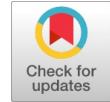


IQ, EQ, SQ and Skill Development are not Balanced in Board Examination - Research On Reference to Chennai City



R. Mary Geetham, G. JoicyLidwina

Abstract— A school should follow 'learning methodology' (like activity based learning, active learning methodology, etc.), the examination is built within the learning process, which means that there is no separate exam. Students do self-evaluation, projects, etc. while they are learning the content. Here examination is done on the basis of students' learning. Exams are necessary in schools to find out the real skills, talents and knowledge of the students. But practically this is not done therefore the researcher felt the need to conduct a study to formulate a question paper which measures and values the student's IQ, EQ, SQ and Skills Developed in the students and researcher wanted to identify the pros and cons of board examination, the understand the psychology of students and various challenges encountered in conducting the board exams. The researcher used SPSS package to analyse the questionnaire and used certain statistical tools such Frequency Analysis, ANOVA, Regression, Factor Analysis etc. to find out that board examination does not inculcate reasoning ability in the minds of the students neither it makes the students to learn with understanding. and it does not test their general knowledge. Board Examination at the same time with few negativity induces problem solving technique and develops social skills though verbal ability and speed of logical reasoning is not tested through questions. Therefore the researcher advises to revise the pattern of exam giving students a stress free environment, carrying general knowledge and logical ability.

Key words — Examination, Intelligent Quotient, Emotional Quotient, Spiritual Quotient, Skill Development

I. INTRODUCTION

Examination is an assessment intended to measure a student's knowledge, skill, aptitude, physical fitness and classification in many other topics. Exams are necessary in schools to find out the real skills, talents and knowledge of the students. They get directed towards higher education after completing their examination from a particular grade. But in reality the board exams conducted by the Government does measure only IQ of the students. The factors of EQ SQ or any skill is not tested in board examination. Moreover there is a disparity between central board and state board pattern in conducting exam. CBSE board examination is more logical and research says that

CBSE students clear competitive exams more than a state board students. NEET or any other GOVT competitive exam can be cited as an example. Therefore the researcher wanted to identify the pros and cons of board examination, to understand the psychology of students and various challenges encountered in conducting the board exams. The researcher also focuses on conducting a de-stressed exam by giving an productive environment to the students.

II. NEED FOR THE STUDY

Today, our main focus in life is to get a good education and have a sound career to lead a happy and content life. Teachers need an objective basis for determining whether they have taught a specific section of the material properly. The only way to do this is to test the students' mastery of the material. If exam is conducted to assess the understanding of the student and his/her skill, there would be no stress at all. But actually this is not done therefore the researcher felt the need to conduct a study to formulate a question paper which measures and values the student's IQ, EQ, SQ and Skills Developed of the students.

III. STATEMENT OF THE PROBLEM

The word exam is used with children brings stress and fear in their minds. Examination nowadays has created an 'I' Vs 'You' kind of competition, which is unhealthy in the education system. 'Unhealthy competition' leads to stress and creates fear in the minds of children. The problem is that everyone wants their child to be called a genius and hence comparison starts. The school should play a major role in educating the parents on the child's individuality and pros and cons of comparison. Exam stress is a part of the education system but that stress should be positive. Students are expected to perform well in all kinds of exams throughout the year with no respite. It is not a good sign as it will create stress among students.

IV. RESEARCH GAP

Review from the available literature reveals that the number of research studies has been done on Examination, EQ factors IQ factors etc.,. This research work is a new perspective on finding the level of IQ, EQ and SQ applied in the board exam pattern. This study will analyse whether board examination is application oriented and improves a student's skill balancing all the quotient in an board examination.

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V. OBJECTIVES OF THE STUDY

The objectives of the study are as follows

- To identify the pros and cons of board examination.
- To understand the psychology of students during board examination.
- To analyze the various Challenges encountered in conducting the board exams.

