

RECEPTIVE AND EXPRESSIVE LANGUAGE DIFFICULTIES AND DIFERENCES IN INDIVIDUALS WITH AUTISM SPECTRUM DISORDERS

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**Research Paper Presented in 8th Education and Development Conference,
Bangkok, Thailand organized by Tomorrow People Organization, 5-7
March 2013.**

The study conducted by the investigator on similar lines to that of the recommendations given by many investigators on the basis of their extensive review of researches relating to study of language functioning among individuals with autism.

It was mainly concerned with the study of the specific difficulties in non pragmatic aspects of language development among individuals with autism spectrum disorder who had acquired at least phrase speech.

Thus the study was restricted to Verbal Individuals with ASD. The focus was to identify the heterogeneity as far as language functioning is concerned, among the subjects of the study and also to identify the subtypes among them. It was further attempted to understand the intra individual differences among them. The significance of the present study can be understood in the light of the recent trends of research in the field.



Method

It is mainly an exploratory study.

Subjects of the Study

- Twenty-six students with autism spectrum disorders were selected from residential schools for such students in United Kingdom.
- weekly boarders
- Age range - 6years 6 months to 18 years 11 months. One child was excluded during the course of testing because of difficulty in managing the behaviour problem.
- six females and 19 males
- All of them acquired at least phrase speech and thus were verbal.
- They were free from sensory handicaps.
- Their intellectual ability varied from above average to moderate level of retardation as expressed by their teachers on the basis of psychological reports maintained in the school.



Assessment Instruments

The components of language assessed in the study were **ability to comprehend vocabulary, relational terms and sentence patterns, ability to gain meaning from pictures as well as expression of the ideas verbally (description of the story).**

In the study these aspects were measured through British Picture Vocabulary Scale (Dunn, et al. 1982), Boehm's Test of Basic Concepts (Boehm, 1969), Sentence Comprehension Test (Wheldall, Mittler and Hobsaum, 1987) and picture Arrangement Test, sub-test of WISC (Wechsler, 1949) respectively.

The first three tests were employed to measure the receptive aspect of language whereas the last one was used to measure both receptive and expressive aspects of language.



British Picture Vocabulary Test

British Picture Vocabulary Test (BPVS) measures receptive vocabulary. It is essentially a test of vocabulary comprehension (not mere decoding), especially suitable for non-speaking children. **It is an age scale and covers an age range from 3 to 19 years. It consists of 150 words in the order of increasing difficulty.**



Boehm's Test of Basic Concepts

The Boehm's Test of Basic Concepts is an assessment instrument designed to screen a beginning pupil's knowledge of fifty frequently used basic concepts by means of the paper-and-pencil response mode. Mastery of a concept was measured on the basis of accuracy on the one item designed for each concept. The test is for use in kindergarten through Grade 2, and is designed to assess children's knowledge of important concepts in their simple forms. The test consists of 50 basic concepts-23 spatial concepts, four temporal concepts, 18 quantitative concepts and five miscellaneous concepts.

The testee is required to perceive a relationship of space, or quantity, or time, or similarity and difference.



Sentence Comprehension Test

The test is in the same format as the British Picture Vocabulary Test but measures the receptive aspect of communication in a structured situation. The Test assesses the child's comprehension of sentences which are gradually increasing in length & complexity. The child has to point to one of the four pictures which correspond to the stimulus sentence spoken by the examiner. The age range of the test is from three to five years.

The Sentence Comprehension Test assesses the comprehension of following types of sentence patterns and parts of speech.

- Simple intransitive
- Simple transitive
- Intransitive with adjective
- Plural
- Past tense
- Future tense
- Simple negative
- Simple prepositions
- Embedded phrase
- Prepositions error –on, in, by, under

The test was administered to 25 subjects of the study individually and scored by using the instructions given in the manual.



Data Analysis

In order to understand the relative strengths and weaknesses of the subjects of the study in the performance of above tests, an attempt was made to make

a detailed analysis of the responses of the subjects to the items of the tests.

An effort was also made to find out the extent to which their performance on different tests is related to each other.

Pearson product moment correlation and Partial Correlations were used for these purposes.



