than 0.05. Sig=0.000 that confirms the linearity assumption of the model.

Table 19: Tolerance coefficients and inflation factor to study linearity of variables

Co-linearity determining statistics		Level of significance	t	Non-standardized coefficients		Model
VIF	Tolerance			Standard error	Amount of regression coefficients	
		.000	3.11	.023	2.21	Constant
4.11	.438	.038	9.025	.193	.09	Organizational structure
3.21	.328	.003	2.851	.067	.41	Counter reaction
3.22	.549	.023	4.11	.116	.180	Social atmosphere
2.35	.623	.098	1.630	.290	.040	Physical structure

To form the regression model, the existing amounts in column B are required. On this basis, regression equation is as follows:

$(0.09 \times \text{organizational structure}) + (0.180 \times \text{social atmosphere}) + (0.41 \times \text{counter reaction}) + 2.21 = \text{Identification of assumptions.}$

To study the effect of each variable to identify the students' assumptions, the amounts of column B coefficients are used. In this hypothesis, the counter reaction variable has the highest effect on identification variable of the students' assumptions. Social atmosphere and organizational structure follow it. t statistic and significant level show each of the coefficients of column B with zero to test the equal assumption. Since the amount of significance level of the test of equal regression coefficients and the constant with zero amount is less than 0.05 (there are only three significant variables), the assumption for equality of regression coefficients and the constant is rejected with zero amount and there is no need to take these two insignificant variables (physical structure) out of the regression equation. In other words, 3 variables of counter reaction, social atmosphere and organizational structure and fixed amount affect the dependent variable (identification of assumptions). Also the amounts of tolerance and VIF show that the regression model is suitable.

Responding to the fifth question of the research

5. There is a significant description between aspects of hidden curriculum and students' inferential ability.

Table 20: Summary of regression model

Durbin-Watson statistic	Standard error of estimation	Determination coefficient	Multiple correlation	Model
1.88	.589	.108	.33	1

The amount of Durbin-Watson statistic (DW) is equal to 1.88 and since this amount is between 1.5 and 2.5, the assumption regarding absence of correlation among errors (errors independence) is not rejected and regression can be used.

The amount of multiple correlation coefficient is equal to 0.33 and the amount of determination coefficient is 0.108. This means that for each unit of change in independent variables (aspects of hidden curriculum), the

dependent variable is 0.108. It means that predictability of deduction variables by four independent variables is equal to 0.108.

Table 21: Regression variance analysis to study linearity of variables

Significance level	F	Average square	Degree of freedom	Total squares	Model	
.03	10.14	.557	4	6.42	Regression	1
		.423	63	8.58	Balance	
			67	15.24	Total	

To study the definite existence of linear relation among variables, the results of regression variance analysis show that the level of significance is less than 0.05 (sig=0.03), thus the linearity assumption of the model is confirmed

Table 19: Tolerance coefficients and inflation factor to study linearity of variables

Co-linearity determining statistics		Level of significance	t	Non-standardized coefficients		Model	
VIF	Tolerance			Standard error	Amount of regression coefficients		
		.000	3.11	.01	3.11	Constant	1
6.33	.674	.066	9.025	.177	.06	Organizational structure	
4.42	.823	.058	2.851	.103	.17	Counter reaction	
8.17	.432	.000	4.11	.188	.56	Social atmosphere	
3.13	.482	.098	1.630	.432	.092	Physical structure	

To form the regression model, the existing amounts in column B are required. On this basis, regression equation is as follows:

$$(0.56 \times \text{social atmosphere}) + 3.11 = \text{Deduction.}$$

To study the effect of each variable on deduction, amounts of B column are used. In this hypothesis, the social atmosphere variable has the highest effect on deduction variable. Also the amounts of tolerance and VIF show the suitability of regression equation.