VI. SCOPE OF THE STUDY

The study was concerned with in Chennai city.

VII. PROS OF BOARD EXAMINATION

- To know that the students learnt the concepts.
- It is an easiest way of evaluating the students.
- Students do combine studies which help them learn the essence of team-work and help develop communication skill.
- Enough opportunities to monitor and evaluate the teaching strategies.
- Examination plays a main role in molding the children's future.

VIII. CONS OF BOARD EXAMINATION

- ❖ It cannot measure the level of understanding of the students about the concepts.
- ❖ Examination nowadays has created an 'I' Vs 'You' kind of competition, which is unhealthy in the education system
- ❖ It motivates the students to do malpractices during the examination.
- ❖ It cannot be considered as complete evaluation of the students.
- ❖ It curtails the creativeness and thinking capacity of the students.
- ❖ It encourages rote learning.
- ❖ The word exam is used with children brings stress and fear in their minds.

The problems are as follows.

1. What are the pros and cons of board examination?
2. What are the various Green Brands available in the market?
3. What is the psychology of students during board examination?

IX. SAMPLE DESIGN

Non-random sampling method is adopted (i.e.) the respondents to my study are not selected at random. The sample size selected is 50.

X. DATA COLLECTION

Data can be divided into two (1) Primary data (2) Secondary data.

XI. METHOD OF COLLECTING SECONDARY DATA

Secondary data for this study was taken from research articles published in magazines, books, periodicals, newspaper etc.

XII. METHOD OF COLLECTING PRIMARY DATA

There are various method of collecting data such as interview method, questionnaire method, preparing schedules, observation method etc .The researcher used questionnaire method to collect the data.

XIII. ANALYSIS AND INTERPRETATION

The investigator used various statistical tools such etc to analyse the data.

XIV. LIMITATION OF THE STUDY

There are few limitations of the study

1. Time available for the study is limited.
2. Data available is not sufficient to cover all aspect.
3. The area covered for the study is narrow.
4. In many institutions they are not willing to co-operate and provide the investigator with sufficient information.

XV. SCOPE OF FURTHER STUDY

A study conducted to formulate the syllabus to include IQ, EQ SQ and Skill Development in the study material. A study conducted to identify the best teaching style to teach the study material which includes IQ, EQ SQ and Skill Development.

XVI. REVIEW OF LITERATURE

Bergin.G (2017) describes two types of methodologies:- teaching methodology and learning methodology. Further on the states the advantages and disadvantages of exams, if exam is conducted to assess the understanding of the student and his/her skill, there would be no stress at all.

Daniel Goleman (1995) explains about IQ and EQ, further explains how it enhanced ,measured, tested and its importance and its applications.

J Neurol Stroke (2014) identifies the five factors being tested are knowledge, quantitative reasoning, visual-spatial processing, working memory, and fluid reasoning .He explains that genes and environmental factors are also the factors influencing IQ .The researcher describes various tests to measure IQ and EQ.

Mark Ashton Smith,(2010) the researcher has stated that General Intelligence is based on five underlying IQ factors. They are crystallized intelligence, fluid intelligence, visual intelligence, processing speed, Qualitative intelligence Some of these factors are based on , 'acquired knowledge' through education, others are based on 'raw' thinking skills that we are usually not taught.

Francis Galton's (1905) the researcher has talked about IQ and EQ , importance ,application enhancement, pros and cons , measurement and testing of IQ and EQ.

Leafy Shrew (2009) the researcher has discussed about the environmental factors of IQ such as modern media, education, parenting, nurturing, etc.

Shana Lebowitz (2014) the researcher has explained about the factors of IQ, testing and measuring of IQ, alternatives of IQ test.

Marcel.Goldschmid (2016)the researcher has analyzed 7 critical factors of Emotional Quotient, they are Engagement and Motivation, Recruitment, Coaching, Relationship, Team Building etc.

