ISSN 2454-8707 / IMPACT FACTOR 2.05 I VOLUME - II, ISSUE –XI, JULY 2017 "UGC" APPROVED JOURNAL NO. : 43862

INTERNATIONAL RESEARCH JOURNAL OF INDIA

IMPLEMENTING INTERVENTION PROGRAM IN SAFFRON PUBLIC SCHOOL, PHAGWARA PART ANALYSIS OF THE WORLD COGNITION PROJECT INITIATED BY CENTRE FOR RESEARCH IN APPLIED COGNITIVE SCIENCES

Shruti Marwaha

Research and Development
Centre for Research in Applied Cognitive Sciences
e-mail: developmentalresearcher@gmail.com (ShrutiMarwaha)

ABSTRACT:

The present research study intended to evaluate the cognitive abilities particularly Intelligence Quotient, Focus Factor, Decision making ability and Creative Quotient of an esteemed educational institute, Saffron Public School, Phagwara. Detailed study was conducted on a sample of 41 students of the school. At initial stage, Test-1 was conducted on a sample of 41 subjects. In the second stage, 90 days of customized training (IPCT-Q1) was provided to the subjects. Third stage included Quarterly Monitoring of IPCT-1. In the fourth stage, next 90 days of customized training (IPCT-Q2) was provided to the subjects. Fifth stage included Quarterly Monitoring of IPCT-Q2. Tracker test (Test-2) was conducted on subjects and finally the data were analyzed. The results indicated significant up-swing in IQ, FF, DMA and CQ of the participants.

KEYWORDS: Saffron Public School, Phagwara, Cognitive development & Quarterly Monitoring

INTRODUCTION:

Saffron Public School, Phagwara holds a distinguished name in Co-educational, Day-cum – residential school in Phagwara. The school was established in year 2000 and is affiliated by CBSE (1630261) and Cambridge International Education (IN907) Boards respectively. The school is also associated with Edexcel (a UK Govt. Undertaking) Board and LCCI (London Chamber of Commerce and Industry). The school is a Global, Co-educational, Day-cum-Residential of a very rich reputation and runs from Pre-Play to Grade XII (Science, Commerce and Humanities) with its motto: 'Key to Intellect and Wisdom'. The school is governed by Saffron Educational Trust that yearns for holistic development of its pupils. It is a multi faceted educational institution, working hand for imbibing cultural & human values among the children while making them confident enough- socially and academically to make face in the crowd. The school blends the traditional teaching methodology with the latest technical aids as smart classes, on line tests and learning as well. Robotics is an all new concept for the children where they try their hands on making model robots. Saffron Caters to the needs of all the sections of society.

Education is not all about studying and getting good marks. It is really a means to discover new things