Responding to the sixth question of the research

6. There is a significant description between aspects of hidden curriculum and students' interpretation ability.

Table 23: Summary of regression model

Durbin-Watson statistic	Standard error of estimation	Determination coefficient	Multiple correlation	Model
2.13	.419	.324	.57	1

The amount of Durbin-Watson statistic (DW) is equal to 2.13 and since this amount is between 1.5 and 2.5, the assumption regarding absence of correlation among errors (errors independence) is not rejected and regression can be used.

The amount of multiple correlation coefficient is equal to 0.57 and the amount of determination coefficient is 0.32. This means that for each unit of change in independent variables (aspects of hidden curriculum), the dependent variable is 0.32. This means that the predictability of variables of the relation between students' interpretation by four independent variables is equal to 0.32.

Table 24: Regression variance analysis to study linearity of variables

Significance level	F	Average square	Degree of freedom	Total squares	Model	
.004	18.26	.557	4	6.42	Regression	1
		.423	63	8.58	Balance	
			67	15.24	Total	

To study the definite existence of linear relation among variables, the results of regression variance analysis show that the level of significance is less than 0.05 (sig=0.004), thus the linearity assumption of the model is confirmed

Table 25: Tolerance coefficients and inflation factor to study linearity of variables

Co-linearity determining statistics		Level of significance	t	Non-standardized coefficients		Model	
VIF	Tolerance			Standard error	Amount of regression coefficients		
		.000	3.11	.09	1.08	Constant	1
5.22	.317	.005	7019	.116	.66	Organizational structure	
4.42	.823	.008	2.851	.159	.38	Counter reaction	
8.17	.432	.042	4.11	.153	.43	Social atmosphere	
3.13	.426	.085	2.05	.633	.077	Physical structure	

To form the regression model, the existing amounts in column B are required. On this basis, regression equation is as follows:

$(0.43 \times \text{social atmosphere}) + (0.66 \times \text{organizational structure}) + 1.08 = \text{Students' interpretation} + 0.38 \text{ counter reaction.}$

To study the effect of each variable on interpretation, amounts of B column are used. In this hypothesis, the organizational structure variable has the highest effect on interpretation variable. Also the amounts of tolerance and VIF show the suitability of regression equation.

Responding to the seventh question of the research

7. There is a significant description between aspects of hidden curriculum and students' ability to make assessment of logical arguments.

Table 26: Summary of regression model

Durbin-Watson statistic	Standard error of estimation	Determination coefficient	Multiple correlation	Model
1.94	.518	.193	.44	1

The amount of Durbin-Watson statistic (DW) is equal to 1.94 and since this amount is between 1.5 and 2.5, the assumption regarding absence of correlation among errors (errors independence) is not rejected and regression can be used.

The amount of multiple correlation coefficient is equal to 0.44 and the amount of determination coefficient is 0.193. This means that for each unit of change in independent variables (aspects of hidden curriculum), the dependent variable is 0.19. This means that the predictability of variables of assessment and logical arguments of students by four independent variables is equal to 0.19.

Table 27: Regression variance analysis to study linearity of variables

Significance level	F	Average square	Degree of freedom	Total squares	Model	
.000	23.1	.592	4	5.22	Regression	1
	5	.477	63	10.02	Balance	
			67	15.24	Total	

To study the definite existence of linear relation among variables, the results of regression variance analysis show that the level of significance is less than 0.05 ( $\text{sig}=0.000$ ), thus the linearity assumption of the model is confirmed

Table 28: Tolerance coefficients and inflation factor to study linearity of variables

Co-linearity determining statistics		Level of significance	t	Non-standardized coefficients		Model	
VIF	Tolerance			Standard error	Amount of regression coefficients		
		.000	3.11	.11	2.22	Constant	1
4.72	.423	.001	4.11	.143	.47	Organizational structure	
5.55	.653	.021	3.74	.173	.31	Counter reaction	
7.25	.556	.006	3.04	.304	.26	Social atmosphere	
7.33	.489	.044	2.18	.436	.188	Physical structure	

To form the regression model, the existing amounts in column B are required. On this basis, regression equation is as follows:

$(0.26 \times \text{social atmosphere}) + (0.18 \times \text{physical structure}) + (0.31 \times \text{counter reaction}) + (0.47 \times \text{organizational structure}) = \text{Assessment of logical arguments}$

To study the effect of each variable on interpretation, amounts of B column are used. In this hypothesis, the organizational structure variable has the highest effect on assessment and logical arguments variables. Counter reaction, social atmosphere and physical structure variables stand in the following steps. Also the amounts of tolerance and VIF show the suitability of regression equation.