Daniel Goleman(2016)says that Emotional intelligence is the ability to identify, use, understand, and manage emotions to optimize your communications, regulate your emotional reaction, acknowledge others emotions, and defuse conflict. There are 4 attributes. They are Self – Awareness, Self Management, Social Awareness and Relationship Management

XVII. FREQUENCY DISTRIBUTION TABLE

TABLE : 1 AGE

	Frequency	Percent	Valid Percent	Cumulative Percent
15 - 16	16	31.4	31.4	31.4
16 - 17	15	29.4	29.4	60.8
17 - 18	16	31.4	31.4	92.2
18 & above	4	7.8	7.8	100.0
Total	51	100.0	100.0	

From the above the table it is found that a maximum of 31.4% of Individuals are within the age group of 17 - 18 & also 15 - 16 age. The remaining 29.4% of individuals are within the age group of 10 - 17 age 7.8% of individuals are within age group of 18 & above.

TABLE : 2 GENDER

	Frequency	Percent	Valid Percent	Cumulative Percent
MALE	31	60.8	60.8	60.8
FEMALE	20	39.2	39.2	100.0
TOTAL	51	100.0	100.0	

From the above the table it is found that a maximum of 60.8% of Individuals are boys and the balance 39.2% of individuals are girls.

TABLE : 3 EDUCATIONAL QUALIFICATION

	Frequency	Percent	Valid Percent	Cumulative Percent
10 thstd	17	33.3	33.3	33.3
11 thstd	16	31.4	31.4	100.0
12 thstd	18	35.3	35.3	68.6
TOTAL	51	100.0	100.0	

From the above the table it is found that a maximum of 35.3% of students are in std 12 th. 33.3% of students are in std 10 th. The remaining 31.4% of students are in class 11.

TABLE : 4 NATURE OF THE INSTITUTE

	Frequency	Percent	Valid Percent	Cumulative Percent
STATE BOARD	36	70.6	70.6	70.6
CBSE	15	29.4	29.4	100.0
TOTAL	51	100.0	100.0	

From the above the table it is found that a maximum of 70.6% of students are in state board schools and the remaining 29.4% of students are in CBSE.

FACTOR OF IQ, EQ, SQ AND SKIL DEVELOPMENT BOARD EXAMINATION – ANALYSIS & RESULTS

Table: 1 Communalities

	Initial	Extraction
COMP	1.000	.629
GK	1.000	.886
VERBAL	1.000	.849
REASON	1.000	.889
PROB SOL	1.000	.875
VISUAL IM	1.000	.783
COGNI	1.000	.899
LOGICAL	1.000	.904
MATHEM	1.000	.788
MEDIA	1.000	.924
EDU	1.000	.883
HEALTH	1.000	.797
PARENT	1.000	.906
MENTAL	1.000	.921
ENGAG	1.000	.914
RELATIO	1.000	.906
RECRUIT	1.000	.891
TEAM	1.000	.908
SELF PERC	1.000	.802
SELF MGT	1.000	.811
SELF CON	1.000	.917
EMPATH	1.000	.928
NEGOT	1.000	.810
INTERAC	1.000	.920
COMM	1.000	.943
SOCIAL	1.000	.911
MORAL	1.000	.885

From the above table it is found that the 27 variables on IQ, EQ and SQ towards board examination for students have their variances ranging from 0.629 to 0.943. This implies that the 27 variables have their variances within the limitation 62.9% to 94.3%. This specific range is highly significant and ensures the formation of factors as stated in the following total variance table:



Iq, Eq, Sq And Skill Development Are Not Balanced In Board Examination - Research On Reference To Chennai City

Table : 2 Total Variance

Component	Initial Eigenvalues			Rotation sum of square loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	14.976	55.467	55.467	10.994	40.717	40.717
2	3.872	14.342	69.809	4.988	18.474	59.191
3	2.239	8.291	78.100	4.040	14.963	74.154
4	1.457	5.395	83.495	1.901	7.040	81.193
5	.934	3.460	86.955	1.556	5.762	86.955

From the above table it is found that 27 variables are reduced in to 5 factors with cumulative variance 76.955%. These five factors also have their individual variances 40.717%, 18.474%, 14.963%, 7.040% and

5.762%. The variable loading for all the five factors can be identified through the following rotated component matrix.