Performance on British Picture Vocabulary Scale (BPVS)

- The raw scores obtained on BPVS were converted into standard scores and Vocabulary Age (VA), which in turn helped to find out the level of performance in the case of each individual subject separately.
- Difference between Chronological age (CA) and VA were calculated. On the basis of the difference (DA) the subjects were considered to have different levels of performance on BPVS.
- It was noticed that VA was not on par with that of CA in the subjects and there was a considerable inter individual differences as far as the divergence between CA and VA in the subjects of the study is concerned.
- The difference (DA) between Chronological Age (CA) and Vocabulary Age (VA) were ranged from +5.9 to (-) 14 years.

TABLE1. NUMBER OF CHILDREN EXHIBITING DIFFERENT LEVELS OF PERFORMANCE ON BPVS (N=26)

SI No.	Level of Performance	Difference between CA and VA (DA)	No. of subjects
1.	Extremely High	> than 4.1 years	1 (3.85%)
2.	Moderately High	2.1 to 4 years	0
3.	High Average	1.1 to 2 years	0
4.	Average	0 to +/- 1 year	0
5.	Low Average	(-)1.1 to 2 years	1 (3.85%)
6.	Moderately Low	(-)2.1 to 4years	7 (27%)
7.	Extremely Low	(-)4.1 & above years	17 (65%)

➤ This finding confirms the observation made by Volden and Lord (1991) that autistics exhibit semantic errors.

➤ It is interesting to note that the performance of the subject 'G' on this test was extremely high (DA = (+) 5.9 years) and there was no ceiling for this child on the test, suggesting that the test administered in the study could not tap his complete vocabulary.

➤ It was noticed that **17 out of 150 words correctly attempted** by all the subjects of the study (**100%**). Fifty percent of the words (75/150) were attempted by only less than 40% of the subjects (N=10/26)

➤ An attempt was made to analyse the types of words that are included in the BPVS which were attempted by at least **40% (N=11/26)** of the subjects and to calculate the percentage of subjects who answered them correctly. The Table.2 (a) to (h) gives the details.

TABLE.2(A) PERCENTAGE OF SUBJECTS WHO ATTEMPTED DIFFERENT TYPES OF WORDS ON BPVS (COMMON NOUNS) CORRECTLY

SI No.	Stimulus Word & SI No.	No. Subjects attempted	Percentage of Subjects Responded correctly
1	Time (9) (abstract noun)	26	92.30
2	Cow (12)	26	96.15
3	Candle (14)	26	96.15
4	Spanner (21)	26	84.61
5	Arrow (23)	26	92.30
6	Forest (32) (collective noun)	26	84.61
7	Eagle (33)	25	76

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SI No.	Stimulus Word & SI No.	No. Subjects attempted	Percentage of Subjects Responded correctly
8	Flask (39)	25	92
9	Anchor (42)	24	66.66
10	Bolt (51)	21	66.66
11	Fern (57)	17	47.05
12	Ornament (58)	16	50
13	Steam (60)	15	80
14	Balcony (62)	14	78.57
15	Link (64)	14	64.28
16	Locket (66)	12	50
17	Weasel (68)	12	50
Mean Percentage			74.55

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TABLE.2(B) PERCENTAGE OF SUBJECTS WHO ATTEMPTED DIFFERENT TYPES OF WORDS ON BPVS (PART OF THE BODY/PLANT)CORRECTLY

SI No.	Stimulus Word & SI No.	No. Subjects attempted	Percentage of Subjects Responded correctly
1	Feather (17)	26	92.30
2	Claw (27)	26	73.07
3	Ankle (38)	25	68
4	Root (47)	22	77.27
5	Wrist (49)	22	86.36
6	Seed (63)	14	73.33
7	Tusk (65)	12	50
Mean Percentage			74.33

COMPLEXITY

FREQUENCY

TABLE.2(C) PERCENTAGE OF SUBJECTS WHO ATTEMPTED DIFFERENT TYPES OF WORDS ON BPVS(VERBS) CORRECTLY

Sl No.	Stimulus Word & Sl No.	No. Of Subjects attempted	Percentage of Subjects Responded correctly
1	Chopping (24)	26	80.76
2	Delivering (30)	26	80.76
3	Pasting (34)	25	72
4	Diving (37)	25	88
5	Tugging (41) (verb)	25	64
6	Dripping (45) (verb)	22	86.36
7	Sorting (53) (verb)	21	47.61

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8	Greeting (56) (verb)	18	55.55
9	Plastering (61) (verb)	15	66.66
10	Bloom (70) Related to flowers (verb)	11	54.54
11	Emerging (71) (verb)	11	63.63
12	Grooming (72) (verb)	11	55.55
Mean Percentage			67.95