## 5. DISCUSSION AND CONCLUSION

### Conclusion according to descriptive statistics

Averages regarding the dimensions of critical thought show that average of all the parameters is less than the average (figure 3). Low average of the scores of critical thought dimensions indicate that the homework, participation and cooperation are not at desirable level. Thus, the students' cooperation in class activities is lower than expected. Also the rules and regulations and self-setting by the students are not complied with at expected level.

Regarding the hidden curriculum also all the aspects of curriculum are at levels lower than the average level and this means that counter reaction and social atmosphere are not at suitable situation and also the organizational structure and physical structure do not have the required ability to establish effective counter reaction and form the social atmosphere and counter relations.

Since the situation of critical thought and hidden curriculum are not at expected level, it seems that there is a relation between parameters of critical thought and hidden curriculum; hence, this relation is studied in the next section.

Considering the former studies and the result of hypothesis no. 1, it could be argued that there is a significant relation between hidden curriculum and critical thought.

Now it is necessary to study the relation between the two mentioned variables precisely and in more details separated by dimensions of each variable.

The results of hypothesis 1 showed that there is a relation between counter reaction (hidden curriculum) and inference (critical thought). There is also a relation between the social atmosphere, inference and deduction. Eventually there is a relation between the physical structure and the parameter to identify assumptions. No significant relation was found in other parameters.

Thus the obtained results from the first hypotheses are that this study shows a higher correspondence with the other conducted studies in this regard. According to this study, there is a significant relation between parameters of hidden curriculum and students' critical thought.

Hence in general it could be said that increased hidden curriculum increases the degree of occurrence of students' critical thought and reduced hidden curriculum reduces the degree of occurrence of such behaviors by students.

Using multiple regression method of the results of the second hypothesis show that the parameters of hidden curriculum in general define the critical thought of students. Thus, there is a completely significant relation between dimensions of hidden curriculum and students' critical thought. The results showed that organizational structure and counter reaction as the two parameters of hidden curriculum parameter are in turn the highest definition of the students' critical thought and their increase can witness the highest increase in the critical thoughts of students.

The results also showed that other parameters of hidden curriculum do not show a significant definition of the students' critical thought.

The result of the mentioned hypothesis correspond with the result of research conducted by Haji, 2009, Norouzi, 2009, Taqipour and Ghaffari, 2009, Getzelen and Jackson, 1962 only in two dimensions of organizational structure and counter reaction. In their study it was noticed that there is a positive and significant relation between hidden curriculum and students' critical thought.

It could be argued that the school organizes hidden curriculum in addition to the educational content presented in the formal curriculum through organizational structure and inter-school social orders and connections.

Hidden curriculum is related to the trainings that are sent by messages consisting of total physical set of learning and the type of human, political, historical and social relations with the educational environment. It seems that existence of a self-motivated system among students and the physical characteristics of classroom (as a part of the physical structure) affect the critical thought of students.

Therefore, it could be argued that counter reaction (intra-school human relations) and organizational structure are considered as the most important elements of the hidden curriculum and have the highest effect on the critical thought of students. Thus, considering the former studies and the findings of the current study, it

could be admitted that the two parameters of counter reaction and organizational structure are the two main parameters defining students' critical thought.