Table :3 Rotated Component Matrix

	COMPONENT				
	1	2	3	4	5
21. RELATIO	.909				
27. EMPATH	.903				
15. MEDIA	.903				
32. MORAL	.900				
19. MENTAL	-.899				
22. RECRUIT	.898				
26. SELF CON	.867				
28. NEGOT	.865				
20. ENGAG	.862				
29. INTERAC	.851				
25. SELF MGT	.778				
11. VISUAL IM	.641				
14. MATHEM		.809			
23. TEAM		.748			
12. COGNI		.733			
18. PARENT		.718			
24. SELF PERC		.708			
17. HEALTH		.621			
10. PROB SOL			.878		
16. EDU			.853		
7. GK			.845		
9. REASON			.830		
8. VERBAL			.587		
31. SOCIAL				.752	
13. LOGICAL				.680	
30. COMM					.934

From the above Table it is found that the first factor consists of 12 variables, namely:

- 21. Examination makes one creative and gives courage to face the challenge. (0.909)
- 27. Examination builds the sense of empathy in the minds of the students.(0.903)
- 15. Students get information through media to clear the exams. (0.903)
- 32. The pattern of the exam gives moral values to the students. (0.900)
- 19. The exams conducted are stress free. (-0.899)
- 22. The questions in the Board examination are application oriented. (0.898)

- 26. Students acquire self-confidence through examination. (0.867)
- 28. Negotiation skills are developed through exams. (0.865)
- 20. The examination motivates and inspires the students. (0.862)
- 29. Development of Interactive skills are incorporated in the students through examination. (0.851)
- 25. Examination develops one’s self management. (0.778)



11. Board examination correlate visual images for problem solving among the students. (0.641)

Therefore this factor can be named as **“Perceptive”** factor

Students of CBSE stream develop self confidence through exam and moreover board examination is application oriented and in turn develops various type of skills, like interactive negotiation, problem solving etc., where the students are able to clear the competitive exam but exams cannot be stress free for both state board and CBSE. More than giving moral values exam gives tension and stress to the students. Examination motivates and inspires students and develops one's self management.

From the above Table it is found that the second factor consists of 6 variables, namely:

14. Quantitative mathematical problems are tested through the board examination. (0.809)
23. Projects induce team building and encourages each other. (0.748)
12. Exam patterns gives cognitive efficiency to the student. (0.733)
18. The parents give an conducive environment to take up the examination. (0.718)
24. The students are evaluated on the basis of self – perception. (0.708)
17. The students are given nutritious diet to face the examination. (0.621)

Therefore this factor can be named as **“Subjective”** factor.

Board Examination gives cognitive efficiency to the students induces team building through project work. Students are tested in their quantitative aptitude and evaluated based on self perception. Parents also give them nutritious diet and conducive environment to face the board exam.

From the above Table the third factor consist of 5 variables, namely:

- 10 The board exams induces in the minds of the students problem solving technique in the students..(0.878)
16. The education system do not encourages the students to learn with understanding. (0.853)
7. The questions asked are not to tests the general knowledge of the students. (0.845)

9. Through the board exam the reasoning ability is not inculcated in the minds of the students. (0.830)

8. Verbal ability of the students is not tested through the questions. (0.582)

Therefore this factor can be named as **“Inductive”** factor.

Education system has failed to test the general knowledge of the students. Students just mug up without any understanding and reasoning ability is not inculcated in their minds. Verbal ability not tested through examination pattern. Examination pattern may induce problem solving technique in the minds of the students but practically it may not be possible.