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which we don't know about and increase our knowledge. An educated person has the ability to differentiate between right and wrong or good and evil. It is the foremost responsibility of a society to educate its citizens. Most sociological studies on education conducted from the 1960s onwards, including the well known report by Coleman et al. (1966), confirm that pupils from disadvantaged backgrounds are at greater risk of experiencing difficulties at school than pupils from wealthier backgrounds. The convergence and significance of the conclusions of these studies have contributed to fuelling the belief that school and teaching staff have only very little impact on academic achievement among pupils from disadvantaged backgrounds. Nevertheless, while observing the strong link between disadvantaged backgrounds and low school performance, Coleman et al. also noted in their report that this situation was not irreversible and that school itself could counterbalance the weight of pupils' socio-economic background. In that connection, they illustrated that the teacher variable has a more pronounced effect on school achievement among pupils from modest backgrounds and ethnic minorities. Coleman et al. also underline that, regardless of the pupil's ethnic group, good teachers exert a greater influence on the achievement of pupils from poor socio-economic backgrounds (Crahay, 2000). Identifying effective teaching practices necessarily implies that teachers have the power to influence student learning. Is this influence more or less important than other factors such as family background, student motivation, intellectual potential, etc.? The works by Wang, Haertel and Walberg (1993) provide an answer to this question. Indeed, these American researchers performed an important meta-analysis which enabled them to identify the factors most likely to help pupils to learn. In the framework of this study, they analysed 179 reviews and book chapters, compiled 91 research syntheses, and surveyed 61 education researchers in order to set up a database of 11,000 statistical results. They identified 28 factors influencing learning and then classified them in order of priority. The two most prominent factors are directly related to the teacher. Teachers are thus the most influential factor in student learning, ahead of the family, which only ranks fourth. As Coleman et al. pointed out in their 1966 report, although it has an important influence on achievement, the pupil's background does not constitute an insurmountable barrier. In fact, a synthesis of 134 meta-analyses published in 1992 by Hattie demonstrates that the overall effect-size on school performance of factors related to the family and social environment is 0.38 whereas it reaches 0.53 for factors related to teachers and school 2. It should be noted that a result is considered significant for an overall effect-size equal to or greater. There are two theories that explain the importance of education to the economy: human capital theory and the signaling theory. Human capital theory argues that the accumulation of human capital is an important element of economic growth. In contrast, signaling theory states that the level of education is an indication of behavioural traits that employers are looking for. Human capital theory is an analysis of the relationship between the functions of education and economic growth. Education enables people to develop analytical skills and cognitive abilities. Education teaches children to analyse information and to utilise this acquired knowledge. These skills enable the labourer to

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increase his productivity in two ways. Firstly, a labourer can use his existing working capital more efficiently. Welch (1970) argues that education increases the worker's speed and quality due to increased knowledge and understanding of the specific tasks within the context of a larger firm structure. In addition the worker makes better decisions about the allocation of resources. Secondly, this acquired knowledge can then be utilised to innovate and to create technological developments. Positive changes in technology will improve the production of materials and the communication of information. An educated labour force will be able to adapt to technology change. Therefore this human capital investment will reduce the costs of production and increase firms' production possibilities.

METHODOLOGY:

The first step included sample selection and then, rapport was formed with the subjects. The subjects were tested twice and monitored for 6 months.

STAGES OF STUDY

Stage-1 At initial stage, Test-1 was conducted on a sample of 41 subjects.

Stage-2 In the second Stage, 90 days of customized training (IPCT-Q1) was provided to the subjects.

Stage-3 Third Stage included Quarterly Monitoring of IPCT-Q1.

Stage-4 In the fourth Stage, next 90 days of customized training (IPCT-Q2) was provided to the subjects.

Stage-5 Fifth Stage included Quarterly Monitoring of IPCT-Q2.

Stage-6 Tracker test (Test-2) was conducted on subjects.

Stage-7 Analysis of data.