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TABLE.2(D) PERCENTAGE OF SUBJECTS WHO ATTEMPTED DIFFERENT TYPES OF WORDS ON BPVS (PROFESSIONALS) CORRECTLY

SI No.	Stimulus Word & SI No.	No. Subjects attempted	Percentage of Subjects Responded correctly
1	Dentist (26)	26	96.15
2	Teacher (43)	23	65.21
3	Waiter (50)	21	61.90
4	Entertainer (59)	15	66.66
Mean Percentage			72.48

COMPLEXITY

FREQUENCY

TABLE.2(E) PERCENTAGE OF SUBJECTS WHO ATTEMPTED DIFFERENT TYPES OF WORDS ON BPVS (EMOTIONAL/SOCIAL WORDS) CORRECTLY

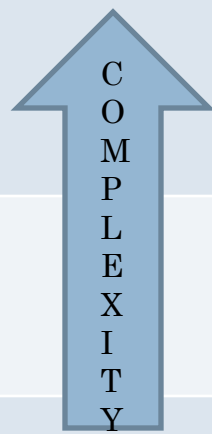
SI No.	Stimulus Word & SI No.	No. Subjects attempted	Percentage of Subjects Responded correctly
1	Sharing (25)	26	84.61
2	Horror (28)	26	80.76
3	Delighted (40)	25	68
4	Disagreement (46)	22	72.72
5	Surprise (52)	21	61.90
6	Snarling (67) Emotional word	12	50
7	Isolation (69)	11	50
Mean Percentage			66.86

COMPLEXITY

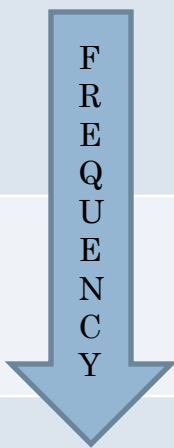
FREQUENCY

TABLE.2(F) PERCENTAGE OF SUBJECTS WHO ATTEMPTED DIFFERENT TYPES OF WORDS ON BPVS (ADJECTIVE) CORRECTLY

Sl No.	Stimulus Word & Sl No.	No. Of Subjects attempted	Percentage of Subjects Responded correctly
1.	Furry (29)	26	65.38
2.	Woolly (35)	25	56
Mean Percentage			60.69



COMPLEXITY



FREQUENCY



TABLE.2(G) PERCENTAGE OF SUBJECTS WHO ATTEMPTED DIFFERENT TYPES OF WORDS ON BPVS (CLASS/CATEGORY)

SI No.	Stimulus Word & SI No.	No. Subjects attempted	Percentage of Subjects Responded correctly
1.	Liquid (31)	26	76.92
2.	Vegetable (36)	25	68
3.	Grain (54)	20	60
Mean Percentage			68.31

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TABLE.2(H) PERCENTAGE OF SUBJECTS WHO ATTEMPTED DIFFERENT TYPES OF WORDS ON BPVS (MATHEMATICAL CONCEPTS) CORRECTLY.

SI No.	Stimulus Word & SI No.	No. Subjects attempted	Percentage of Subjects Responded correctly
1.	Pair (48)	22	59.09
2.	Tubular (55)	18	66.66
Mean Percentage			62.88

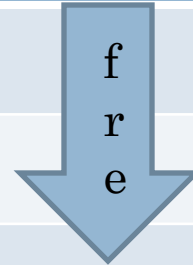
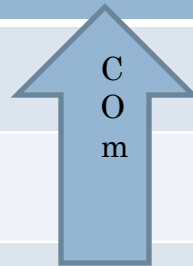


TABLE. 3 MEAN PERCENTAGE OF SUBJECTS WHO ATTEMPTED DIFFERENT TYPES OF WORDS CORRECTLY ON BPVS

Sl No.	Categories of Words	Range	Mean Percentage
1	Common nouns	92.30 to 50.00	74.55*
2	Part of the body/plant	92.30 to 50.00	74.33*
3	Verbs	80.76 to 55.55	67.95**
4	Professionals	96.15 to 66.66	72.48*
5	Emotional/Social words	84.61 to 50.00	66.86**
6	Adjective	65.38 to 56.00	60.69***
7	Class/category	76.98 to 60.00	68.31**
8	Mathematical concepts	66.66 to 59.09	62.88***

* Easy

** Difficult

*** More Difficult



- This supported the observations made by Eskes, Bryson and McCormick (1990) that children with autism could comprehend different kinds of concepts similar to that of normal children.
- About 66.86 % of the subjects who attempted the emotional /social words could comprehend them. In order to match these words with the correct pictures, the subjects have to perceive the emotions or social situations properly. This show the subjects of the study could perceive them correctly. The previous studies suggested this as one of most difficult areas for autistic individuals.