From the above Table the fourth factor consist of 2 variables, namely:

31. Students develop social skills through examination. (0.752)
13. The speed of logical reasoning of the students is not tested.(0.682)

Therefore this factor can be named as **“Informative”** factor.

Board Examination develops social skills, but speed of logical reasoning is not tested through examination.

Influence of IQ, EQ, SQ and Skill Development on Board Examination

The factor Analysis by principal component method derived 4 factors of Board Examination namely:

1. Perceptive
2. Subjective
3. Inductive
4. Informative

In this scenario demographic factors of Board Examination on IQ, EQ and SQ are considered as independent variables, the 4 factors of Board Examination such as Perceptive, Subjective, Inductive and Informative factors are considered as dependent variable. Influence on Independent variable on the dependent factors can be ascertained through Linear Multiple Regression Analysis as shown in the table below:

1. Influence of Age of Board Examination on Perceptive

Influence on Age and its respective relationship with Perceptive is established in the following table:

Table: 1 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.473 ^a	.224	.153	15.65225

From the above table it is found that R square = 0.224, Adjusted R square= 0.153 shows that the independent variable of board examination create % variance over the

perceptive. The regression fit is verified in the following Anova Table

Iq, Eq, Sq And Skill Development Are Not Balanced In Board Examination - Research On Reference To Chennai City

Table: 2 Anova Table

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	3109.295	4	777.324	3.173	.022 ^b
Residual	10779.684	44	244.993		
Total	13888.980	48			

From the above table it is found that $F = 3.173$, $P = 0.022$ is statistically significant at more than 5% level, it confirms the regression fit and also the regression

between board examination and perceptive. The individual influences of board examination factors is ascertained through the following co-efficient table

Table: 3 Coefficient

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.165	12.696		.013	.990
Age	.418	2.795	.020	.150	.882
Gen	1.927	4.663	.056	.413	.681
EduQual	1.397	2.922	.068	.478	.635
Institution	18.611	5.281	.488	3.524	.001

From the above table it is found that demographic factors of board examination self advertising, age ($\beta = 0.020$, $t = 0.150$, $p = 0.882$) are statistically significant at 5% level. Therefore it can be concluded that how this variables of age influencing the factor (perceptive). It is clear that Board Examination on IQ, EQ and SQ are perceptive to students.

2. Influence of educational qualification of board examination on Subjective factor

Influence on educational qualification and its respective relationship with subjective factor is established in the following table:

Table: 4 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.341 ^a	.117	.036	8.24934

From the above table it is found that $R \text{ square} = 0.117$, $\text{Adjusted } R \text{ square} = 0.036$ shows that the independent variable of board examination % variance over the

subjective factor. The regression fit is verified in the following Anova Table

Table: 5 Anova Table

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	395.079	4	98.770	1.451	.233 ^b
Residual	2994.268	44	68.052		
Total	3389.347	48			

From the above table it is found that $F = 1.451$, $P = 0.233$ is statistically significant at 5% level, it confirms the regression fit and also the regression between demographic variable of board examination and

subjective factor. The individual influences of board examination factors is ascertained through the following co-efficient table

Table: 6 Coefficient

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	6.370	6.691		.952	.346
Age	-.526	1.473	-.052	-.357	.723
Gen	-1.411	2.457	-.083	-.574	.569
EduQual	3.379	1.540	.333	2.194	.034

Institution	4.073	2.783	.216	1.463	.150
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From the above table it is found that demographic factors of board examination, Educational qualification (beta = 0.333, t = 2.194, p = 0.034) are statistically significant at 5% level. Therefore it can be concluded that how this variables of educational qualification influencing the factor (Subjective). It is clear that board

examination on IQ, EQ and SQ are more subjective to the education qualification of students.