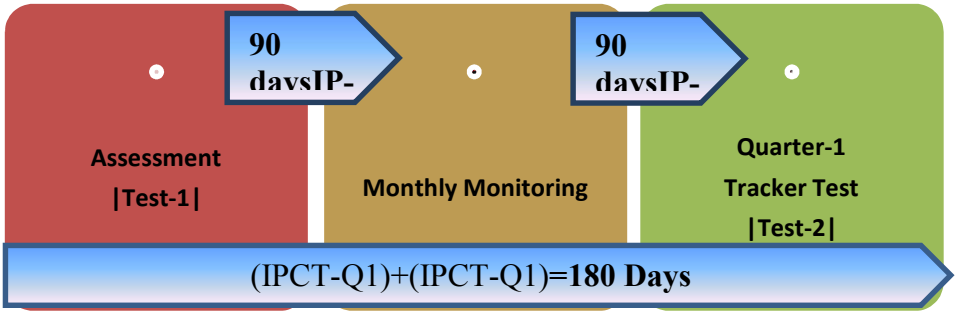

Fig 1: Design of the Research work

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PARTICIPANTS

Table 1: Details of the participants

UID	Name	Age	Grade
35	Milan K.C	7 Y	3
36	SaumyaDhawan	8 Y	3
37	AtharvikaKad	7 Y	3
38	Jasmeen	7 Y	3
40	JasmeenKaur	9 Y	3
41	Sania Dadra	8 Y	4
42	Arshdeep	9 Y	4
43	Prachi	9 Y	4
44	AnshikaBansal	9 Y	4
45	SiyaVerma	9 Y	4
46	Nidhi	10 Y	4
47	Dilkirat Singh	10 Y	5
48	DamneetKaur	10 Y	5
49	Harshit Joshi	10 Y	5
50	Nikhil Kumar	9 Y	5
51	IshpreetKaur	10 Y	5
52	Jashandeep Singh	10 Y	5
53	GurleenKaur	10 Y	6
54	Kartik	12 Y	7
55	NargisBhatti	12 Y	7

UID	Name	Age	Grade
56	Akanksha Bhatia	11 Y	7
57	KashishAnand	12 Y	8
58	JaideepKaur	13 Y	8
59	ManveerKaur	13 Y	8
61	Karan Kalra	14 Y	9
62	Archita Jain	14 Y	9
63	Harleen	13 Y	9
64	Arpita Jain	14 Y	9
65	Dilpreet Singh	13 Y	9
67	Parmeet Singh	15 Y	10
69	ParagKhosla	14 Y	10
70	KomalDisawar	14 Y	10
71	AkshitaBansal	11 Y	6
72	Hardeep	11 Y	6
74	ArshdeepKaur	11 Y	6
75	HarshdipKaur	12 Y	6
76	Pawandeep Singh	12 Y	6
77	Harjot Singh	13 Y	6
78	Gurpreet	13 Y	7
79	Harsh	12 Y	7
373	Niharika	12 Y	6

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STATISTICAL ANALYSIS:

Once the data was obtained, it was coded, tabulated and analyzed, keeping in mind the objectives of the study. Appropriate statistical tools were used to draw meaningful inferences.

Table 2: Statistical tools used for analysis of data

S. No.	Statistical tools	Formula	Purpose
1.	Mean (x)	$X = \Sigma X/N$ where, X = Variable N = No. of sample	To find out the average scores of variable used in the study.
2.	Percentage (%)	% = X/N x 100 where x = Derived score n = total score	To find the distribution of subjects with regard to various variables of the study.
3.	Standard Deviation (S.D.)	$0 = \sqrt{\Sigma} x / N$ Where X = Deviation from actual mean X = mean. X = variable. N = number of samples.	To find out deviation from the man scores of the variables.
4.	Standard error of mean (S.E)	S.E = 0/n Where 0 = S.D. n= number of observations	To find out the degree to which the mean is effected by the error of measurement and sampling.
5.	't' test	$t = (x1-x2) / S \sqrt{n1n2/n1 + n2}$ where x1 = mean of 1st sample x2 = mean of second sample S = combine S.D. n1 = number of observations in 1st sample. n2 = number of observations in 2nd sample	To compare the average score of any two groups or to find out whether the mean of the two samples vary significantly from each other.

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RESULT AND DISCUSSION:

Statistical Analysis and level of Significance of Intelligence Quotient

Table 3: Mean Standard deviation, standard error, t-values and level of Significance of IQ of subjects between Test 1 and Test 2

TEST	MEAN	S.D.	S.E.M	t - value	P-value	Lev. of sig.
Test 1	96.5	10.82	0.84	85.3	<0.0001	extremely statistically significant
Test 2	103.5	13.6	0.48			

