ANALYSIS AND INTERPRETATION

CHAPTER IV

ANALYSIS AND INTERPRETATION

4.0.0 Introduction

"Analysis means a critical examination of the assembled & grouped data for studying the characteristics of the object under study & for determining the patterns of relationships among the variable relating to it". *(Krishnaswari O.R. & Ranganathan M., 2007)*

According to *Whiteny F.L., (2006),* "Interpretation means an adequate exposition of the true meaning of the material presented in terms of the purposes of the study being reported & of the chapter & section topic involved".

Analysis of data studying the organized material in order to discover inherent face interpretation calls for a careful, logical and critical examination of the results obtained after analysis, keeping in view the initiation of the sample chose, the tools selected and used in the study. It is a process by which sense and meaning are made of the data gathered in qualitative research and by which the emergent knowledge is applied *(Koul L, 2006).*

Analysis of data involves a number closely related operations that are performed with the purpose of summarizing the collected data and organizing these in such a manner that they will yield answer to the research questions or suggest hypothesis or questions if no such questions or hypothesis had initiated the study *(Bajpai, 2007).*

Interpretation of the data refers to that of the important part of the investigation, which is associated with the drawing of inference from the collected facts after an analytic study. It is extremely useful and important part of the study because it makes possible the use of collected data *(Bajpai, 2007).*

Interpretation is essential for simple reason that the usefulness and utility of research findings lie in process interpretation. It is art that one learns through practice and experience *(Kothari, 2004).*

The subsequent step in the progression of research, after the collection of data, is the association, investigation and elucidation of data and formulation of conclusions and a overview to get a significant representation of the raw data collected, the investigation and the analysis of the researcher and his objective reactions and desires to be derived from the facts.

Examination of data means studying the tabulated matter in order to determine natural facts or meanings. It involves breaking down the existing difficult factors into simpler parts and putting the parts together in new planning for the function of analysis.

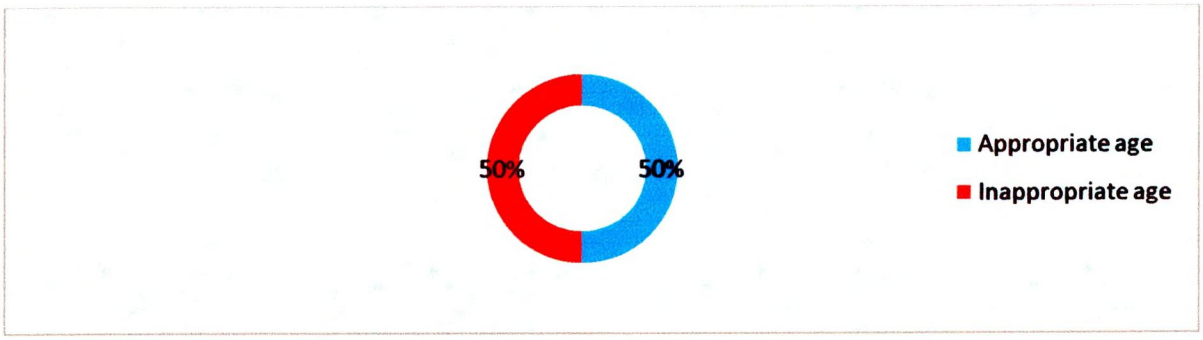
4.1.0 Background information of the selected samples

The table number 4.1.0 and the figure II present the background information of the selected samples.

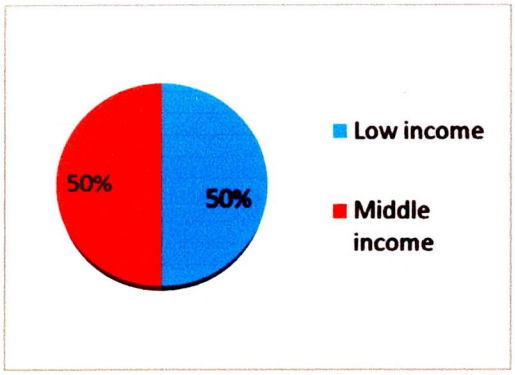
Particulars	Categories	No of samples	Percentage
Age	Appropriate age	15	50
	Inappropriate age	15	50
Gender	Boys	15	50
	Girls	15	50
Economic status	Low income	15	50
	High income	15	50
Type of disability	Visually Impaired	6	20
	Low Vision	5	17
	Hearing Impaired	6	20
	Cerebral Palsy	6	20
	Orthopedically Impaired	7	22