TABLE. 4 NUMBER OF CHILDREN EXHIBITING DIFFERENT LEVELS OF PERFORMANCE ON BPVS AND PAT WISC (N=25)

Sl No.	Level of Performance	Difference between CA and VA / CA and TA (DA)	No.of subjects on BPVS	No. of subjects PAT
1	Ext. High	> than 4.1 years	1	0
2	Mod. High	2.1 to 4 years	0	1
3	High Average	1.1 to 2 years	0	1
4	Average	0- 1 year	0	3
5	Low Average	(-)1.1 to 2 years	1	4
6	Moderately Low	(-)2.1 to 4years	7	4
7	Extremely Low	(-)4.1 & above years	16	12

- This finding supports the earlier observations that autistic individuals have more strength in non verbal abilities compared to verbal abilities.
- Since BPVS and PAT-WISC are both age scales and age appropriate tools a matrix has been prepared to find out the percentage of subjects who exhibited same/different level of performance on these tests.



TABLE. 5 MATRIX SHOWING NUMBER OF CHILDREN EXHIBITING DIFFERENT LEVELS OF PERFORMANCE ON BPVS AND PAT WISC (N=25)

Level of Performance on PAT-WISC		Ext Low	Mod Low	Low Avg	Avg	High Avg	Mod High	Ext High
Level of Performance on BPVS	Extremely Low	12	4	1	1	-	-	-
	Moderately Low	-	1	2	1	-	1	-
	Low Average	-	-	1	-	-	-	-
	Average	-	-	-	-	-	-	-
	High Average	-	-	-	-	-	-	-
	Mod High	-	-	-	-	-	-	-

➤ An interesting observation can be made from the Table 5 that 14 out of 25 (56%) of the subjects exhibited same level of performance in both the tests. The remaining 44% exhibited different level of performance.

➤ **Analysis of the Verbal Expression by the subject**

The verbatim of the verbal expression (description of the stories) made by each subject was analysed. The test items which were correctly responded by each subject were only considered for this purpose. The number of subjects falling into different levels of ratings are given in the following Tables 6(a) to (f).



TABLE. 6(A) DESCRIBING THE STORY IN A LOGICAL MANNER

Description	Rating	Number of children (N=25)	Test age range
Exceptional ability to relate ideas in a logical manner	5	0	8.10 to 15.06
Above average ability to relate ideas in a logical manner	4	5	
Average ability to tell story in logical manner	3	8	7.06 to 8.09
Has difficulty in relating ideas in a logical sequence	2	4	4.10 to 7.02
Unable to tell a story in logical sequence	1	8	

TABLE. 6 (B) FLUENCY IN EXPRESSION

Description	Rating	Number of children (N=25)
Spontaneous	3	8
Needed a little prompting (leading questions)	2	7
Needed to be prompted each stage	1	10



TABLE. 6 (C) NATURE OF DESCRIPTION

Description	Rating	Number of children (N=25)
Detailed description	4	4
Brief presentation	3	10
Insufficient description	2	5
Very poor in content	1	6



TABLE. 6 (D) USE OF NATURAL GESTURES

Description	Rating	Number of children
Frequently	3	0
Some times	2	3
Rarely	1	22
Never	0	0



TABLE. 6 (E) USE OF APPROPRIATE INTONATION

Description	Rating	Number of children (N=25)
Frequently	3	2
Some times	2	3
Rarely	1	10
Monotonous	0	10



TABLE 6(F) EMOTIONAL REACTION TO THE THEME OF THE STORY

Description	Rating	Number of children (N=25)
Identified with the theme of the story and sufficient emotional expression	4	2
Reacted appropriately to the theme of the story with moderate emotional expression	3	0
Showed low level of emotional expression	2	8
Showed least emotional expression	1	8
No emotional expression	0	7



- Majority of the subjects of the study lacked proper intonation while narrating the stories.
- Majority of the subjects of the study could express the emotions only to certain extent (56%) and 28% did not express any emotions.
- It is interesting to note that two subjects showed personal interest in the themes of the stories. They narrated some incidents from their life experience, which were relevant to the theme.
- Out of these two, one was curious to understand the stories. She asked a series of questions to the investigator in order to make herself clear.