Studying the third hypothesis of this study and the results according to multiple correlation, it was specified that there is a significant relation between dimensions of hidden curriculum and students' inference. Thus there is a linear and positive relation between these two variables. It means that increased degree of hidden curriculum in secondary schools of Sari increases the degree of inference of students as one of the dimensions of students' critical thought. It was also specified that among dimensions of hidden curriculum, the three organizational structures, counter reaction and social atmosphere have the largest definition of the students' inference, but other dimensions at  $P(0.05)$  level could not have a significant anticipation of the students' inference.

Hence it could be said that the largest part of the students' critical thought in secondary schools of Sari result from involvement of these schools in the dimensions of organizational structure, counter reaction and social atmosphere. Increase of these dimensions can expect the students' critical thought to also increase, but in a general analysis made of this hypothesis, we found out that if the hidden curriculum is generally considered, the degree of its predictability is higher than inference by students.

The results from the fourth hypothesis showed that there is a positive and significant correlation between dimensions of hidden curriculum and identification of the students' assumptions. It means that by increase of the degree of dimensions of hidden curriculum, it could be expected that the students' ability to identify the assumptions will also increase.

Also the dimensions of organizational structure, counter reaction and social atmosphere have a significant definition of identifying the students' assumptions among the hidden curriculum. It means that increase of these dimensions can increase the students' critical thought. But one of the other aspects (physical structure) does not have a significant effect on the ability to identify the students' assumptions and cannot have a significant prediction of it.

In a more general analysis between hidden curriculum and identification of the students' assumptions, a larger part of the variance can be expected as the ability to identify the students' assumptions in comparison with its dimensions. Thus increased hidden curriculum can be expected to increase the students' ability to identify assumptions and its reduction can also identify the reduction of the students' assumptions.

Also the study of the fifth hypothesis investigates the students' inferential ability through dimensions of hidden curriculum. The results showed that there is a significant relation between dimensions of hidden curriculum and the students' inferential ability. It was also specified that among the dimensions of hidden curriculum, only the social atmosphere has a significant definition of the students' inferential ability. For other dimensions of hidden curriculum, no significant definition of students' inferential ability was observed.

The sixth hypothesis studies the degree of definition of the dimensions of hidden curriculum of the students' ability to interpret. The results showed that the made changes in students' ability to interpret can be predicted by hidden curriculum. Further on it was specified that only the organizational structure parameter of the dimensions of hidden curriculum has a significant definition of the students' ability to interpret. Thus it could be said that only one of the dimensions of hidden curriculum has a significant definition of students' ability to interpret, but the hidden curriculum in general has a linear relation with the students' ability to interpret and can have a significant definition of it.

To study the seventh hypothesis, it was found out that the changes of the variable of assessment and logical arguments ability by students can be defined and predicted through the dimensions of hidden curriculum.

It was specified further on that among dimensions of hidden curriculum, the variable of organizational structure has the highest effect on the variable of the ability to assess and make logical arguments and the variables of counter reaction, social atmosphere and physical structure stand at the next steps and have a significant definition of the ability to make a logical assessment and argument by the students.

In a general look at the presented results, we find out that among the dimensions of the hidden curriculum, the two dimensions of social atmosphere and counter reaction have the highest prediction of the dimensions of the students' critical thought, and the students of secondary education schools of Sari have the most engagement in these two aspects of hidden curriculum and the dimensions of physical structure and organizational structure have the least prediction of the dimensions of hidden curriculum.

## 6. DISCUSSION AND CONCLUSION

In this section, considering the research topic, it was tried to discuss and interpret the obtained results. The current study is aimed at studying the relation between dimensions of hidden curriculum and students' critical thought at the secondary education centers of Sari.

Therefore in line with the mentioned goal, the two variables of hidden curriculum and students' critical thought were studied precisely.



Both positive and negative outcomes can be achieved out of the hidden curriculum. For this reason it plays an important role in the students' critical thought at school. Thus, the result from this topic is that the hidden curriculum depends on the second by second and practical presence of teacher and student in the classroom. The hidden curriculum is not necessarily dedicated to school or educational system. This program is always almost everywhere and interrelated with the individuals' learning. Attention to this point is highly important.