FIGERE II **BACKGROUND INFORMATION OF THE SAMPLES**

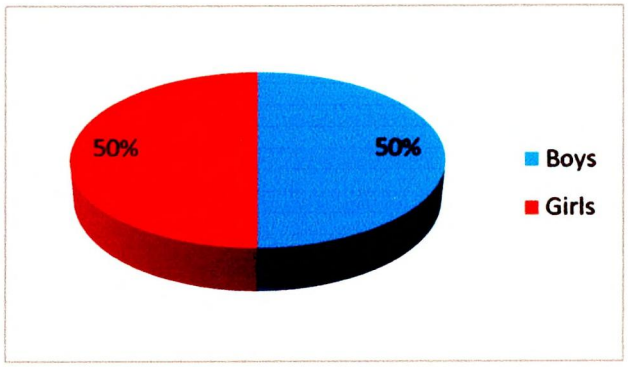
AGE



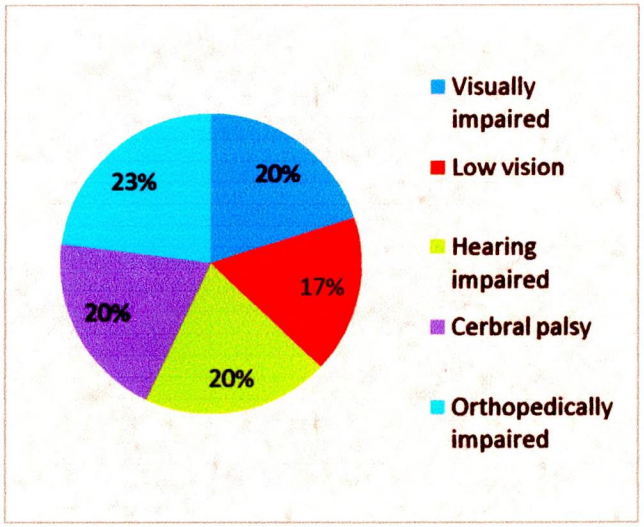
ECONOMIC STATUS



GENDER



TYPE OF DISABILITY



Information gathered in general on the age of the child, gender, economic status of the parents and type of disability of the selected samples were analyzed qualitatively presented in the table 4.1.0.

Table 4.1.0 gives a glimpse of details on age of the selected children with special needs. It was observed that 50 percentage of them were in the appropriate age group, while 50 percentage of the samples were in the inappropriate age group.It was found that 50 percentage of the selected samples are boys while remaining 50 percentage are girls.

Analyzing the income of the parents of the selected samples revealed that 50 percentage of the parents are from low income group (<2250), remaining 50 percentage of the parents are from middle income group (2250-4450), based on HUDCO (2005) classification.

It was observed that among the selected samples 20 percentage of them were visually impaired, whereas 17 percentage of them are low vision. The result reveals that the 20 percentage of the children are hearing impaired, while 20 percentage of them were cerebral palsy. The remaining 23 percentage of the selected samples were orthopedically handicapped. This shows that most of the samples were orthopedically handicapped.

4.2.0 Overall performance of the samples

The table number 4.2.0 presents the overall performance of the selected sample.

SAMPLE NO	MARKS IN NUMBER	PERCENTAGE
1	41	55
2	41	55
3	51	68
4	31	41.33
5	58	77.33
6	58	77.33
7	37	49.33
8	54	72
9	48	64
10	54	72
11	50	67
12	29	39
13	51	68
14	31	41.33
15	47	63
16	35	47
17	44	59
18	50	67
19	73	97.33
20	37	49.33
21	65	87

22	39	52
23	43	57.33
24	42	56
25	61	81.33
26	48	64
27	65	87
28	55	73.33
29	57	76
30	34	45.33

From the above table 4.2.0 the academic performance of the selected samples 97.33% of mark is obtained by the sample number 19 is said to be high. 65 marks is noted as second in percentage is mentioned as 87. The result shows that the special need children are also equally competing with normal children and some of them achieve.