3. Influence of institution of board examination on Inductive factor

Influence on institution and its respective relationship with inductive factor is established in the following table:

Table: 7 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.576 ^a	.332	.273	5.64975

From the above table it is found that R square = 0.332, Adjusted R square= 0.273 shows that the independent variable of board examination create % variance over the

inductive factor. The regression fit is verified in the following Anova Table

Table: 8 Anova Table

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	714.034	4	178.509	5.592	.001 ^b
Residual	1436.386	45	31.920		
Total	2150.420	49			

From the above table it is found that F = 5.592, P = 0.001 is statistically significant at 5% level, it confirms the regression fit and also the regression between demographic variable of board examination and inductive

factor. The individual influences of board examination on IQ, EQ and SQ is ascertained through the following co-efficient table.

Table: 9 Coefficient

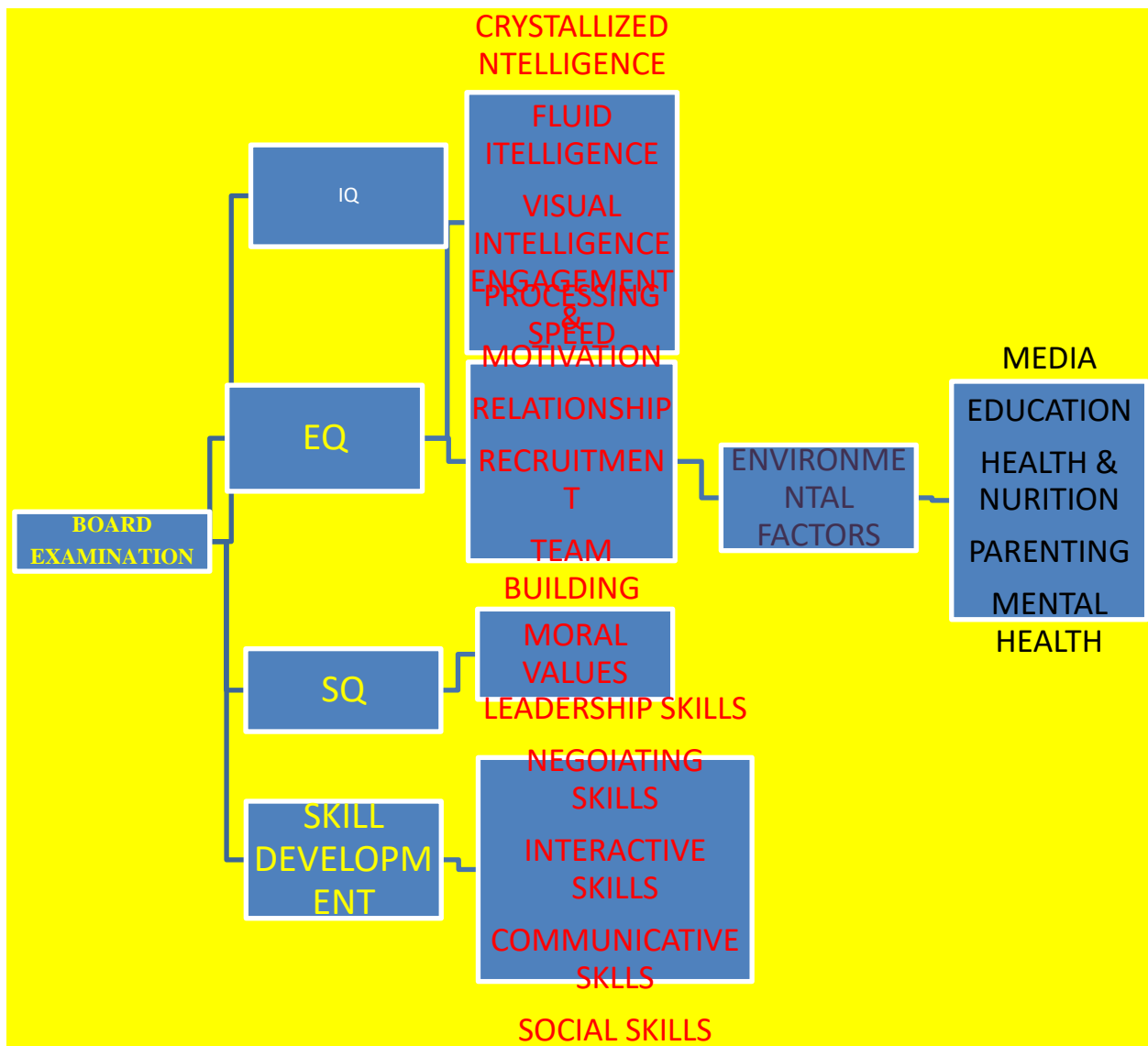
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	9.858	4.571		2.157	.036
Age	-.645	1.009	-.080	-.640	.526
Gen	-.203	1.675	-.015	-.121	.904
EduQual	4.197	1.051	.520	3.993	.000
Institution	-2.458	1.856	-.168	-1.325	.192