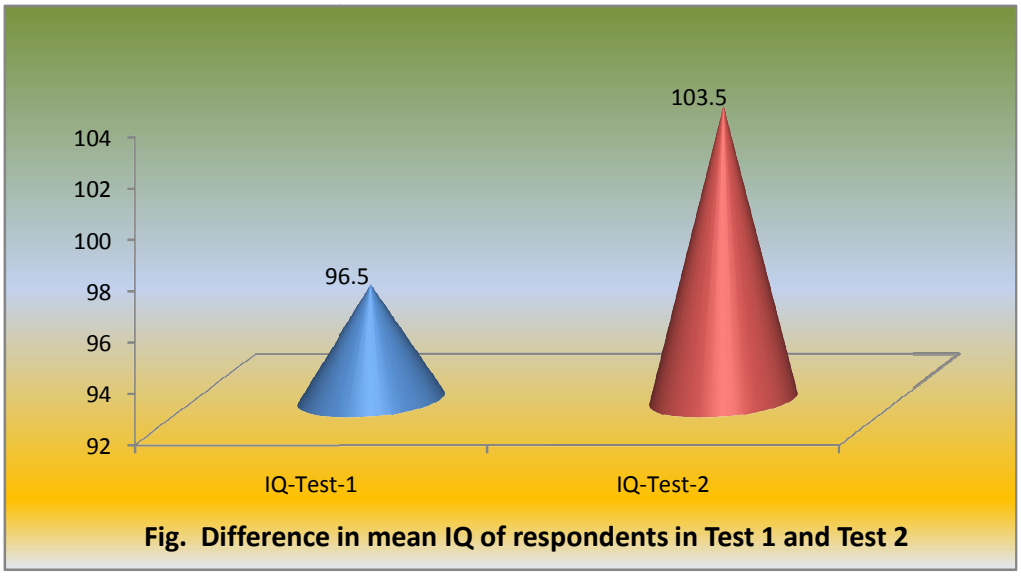

Fig. Difference in mean IQ of respondents in Test 1 and Test 2

It is witnessed that there was significantly high statistical difference in the mean value of IQ of the subjects as assessed through them test 1 and test 2, the IQ in the latter case being at a much as higher end.

Statistical Analysis and level of Significance of Focus Factor

Table 4: Mean, Standard deviation, standard error, t-values and level of Significance of FF of subjects between Test 1 and Test 2

TEST	MEAN	S.D.	S.E.M	t - value	P-value	Lev. of sig.
Test 1	52.84	12.5	0.69	42.6	<0.0001	extremely statistically significant
Test 2	82.6	8.3	0.25			

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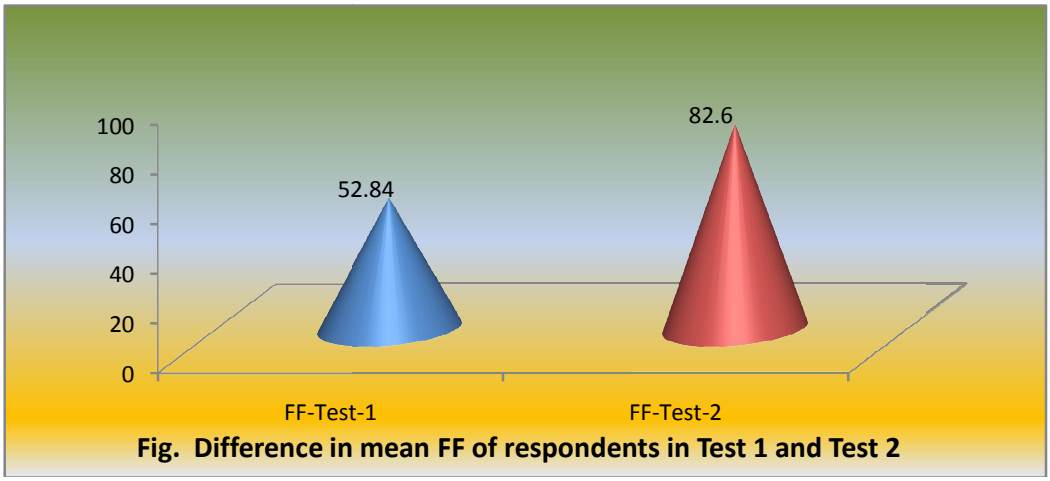

Fig. Difference in mean FF of respondents in Test 1 and Test 2

It is notified that the mean value of the Focus Factor as assessed in the test 2of these subjects was much higher as compared to the tests formerly taken making the statistical difference remarkably high.