4.3.0 Overall percentage of the samples with respect to gender

The table 4.3.0 presents the boys and girls performance with respect to the gender.

Boys		Girls	
Number of marks	**Percentage**	**Number of marks**	**Percentage**
41	55	41	55
31	41.33	51	68
58	77.33	58	77.33
54	72	37	49.33
54	72	48	64
29	39	50	67
31	41.33	51	68
35	47	47	63
50	67	44	59
37	49.33	73	97.33
39	52	65	87
42	56	43	57.33
48	64	61	81.33
55	73.33	65	87
34	45.33	57	76

Analyzing the above table majority of the boys and girls got more than 60% of marks is observed as high among girls 97.33 percentage. Next to this again 87 percentage of mark is observed as high from girls. The table reveals that girls highers than the boys.

4.4.0 Overall performance of samples with respect to income

The table 4.4.0 presents Overall performance of samples with respect to income.

Low income		Middle income	
Number of Marks	**Percentage**	**Number of Marks**	**Percentage**
41	55	31	41.33
51	68	58	77.33
58	77.33	54	72
37	49.33	48	64
54	72	29	39
50	67	51	68
31	41.33	35	47
47	63	44	59
50	67	37	49.33
73	97.33	65	87
39	52	42	56
43	57.33	61	81.33
48	64	55	73.33
65	87	57	76
34	45.33	41	55

While considering the low and middle income marks of the samples 97.33% of mark is stated as high from the low income family. It is because of the government schemes and the support of the family members. At the same time from the middle income family 81.33% of marks only observed as high.

4.5.0. Overall performance of samples with respect to age

The table 4.5.0 presents the Overall performance of samples with respect to age.

Appropriate age		Inappropriate age	
Number of Marks	**Percentage**	**Number of Marks**	**Percentage**
48	64	65	87
65	87	39	52
55	73.33	43	57.33
57	76	42	56
34	45.33	61	81.33
35	47	50	67
44	59	29	39
50	67	51	68
73	97.33	31	41.33
37	49.33	47	63
58	77.33	41	55
37	49.33	41	55
54	72	51	68
48	64	31	41.33
54	72	58	77.33

The above table gives academic achievement details about the samples from the two categories namely appropriate age and inappropriate age group. The result revels that appropriate age group children performance are high, it is because of the proper mental and actual age of the children.

4.6.0 Overall performance of the sample with respect to disability

Table 4.6.0 presents the Overall performance of the sample with respect to disability

Type of disability	Mean	Percentage
Visually Impaired	38	59
Low Vision	52	69.1
Hearing Impaired	51.2	68.2
Cerebral Palsy	37.5	50
Orthopedically Impaired	49.14	66

It is clearly envied that the low vision students are performing high in the academic and they achieve more like the normal children. Next to this Hearing Impaired children performance is noted as good because of the technology like Audio-Visual used in the class room.

4.7.0 Overall performance of the samples with respect to domains

Table 4.7.0 presents the Overall performance of the samples with respect to domains

Sample No	Academic skill	Motor skill	Oral performance	Cognitive skill
1	9	9	9	12
2	15	15	8	12
3	9	9	7	8
4	22	22	9	12
5	19	19	10	14
6	11	11	6	12
7	18	18	9	13
8	13	13	10	14
9	15	15	10	13
10	13	13	9	12
11	11	11	6	6
12	18	18	8	10
13	10	10	5	6
14	13	13	5	13
15	13	13	7	6
16	12	12	10	11
17	16	16	10	11
18	21	21	11	10
19	11	11	7	9
20	15	15	14	15
21	12	12	8	8
22	15	15	9	9
23	12	12	11	12
24	21	21	9	11
25	12	12	11	12
26	12	12	6	6
27	23	23	12	10
28	18	18	9	14
29	14	14	12	14
30	15	15	6	5

The table reveals the children performance in the four domains. It serves as the back bone of the study. And it shows that the selected samples are not getting equal marks. Because the child's ability and the area of interest in the academic achievement.

4.8.0 Domain wise distribution of sample with respective to gender

Table 4.8.0 presents the domain wise distribution of sample with respective to gender.