➤ Difficulty in interaction with others among individuals with autism was noticed by Goldfarts, Braunstein and Lorge (1956); Fay and Schular, (1980). Their findings support the observations made by Wetherby (1986) that the communicative behaviour of children with autism was greater with their teachers than with their classmates.

➤ Similarly Bernard- Opitz (1982) observed that a child with autism interacted more with his mother and a clinician than with an unfamiliar adult.

➤ This feature can be noticed among the subjects of different age. Thus the rapport established with the autistics is also an important factor in communication.

➤ The investigator stayed in the same premises of the schools and established sufficient rapport with them. This made the subjects to interact with her freely.



TABLE.6 (G) NUMBER OF SUBJECTS EXHIBITING DIFFERENT LEVELS OF PERFORMANCE IN VERBAL EXPRESSION (PAT-WISC) N=25

Levels of Performance	Different Components					
	Ability to tell story in logical manner	Fluency in verbal expression	Details of description	Frequency of use of natural gestures	Use of appropriate Intonation	Emotional reaction to theme of the story
Above average	5	8	4	0	2	2
Average	8	7	10	3	3	0
Below average	12	10	11	22	20	23

- By clubbing the ratings on different components raw scores were obtained for the Verbal Expression for the subjects.
- A matrix has been prepared to find out the number of subjects who exhibited same/different level of performance on both the components of PAT-WISC, namely arranging the pictures in the proper order and description of the stores (non verbal and verbal expression components).



TABLE. 7 MATRIX OF THE NUMBER. OF SUBJECTS EXHIBITING DIFFERENT LEVELS OF PERFORMANCE IN TA ON PAT- WISC AND RAW SCORES ON VERBAL EXPRESSION

Raw Scores on verbal expression	TA on PAT- WISC							
	Ext Low	Mod Low	Low Avg	Avg	High Avg	Mod High	Ext High	Total
Extremely Low	5	1		-	-	-	-	6
Moderately Low	4	1					-	5
Low Average	1	-		-	-	-	-	1
Average	2	-	1	3	-	-	-	6
High Avg	1	-	-	-		1	-	2
Mod High	2	1	2	-	-	-	-	5
Extremely High	0	-	-	-	-	-	-	0
Total	15	3	3	3	0	1	0	25

➤ The matrix above reveals that only 9 out of 25 (36%) of the subjects exhibited same levels of performance and the remaining 64% differed in the levels.

Performance on Boehm Tests of Basic Concepts (BTBC)

➤ Since BTBC is meant for younger children (Pre school to Grade II) it is expected that all the subjects of the study should perform at the mastery level (100%). But only one subject attained mastery in all the basic concepts. On the basis of the raw scores obtained on the total test and different sub components the performance of the subjects were classified into different levels. The Table 8 shows the results.



TABLE. 8 NUMBER OF INDIVIDUALS PERFORMED AT DIFFERENT LEVELS ON BTBC

Levels Components	Mastery Level (100%)	Low Avg (99 to 80%)	Mod Low (79 to 50%)	Ext Low (< 49%)
BTBC Total Raw Score	1	10	9	5
Spatial Concepts	4	11	7	3
Temporal Concepts	8	0	10	7
Quantitative concepts	2	5	13	5
Miscellaneous concepts	2	5	7	11



Considering the first two levels it can be understood that Spatial concepts were relatively easier to autistics than other categories of concepts. The temporal concepts and miscellaneous concepts were most difficult to majority of them. Normal children are capable of attaining these concepts casually on the basis of their day-to-day experience or with minimum instruction in the structured situation. Previous research has shown that many concepts are actually learned by normal children during preschool years (Beech, 1981) Possible reasons for lack of comprehension of basic concepts on the BTBC can come from various sources, such as lack of knowledge of concept labels or vocabulary deficits, the complexity of directions, inadequate auditory memory of sentences, or a difficult level of abstraction and deficits in spatial perception (Björk Gísladóttir Thelma, 2010). These explanations may be true in the case of IWASD. It is evident that they need to be taught these concepts through systematic procedures, which incorporate the essential principles of teaching them.