Statistical Analysis and level of Significance of Decision Making Ability

Table 5: Mean, Standard deviation, standard error, t-values and level of Significance of DMA of subjects between Test 1 and Test 2

TEST	MEAN	S.D.	S.E.M	t - value	P-value	Lev. of sig.
Test 1	0.29	0.05	0.5	14.41	<0.0001	extremely statistically significant
Test 2	0.46	1.12	0.3			

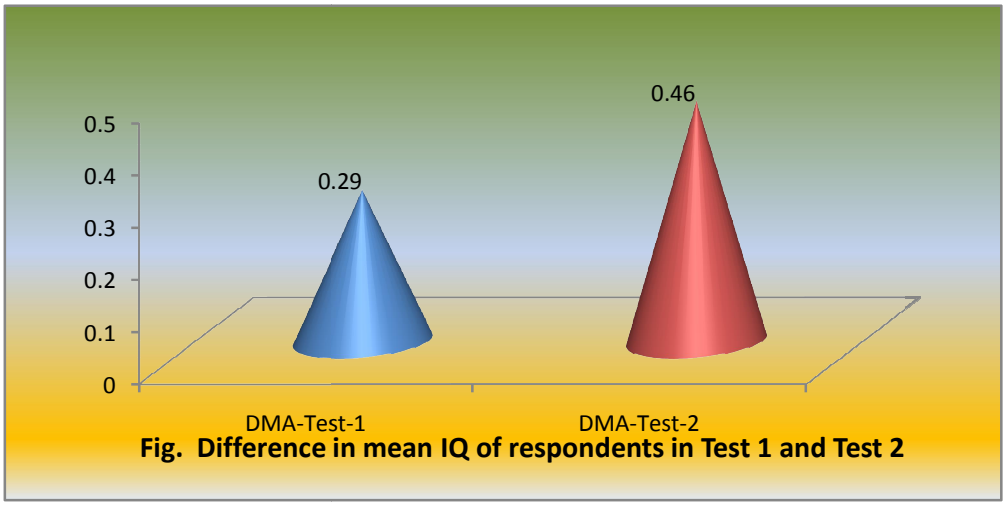

Fig. Difference in mean IQ of respondents in Test 1 and Test 2

Moreover it is noticed that there was a drastic difference in the mean value of DMA of the subjects as assessed in test 1 and test 2, the former one bearing no less than a trough.

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CONCLUSION:

In a nutshell, there are certain cognitive ability factors that can be inferred as super sets for complex cognitive functions which can then be reordered by applying customized education methodology. In the contemporaneous research, an extremely significant drift towards higher level of Cognitive Abilities was recorded after the completion of 180 days of customized training solution. It was contemplated that there had been a phenomenal surge IQ, FF and DMA. To wrap up, it can be beheld that Learning process, Cognitive abilities &Personality of the students can recuperate strikingly if they are provided required training as per their learning style.

ACKNOWLEDGEMENT:

Authors express indebtedness to the Almighty, who is the apostle of strength. Genuine thanks are expressed to all the authors/researches whose work is referred for making the present study a real success. The researchers are thankful to the Management of the school for granting the permission of conducting research. Immense thanks are expressed to the Principal of esteemed institution who had reportedly facilitated the implementation of the intervention programme with great enthusiasm. Besides, the efforts of the programme coordinatorare worth appreciation and acknowledged. Authors are inevitably grateful to all the teachers, students and all those directly as well as indirectly involved in the auspicious research work.

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