Domains	Boys	Girls
Academic Skills	15.6	13.6
Motor Skill	15.6	13.6
Oral Performance	8.6	8.93
Cognitive Skill	11.06	10.26

While comparing the means of the boys and girls with respect to the four domains, it is found that the academic and motor skills of boys are high 15.6%. For girls it is observed as 13.6% only. Mdikan & Cronk (2008) study is also reveals the same result that the boy children are getting high marks.

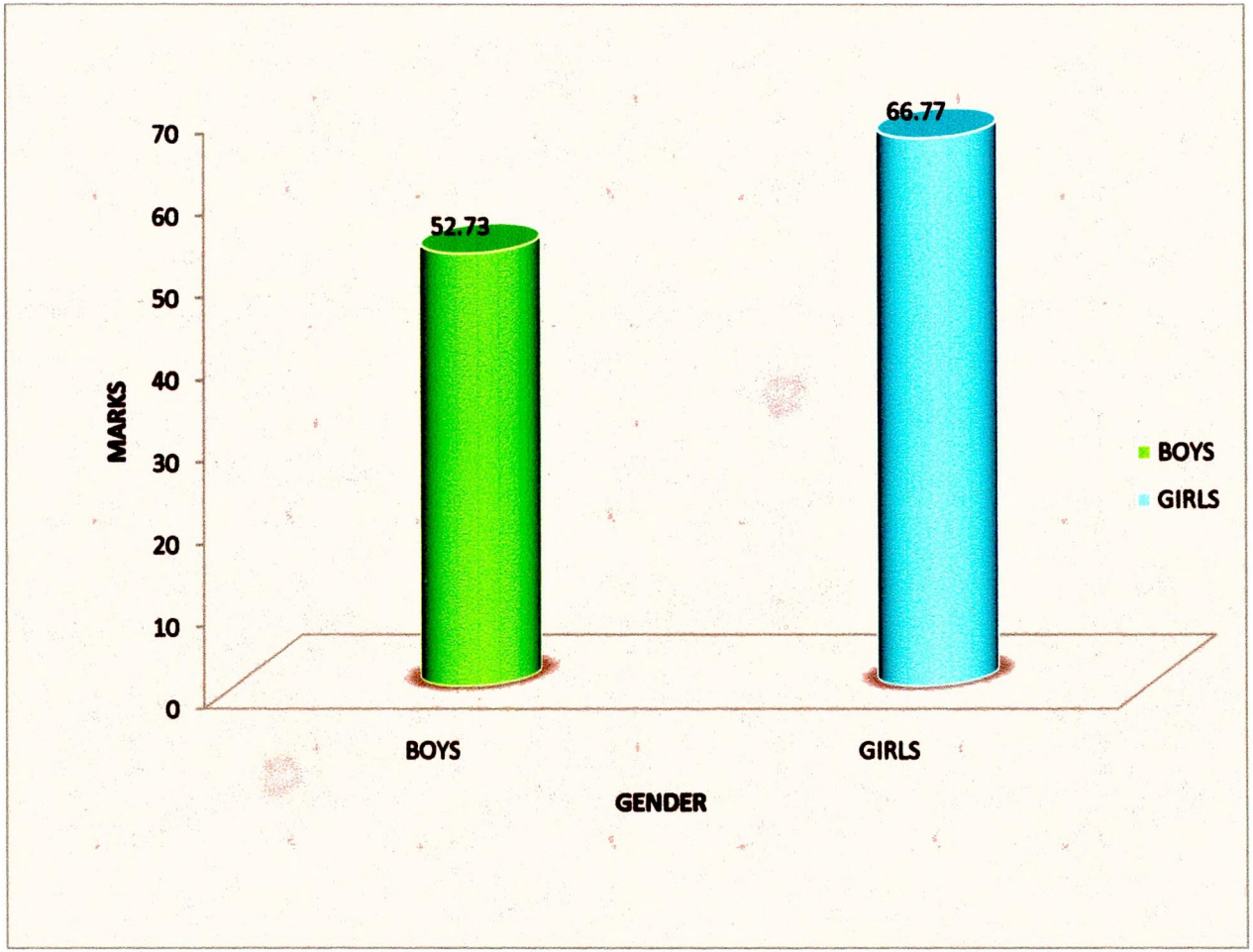


FIGURE- III

OVERALL PERCENTAGE OF THE SAMPLES WITH RESPECT TO GENDER

4.9.0 Domain wise distribution of sample with respective to income

Table 4.9.0 presents the domain wise distribution of sample with respective to income.