The students do not respond to hidden curriculum and they make it through interpretation and discussion, analysis, understanding, combination and merger of hidden curriculum. The hidden curriculum of students is a response to what the educational environment does. All critics despite the differences that they share in accepting a thought believe that hidden curriculum is a social context. This context becomes significant when it is read and interpreted.

The hidden curriculum is not mainly confirmed by the official forces in the school, but can have a deeper effect on students in comparison with official or executive curriculum. Schools are institutions that have a set of norms and values in them. The major messages of the hidden curriculum are the major concerns regarding gender, class, power, knowledge, existing behaviors and regulations at school. What the students are taught as part of the hidden curriculum is about organizational structure, suitable behaviors for teenagers and children, social atmosphere of what is going on around them and their living environment and eventually the existing effect of the physical structure of the education venue on the morale and behavior of children and teenagers. As the research results show, the mentioned items are the most fundamental criteria of the curriculum in the students' critical thought and ignoring them in curriculum can have irretrievable consequences for the family and the society.

Thus generally speaking, it could be said that there is a significant relation between the dimensions of the hidden curriculum and students' critical thought. Among the dimensions of hidden curriculum, the two dimensions of social atmosphere and counter reaction have the highest prediction among the dimensions of the students' critical thought and the students of the secondary education centers of Sari have the highest engagement in these two dimensions of hidden curriculum and the physical structure and organizational structure have the lowest prediction among the dimensions of the critical thought.

## **7. Applied suggestions**

Considering the results of the current research, it is suggested:

- Studies regarding the hidden curriculum are conducted at different educational levels, different schools and all cities, particularly the possibility to compare studies in different schools including schools for girls, boys, urban and rural at different educational levels.

- Importance and effect of learnings resulting from hidden curriculum are generally known and understood by the designers, directors, teachers, students, parents and the society.

- It is proper that the position of hidden curriculum is set in the model of designing curriculums and the position and importance of hidden curriculum.

- Equipment and provision of the necessary hardware facilities to use this technology better in educational system of cities.

- Flexible educational programs and better use of virtual atmosphere (IT and communication) in educational activities and education.

- Call for the paper among the teachers with the subject of dimensions of hidden curriculum. This approach if accompanied by motivating and encouraging system leads to better identification of dimensions of hidden curriculum.

- Renovation of schools and use of traditional architecture and establishment of greenery in school compound, hacking of images and graffiti's on the wall of schools for beauty and effectiveness on learning morale of students.

- Assessment of students according to the degree of discussion, commenting, dialogue, experience, innovation and wise questioning and the similar.

- Establishment of more grounds for activity and participation of students to run the school and part of the group activities of the students to run the schools.

- Establishment of competitive space among students with positive motivation in order to establish competitive atmosphere among them and flourish their talents and abilities.

- Reinforcement and belief in the individual abilities and reinforcement of questioning morale through materialistic and spiritual rewards.

- Establishment of relation among education and learning with actual life experiences to get familiar and experience the roles, jobs and social responsibilities.

- In formal curriculums for secondary education centers, organizational atmosphere of the schools and the happenings around the school organization are taken into account (sympathetic management, proper encouragement etc.).

-Social atmosphere of the school should avoid any type of discrimination and compliance with ethnic and class distance so that the parents' sensitivity regarding their children's education is reduced and the public trust governs the school environment.

-Physical structure and appearance of school can be designed in a way that the students are attracted by the school and it should not be built by long walls and boring atmosphere and absence of entertainment and educational equipment.

-Considering the important and remarkable role of teachers in the educational process as well as the importance of the nature of hidden curriculum to advance educational goals, it is suggested to design and implement comprehensive educational programs to familiarize all the teachers with the parameters, necessity and importance as well as role of hidden curriculums in the educational process.

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