From the above table it is found that demographic factors of self advertising age (beta = -0.168, t = -1.325, p = 0.192), are statistically significant at 5% level. Therefore it can be concluded that how this variables of institution influencing the factor (Inductive). It is clear

that Board Examination on IQ, EQ and SQ is inductive with the institution of the students.

A MODEL OF IQ, EQ, SQ AND SKILL DEVELOPMENT ON BOARD EXAMINATION





XVIII. FINDINGS

IQ, EQ and SQ on Board Examination has revealed five predominant factors namely Perceptive, Subjective, Inductive and Informative.

- Board Examination makes one creative and gives self confidence and courage to face the challenges.
- Students are technology proven they get relevant information through media to update their exam
- Board examination are application oriented, develops ones skill, motivates and inspires students but at the same time they are not stress free.
- Board examination correlates visual image for problem solving among the students induces moral value in them.
- Quantitative mathematical problems are tested through the board examination and moreover Parents give nutritious diet and conducive environment to their children to face the exam.
- Team building is developed through project work which encourages each other and evaluated on the basis of self-perception
- Board Examination does not inculcate reasoning ability in the minds of the students neither it makes

the students to learn with understanding. and it does not test their general knowledge.

- Board Examination at the same time with few negativity induces problem solving technique and develops social skills though verbal ability and speed of logical reasoning is not tested through questions.

XIX. SUGGESTION

Board Examination is productive and induces courage in the minds of students, but in reality it brings more fear. Parents teachers give them too much of pressure for making them to score higher to hit the professional course. This pressure develops stress in students where they are not educated with values but only attaining scores. State board examination in comparison with CBSE has failed to inculcate reasoning ability in students, where they are not able to face the challenge of competitive exams.

But in practice board examination in both streams have to develop skills and make them to learn with understanding, instead of carrying fear in them and make them to mug-up the syllabus and carry nothing in them. The pattern of exam has to be revised giving students a stress free environment, carrying general knowledge and logical ability

XX. CONCLUSION

Students try to write their own answers by applying knowledge gained in the classroom. So, there is no stress to write such an exam. The students will face the exam happily and positively, if all the questions are designed in such a way that the students only have to apply their skills that they have learned, they can face their exams positively. Syllabus framed should be in such a way that there is no disparity with the central board or state board. Every student should be equally intelligent applying their practical knowledge in clearing exams. Parents, teachers and the Institution should take adhere care in developing a well groomed student a citizen to face all the challenges in future. School management should not consider board examination for sake of reputation and make the student burdensome in all ways. Students should face exam with ease and should be inspired and motivated. Board is a challenge faced by all students where it determines his future. But in order to face this challenge a student cannot get in to trauma but with success and prosperity he has come out gaining knowledge and application oriented techniques. Board examination and the syllabus has to be reframed for the students to achieve his goal with gratification.

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