Domains	Low income	Middle income
Academic Skill	212	204
Motor Skill	212	204
Oral Performance	119	135
Cognitive Skill	143	165

It is clear that while comparing the low income and middle income of the selected samples. The low income family samples academic and motor skill performance are noted as high. For the same domains it is observed low performance from the middle income family. This is because of the economic status and family support to the children.

4.10.0 Domain wise distribution of sample with respective to age

The table 4.10.0 presents the domain wise distribution of sample with respective to age.

Domains	Appropriate age	Inappropriate age
Academic Skill	227	218
Motor Skill	227	216
Oral Performance	141	122
Cognitive Skill	169	151

The above table reveals that the academic and motor skill of the appropriate age samples performance is higher than the inappropriate age group. Because of their active participation and involvement .Cognitive skill of the inappropriate age groups' performance is low to their age.

4.11.0 Boys and girls mean scores with respect to gender

The table 4.11.0 presents the boys and girls mean scores with respect to gender.

Variables	Levels	Number	df	Mean	SD	t-Value
Gender	Boys	15	14	56.79	13.14	2.6299*
	Girls	15	14	70.07	13.98	

*Significant at 0.05 level

To compare the statistical significance of the difference between the overall scores of boys and girls the 't' test is carried out. The result reveals that the difference has a significant difference at 0.005 level (t-value 2.6299). Hence the hypothesis stated as ***"there is no significant different difference between boys and girls in academic achievement of children with special needs in primary schools"*** is rejected and the alternate hypothesis is accepted. ***There is a significant difference between boy and girl children with special needs in primary schools"*** at 0.05 level.

4.12.0 Appropriate age and inappropriate age mean scores with respect to Age

Table 4.12.0 presents the appropriate age and inappropriate age mean scores with respect to Age.

Variables	Levels	Number	df	Mean	SD	t-Value
Age	Boys	15	14	66.66	15.05	1.1285
	Girls	15	14	60.57	14.49	

NS- Not Significant

While comparing the appropriate age mean (66.66) and the inappropriate age mean (60.57) the 't'-test value 1.1285 is not significant. Therefore the null hypothesis stated ***"There is no significant difference between appropriate age and inappropriate age children with special needs in primary schools"*** is accepted.