TABLE. 9 NUMBER OF INDIVIDUALS PERFORMED AT DIFFERENT LEVELS ON SCT

Levels of Performance	Mastery Level (100%)	Low Average (99 to 80%)	Mod Low (79 to 50%)	Ext Low (< than 49%)
No. of subjects	8	13	3	1



TABLE. 9(A) ERROR ANALYSIS ON SENTENCE COMPREHENSION TEST

Type of Error	No. of children who committed errors	Total no. of errors
Subject error	4	9
Verb error	2	3
Object error	0	0
Subject – verb error	1	1
Adjective error	9	15
Singular error	3	6
Future tense	1	1
Past tense	7	11
Positive error	2	2
Active error	14	28
Prepositions		
In	1	1
On	1	1
By	8	8
Under	0	0

Active error was committed by a majority of students with autism followed by adjective error, past tense error, subjective error, and, preposition – by respectively. The results have educational implications for the development syntax among autistics.

A matrix has been prepared to find out the number of subjects who exhibited same/different level of performance on both BTBC and SCT as both of them are meant for younger children. Table 10 shows the results.



**NUMBER OF SUBJECTS EXHIBITING
DIFFERENT LEVELS OF PERFORMANCE ON
BTBC AND SCT**

Performance on SCT	Performance on BTBC				
	Ext Low	Mod Low	Low Avg	Mastery level	Total
Extremely Low	-	1	-	-	1
Moderately Low	2	1	-	-	3
Low Average	2	7	4	-	13
Mastery level	-	1	5	1	8
Total	4	10	10	1	25



The results shows only 6 out of 25 (24%) subjects performed at same levels in these tests. There are more intra individual differences in comprehending the basic concepts and sentences. Comprehension of basic concepts is more difficult to that of sentences for IWASD.



**TABLE. 11 CORRELATION BETWEEN
DIFFERENT CRITERION MEASURES OF THE
STUDY**

	CA	VA/RS	PAT	BTBC	SCT	ERS
CA	1	0.1986	0.1652	0.2514	0.1305	0.00
VA/RS	0.1986	1	0.6415**	0.5918**	0.497*	0.4727*
PAT	0.1652	0.6415**	1	0.8311**	0.5888**	0.7632**
BTBC	0.2514	0.5918**	0.8311**	1	0.8319**	0.7401**
SCT	0.1305	0.497*	0.5888**	0.8319**	1	0.6842**
ERS	0.00	0.4727*	0.7632**	0.7401**	0.6842**	1

***Significant at 0.05 level (two tailed)**

****Significant at 0.01 level (two tailed)**



TABLE.12 CORRELATION AMONG DIFFERENT COMPONENTS OF VERBAL EXPRESSION (PAT- WISC)

Variables	Pearson correlation	Logic	Fluency	RC	NG	Intonation	ER	ERS
Logic	-cor -Sig -N	1 .25	.820** .000 25	.805** .000 25	.471** .010 25	.396* .037 25	.691** .000 25	.864** .000 25
Fluency	-cor -Sig -N	.820** .000 25	1 .25	.848** .000 25	.451* .014 25	.448* .017 25	.706** .000 25	.875** .000 25
RC	-cor -Sig -N	.805** .000 25	.848** .000 25	1 .25	.455* .013 25	.384* .044 25	.775** .000 25	.891** .000 25

Cont...

NG	-cor	.471**	.451*	.455*	1	.541**	.427*	.599**
	-Sig	.010	.014	.013	.	.003	.026	.001
	-N	25	25	25	25	25	25	25
Intonation	-cor	.396*	.448*	.384*	.541**	1	.611**	.685**
	-Sig	.037	.017	.044	.003	.	.001	.000
	-N	25	25	25	25	25	25	25
ER	-cor	.691**	.706**	.775**	.427*	.611**	1	.863**
	-Sig	.000	.000	.000	.026	.001	.	.000
	-N	25	25	25	25	25	25	25
ERS	-cor	.864**	.875**	.891**	.599**	.685**	.863**	1
	-Sig	.000	.000	.000	.001	.000	.000	.
	-N	25	25	25	25	25	25	25

**Correlation is significant at 0.01 level (2-tailed)

*Correlation is significant at 0.05 level (2-tailed)



TABLE. 10 (A) LEVELS OF PERFORMANCE OF SUBJECTS ON DIFFERENT CRITERION MEASURES OF THE STUDY

Subject	Level of Performance BPVS	Level of Performance PAT-WISC	BTBC-RS	SCT-RS	Expression Raw Score on PAT-WISC
R	MOD LOW	MOD LOW	EXT LOW	MOD LOW	MOD LOW
Y	EXT LOW	EXT LOW	MOD LOW	MOD LOW	EXT LOW
X	EXT LOW	EXT LOW	EXT LOW	MOD LOW	EXT LOW
S	EXT LOW	EXT LOW	EXT LOW	MOD LOW	EXT LOW



TABLE. 10 (B) LEVELS OF SUBJECTS ON DIFFERENT COMPONENTS OF LANGUAGE

Subject	Level of Performance BPVS	Level of Performance PAT-WISC	BTBC-RS	SCT-RS	Expression Raw Score on PAT-WISC
A	MOD LOW	EXT LOW	MOD LOW	LOW AVG	MOD LOW
D	EXT LOW	EXT LOW	EXT LOW	LOW AVG	EXT LOW
V	EXT LOW	EXT LOW	EXT LOW	LOW AVG	EXT LOW
L	EXT LOW	EXT LOW	MOD LOW	LOW AVG	MOD LOW
B	EXT LOW	EXT LOW	MOD LOW	LOW AVG	EXT LOW
P	EXT LOW	EXT LOW	MOD LOW	LOW AVG	MOD LOW
M	LOW AVG	LOW AVG	MOD LOW	LOW AVG	EXT LOW



TABLE. 10 (C) LEVELS OF SUBJECTS ON DIFFERENT COMPONENTS OF LANGUAGE

Subject	Level of Performance BPVS	Level of Performance PAT-WISC	BTBC-RS	SCT-RS	Expression Raw Score on PAT-WISC
J	EXT LOW	EXT LOW	LOW AVG	MAS LEV	MOD. LOW
E	EXT LOW	EXT LOW	LOW AVG	LOW AVG	HIGH.AV G
T	MOD LOW	MOD LOW	MOD LOW	MAS LEV	MOD.HI GH



TABLE. 10 (D) LEVELS OF SUBJECTS ON DIFFERENT COMPONENTS OF LANGUAGE

Subject	Level of Performance BPVS	Level of Performance PAT-WISC	BTBC-RS	SCT-RS	Expression Raw Score on PAT-WISC
F	MOD LOW	LOW AVG	LOW AVG	LOW AVG	MOD.HI GH
I	EXT LOW	LOW AVG	LOW AVG	LOW AVG	MOD.HI GH
N	EXT LOW	EXT LOW	LOW AVG	LOW AVG	MOD HIGH
K	EXT LOW	EXT LOW	LOW AVG	MAS LEV	AVG
Z	EXT LOW	EXT LOW	LOW AVG	MAS LEV	MOD.HI GH



TABLE. 10 (E) LEVELS OF SUBJECTS ON DIFFERENT COMPONENTS OF LANGUAGE

Subject	Level of Performance BPVS	Level of Performance PAT-WISC	BTBC-RS	SCT-RS	Expression Raw Score on PAT-WISC
O	MOD LOW	AVG	MOD LOW	LOW AVG	AVG
U	EXT LOW	LOW AVG	MOD LOW	LOW AVG	AVG
Q	MOD LOW	AVG	LOW AVG	MAS LEV	AVG
C	EXT LOW	AVG	LOW AVG	MAS LEV	AVG



TABLE. 10 (F) LEVELS OF SUBJECTS ON DIFFERENT COMPONENTS OF LANGUAGE

Subject	Level of Performance BPVS	Level of Performance PAT-WISC	BTBC-RS	SCT-RS	Expression Raw Score on PAT-WISC
H	MOD	MOD	MAS	MAS	HIGH
	LOW	HIGH	LEV	LEV	AVG
G	EXT	HIGH	LOW	MAS	
	HIGH	AVG	AVG	LEV	AVG



The Tables 10(a) to (f) reveals that some subjects are moderately or extremely low on all the criterion measures, some are average or above average on all of them, still some others are low in age appropriate tests and better in the tests meant for younger age children. One more group (two subjects-H & G) exhibited even above average performance in all or some measures. Those two subjects can be considered as High Functioning or to be with Asperger syndrome. In the study 10% exhibited these characteristics.