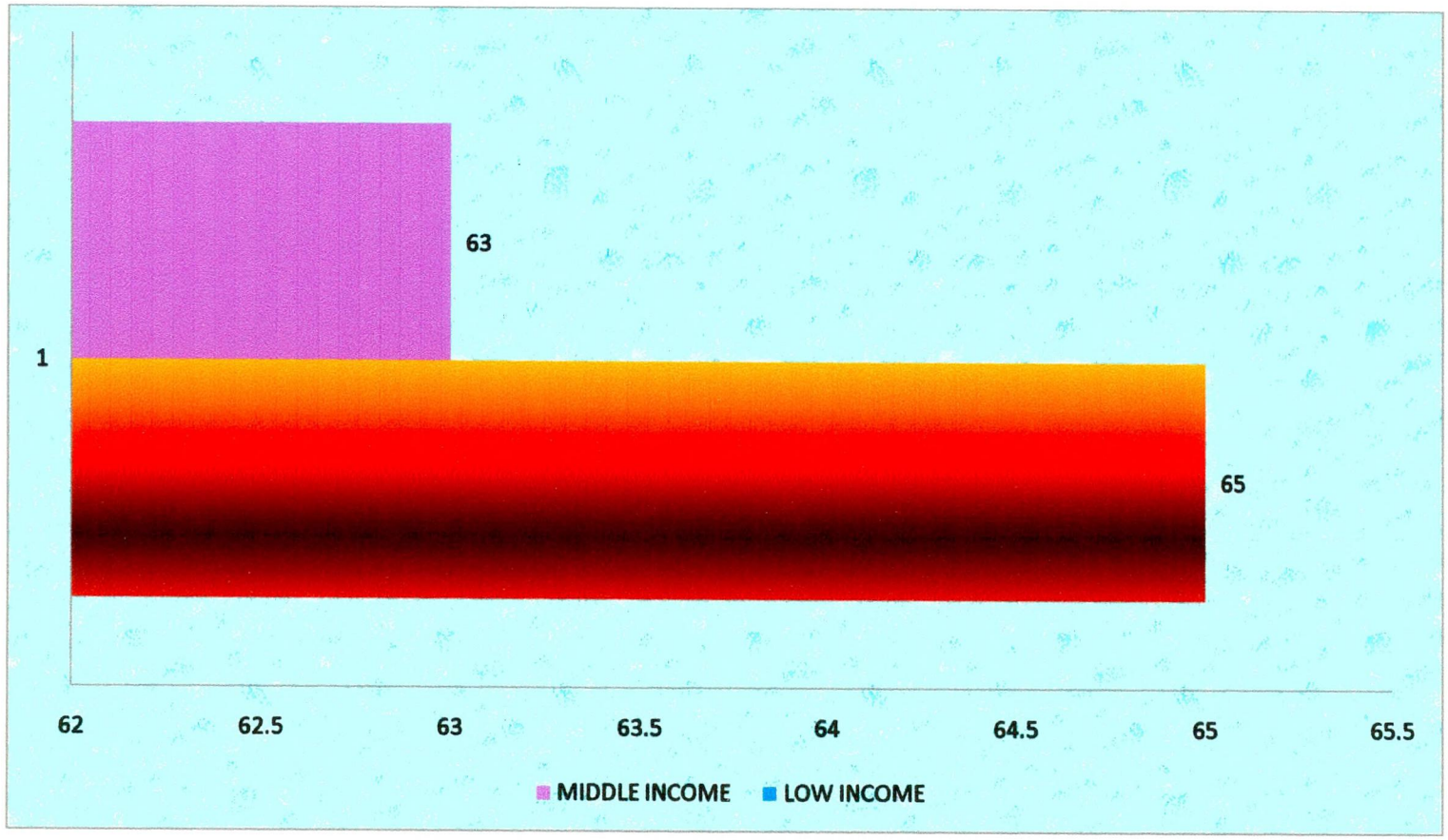


FIGURE IV

OVERALL PERFORMANCE OF SAMPLE WITH RESPECT TO ECONOMIC STATUS

4.13.0 Low income, middle income means scores with respect to economic status

The table 4.13.0 presents the low income; middle income means scores with respect to economic status

Variables	Levels	Number	df	Mean	SD	t-Value
Economic status	Low income	15	14	64.19	15.26	0.1022 (NS)
	Middle Income	15	14	63.61	15.31	

NS- Not Significant

Comparison of the low income mean (64.19) and middle income mean (63.61) of the selected sample the 't'-test value 0.1022 is not significant. Therefore the null hypothesis stated as ***"There is no significant difference between low income and high income children with special needs in primary schools"*** is accepted.

4.14.0 Correlation between academic skill and motor skill

Table 4.14.0 presents the correlation between academic skill and motor skill with respect to the domain.

Variables	Levels	Number	df	Mean	Correlation value
Domains	Academic Skill	30	29	14.1342	1
	Motor Skill	30	29	14.1342	

It is clear from the above table that the academic skill increases, the motor skill is also increased. There was a correlation between academic skill and motor skill. While comparing the academic and motor skill, it is found that the correlation coefficient positive (1). Which means the academic skills' (14.1342) performance result in the motor skill (14.1342) of the selected samples.

4.15.0 Correlation between oral performance and cognitive skill

The table 4.15.0 presents the correlation between oral performance and cognitive skill with respect to the domain.

Variables	Levels	Number	df	Mean	Correlation value
Domains	Oral performance	30	29	8.4875	0.6267
	Cognitive Skill	30	29	10.2385	

The above table reveals that there is a positive correlation (0.6267) between the oral performance (8.4875) and cognitive skill (10.2385) of the selected samples. Which means the oral performance increases the cognitive skill is also increased.